ABSTRACT

Background: Insufficient understanding of marriage-age maturity education related to self-efficacy among adolescent cadres contributes to early marriage and pregnancy at a young age, consequently elevating the risk of maternal mortality. Adolescent cadres play a crucial role as both peer groups and agents of change. Addressing this issue can be facilitated through the use of electronic modules, which have demonstrated effectiveness.

Objectives: This study aims to determine the influence of electronic module of marriage age maturity towards the self-efficacy of adolescent cadres in conducting education in Youth Information and Counseling Center (PIK-R), Bantul Regency.

Methods: This research employed a non-equivalent quasi-experimental design featuring pre-test and post-test assessments with a control group setup. The sample was selected through total sampling, comprising 50 respondents divided into two groups: 24 in the intervention group at Ngireng-ngireng Village (PIK-R Fresh) and 26 in the control group at Padokan Lor Village (PIK-R Pelangi). This research was conducted from February to March 2023. The instruments used in the study, including the electronic module of marriage age maturity and a self-efficacy questionnaire for adolescent cadres. The analysis used in this research was the paired sample t-test.

Results: The paired sample t-test statistical analysis yielded a significant value of p-value 0.000 (p<0.05). This indicates that there is an influence on self-efficacy in the intervention group and the control group after being provided with education about marriage-age maturity using electronic modules and PowerPoint slides.

Conclusions: The electronic modules of marriage-age maturity education have an impact on the self-efficacy of adolescent cadres involved in education in PIK-R, Bantul Regency. Consequently, it’s advisable for adolescent cadres to integrate these electronic modules into their daily routines to boost their self-efficacy and educate their peers more effectively.

KEYWORD: electronic module; marriage age maturity; adolescent cadres; self-efficacy;
INTRODUCTION

Early marriage, defined as the union of individuals under 18 years old, occurs when they are not physically, physiologically, or psychologically prepared. This practice has detrimental effects on physical and biological health (1). Adolescent girls aged 15-19 face mortality risks during pregnancy. In contrast, those aged 10-14 are at a fivefold higher risk of mortality compared to those aged 20-24, who face lower mortality rates (2).

Globally, in 2018, an estimated 650 million women were married before turning 18, with South Asia and Sub-Saharan Africa leading in child marriage prevalence. Indonesia ranks 10th globally with 1.2 million women aged 20-24 marrying before the age of 18. Additionally, 61.3 thousand women aged 20-24 were married before reaching 15 (3). According to data from the Central Statistics Agency (BPS) in Indonesia, the prevalence of early marriage was 9.23% in 2021. However not met the target set, to 8.74% by 2024. The Special Region of Yogyakarta (DIY) has the average at 3.52%. However, there was a 1.69% increase in DIY from 2020 to 2021 (4). Bantul with 94 cases of early marriage (5). Therefore, must continue its efforts to reduce early marriage rates. Ending child marriages is crucial for safeguarding the rights, health, well-being, and future prospects of girls (32).

The National Population and Family Planning Board (BKKBN) the PIK-R planning, focusing on one of its programs, Early Marriage Maturity (PUP). Early Marriage Maturity (PUP) aims to raise the age of first marriage for women to a minimum of 21 years and for men to 25 years and also strives to ensure that the first pregnancy occurs at a mature (6,7). This PUP program contributes to increasing the age of first marriage, thereby reducing the Total Fertility Rate (TFR) (8). Adolescent integrated health posts (Posyandu), providing a platform for guidance and communication for adolescents to access healthcare services for promoting and preventing health issues (9).

Earlier research on adolescent-integrated health posts (Posyandu Remaja) has uncovered implementation challenges, notably a deficiency in support for these facilities, partly attributed to self-efficacy (10). A significant portion of the cadres exhibit low self-efficacy (51.3%). This suggests that cadres lack confidence in their capabilities certain tasks (11).

Self-efficacy is the belief or confidence in oneself to perform roles and tasks. To improve health quality, healthy adolescent cadres need to be developed to prevent and promote health through peer groups and as agents of change with training and mentoring. The use of media during adolescent training for adolescent cadres using modules has been proven effective (12-16). Other new findings indicate that self-efficacy greatly influences self-confidence and can be the basis for implementing an educational model (30). This research is a novelty compared to previous researchers in terms of the difference in using electronic modules containing quality family material, Family Development
The influence of electronic module of marriage age maturity towards the self-efficacy of adolescent cadres in Youth Information and Counseling Center (PIK-R), Bantul Regency.

