

Persepsi Kemudahan Penggunaan dan Kegunaan Facebook untuk Pendidikan Kesehatan Sindrom Premenstruasi

Perceived Ease of Use and Usefulness of Facebook for Premenstrual Syndrome Health Education

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ABSTRACT

Background: Premenstrual syndrome (PMS) is a collection of physical, psychological and behavioral changes that can be experienced by women of reproductive age. School adolescents who experience PMS symptoms can have an impact on school activities and daily life. One of the efforts to overcome it is through health education about PMS. Health education innovation in adolescents can be done with the use of social media. Social media that can be used as a means of sharing information is Facebook. **Objective:** This study aims to know the relationship between perceived ease of use and perceived usefulness of Facebook for health education about PMS. **Method:** Analytic study research design with a cross section approach. The research variable was the perception of ease of use and usefulness of Facebook as a medium of health education about PMS. The population was 320 school teenagers and the samples were taken by purposive sampling as many as 77 school teenagers who experienced PMS symptoms and had received PMS health education on Facebook. The research data were taken using a questionnaire of perceived ease of use (PEOU) and perceived usefulness (PU) and analyzed using a descriptive and contingency coefficient. **Results:** Facebook was considered easy (63.6%) to be used for health education about PMS and Facebook was considered useful (57.1%) as a medium for health education about PMS. There was a significant relationship between perceived ease of use and usefulness of Facebook as a medium for health education about PMS (p value=0,017) with a correlation coefficient value of 0.263 indicating that the correlation is weak. **Conclusion:** Perceived ease of use was related to the perceived usefulness of Facebook. Facebook was easy to use and useful for health education about PMS. Facebook was effective and useful for learning about PMS. Social media can be a medium for health education and help improve the health of school adolescents who experience PMS.

Keyword: Perceived, Facebook, Health Education, Premenstrual Syndrome

INTRODUCTION

Premenstrual syndrome (PMS) is a collection of physical symptoms and behavioral changes that occurs a few days before menstrual bleeding and disappears a few days during menstruation (Casper F, 2019). PMS is experienced by almost half of women of reproductive age, especially young women of 18 to 24 years old on average (Geta, Woldeamanuel and Dassa, 2020; Thodupunuri, Samer and Hassan, 2020). The prevalence of PMS is more than 50% in adolescents and the highest is

in school adolescents (Katjiukua *et al.*, 2020).

PMS symptoms that are experienced by women of reproductive age include irritability (79%), anxiety (61%), mood swings (71%), feeling stress (84%), back pain (78%), whole-body discomfort (75%), headache (50%) and fatigue (67%) (Thodupunuri, Samer and Hassan, 2020). In-school adolescents can experience PMS symptoms on a mild to severe level. Symptomatic patients with moderate to severe PMS symptoms are characterized by severe stress symptoms (83.3%),

disturbed sleep patterns (43.4%) while mild levels are characterized by severe stress symptoms (16.7%) and sleep pattern disturbances (56.6%) (Ilmi and Utari, 2018).

PMS symptoms of adolescents at school can have impacts on school activities, such as less learning concentration (46.5%), reduced learning motivation (48.8%), poor school achievement (48.8%), unable to work in teams (38.4%), not going to school (8,1%), and difficulties in doing activities and work (10,5%). PMS symptoms can interfere with interpersonal relationships, namely disturbed relationships with friends (7%), disturbed relationships with family (5.8%) and social withdrawal (45.3%) (Buddhabunayakan *et al.*, 2017).

Efforts to treat PMS symptoms can be done with pharmacological and non-pharmacological methods. Non-pharmacological efforts can be in the form of regulating a healthy lifestyle through exercising, dieting, and relaxation techniques (ABAY and KAPLAN, 2019; Dilbaz and Aksan, 2021). Health education effectively increases PMS knowledge so it can help to reduce PMS symptoms and signs in school girls (Ahmed and Saeed, 2021). The internet has been used as a medium in PMS cognitive behavioral therapy and helps to reduce PMS symptoms (Borji-Navan *et al.*, 2022). Currently, online-based health education has been developed, one of which is in the use of online social media. As technology develops, social media can be used to help promote and communicate health information (Stellefson *et al.*, 2020).

