INTRODUCTION

Adolescence reproductive health is a healthy condition related to reproductive system (functions, components, and processes) possessed by the adolescents physically, mentally, socially and spiritually. The incidence of reproductive organ problems in adolescents needs serious attention because these problems usually happen in developing countries such as Indonesia. The reproductive disorder which usually occur in Indonesia is reproductive tract infections (Darma et al., 2017).

The highest incidence of reproductive tract infections in the world on adolescence is 35% to 42%. The incidence of reproductive tract infections in Indonesia due to lack of hygiene in the reproductive organs is quite high. The range is 9 to 100 cases per 100,000 population every year (Pratiwi, 2019). Based on statistical data in Indonesia in 2018 there were 43.3 million adolescents aged 10-14 years had bad hygiene behavior (Kemenkes RI, 2018). The result of the research in Indonesia proved that 5.2% of female adolescents in all provinces in Indonesia experienced complaints after menstruation period because they did not keep genital hygiene (Pratiwi, 2019).

The data from the Indonesian Adolescent Reproductive Health Survey (SKRRI) stated that 21.6% of adolescents had good hygiene behavior nationally. The results showed that 28% of adolescents got information from the Youth Counseling Information Center (PIK-Remaja). It means that there are 28 out of 100 teenagers have access to activities related to reproductive health information especially genital hygiene (Pratiwi, 2019).

It is very important for adolescents to have knowledge on how to clean the genital area (vulva hygiene). A Good knowledge on reproductive health, especially the external reproductive organs (vulva), will affect the cleanliness of reproductive organs themselves (Humairoh et al., 2018). The impact of bad hygiene behavior in female adolescent can cause vaginal
discharge. Vaginal discharge (leucorrhea, vaginal discharge) is the discharge of secretions or fluids other than excessive blood from the vaginal canal with variations in odor, consistency, and color. Vaginal discharge can occur normally (physiological) or (pathological) (Pradnyandari et al., 2019).

There were several studies related to knowledge level of adolescents in vulva hygiene and the incidence of vaginal discharge. Based on the results of research done by Atapukang (2017) at SMP Muhammadiyah 1 Yogyakarta, from 61 female students, most of them (62.3%) had sufficient knowledge level of vulva hygiene and there were 37.7% of them had good knowledge level. The results of statistical tests showed that there was a significant relationship between the knowledge level of female adolescents on vulva hygiene and the incidence of vaginal discharge. Besides knowledge, the vulva hygiene behavior can also affect the incidence of vaginal discharge (Karyati et al., 2014). However, research which was conducted by Rahman et al., (2014) showed that there was no relationship between knowledge and the incidence of vaginal discharge in adolescents.

Many studies had been conducted to know the effective methods to increase the knowledge by giving counseling. Various media were used to optimize the benefits of counseling such as providing modules (Johariyah & Mariati, 2018), zoom and youtube (Murtiningsih, 2020), as well as audiovisual media (Arsyati, 2019; Simamora & Saragih, 2019). Due to COVID-19 pandemic, digital media can be an option in providing counseling (Rizal et al., 2021), one of them is by using the zoom meeting application. This study aims to determine the advantages of counseling in improving knowledge of female adolescents about vulva hygiene at SMP Negeri 11 Denpasar.

**METHODS**

**Research Design**

This study employed analytical comparative method with one group pretest-posttest design. This study has got ethical clearance form Research Ethic Commission at Poltekkes Kemenkes Denpasar Number: LB.02.03/EA/ KEPK/0428/2021 on April 27th 2021

**Research Sampling**

The sample of this study was grade VIII students of SMP Negeri 11 Denpasar which was fulfilled inclusive criteria such as 24 samples. The samples were chosen by Proportionate Cluster Random Sampling technique. The statical test were done by using Wilcoxon test because the data were not normally distributed p < 0.05.

**Research Instrument and Collecting Data**

The respondents were given counseling by using zoom meeting application. The data were collected by giving pretest and post-test questionnaire about knowledge level on female adolescents about vulva hygiene at SMP Negeri 11 Denpasar which were submitted on google form. The questionnaire consisted of identity of the respondent. The second sheet contained statements about vulva hygiene including the understanding of vulva hygiene, the purpose of vulva hygiene, the bad effects of not keep vulva hygiene, how to care vulva hygiene, and how to maintain vaginal health. The questionnaires were tested validity and reliability. The questionnaires were tested on respondents who have the same characteristics as the research respondents.

**Data Analysis**

Descriptive statistic was done to find the frequency distribution and proportion and were analyzed bivariate by using Wilcoxon test.

**Ethical Consideration**

Inform consent was given to the respondents and parents three days before the research was conducted and no coercion. This research contained principles of anonymity, confidentiality, benefit, respect for Human Dignity, and justice.

**RESULT**

**Respondent Characteristic**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 y.o</td>
<td>23</td>
<td>18.5</td>
</tr>
<tr>
<td>14 y.o</td>
<td>84</td>
<td>67.7</td>
</tr>
<tr>
<td>15 y.o</td>
<td>17</td>
<td>13.7</td>
</tr>
<tr>
<td>Menarche Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>120</td>
<td>96.8</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>3.2</td>
</tr>
<tr>
<td>Have you ever got information?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>58</td>
<td>46.8</td>
</tr>
<tr>
<td>No</td>
<td>66</td>
<td>53.2</td>
</tr>
</tbody>
</table>
Based on the result, there were 84 respondents (67.7%) aged 14 years old, 120 female adolescents (96.8%) who have had menstruation and 4 respondents (3.2%) have not had menstruation. Based on the information of vulva hygiene had by female adolescents, there were 58 respondents (46.8%) had got information on vulva hygiene, and 66 respondents (53.2%) never got information on vulva hygiene.

