

# Implementation of The Electronic Application for Marriage and Pregnancy (Elsimil) to Accelerate Stunting Reduction

Ida Ayu Komang Wulansari<sup>1\*</sup>, Ida Ayu Oka Martini<sup>1</sup>, Gede Sri Darma<sup>1</sup>, Luh Putu Mahyuni<sup>1</sup>

<sup>1</sup>Master of Public Administration, Denpasar City, Universitas Pendidikan Nasional, Indonesia

Received: June 22, 2024

Revised: August 30, 2024

Accepted: September 27, 2024

Published: September 30, 2024

Corresponding Author:

Ida Ayu Komang Wulansari

[dayuwulansari33@yahoo.com](mailto:dayuwulansari33@yahoo.com)

DOI: [10.29303/jppipa.v10i9.8231](https://doi.org/10.29303/jppipa.v10i9.8231)

© 2024 The Authors. This open access article is distributed under a (CC-BY License)



**Abstract:** Denpasar City is one of the areas that has succeeded in reducing the prevalence to 5.5%, one of which is by providing guidance to prospective brides to reduce the risk of stunting cases by implementing the ELSIMIL application. This study was conducted to obtain an overview of the factors that influence the behavior of using the ELSIMIL application in Denpasar City so that it can be an effort to accelerate stunting reduction. Data were collected from 14 informants, both users and policy holders. Data collection methods through interviews, observations, and document studies with validity testing through source triangulation and method triangulation. The results of the description of the ELSIMIL application implementation show that performance expectations, effort expectations, social influences, and facility conditions affect usage behavior along with behavioral intentions according to UTAUT theory. Performance expectations, which include perceived usefulness, motivation, relative advantage, and belief in the future potential of the application, are the main factors supporting usage behavior. Effort expectations include perceived ease and complexity of information can be a factor that supports behavioral intentions. Social support from family and friends and application conditions can also influence ELSIMIL usage behavior.

**Keywords:** Bride-to-be; ELSIMI; Stunting; Qualitative

## Introduction

Human resources (HR) are considered an important asset for the progress of a country. The quality of human resources plays a central role in achieving a country's economic, social and political progress (Rafila Siregar, 2017). One factor that greatly influences the quality of human capital is the nutritional status of individuals. Serious nutritional problems, such as stunting, have a significant impact on the quality of human resources (Patimah, 2021). Growth disorders will be visible to the naked eye in the form of the subject's stature where children with stunting conditions will be shorter than their peers. Stunting is a condition of chronic growth impairment caused by chronic malnutrition and recurrent infections during child growth (Rachmad et al., 2023; Sukmawati, Wijaya, &

Hilmanto, 2024). The impact of stunting not only occurs in the short term but also in the long term, which can have an impact on children's physical and cognitive capacity, and reduce the quality of human resources in the future (Suhardin et al., 2020; UNICEF, 2020).

In 2012, stunting became the focus of global attention. This was manifested in the momentum of the World Health Organization (WHO) agreement to adopt a comprehensive implementation plan for maternal, infant and young child nutrition (Alicke et al., 2017; Pasaribu, Marthony, Supriyantini, & Iswarawanti, 2022; Sukmawati, Marzuki, Batubara, Afifah Harahap, & Weraman, 2023). The comprehensive nutrition implementation plan includes global targets, one of which is to reduce the number of stunted children under 5 years old by 40% by 2025 (Congress, Hunger, & Black, 2015). This global target is a challenge to reduce the

## How to Cite:

Wulansari, I. A. K., Martini, I. A. O., Darma, G. . S., & Mahyuni, L. P. (2024). Implementation of The Electronic Application for Marriage and Pregnancy (Elsimil) to Accelerate Stunting Reduction. *Jurnal Penelitian Pendidikan IPA*, 10(9), 6709-6719. <https://doi.org/10.29303/jppipa.v10i9.8231>

number of stunted children from 171 million in 2010 to around 100 million in 2025, which is equivalent to a 3.9% reduction in cases each year (Ellyzabeth Sukmawati, Iwan Adhichandra, & Nur Sucahyo, 2022). In 2022 globally, the development of stunting cases is still alarming. The percentage of stunting in the world reached around 22.3% or an estimated 148.1 million children under the age of 5 are stunted (Das, Hossain, & Nesa, 2009). The number of stunting cases in Indonesia is also alarming where the stunting case itself reaches 27.7%, which is a high number when compared to other countries based on the Global. Efforts to address the problem of stunting have been the focus of the Indonesian government. The acceleration program to reduce stunting has been implemented, one of which is the implementation of the Electronic Ready for Pregnancy and Marriage program, abbreviated as ELSIMIL. This program has been launched by BKKBN as part of the national strategy to achieve global targets in reducing stunting with a target of reducing stunting cases to 14% by 2024 (Ginting, 2022).

The ELSIMIL program is an effort to provide guidance and assistance to prospective brides through application technology to ensure good preparation before marriage, with the hope of reducing the risk of stunting at the beginning of household life in Indonesia (Lailiyah, 2023). Based on the results of the 2022 Indonesian Nutrition Status Survey (SSGI), the prevalence of stunting cases in Indonesia decreased from 24.4% in 2021 to 21.6% in 2022. The province in Indonesia with the lowest stunting case is Bali Province, which is 8.0%. The district/city area in Bali Province that has the lowest prevalence of stunting in children under five is Denpasar City, which is 5.5%. Based on the trend of stunting cases, there is a decrease in stunting cases in Denpasar City (Table 1 Denpasar City Stunting Trend). The decline reflects the success of the stunting reduction acceleration program implemented in Denpasar City, one of which is the ELSIMIL program as a bride-to-be assistance program.