MATERIALS AND METHODS

The data collection time for this research was carried out in February-March 2023. The intervention group is adolescent cadres in Sewon Sub-district, the control group is adolescent cadres in Kasihan Sub-district. The inclusion criteria for the study sample this adolescent cadres who are active in the Sewon and Kasihan Sub-district, Bantul Regency, are willing to become research respondents, aged 16-24 years, have not received education at marriage age maturity, who can read and write. The exclusion criteria in this research adolescent cadres who were absent, resigned and was sick at the time of the implementation.

This study utilized a quasi-experimental non-equivalent design with a pre-test and post-test with a control group design. A total sampling technique was employed for sample selection. There were 50 respondents divided into 2 groups: 24 in the intervention group in Ngireng-ngireng Village (PIK-R Fresh) and 26 in the control group in Padokan Lor Village (PIK-R Pelangi). The instruments used in this research included an electronic module on marriage-age maturity education and a self-efficacy questionnaire for adolescent cadres with 18 statement items using a Likert scale. Content Validity Index (CVI) testing was conducted by a faculty member of Alma University, specifically from the Nursing and Midwifery Sciences department, holding a postgraduate qualification (Master's degree). The validity of the self-efficacy questionnaire was tested using CVI with a result of 0.70 (strong category), and reliability was obtained with a value of 0.971. Meanwhile, the validity of the electronic module was also tested using CVI with a result of 0.73 (strong category), and reliability with a result of 0.960.

Electronic modules containing quality family material, Family Development Index (i-bangga), marriage age maturity, reproductive health, prevention of risky sexual behavior, and counseling. The electronic modules are supplemented with explanatory videos containing these materials. The research proceeded according to the inclusion and
exclusion criteria, with a pre-post-test duration of 7 days. On the first day, instrument preparation was conducted, while on the second and third days, informed consent was obtained and pre-tests were administered. Subsequently, the fourth to the sixth day education materials were provided to both the control and intervention groups. The control group (PIK-R Pelangi) received marriage age maturity education material through PowerPoint slides, while the intervention group (PIK-R Ngireng-ngireng) received electronic module education material on marriage age maturity and PowerPoint slides. From the fourth to the sixth day, learning support was provided to both the control and intervention groups via WhatsApp groups with marriage-age maturity education materials. On the seventh day, post-tests were conducted for both the control and intervention groups. The analysis used in this research was the t-test, specifically the paired sample t-test, to determine the influence of electronic marriage age maturity modules on the self-efficacy of adolescent cadres in conducting education.

RESULTS AND DISCUSSION

RESULTS

The subjects of this study were 26

Table 1. Frequency distribution of age, gender, education level, and duration of being adolescent cadre members in Ngireng-ngireng Village and Padokan Lor Village, February-March 2023

<table>
<thead>
<tr>
<th>Respondent Characteristics</th>
<th>Intervention Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age(year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-18</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>19-21</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>22-24</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary School</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Junior High School</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Senior/Vocational High School</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>University/College</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Duration of being a cadre member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;3 years</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>&gt;3 years</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>26</td>
</tr>
</tbody>
</table>
respondents in the intervention group in Ngireng-ngireng Village and 24 respondents in the control group in Padokan Lor Village as follows.

Based on Table 1, the characteristics of the respondents show that the majority of respondents in this study are aged 22-24 years in the intervention group, with 10 respondents (41.7%), and in the control group are aged 16-18 years (61.5%). The gender distribution in this study mostly consists of females, with 15 respondents (62.5%) in the intervention group and 19 respondents (73.1%) in the control group. Regarding education level, the majority are at the high school/vocational school level, with 10 respondents (41.7%) in the intervention group and an equal number in the control group, with 12 respondents (46.2%) each at the junior high school and high school/vocational school levels. The duration of being a cadre member in this study mostly falls under <3 years, with 13 respondents (54.2%) in the intervention group and 14 respondents (53.8%) in the control group.