Online social media can be used as a means of health promotion. This media is effective in disseminating health information according to the target. The online social media innovation strategy is the use of advancement in digital technology in the field of communication (Vedel, Ramaprasad and Lapointe, 2020). Various social media are used to disseminate information. Based on data from 2019 to 2020, internet users in Indonesia were 196.71 million people (73.7%). The reasons for using the internet were online social media (24.7%), communicating (29.3%), and spreading health news (6.3%). The list of frequently visited and used social media consisted of Facebook (65.8 %), Instagram (42.3%), and

YouTube (61.0%). The contents that were often seen on online social media included movies (16.2%) and of the health sector (8.9%) (Asosiasi Penyelenggara Jasa Internet Indonesia, 2020).

Online social media can also be used as a medium for health education. This media includes Twitter, Facebook, Wechat, YouTube, WhatsApp, Instagram and others (Chen and Wang, 2021). Facebook can be used as a medium to promote a healthy lifestyle (Krishnamohan *et al.*, 2017).

Premenstrual syndrome that is experienced by women of reproductive age, especially school adolescents, can have an impact on school activities, so it is important to make efforts to overcome it, conduct health education, and maintain a healthy lifestyle. The use of online social media in PMS health education is innovation in health promotion. Online social medical health education can increase school youth knowledge about premenstrual syndrome (Handayani, Hapsari and Widyandana, 2020). For this reason, this study aims to know the relationship between perceived ease of use and usefulness of Facebook for health education about PMS. Hence, the variables of this study were the ease of use and usefulness of facebook for health education about PMS.

METHODS

The design of this research was an analytic study with a cross-sectional. This study aims to know the relationship between perceived ease of use and perceived usefulness of Facebook for health education about PMS.

Samples were taken using a purposive sampling technique and through the PMS symptom screening of the American College of Obstetricians and Gynecologists (ACOG). The samples were as many as 77 school teenagers with inclusion criteria namely registered as female students at a Vocational High School (SMK) in Central Java Indonesia, experiencing PMS symptoms, having an active Facebook account, willing to be respondents and having received PMS health education on Facebook media in the research (Handayani, Hapsari and Widyandana, 2020). Exclusion criteria were students who did not obtain parental permission to participate in this

study. Respondents who had previously received PMS health education for 4 weeks including menstruation concept, PMS concept, and self-care management during PMS; such as nutritional diet, physical exercise, coping with stress, and how to monitor and report PMS symptoms (Handayani, Hapsari and Widyandana, 2020).

The research data were taken using a questionnaire. Perceived ease of use (PEOU) is an instrument to determine the perceived ease of use of Facebook as a media for health education about PMS, and perceived usefulness (PU) is an instrument to determine the perceived usefulness of Facebook as a medium for health education about PMS. This instrument research on perceived usefulness, perceived ease of use, and user acceptance of information technology (Davis, 1989 *cit* Salloum *et al.*, 2018). The instrument was translated from English to Indonesian using the translation service of the Gadjah Mada University Language Center. The PEOU and PU questionnaires were tested for validity on experts/experts in the field of health management information systems at Gadjah Mada University in June 2016. The questionnaire was used to test the validity and reliability of Cronbach's Alpha with PEOU's alpha coefficient of 0.687 and PU's alpha coefficient of 0.774.

The research data were taken in November 2016 at the computer laboratory of a Vocational High School (SMK) in one of the districts in Central Java, Indonesia, using PEOU and PU instruments. The instrument was an online questionnaire on google forms. The data collection process was done by sharing an online questionnaire link via Facebook, which was made specifically for this research with the account name "Remaja Sehat Selama PMS", then respondents accessed the questionnaire link on the research Facebook homepage. After the questionnaire was submitted by each respondent, the questionnaire link was closed and the respondent could not access it again.