This application facilitates the screening and mentoring process for prospective brides and grooms, and facilitates interaction between Catin and the Mentoring Officer to ensure good preparation before marriage. Catin mentoring is considered an important factor in efforts to control stunting in the early stages of household life. Research has revealed that stunting is influenced by several factors, including maternal factors, child factors, and environmental factors (Agustina, Darmalaksana, & Busro, 2023). One of the maternal factors that plays a role in stunting cases is the mother's level of knowledge. Lack of maternal understanding, especially related to nutrition and nutrition during pregnancy until the baby is two years old, as well as inappropriate parenting practices, and parents' lack of

attention to environmental and hygiene factors, all play a role in the occurrence of stunting (Dewi, Umijati, & Aditiawarman, 2020; Fadjriah & Krishnasari, 2022; Octavia, Siahaan, & Barus, 2023; Tiwari, Acharya, Paudel, Sapkota, & Kafle, 2020).

Risk factors that can lead to stunting also involve maternal characteristics such as age, upper arm circumference during pregnancy which affects the mother's nutritional status, maternal height, and breastfeeding and complementary feeding practices (Nasution, 2023; Rachmad et al., 2023; Sukmawati et al., 2023). Based on these findings, maternal health greatly affects the health of the children who are born. Improving the knowledge and skills of prospective brides, especially with regard to understanding nutrition and health practices during pregnancy, is a very important effort in reducing the risk of stunting from a family perspective (S., M., M., & O., 2013; Silvia et al., 2022).

In-depth research on the implementation factors of the ELSIMIL program is very important to do considering the success of the accelerated stunting reduction program in Denpasar City which shows that ELSIMIL has a positive impact on reducing the risk of stunting and during the implementation of the program there are still challenges and obstacles (Nasution, 2023). Therefore, research that aims to explore the factors that influence ELSIMIL implementation behavior can provide deeper insights for policy makers and program implementers to increase the effectiveness of ELSIMIL in addressing stunting issues.

## Method

This research uses a qualitative approach to deeply understand the description of the implementation of the ELSIMIL application and the factors that influence its usage behavior. The data in this study are divided into two, namely primary data and secondary data. Primary data collection was carried out by interview and direct observation to 12 ELSIMIL application users consisting of eight prospective marriages (catin) and four family assistance teams (TPK) in Denpasar City. Additional information related to the implementation of the ELSIMIL application was also obtained from joint interviews and interviews with representatives from the Bali Province BKKBN and the Head of the Denpasar City Office of Women's Empowerment, Child Protection, Population Control and Family Planning (P3AP2KB). All informants were selected using purposive sampling technique. Secondary data was supplemented through document studies.

Data validity testing was conducted using source triangulation, technique triangulation and time

triangulation. The data were then analyzed using thematic analysis, namely by identifying the main themes found and then connecting them according to the research objectives. The analysis was carried out by recording the chronology of important and relevant events and critical incidents based on the sequence of events and explaining the process that occurred during the interviews and also the issues in the interviews that were important and in line with and relevant to the research. The data that has been obtained will be processed and analyzed by means of context analysis of the statement of the results of secondary data and primary data from an informant.

## Result and Discussion

The ELSIMIL application is an application launched to provide guidance and assistance to prospective brides to ensure good preparation before marriage, with the hope of reducing the risk of stunting at the beginning of household life in Indonesia. The app was launched in December 2021. This application can be accessed on android smartphone devices, tablets, smartwatches, websites and smart TVs. Especially on devices for android smartphones and tablets, sufficient storage space is required.

Based on information from BKKBN Bali Province, this application is one of the programs under the responsibility of BKKBN based on PERPRES No.72 of 2021 concerning Acceleration of Stunting Reduction. The purpose of this program is to provide early detection of stunting risk factors for stunting prevention and to assist families at risk of stunting to accelerate stunting reduction. The targets of the ELSIMIL application include adolescents, brides-to-be, pregnant women, breastfeeding mothers, mothers with BABIES. The target of this program implementation is the achievement of assistance to each target by 90%. The source of funds for the implementation of this program comes from the central government, but the implementation is carried out in collaboration with related agencies, one of which is the P3AP2KB Office of Denpasar City.

Based on information from the Head of P3AP2KB Denpasar City, the application will be implemented in the community in 2022. The implementation of this application is also assisted by the existence of a family assistance team (TPK) that has been trained every year to follow developments and updates in the use of the application. The PK assists the catin to input health data independently in the ELSIMIL application. TPKs can also monitor the health progress of the catin they assist until they are married and have a two-year-old child. In the field, TPKs have been supported through

operational funds to purchase internet data to facilitate the use of the ELSIMIL application.

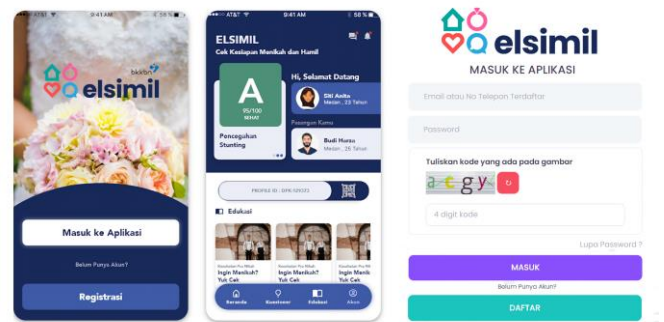


Figure 1. ELSIMIL Application

The results of the study also explore the description of the use of the ELSIMIL application directly seen from the factors that influence the implementation behavior of the ELSIMIL application based on UTAUT theory. UTAUT theory suggests that use behavior and behavioral intention are influenced by four important constructs, namely performance expectations (PE or performance expectancy); effort expectations (EE or effort expectancy); social influence (SI or social influence) and facility conditions (FC or facilitating conditions).

### *Performance Expectancy (PE)*

Performance expectancy is defined as the level of individual expectations and confidence in the use of the ELSIMIL application, the ability of the ELSIMIL application to provide benefits in their activities (Hidayatulloh & Kurniawati, 2023). In connection with this definition, there are indicators of performance expectancy, namely perceived usefulness, extrinsic motivation, job fit, and relative advantage (Herliandry, Nurhasanah, Suban, & Kuswanto, 2020; Hidayatulloh & Kurniawati, 2023). Performance expectations of the ELSIMIL application were assessed based on four indicators including perceived usefulness, extrinsic motivation, relative advantage and potential of future applications. Based on the results of the analysis, all informants expressed positive perceptions of each indicator assessed.