Table 2. The Influence of Marriage Age Maturity Education using Electronic Modules on Pre-test and Post-test towards Adolescent Cadre Self-Efficacy, February-March 2023

<table>
<thead>
<tr>
<th>Mean Value</th>
<th>Mean Difference</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>47.30</td>
<td>-7.985</td>
</tr>
<tr>
<td>Post-test</td>
<td>53.25</td>
<td>-3.515</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>48.73</td>
<td>-4.655</td>
</tr>
<tr>
<td>Post-test</td>
<td>51.88</td>
<td>-1.653</td>
</tr>
</tbody>
</table>

Based on Table 2, the results of the paired sample t-test in the intervention group show that the mean pre-test value was 47.30 and the post-test value was 53.25, while in the control group, the mean pre-test value was 48.73 and the post-test value was 51.88. The difference in mean values in the intervention group was 5.75, and in the control group, it was 3.15.

Based on the difference in the average of the intervention group and the control group, it can be concluded that the average of the intervention group is higher, which is from 47.30 to 53.25, there is an increase of 5.75. Instead of the control group, from 48.73 to 51.88, there was only an increase of 3.15 which means that the control group was lower than the intervention group. So it can be concluded that the use of electronic modules is more effective in increasing self-efficacy than just the use of PowerPoint slides.

The results of this study obtained a significant value of p-value 0.000 (p<0.05). This indicates that there is an influence on self-efficacy in the intervention group after being provided with education about
marriage-age maturity using electronic modules and PowerPoint slides for 1 day, observed over 7 days. Similarly, the results of the paired sample t-test in the control group yielded a significant value of p-value 0.000 (p<0.05). This also indicates an influence on self-efficacy in the control group.

**DISCUSSION**

Adolescence is defined as a transitional period from childhood to adulthood characterized by physical, emotional, social, and moral changes. A healthy reproductive age for females is between 20 and 30 years old (17,18). Adolescents are highly susceptible to both positive and negative influences. Negative impacts often include premarital sexual behavior, indicating that adolescents are not yet fully responsible during this period (19).

Age is a crucial factor influencing adolescent behavior, particularly in early marriage. Age affects one's thinking patterns, with older individuals generally displaying more mature behavior (20). Furthermore, in this study, the majority were aged 16-18 years old, and among respondents aged 22-24 years old, it was found that they had better self-efficacy compared to those aged 16-18 years old.

Based on these results, adolescents aged 16-18 years old may still lack confidence in conducting marriage-age maturity education for their peers. Age plays a crucial role in adolescent behavior towards early marriage.

**Respondent Characteristics**

Gender stereotypes in society contribute to injustice towards women. Gender differences often occur in the workplace, households, communities, cultures, and even countries. Discrimination between male and female family members leads to many girls being pressured by their families, especially their parents, to marry early (21). The majority of participants in this study were also female, particularly regarding self-efficacy. During the completion of the post-test, it was also found that women influence or are associated with marriage-age maturity education regarding self-efficacy. From these results, the majority had the highest self-efficacy scores among women.

Education is a factor that correlates with knowledge about early marriage. If adolescent education is low but their insights and literacy are broad, it can be one of the factors contributing to a decrease in approval of early marriage (20). Alfiana’s (2021) research suggests proper and comprehensive education can assist adolescents in making decisions regarding early marriage (22). Based on the research results, the majority have a high school/vocational school education level, but some have graduated from higher education institutions and possess good knowledge. This is consistent with Yugistywati & Santoso’s research, which suggests that higher levels of education lead to better behavior (23). The higher the level of education, the easier it is for individuals to accept information (24).
The duration of service can affect the performance of cadres because it represents the length of time worked and is a measure of productivity. Long-serving cadres have a deeper understanding and more experience compared to new cadres (25). Both new and long-serving cadres still need training to enhance their knowledge and understanding (27). However, being a cadre for a long time does not necessarily guarantee a better understanding, as evidenced by the results of marriage-age maturity education on self-efficacy, where the majority with less than 3 years of experience can also have a higher knowledge score. Both new and long-serving cadres still require training to improve their knowledge and understanding (27).