Research data were processed using computer software. The statistical analysis was descriptive statistics to determine perceived ease of use (PEOU) and perceived usefulness (PU) variables. Contingency Coefficient was used to determine the relationship between PU

and PEOU. This study has received ethical approval by the ethics committee of the Faculty of Public Health Nursing (FKKMK) Gadjah Mada University with Ref no.: KE / FK / 978 / EC / 2016.

RESULTS AND DISCUSSION

Respondent characteristics in this study are presented in Table 1.

Table 1. Frequency Distribution of Respondents Characteristics (n=77)

Characteristics	n	%
Age (year)		
15	11	14.3
16	56	72.7
17	9	11.7
18	1	1.3
Facebook access frequency per day		
1-2 times	51	66.2
3-4 times	5	6.5
More than 4 times	21	27.3
Habits when accessing Facebook		
a. Giving a like, comment on a friend's Wall/Facebook status message	68	17.7
b. Reading a friend's wall	55	14.3
c. Uploading photos dan videos	53	13.8
d. Updating status	51	13.2
e. Chatting	46	11.9
f. Finding friends	31	8.1
g. Opening news information about information outside the health sector	30	7.8
h. Sharing information	24	6.2
i. Opening news information about health information	19	4.9
j. Writing in the notes field of facebook	5	1.3
k. Playing game	2	5
l. Uploading activity videos	1	3

Table 1 shows that the majority of respondents were 16 years old (72.7%). Facebook access frequency was 1-2 times/day at most (66.2%). During the facebook access, the time needed was at most 1-2 hours/day (87%). The activity of respondents on Facebook before the study was mostly to give likes, comments on messages uploaded on the Facebook wall (17.7%), while to seek health information as much as 7.8%.

Table 2. Perceived Ease of Use (PEOU) of Facebook as PMS Health Education

Perceived Ease Of Use	n	%	Mean (SD)
Easy	49	63.6	41.4 (3.7)
Not easy	28	36.4	
Total	77	100	

Table 2 shows that the average value of the perceived ease of use of Facebook by respondents was 41.4. This indicates the respondents (63.6%) agreed Facebook was easy to use as a medium for health education about PMS.

Table 3. Perceived Usefulness (PU) of Facebook as PMS Health Education

Perceived Usefulness	n	%	Mean (SD)
Useful	44	57.1	44.3 (4.3)
Not useful	33	42.9	
Total	77	100	

Table 3 shows that the average value of the perceived usefulness of Facebook as a PMS health education medium was 44.3. This indicates that respondents (57.1%) agreed that Facebook was considered useful as a medium for health education about PMS.

This research also shows that the usefulness of Facebook in PMS health education was as many as 50 (64.1%). The respondents agreed that using Facebook made it easier to access material about PMS, 46 (59%). Increased effectiveness in accessing material about PMS, 47 (60.3 %) was useful to learning material about PMS. Facebook increases the intensity for viewing material about PMS (66,7%).

Then, this research also shows the ease of using Facebook in PMS health education that as many as 53 (68.8%) respondents felt it was not complicated to access material about PMS through Facebook, 46 (59%) did not feel confused in using Facebook to learn material about PMS and 51 (66, 2%) did not make a choice about the ease of recalling all the material about PMS that had been learned through Facebook.

Table 4. Contingency Coefficient Result

PEOU	PU		%	CC	P value*
	Useful	Not Useful			
Easy	22.1	14.3	36.4	0.263	0.017
Not Easy	20.8	42.8	63.6		

42.9 57.1 100

*significant $p < 0.05$; CC:contingency coefficient

Table 6 shows that as many as 42.8% respondents perceived that Facebook was easy to use and useful for PMS health education. Perceived ease of use is related to the perceived usefulness of Facebook for PMS health education with a p-value of 0.017, less than a significance level of 0.05. The correlation coefficient value of 0.263 indicates that the relationship between PEOU and PU was weak.