The first indicator explored is perceived usefulness. The perception of usefulness conveyed by all informants of prospective brides considered that the ELSIMIL application was useful as an educational medium. The ELSIMIL application is a medium that provides or adds information and knowledge needed by prospective brides. The information and knowledge obtained through the ELSIMIL application is considered appropriate and useful for the health of prospective brides. This is because the information and knowledge can help brides-to-be in preparing for pregnancy, up to



the growth and development of children. The information also provides insight for brides-to-be in efforts to prevent the risk of stunting in prospective children. This is conveyed in the following quote;

"...quite useful because with this application, I know what stunting prevention is like because there is also education in this application and if there is a problem with pregnancy or children, I will know in advance..." (C02).

"...useful because it provides information to me, especially prospective brides in household readiness for pregnancy and prevention of stunting, I feel there are benefits for me so I know my condition my condition is anemia or not, thankfully it is not anemia the result so I don't hesitate to get married..." (C04)

The information and knowledge obtained from the ELSIMIL application is felt to be useful and provide benefits in increasing the readiness and confidence of prospective brides in starting a new journey of life that will form a family. This point can be conveyed that users already feel that this application can meet their needs related to readiness to become brides and prospective parents. Positive perceived usefulness indicates that informants consider this application useful and relevant to user needs (Antaris, 2023; Arung Prajoko, 2022). In addition to meeting the needs of prospective brides and grooms, this application is also considered to assist the implementation of the work tasks of the TPK who assist prospective brides and grooms in the community. This is conveyed in the following quote:

"...to help record the catin, couples of childbearing ages, bumil and postpartum and the clown..." (TPK Denbar)

"...it's really useful for us, especially since TPK is a new program, Elsimil is also a new program. So, we know about Elsimil, like if a bride-to-be smokes, whether she is at risk or not, and if there is an HB check, we know whether it is low or not, so if it is low, we know what to do as a TPK. It's very helpful. The data is entered and we already know what the results are, so we can explain it to the target and can immediately be given a solution..." (TPK Densel)

Based on this statement, it can be seen that the ELSIMIL application is significantly useful for TPK, especially in the aspect of collecting data from monitored targets. The ELSIMIL application facilitates and makes it easier for TPK to record and process health information owned by the target targets. The data obtained can be the initial capital in monitoring the health conditions of the target targets of the stunting prevention program. Easy and effective data collection and processing are considered very useful in helping TPK in their assistance efforts. This includes in educational activities or delivering solutions to target audiences.

The description of the informants shows that the perceived usefulness of the ELSIMIL application is very positive. This indicates that informants have gained experience of the use value of the application. The usefulness of the application was mentioned as a medium for education, data collection and monitoring of the target audience. The more positive the perceived usefulness perceived by the informant, the better the experience felt and even the possibility of reaching the level of fulfilling their needs very well. (Antaris, 2023; Arung Prajoko, 2022).

The next indicator assessed on performance expectations is extrinsic motivation. Extrinsic motivation reflected in informants' statements shows that the use of the ELSIMIL application is driven by the desire to have healthy offspring. The use of this application is seen as a step to ensure optimal health and development for children by preparing well for pregnancy and preventing stunting in the future baby. This statement is based on the following quote;

"...the motivation is there, ...I'm more for the offspring, so that my offspring can be healthy in the future..." (C01).

"...for me, it is to prepare as a prospective father ... for the pregnancy process so that the child is not stunted..." (C08).

This reflects informants' concern for the welfare of future generations and the desire to create a supportive environment for children's growth and development. The motivation to have healthy offspring or prepare well for pregnancy is the reason why informants actively use the ELSIMIL app as a tool to achieve their desired health goals. Strong motivation is also one of the main factors in the implementation of an application (Siregar, 2020). The stronger the motivation, the greater the influence on behavior to use the application (Murthi Hapsari, N., & Rizky Prawiradilaga, 2023). The motivation for using the application was also conveyed by the TPK informant in the following statement;

"...we are TPK assigned, cadres assigned by BKKBN to assist families in our hamlet. Well, our motivation is as we said earlier, which is to make it easier for us to work, minimize the occurrence of risks, so that the existing risks are quickly handled so as to minimize the occurrence of stunting..." (TPK Denut).

"...the motivation is that we want to help those who are like targets, especially those in the data that have malnutrition... Our motivation is to want to improve their status so that their nutrition does not remain so malnutrition so that there is progress..." (TPK Densel).

Based on this statement, the motivation of TPK informants in using the ELSIMIL application is driven by a sense of responsibility as health workers who need to help families in their area with a focus on minimizing the risk of stunting in the target targets so that this

application is used during duty. Extrinsic motivation that can be known from the statements of catin informants is the desire to have healthy and intelligent offspring by preparing well for pregnancy. This is the reason for the catin group informants to actively use the ELSIMIL application. Meanwhile, TPK informants have the motivation to use the ELSIMIL application because it is needed during their duties so that they can carry out their responsibilities to help assist the catin group so as to minimize the risk of stunting in the family.

The motivations of the two informants are interrelated where the ELSIMIL application is a tool to achieve health goals which both want to reduce the incidence of stunting in Denpasar City. Strong motivation from informants is also a factor in the sustainability of usage behavior (Siregar, 2020). The stronger the extrinsic motivation, the greater the resilience of the behavior to remain and continue using the application (Murti Hapsari, N., & Rizky Prawiradilaga, 2023).