**Distribution Result Pretest dan Posttest**

**Table 2: The advantages of counseling in improving female adolescents’ knowledge on vulva hygiene at SMP Negeri 11 Denpasar**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Median</th>
<th>Reach Level</th>
<th>Z</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Minimum</td>
<td>Maximum</td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>60.00</td>
<td>20</td>
<td>80</td>
<td>-9.556</td>
</tr>
<tr>
<td>Postest</td>
<td>84.00</td>
<td>70</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The result of Wilcoxon test showed that median pretest was 60.00 and post-test was 84.00, Z value was -9.556 and p<0.001. The result showed that H0 was rejected and Ha was accepted which meant there was significant relationship of counseling vulva hygiene in improving female adolescents’ knowledge before and after given counseling vulva hygiene.

**Figure 1: The Respondents’ Knowledge before Being Given Counseling about Vulva Hygiene**

The picture showed the respondents’ knowledge before being given counseling on vulva hygiene. The minimum score of respondents’ knowledges before being given counseling on vulva hygiene was 20 and the maximum score was 80. The median score of respondents’ knowledges before being given counseling on vulva hygiene was 60.00.

**Figure 2: The Respondents’ Knowledge after Being Given Counseling about Vulva Hygiene**
The picture showed the respondents’ knowledge after being given counseling on vulva hygiene. The minimum score of respondents’ knowledge after being given counseling on vulva hygiene was 70 and the maximum score was 100. The median score of respondents’ knowledge after being given counseling on vulva hygiene was 84.00.

DISCUSSION
The Respondents’ Knowledge Before Given Counseling About Vulva Hygiene
The minimum score of respondents’ knowledge before being given counseling about vulva hygiene was 20 and the maximum score was 80. The range score before being given counseling about vulva hygiene was 57-71 and the median value of was 60. The result of research conducted by Istiqlamah (2018) showed that in junior high school group, 29 respondents (69.0%) had sufficient knowledge level. However, in senior high school group, there were 22 respondents (52.4%) had hood knowledge level.

Based on the researcher's view, the minimum score, maximum score, median score was mostly low because during the pandemic, students of SMP Negeri 11 Denpasar have not done face-to-face meetings with teachers because learning activities were conducted by online and some students did not know about vulva hygiene. There were 75 percent of female adolescents of SMP Negeri 11 Denpasar have not received counseling about vulva hygiene. The lack of information about vulva hygiene affected someone’s knowledge. It was supported by the previous research which showed lack of information would affect on someone’s knowledge. The more someone get information, the higher knowledge level they have (Rifa et al., 2012).

The Respondents’ Knowledge After Given Counseling About Vulva Hygiene
After being given counseling about vulva hygiene by using zoom media, the knowledge of respondents mostly increased with a minimum score was 70 and a maximum score was 100 and the median score of respondents' knowledge after being given counseling was 84.00. The results of research conducted by Sari (2016) showed that counseling could increase respondents’ knowledge and could be improved by using several methods and media so that the counseling process could run well so that the information provided during counseling could be understood and received maximally by the respondents.

Knowledge was an important domain in influencing the behavior. The improving of knowledge occurred because the respondents were very happy with this counseling and listened carefully to the information provided. Many questions were asked during the activities. According to the researcher's view, the respondent's score has increased from pretest to posttest. It was caused by female adolescent of SMP Negeri 11 Denpasar understood during the counseling process, it could be seen from the participation of students in asking about reproductive organs, how to care for female organs, and how to prevent vaginal discharge.

Analysis of the advantages of counseling on improving female adolescents’ knowledge about vulva hygiene
The result of data analysis the advantages of counseling in improving female adolescent’s knowledge about vulva hygiene before and after being given counseling showed $Z$ value was -9.556 and p-value <0.001. It showed that counseling by using zoom media gave advantages in improving knowledge level of female adolescent. It also could be seen on p value <0.001 so that there was improvement in knowledge level before and after being given counseling.

The Similar results were also showed in some previous studies (Rifa et al., 2012). By improving knowledge about vulva hygiene, the incidence of vaginal discharge in female adolescent girls could also be reduced (Febriyanti et al., 2018). In addition, the level of knowledge had positive correlation with vulva hygiene behavior (Verawati et al., 2015)

The effectiveness of using method in counseling was improving the knowledge, students got information, and understanding about vulva hygiene. Based on statistical test such as Wilcoxon test showed that the p value<0.001 out of 90 respondents. It could be concluded that there was an effect of knowledge level toward vulva hygiene behavior (Arianti et al., 2017). This study showed that counseling was effective in improving female

CONCLUSION
The conclusion of this study is counseling on vulva hygiene by using zoom is useful in improving female adolescents’ knowledge. Further researchers can develop this research with other variables in order to get new innovation in health promotion.

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REFERENCES
Universitas’ Aisyiyah Yogyakarta.