The activity of respondents prior to this research was mostly using Facebook to give likes, comments on messages uploaded on the Facebook homepage and still little use to find health information. According to another research, social media that was used by adolescents consisted of 83.2% Instagram and 78.6% Facebook. Social media to upload information about health was namely 58.1% on Facebook, 31.4% on Instagram, 26.7% on Twitter. Within a month of using social media, adolescents used it to share about mood (76.2%), wellness (57.1%) and treatment conditions (41.9%), and health information (51.5%). Only 25% of adolescents used social media for health information (Hausmann *et al.*, 2017). Research showed that social media that was used by adolescents were Facebook (27.4%), Twitter (32.0%) and Instagram (53.8%). Adolescents used Instagram to communicate with family (33.6%), upload pictures of friends and family (61.6%) and only 3.5% used social media to find health information (Plaisime *et al.*, 2020).

Perceived Ease of Use of Facebook as a Medium for PMS Health Education

Facebook is easy to use as a medium for health education about PMS. Facebook is an effective and easy communication medium in student learning. Facebook in academic life is an efficient and convenient platform for students to engage in learning. Facebook is an effective social networking media that is used to communicate with other people (Lee, 2021). Facebook has sections or features that make it easy to transfer information. There are Facebook sections that make it easier to achieve health education goals (Handayani, Hapsari and Widyandana, 2020).

Perceived of Usefulness of Facebook as a Medium for PMS Health Education

Facebook is considered useful as a medium for health education about PMS. Facebook contributes to reproductive health education in an interactive, fun, and practical way. Adolescents are more confident in talking about reproductive health with these media and they feel easier with health information and services (Mazza et al., 2018). Facebook may have the potential to increase students' cognitive engagement in flipped classrooms (Utama et al., 2020).

Facebook is the right tool to promote web applications in sexual health education for teenagers with fast reach and affordable cost (Gabarron et al., 2017). Facebook makes it easy to access material about PMS, it increases effectiveness in accessing material about PMS, and is useful to learn material about PMS. Respondents felt that it was not complicated to access material about PMS through Facebook media, thus they did not feel confused about using Facebook to learn about PMS. Social networking media is effective in promoting health behavior change efforts.

Relationship between Perceived Ease of Use and Perceived usefulness of Facebook as a Medium for Health Education about PMS

Perceived ease of use (PEOU) is related to the perceived usefulness (PU) of Facebook as a medium for health education about PMS. According to previous research, there is a relationship between PEOU and PU with a significance value of 0.001. Facebook is important in the distribution of information online and useful for its users and encourages continuous use of social media (Yasa et al., 2021). PEOU and PU are important factors in the use of social networking media for e-learning, where there is a significant relationship between PEOU and PU with a value of 0.001 (Salloum et al., 2018).

The basis for users in utilizing information technology (TAM) is PU and PEOU. This perception explains the desire and mind in utilizing certain technologies (Hoong, Thi and Lin, 2017).

Facebook has been used as a health education medium to increase knowledge of self-care management during PMS for school adolescents with PMS (Handayani, Hapsari and Widyandana, 2020).

According to research, school adolescents with PMS symptoms can reduce PMS symptoms with the support of the use of social media (Su Jin Nam; Chiyong, 2019). Internet-based cognitive behavioral therapy is useful in reducing PMS symptoms (Borji-Navan et al., 2022).

CONCLUSION

Perceived ease of use is related to the perceived usefulness of Facebook. Facebook is easy to use and useful as a medium for health education about premenstrual syndrome (PMS). Facebook is effective and useful to learn about PMS. Facebook is one of the social media that can be a medium for health education and can be used as a medium of communication in the health sector, especially for school adolescents in an effort to help improve the health of school adolescents who experience PMS.

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