The next indicator of the performance expectation construct is the relative advantage of implementing the ELSIMIL application perceived by the informant. The relative benefits of implementing the ELSIMIL application perceived by informants are mostly increased awareness of the health status of themselves and their partners, increased awareness of children's health risks due to smoking behavior, and awareness that prevention and control efforts are important steps in dealing with health problems, especially stunting. This is conveyed in the following quote;

"...for experience, in my opinion, the experience of the pole is to know whether our health condition is suitable for marriage or not, because when I was screened, I was smoking so I immediately got a solution from the elsimil application to prepare for marriage by reducing the number of cigarettes, especially, if the problem of quitting directly is not necessarily possible if there is really an intention, the intention is really the intention, at least we are told to reduce it first..." (C07).

The relative benefits perceived by the TPK group also relate to increased knowledge and insights related to health. This is conveyed in the following statement;

"...we ourselves as new cadres, we got a lot of new knowledge from there that we didn't know oh this, so we can share it with our target catim, mothers who have balida baduta we can also educate the target..." (TPK Densel).

This shows that the app provides relevant and educative information to both catin and TPK. An additional benefit perceived by both informants from the implementation of the ELSIMIL app is that it provides concrete and practical solutions to health problems, such as smoking, which can have a negative impact on maternal and child health. The more concrete,

interactive and practical the solutions offered by the app, the easier it is for informants to apply them in their daily lives (Antaris, B., Faruqi, A., & Wulansari, 2023; Arung Prajoko, M., Effendi, I., & Sugandini, 2022). This can be the key to creating the behavior of using the implementation of a health application. Informants also have great confidence in the future potential of the ELSIMIL application. This statement is explained in the quote;

"...very sure, because for the future, yes, because of the development of the times, yes... everything is also all online... data like this is definitely for what like there are tutorials like that on how to program or what... Yes, so that this application will develop more, ma'am, maybe in the future it will be more developed, how to prevent it maybe or there are additional materials such as tips, education, just like that, I am motivated because I can get complete information related to pregnancy preparation and even family planning so that stunting prevention can be prevented..." (C03).

Informants believe that with the development of increasingly sophisticated times, everything is becoming more connected online, so the information presented in the application, such as tutorials and how-to programs, will be more valuable. The development of health services is increasingly following the application of technology to become one of the services favored and demanded by the community (Sunjaya, 2019). Informants' belief in the potential of the application in the future also provides hope that the application will continue to develop and provide greater benefits in the future (Zaky, H. A., & Setyadi, 2020). This certainly affects the usage behavior of the implementation of health applications including ELSIMIL.

Based on the results of the analysis, it can be seen that the more completely the indicators of the performance expectation construct are met, the stronger this application will be used by the target target. This means that if the informant has a positive perception of all indicators in the performance expectation construct such as positive perceived usefulness, strong extrinsic motivation, perceived relative advantage, and future application potential, then it is likely that the target target will use the ELSIMIL application.

All indicators of the performance expectancy construct have a significant influence on behavior intention and use behavior. So the more indicators that are met, the stronger the intention of the target in using the application. Conversely, if only a few indicators of this construct are met, the intention and usage behavior are weak, even if the indicators of this construct are not met, it is likely that there will be no intention of usage behavior from the target target side. Therefore, the performance expectancy construct is the first construct that is important to realize because it can affect the

emergence of behavior intention and use behavior of the ELSIMIL application. It should be noted, although this construct can give rise to the intention and behavior of using the application in the early days in order to sustain the behavioral intentions that have emerged, it is necessary to maintain the intention itself. The durability of application use over a long period of time will be influenced by other constructs, namely business expectations, social influences and facility conditions. The existence of application performance expectation factors that meet user needs characterized by positive perceived usefulness, strong motivation, feelings of additional benefits, and belief in the potential of applications in the future are the main factors that support the formation of usage behavior or implementation of the ELSIMIL application among prospective brides and TPKs in Denpasar City.

#### *Effort Expectancy (EE)*

Effort expectancy is understood as the level of individual expectations as a user of the level of convenience associated with using the ELSIMIL application. In this study, effort expectations are assessed from the perceived ease of informants in using, understanding, and learning along with the complexity of information provided by the ELSIMIL application (Syahrul, Khasanah and Yusuf, 2023). Some indicators of effort expectancy, which include perceived ease of use, complexity, and ease of use (Herliandry et al., 2020; Hidayatulloh & Kurniawati, 2023).

Based on the overall informant statement, it is conveyed that the ELSIMIL application is very easy to use. This is interpreted as a very positive response from informants with several important points, namely, easy download access, practical use anywhere, easy to understand language and simple menu display so that informants are comfortable when using the application, especially in finding the information needed. This overall assessment is conveyed in the following quote;

"...yes, for this elsimil application, it is easy to download, ma'am, for the steps, if for the experience of entering this, it is easy ma'am, it is also useful... and the languages used are easy to understand, there is education in it, so it makes it easier to know how to prevent stunting or set food consumption patterns like that..." (C03).

"...the experience just makes it easier for me to work, Ms. Dayu. and it's not complicated like before the pole had to go here and there. what I used to do maybe 2 days now I can do 1 hour. 1 hour is already a long time at the mother's house that I visited..." (TPK Dentim).

The indicator of the next business expectation construct is the complexity of the information provided by the ELSIMIL application. Both catin and TPK informants said that the information provided by the

ELSIMIL application has met expectations in terms of information complexity. In more detail, informants stated that the information provided by this application is very diverse, complete and relevant, ranging from pre-marriage preparation to pregnancy, baby care, to child development stages.

"...has also been quite complex in my opinion, because in terms of education for the information that I got before I didn't know and for example before marriage you also have to check the HB level which turns out to be very useful for preventing stunting so with this application, I know to check the HB level and others like that..." (C02)

"...yes, it is complex, so from the Nila measurement for pregnant women, height and age, it covers everything, especially the uterine pregnancy height, it has also been filled in so it is complete, just follow the flow..." (TPK Denut)

The complexity of information from the ELSIMIL application was also conveyed by informants from both the catin and TPK groups. Both agreed that the ELSIMIL application has been able to provide complete and comprehensive information covering the entire time span both before and after pregnancy to information related to child growth and development. The complexity of the information owned by the application not only fulfills the diversity of reproductive health and child care information topics but also pays attention to the time chronology of each stage of the pregnancy journey and child growth. This provides a more structured and directed application experience. This can help users better understand the information provided in the app.