Analysis of the Influence of Marriage Age Maturity Electronic Module on Adolescent Cadre Self-Efficacy in Conducting Education

The results of the paired sample t-test show that the difference in the average of the intervention group and the control group, the average of the intervention group is higher, there is an increase of 5.75. Instead of the control group, there was only an increase of 3.15 which means that the control group was lower than the intervention group. So it can be concluded that the use of electronic modules is more effective in increasing self-efficacy than just the use of PowerPoint slides. There is an increase in knowledge and self-efficacy among adolescent cadres regarding marriage-age maturity with the use of electronic modules and PowerPoint slides. Adolescent cadres can better understand with electronic modules equipped with audio and video explanations, rather than just relying on reading material. However, the use of PowerPoint slides also has a positive impact due to the clear and easily understandable summary of the material.

This study is consistent with Irma's (2017) findings, which revealed a significant improvement in the experimental group. Her research proves that learning in the classroom using modules is more effective because there is systematic teaching material, the language used is easily understood, and it can enhance students' independence (28).

This study is in line with Yolantia's (2021) research, which found that the application of modules on the topic of the digestive system has a significant positive impact on self-efficacy and results in good knowledge. The combination of learning modules provides more interesting and enjoyable learning innovations, making it easier for students to understand the concepts of the material (16). Additionally, this study aligns with Kadek's (2021) research on the HA-Man (education using booklet media) module, stating that self-efficacy has a significant correlation and influence on behavioral changes. Moreover, educational interventions using HA-Man positively affect self-efficacy, as the content of HA-Man can enhance knowledge (29). Higher and more comprehensive education can enhance self-

The influence of electronic module of marriage age maturity towards the self-efficacy... 209
Based on the research results, there is an influence of providing marriage-age maturity education in both the intervention and control groups. According to Bandura, some factors influence an individual's self-efficacy, namely: 1) Individual experiences of success in facing specific tasks in the past. 2) Observing others. Individuals who see others succeed in performing the same activities and have comparable abilities can increase their self-efficacy. 3) Verbal persuasion, which involves information about someone's abilities conveyed verbally that can influence individuals to succeed. 4) Physiological conditions, such as physical state (sickness, fatigue, etc.) and emotional conditions (mood, stress, etc.). These factors can influence an individual's self-efficacy.

In general, the results of this study provide evidence that self-efficacy is related to learning. Self-efficacy plays a crucial role in determining the thought processes involved in acquiring knowledge, motivation, and individual actions. Factors influencing self-efficacy, such as individual experiences of success, observations of others, verbal persuasion, and physiological and emotional conditions, can either diminish or enhance an individual's self-efficacy. Overcoming low self-efficacy can lead to higher levels of self-efficacy. Self-efficacy can serve as a strength within individuals, preventing them from giving up when faced with obstacles. Thus, individuals can have confidence in their abilities, complete tasks, and achieve goals effectively. Therefore, this research demonstrates that electronic educational modules on marriage-age maturity have an impact on increasing self-efficacy among adolescent cadres.

Limitations of this study during data collection and the research process. During the research process when respondents were studying independently, researchers could not be sure specifically between one respondent and another, because the delivery of independent learning and material was only through via WhatsApps groups and there was no monitoring evaluation to ensure that respondents really studied. Ensure that respondents really learn. Then the instrument on the questionnaire in this study was only carried out the Content Validity Index (CVI) test because the researcher had limited time when data collection would be carried out.

CONCLUSION AND RECOMMENDATION

Through the conducted research, it is concluded that electronic educational modules on marriage-age maturity have an impact on increasing the self-efficacy of adolescent cadres in conducting education in PIK-R Bantul District. Therefore, it is recommended that adolescent cadres use electronic educational modules on marriage-age maturity in their daily lives to enhance self-efficacy and educate their peers.

REFERENCES

1. Wahyuningrum Husni Abdul ; Ririanty, Mury DMG. The Effort of Health


han-dini-di-diy-tinggi.2022


9. Kurniawati KD, Kusumawati A, Prambamurti PN. Hubungan Penge


12. Mondir Z, Nurriilla RD. Dimensions of Self Efficac Peer Educator Anti Drugs Abuse

The influence of electronic module of marriage age maturity towards the self-efficacy... 211


24. Rosid S, Rahma FK, Sudasman FH. Analisis Faktor Yang Berhubungan