In the construct of business expectations, it is directly fulfilled if the ease and complexity of using the application is good. This ease is seen from the assessment of access to the application along with a simple application display. Meanwhile, the complexity is assessed from the completeness of the information in the application in accordance with the needs of the informant. If this business expectation construct is fulfilled, it can maintain the intention and behavioral resilience of using the ELSIMIL application both for catin and TPK in Denpasar City. The ease and completeness of information provided by the application can increase comfort during application use. This convenience is one of the positive experiences that informants can feel when using the ELSIMIL application. Positive experiences during application use are one of the aspects that can continuously maintain the intention and behavior of using or implementing the ELSIMIL application (Antaris, B., Faroqi, A., & Wulansari, 2023; Arung Prajoko, M., Effendi, I., & Sugandini, 2022).

The positive experience felt is also able to be the reason users recommend and disseminate information related to the application to others (Fahlepi, Roslina, & Husna, 2023; Siregar, 2020). This act of recommending apps to others has a broad positive impact, as it can increase awareness and penetration of apps in the community. The more people have positive experiences when using the application, the wider the existence and benefits that can be felt by individuals and society (Handojo, K. J., & Santoso, 2020).

#### *Social Influence (SI)*

The positive experience felt can also be the reason users recommend and spread information related to the application to others (Fahlepi et al., 2023; Siregar, 2020). This act of recommending the application to others has a broad positive impact, as it can increase the awareness and penetration of the application in the community. The more people have positive experiences when using the application, the wider the existence and benefits that can be felt by individuals and society (Handojo, K. J., & Santoso, 2020). This is conveyed in the explanation of the social influence construct.

Social influence is the level of influence from the social environment in using the ELSIMIL application. This includes the influence of social environments such as friends, family, coworkers, health workers and others. There are several indicators in social influence, namely subjective norm, social factors, and image (Herliandry et al., 2020; Hidayatulloh & Kurniawati, 2023). Based on interviews, it can be seen that the social factors that influence the use of the ELSIMIL application are family and friends. This statement is conveyed in the following quote;

"...the support provided by my family, the first is of course they give support and then they provide me with information because my family knows more and uses this application first, so you could say that my family's insight is quite good, that's why I downloaded this application..." (C02)

"...support like from friends, the discussion said it was good for our understanding related to stunting... yes, discussing with friends who have used it like this, I was told how to use this application, like it's not complicated, mom..." (C08)

It is also known that not all circles of friends support the use of the application, there are also circles that are not open and do not know the ELSIMIL application. This is conveyed in the quote;

"...but if the peers are not especially the boys are a bit ignorant if the boys are. So, if the friends are not anyway. Then if it's peers, it's like what I said earlier, guys are more closed, which means they don't discuss this stuff..." (C01)

"...oh, if my peers, my peers have not provided support, because we are also still both unfamiliar with this application so we are not yet fluent in using this application like that..." (C04)

In this discussion, it can be understood that the social environment, namely family and friends, does have a role to influence the behavior of using certain applications and technologies (Ahadiningtyas, Atmaja, Rahmatika, & Kunci, 2017). Family and friends are the first layer of social environment that can significantly influence health behavior both directly and indirectly (Kusuma Wardani, D., & Fadzlul Rahman, 2022).

However, there are challenges in terms of openness in social environments that are less supportive of the use of applications (Kemal Ahmad, 2019). This situation can arise due to socialization and promotion that has not been targeted, causing ignorance and misperceptions that can hinder the intention and behavior of using the ELSIMIL application (Murti Hapsari, N., & Rizky Prawiradilaga, 2023).

Based on information from BKKBN Bali Province, the form of promotion and socialization of the ELSIMIL application has been carried out in various forms both online and offline including below the line strategies. Forms of promotion include massive dissemination of information through public service advertisements on social media. Promotional activities also collaborate and involve public figures and participation from local artists. Other promotional activities that have been carried out include; the implementation of advocacy at the district / city level policy holders, mass campaigns such as counseling, workshops, seminars, and other social activities to cooperation with traditional village assemblies.

All of these activities are carried out as an effort to disseminate information, awareness of the ELSIMIL application and understanding of the use of the application. Public awareness and understanding of the ELSIMIL application is key to increasing access to application use (Siregar, 2020). The form of promotion carried out by policy makers is quite complete and massive. However, one possibility is that the community is still not familiar with this application due to several things, namely (1) lack of information penetration in the community segment, (2) promotional messages are not conveyed clearly enough or attractive to the target audience and (3) the information channels used are not appropriate (Junaedi, 2018). This certainly needs to be addressed immediately so that it does not become an obstacle in the success of health programs, especially in the ELSIMIL application program as an effort to accelerate stunting reduction in Indonesia.

If social support in the catin group was lacking, different results were found for social support among TPK informants. All TPK informants reported that the



support among TPK members was very great and mutually supportive. This is conveyed in the following quote:

"...yes, we feel very much, we complement each other. Maybe if there are other TPKs who don't understand, we complement each other like that... for example, we have a lot of assistance... how many pregnant women are there, there are also many infants... sometimes we share support that we can do every time..." (TPK Denut)

"...very much ma'am, we support each other between this team sometimes we don't know how to enter people's homes, what do we ask, can we just ask pregnant women? so we ask the midwife first what we ask. Ask her first if she has a pink card or not. Then if in one neighborhood we go there, to this person, there is a problem, maybe I don't understand that the midwife understands the uterine size, we don't understand it so we can ask the midwife directly if the gestational age is like this, what is the uterine age..." (TPK Dentim).

The above statement shows that there is strong social support among the TPK team members, which includes not only assistants but also health workers such as midwives. Social support in this group can be felt in the form of cooperation and mutual assistance between team members. This can occur because each team has a role, task and responsibility towards the same goal. The goal of the TPK team members is of course the success of the stunting acceleration program in Denpasar City. The existence of these goals or objectives becomes a common need that needs to be achieved. This goal encourages team members to share information and experiences or help each other when facing situations that require special knowledge and skills. This situation is also able to strengthen solidarity between members so that it will have a positive impact on the performance and effectiveness of assistance provided by TPK to catin families.

Public awareness and understanding of the ELSIMIL application are key to increasing access to application use (Siregar, 2020). The form of promotion carried out by policy makers is quite complete and massive. However, one possibility is that the community is still not familiar with this application due to several things, namely (1) lack of information penetration in the community segment, (2) promotional messages are not conveyed clearly enough or attractive to the target audience and (3) the information channels used are not appropriate (Junaedi, 2018). This certainly needs to be addressed immediately so that it does not become an obstacle in the implementation of health programs, especially the use of the ELSIMIL application as an effort to accelerate stunting reduction in Indonesia.

### *Facilitating Conditions (FC)*

Facility conditions are defined as user confidence in the availability of resources (devices and access) that support the use of the ELSIMIL application (Rizally, Putra, Sakti, & Muhsaf, 2023). There are several indicators related to facilitating conditions, namely perceived behavioral control, facilitating conditions, and compatibility (Herliandry et al., 2020; Hidayatulloh & Kurniawati, 2023). The conditions of the ELSIMIL application are influenced by devices, namely smartphones and network access or internet connection. Informants said that the condition of the smartphone device owned was compatible with the ELSIMIL application. This is also felt in the network access or internet connection that is good to be able to use the ELSIMIL application.

"...incidentally, from my own access, I have adequate access (cellphone) and the internet connection is also good..." (C04).

"...for access is easy because there are no access problems, smooth manten nike..." (C07)

"... for me, it's smooth, ma'am, I've been using it for 2 years now, no problems, ma'am, it's safe..." (TK Dentim)

Although almost all informants conveyed the smooth use of access, both applications that are compatible with the user's device (cellphone) and the network, there were still obstacles felt by some other informants. This obstacle is conveyed in the following statement;

"...only, the application likes to have an error sometimes, so sometimes when you open it, it's an error..." (C01)

"...there was a time when it entered many times... so that's what hampers it, so the application that makes it hampers it... yes sometimes it comes out on its own too..." (C08)

"...maybe there must be internet yes. So we have to have a quota, if our quota runs out, we can't work..." (TPK Denut)

"...if it (cellphone) is adequate, but sometimes we are constrained by the private network, because using our own cellphone sometimes gets stuck. Once there was an error because there were too many users maybe yes, there was an error when inputting but the next day it can be done..." (TPK Denut)

Based on this statement, it can be interpreted that the use of the ELSIMIL application requires internet access, so users must have sufficient internet quota. Barriers to using the application can arise if users do not have enough internet quota so that the application will not be able to function properly. This can be controlled if application development is carried out, for example, providing a content or information download feature which can then be stored on the user's device so that



when the user needs it, they can still access information even though it is offline.

The next obstacle from the side of TPK users is the internet network. The internet network can be constrained if the user is in an area with a less stable internet connection. This incident will cause a failure in the process of recording and collecting data during the mentoring task, which in turn can lead to the problem of not inputting the data of the catin group being assisted either due to missed data or lost data. Application development from obstacles that arise in the field is felt to be very necessary to increase the utilization of the use of this application.

Obstacles to data input failure due to internet access can be overcome with the development of the ELSIMIL application data input system. TPK officers can access the application and the data input system even when the device is offline, then TPK officers can upload the inputted data back to the server when the device is online. It is felt that this can help TPK to continue to successfully carry out the task of recording and documenting data so as to reduce the problem of lost and missed data that can occur (Antaris, B., Faroqi, A., & Wulansari, 2023). If these two barriers can be addressed, it will certainly increase and maintain the intention and usage behavior of the ELSIMIL application.

Application development also needs to ensure the specifications of the devices owned by users in the community. This will be related to the smooth access of using the application (Wijaya, A., & Sutabri, 2023). If the user has an inappropriate smartphone specification, it will certainly fail to install the application or when using it, an error can occur because the device does not support the features of the ELSIMIL application (Atsani, 2020). Policy holders need to ensure that the application is always updated and well developed so that it can run smoothly when used by users. One aspect that needs to be considered is how to develop the latest version of the application to ensure that the latest features meet user needs, improvements from server and network stability to, when necessary, maintenance for bug fixes and informant data security. Policy holders also need to see what types of devices are owned by users. In the future, application development needs to fulfill and add other devices besides android, for example iOS smartphones. This is because the number of users of iOS smartphone devices also has a significant number of users in the community.

The facility condition of the ELSIMIL application is well enough accepted by users in the community but still needs to be developed. Application development will greatly help to increase application access and positive experiences during use, both of which will result in user satisfaction from the performance of the ELSIMIL application. Satisfaction from users will certainly

strengthen the sustainability of behavioral intention and use behavior.

Based on this statement, it can be interpreted that the use of the ELSIMIL application requires internet access, so users must have sufficient internet quota. If the internet quota runs out, the application will not function properly. Based on information from the TPK, the internet network can also be constrained if you are in an area with an unstable internet connection. This can cause obstacles in maintaining the behavior of using the ELSIMIL application (Antaris, B., Faroqi, A., & Wulansari, 2023). Users also need to ensure the specifications of the device they have if it is related to the smooth use of the application (Wijaya, A., & Sutabri, 2023). If the informant has an inappropriate smartphone specification, it will certainly fail to install the application or when using it an error may occur because the device does not support the features of the ELSIMIL application (Atsani, 2020).

Policy holders need to ensure that the application is always updated and well developed so that it can run smoothly when used by users. One aspect that needs to be considered is the development of the latest version of the application to ensure that the latest features, server and network stabilization and bug fixes have been implemented. In addition, in developing the app, policy makers also need to pay attention to users of iOS smartphone devices, given the significant number of users of these devices in society. This will help improve the experience and maintain user satisfaction with the app.

## Conclusion

The results of the description of the ELSIMIL application implementation show that performance expectations, effort expectations, social influences, and facility conditions affect usage behavior along with behavioral intentions according to UTAUT theory. Performance expectations, which include perceived usefulness, motivation, relative advantage, and belief in the future potential of the application, are the main factors supporting usage behavior. Effort expectations include perceived ease and complexity of information can be a factor that supports behavioral intentions. Social support from family and friends and application conditions can also influence ELSIMIL usage behavior. The implementation of the ELSIMIL application is considered effective in realizing the acceleration of stunting reduction in Indonesia by catin and TPK users. In order to realize this, the ELSIMIL application needs to be supported by the sustainability of socialization and promotion activities so that the existence of the application is increasingly known and understood by the community. Maintenance of intentions and behavior of using the ELSIMIL application is carried out by application development actions. Application development is needed especially

in terms of developing features according to user needs where this can increase the positive user experience. Development also needs to pay attention to the repair and maintenance of network servers to the development of applications for iOS smartphone devices where the number of users of these devices is also quite significant among the community.

#### Acknowledgments

The authors would like to thanks to University for give occasion for this research

#### Author Contributions

Conceptualization: I.A.K.W, I.A.O.M, G.S.D, L.P.M; data curation: I.A.K.W, I.A.O.M, G.S.D, L.P.M; funding acquisition: I.A.K.W, I.A.O.M, G.S.D, L.P.M methodology: I.A.K.W, I.A.O.M, G.S.D, L.P.M visualization: I.A.K.W, I.A.O.M, G.S.D, L.P.M writing - original draft I.A.K.W, I.A.O.M, G.S.D, L.P.M writing - review & editing: I.A.K.W, I.A.O.M, G.S.D, L.P.M

#### Funding

This research is fully supported by the author's funds without any external funding sources

#### Conflicts of Interest

We certify that there is no conflict of interest with any financial, personal and other relationships with other peoples or organization related to the material discussed in the manuscript.

#### References

- Agustina, D., Darmalaksana, W., & Busro, B. (2023). The Correlation of Islam with Local Culture in the Kawin Cai Tradition in Sundanese Society. *Islam Transformatif: Journal of Islamic Studies*, 6(2), 188. <https://doi.org/10.30983/it.v6i2.6151>
- Ahadiningtyas, R., Atmaja, J., Rahmatika, R., & Kunci, K. (2017). The Role of Familial Social Support Towards Health- Maintaining Motivation Through Physical Activities in Older Adults. *Jurnal Psikogenesis*, 5(2), 180-187.
- Alicke, M., Boakye-Appiah, J. K., Abdul-Jalil, I., Henze, A., Van Der Giet, M., Schulze, M. B., ... Danquah, I. (2017). Adolescent health in rural Ghana: A cross-sectional study on the co-occurrence of infectious diseases, malnutrition and cardio-metabolic risk factors. *PLoS ONE*, 12(7). <https://doi.org/10.1371/journal.pone.0180436>
- Antaris, B., Faroqi, A., & Wulansari, A. (2023). CLICK: Scientific Review of Informatics and Computer Acceptance Factors of Mobile Application of Bhayangkara Surabaya Hospital with TAM Method. *Online Media*, 3(6), 843-851.
- Arung Prajoko, M., Effendi, I., & Sugandini, D. (2022). *The Effect of Perceived Usefulness, Information Quality, on E- Satisfaction with Trust as a Mediating Variable for Tokopedia Marketplace Users in the Special Region of Yogyakarta*. 9, 287-306.
- Atsani, L. G. M. Z. (2020). Transformasi Media Pembelajaran pada Masa COVID-19. *Al-Hikmah: Jurnal Studi Islam*, 1(1), 82-93.
- Congress, I., Hunger, H., & Black, R. E. (2015). *Maternal and Child Undernutrition and Overweight*.
- Das, S., Hossain, M. Z., & Nesa, M. K. (2009). Levels and trends in child malnutrition in Bangladesh. *Asia-Pacific Population Journal*, 24(2), 51-78. <https://doi.org/10.18356/6ef1e09a-en>
- Dewi, E. K., Umijati, S., & Aditiawarman. (2020). Correlation the components of health belief model and the intensity of blood tablets consumption in pre-conception mother. *Indian Journal of Public Health Research and Development*, 11(3).
- Ellyzabeth Sukmawati, Iwan Adhicandra, & Nur Sucahyo. (2022). Information System Design of Online-Based Technology News Forum. *International Journal Of Artificial Intelligence Research*, 1.2. <https://doi.org/https://doi.org/10.29099/ijair.v6i1.2.593>
- Fadjriah, R. N., & Krishnasari, S. (2022). Breastfeeding Failure and Determinants: A Qualitative Study in Indonesia. *Diversity: Disease Preventive of Research Integrity*. <https://doi.org/10.24252/diversity.v3i1.27118>
- Fahlepi, M. I., Roslina, R., & Husna, N. (2023). The Effect of perceived Benefits, Ease of Use and Security on the Intention to Use the Dana Application. *Journal Economy and Currency Study (JECS)*, 5(2), 48-60. <https://doi.org/10.51178/jecs.v5i2.1462>
- Ginting, D. (2022). Health Counseling Improves Mothers' Knowledge in Preventing Stunting. *Yogyakarta: Penerbit NEM*.
- Handojo, K. J., & Santoso, N. E. (2020). Impact of Product Attributes, Virality, and Recommendations on Product Purchase Decisions. *Handojo, K. J., & Santoso, N. E*, 4(2), 1362-1372.
- Herliandry, L. D., Nurhasanah, N., Suban, M. E., & Kuswanto, H. (2020). Transformation of Learning Media During the Covid-19 Pandemic. *JTP-Jurnal Teknologi Pendidikan*, 22(1), 65-70.
- Hidayatulloh, F. B., & Kurniawati, R. (2023). *Perancangan Dan Implementasi Aplikasi Manajemen Iklan Pada Mesin Penjual Otomatis Smartfren*. 10(4), 56-58.
- Kusuma Wardani, D., & Fadzul Rahman, F. (2022). *The Relationship between Social Support of Telemedicine Users and Skills in Using Telemedicine Applications at Palaran Health Center during the COVID-19 Pandemic*.
- Lailiyah, K. (2023). The Role of the National Population and Family Planning Agency in Accelerating Stunting Reduction. *Mendapo: Journal of*

- Administration Law*, 4(1).
- Murti Hapsari, N., & Rizky Prawiradilaga, R. S. (2023). The Effect of Perceived Ease, Perceived Usefulness, and Information Quality on Public Interest in Bogor City in the Use of Telemedicine Services. *Study on Users of Halodoc, Alodokter, Yesdok Applications*, 4(3).
- Nasution, B. H. dan Z. (2023). Implementation of the Elsimil Application (Electronic Ready to Marry, Ready to Get Pregnant) as a Condition for Marriage Registration in the Perspective of Maqashid Sharia (Case Study at the Medan Tembung District Religious Affairs Office). *Kabilah: Journal of Social Community*, 8(1), 870-882.
- Octavia, Y. T., Siahaan, J. M., & Barus, E. (2023). Upaya Percepatan Penurunan Stunting ( Gizi Buruk dan Pola Asuh ) Pada Balita yang Beresiko Stunting. *Journal Abdimas Mutiara*, 5(1), 131-140.
- Pasaribu, R. D., Marthony, O., Supriyantini, S., & Iswarawanti, D. N. (2022). Improvement of Students and Snack Vendors Behavior After Received Health Promotion Program from UKS's Cadres. *Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition)*, 10(2). <https://doi.org/10.14710/jgi.10.2.189-199>
- Patimah, S. (2021). Aplikasi Terapi Bercakap - Cakap Pada Tn. N dengan Gangguan Persepsi Sensori: Halusinasi Pendengaran di Jampang Kulon. *Jurnal Lentera*, 4(1), 6-10. <https://doi.org/10.37150/jl.v4i1.1382>
- Rachmad, Y. E., Agnesiana, B., Agama, I., Ambon, K. N., Sukmawati, E., Ramli, A., ... Zebua, Y. (2023). The Analysis of Parenting Patterns in Instilling Morals of Early Childhood. *JCD: Journal of Childhood Development Commons Attribution-ShareAlike*, 3(1), 2023. <https://doi.org/10.25217/jcd>
- Rafila Siregar, A. (2017). Analisis Proses Rekrutmen Karyawan Pada Madani Hotel Medan. *Occupational Medicine*, 53(4), 130.
- Rizally, D., Putra, D., Sakti, B., & Muhsaf, S. A. (2023). Pengaruh UTAUT terhadap behavioral intention yang di mediasi oleh use behaviour SIMRS RSUD Kota Mataram. *Empiricism Journal*, 4(1), 271-286.
- S., L., M., G., M., M., & O., H. (2013). Is teenage pregnancy an obstetric risk in a welfare society? A population-based study in Finland, from 2006 to 2011. *BMJ Open*, 3(8), S81-S82.
- Silvia, N., Didik Nur Imanah, N., Sya, Y., Sukmawati, E., DIII Kebidanan, P., & Serulingmas, S. (2022). CASE STUDY: MIDWIFE CARE ON MY WHILE TRIMESTER III PREGNANCY, LABOR, NIFAS, NEONATES, AND FAMILY PLANNING. (2).
- Siregar, A. P. (2020). *Advanced Health Promotion In Theory and Application*.
- Suhardin, S., Indarwati, R., Meo, C. M., Putri, N. K., Sari, M., & Halimatunnisa, M. (2020). Social-cultural aspect of stunting: A systematic review. *International Journal of Psychosocial Rehabilitation*, 24(7).
- Sukmawati, E., Marzuki, K., Batubara, A., Afifah Harahap, N., & Weraman, P. (2023). The Effectiveness of Early Childhood Nutrition Health Education on Reducing the Incidence of Stunting. *Jurnal Pendidikan Anak Usia Dini*, 7(4), 4002-4012. <https://doi.org/10.31004/obsesi.v7i4.4846>
- Sukmawati, E., Wijaya, M., & Hilmanto, D. (2024). Participatory Health Cadre Model to Improve Exclusive Breastfeeding Coverage with King's Conceptual System. *Journal of Multidisciplinary Healthcare*, 17, 1857-1875. <https://doi.org/10.2147/JMDH.S450634>
- Sunjaya, A. P. (2019). Potential, Application and Development Digital Health in Indonesia. *J Indon Med Assoc*, 69(4).
- Tiwari, I., Acharya, K., Paudel, Y. R., Sapkota, B. P., & Kafle, R. B. (2020). Planning of births and childhood undernutrition in Nepal: evidence from a 2016 national survey. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-09915-8>
- UNICEF. (2020). Situation of Children in Indonesia - Trends, opportunities and Challenges in Fulfilling Children's Rights. *Unicef Indonesia*, 8-38.
- Wijaya, A., & Sutabri, T. (2023). Analysis of Information Technology Service Management (Itsm) Online Attendance Application at the Ogan Ilir Personnel and Human Resources Development Agency. *Blantika: Multidisciplinary Journal*, 1(2), 122-131.
- Zaky, H. A., & Setyadi, D. I. (2020). Interface Design of Cardiovascular Health Digital Kiosk as an Educational Support Facility for Polyclinic Building of Surabaya Integrated Heart Service Center. *Science and Arts Journal*, 9(2).