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The Effect of Peer Support on Menstrual Hygiene Behavior among Adolescent Girls

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Abstract

Background: One of the common problems experienced by adolescent girls during menstruation is the reluctance to change sanitary pads regularly. Inadequate pad replacement can promote excessive bacterial growth and increase the risk of infection. In addition, the use of unclean or stagnant water for genital cleansing constitutes another risk factor. Poor menstrual hygiene practices commonly observed among adolescent girls include failing to change sanitary pads when they become saturated, wearing excessively tight clothing, and using fabrics that do not adequately absorb sweat. These behaviors may create a favorable environment for the proliferation of microorganisms and negatively affect reproductive health. **Objective:** This study aimed to determine the effect of peer support on menstrual hygiene behavior among adolescent girls. **Methods:** This study employed a quantitative approach with a cross-sectional design. The study population consisted of 204 female students in grades VII and VIII at SMP Negeri 3 Situbondo. A total of 136 participants were selected as the study sample using a simple random sampling technique. Data were collected through a structured questionnaire and analyzed using SPSS software to assess validity, reliability, and the relationship between variables. **Results:** The majority of respondents (51.47%) reported receiving good peer support, while a smaller proportion (16.18%) received poor peer support. Furthermore, most respondents (55.15%) demonstrated good menstrual hygiene behavior, whereas only 19.85% exhibited poor menstrual hygiene behavior. Statistical analysis revealed a p-value of 0.000 (< 0.05), indicating that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. **Conclusion:** Peer support has a significant effect on menstrual hygiene behavior among adolescent girls. Strengthening positive peer support may contribute to the improvement of menstrual hygiene practices and reproductive health outcomes among adolescents.

Keywords: adolescent girls; peer support; menstrual hygiene behavior; menstrual health; reproductive health

Introduction

Adolescence is a critical developmental period that marks the transition from childhood to adulthood and is characterized by significant physical, psychological, emotional, and social changes (Mitaba et al., 2024). Menstruation is a natural biological process and a sign of physical maturity experienced by every female during puberty (Juniva Namlaun Nikmah & Kustin, 2025). Nevertheless, menstruation remains a taboo subject in many

cultures, including Indonesia, which limits open discussions regarding menstrual hygiene management. This situation may contribute to poor menstrual hygiene practices, such as the use of inappropriate sanitary materials, infrequent replacement of sanitary pads, and improper cleansing of the genital area during menstruation (Laswini, 2022). Consequently, adolescent girls may be at an increased risk of reproductive tract infections, reduced physical comfort, and psychological challenges, including feelings of embarrassment and diminished self-confidence (Sommer et al., 2015). During adolescence, the reproductive system becomes increasingly vulnerable to urinary tract and reproductive tract infections as a result of heightened physiological and hormonal changes that occur during this developmental period (Avianty, 2020).

One of the most common challenges faced by adolescent girls is insufficient self-care during menstruation, particularly regarding menstrual hygiene practices such as the regular replacement of sanitary pads (Handayani et al., 2022). Many adolescent girls do not replace sanitary pads at appropriate intervals, even though prolonged use may facilitate bacterial proliferation and increase the risk of infection. As part of good menstrual hygiene practices, sanitary pads should be changed at least every six hours or immediately when they become saturated (Hansen et al., 2025). Failure to practice proper menstrual hygiene may increase susceptibility to genital and reproductive tract infections. Over time, repeated exposure to infections and chronic inflammation associated with poor menstrual hygiene practices may contribute to adverse cervical health outcomes and potentially increase the risk of cervical disease (Mitaba et al., 2024). Unhygienic genital care practices, including cleansing with contaminated water, excessive use of soap or fabric softeners, wearing damp or poorly breathable underwear, infrequent changing of undergarments, and inadequate replacement of sanitary pads, may facilitate bacterial proliferation and increase susceptibility to infections. In recent years, awareness of the importance of effective menstrual hygiene management has grown substantially in low- and middle-income countries, owing to its significant implications for women's health, educational attainment, and psychosocial well-being (Kustin, 2023). Evidence from studies conducted in Asia, Africa, and Latin America highlights multiple challenges faced by women and adolescent girls, including limited access to comprehensive menstrual health education, inadequate knowledge of menstrual self-care, insufficient access to clean water and sanitation facilities, and persistent sociocultural norms that stigmatize menstruation as a taboo topic. These barriers may lead to behavioral restrictions, psychological distress, and an increased risk of reproductive health complications among adolescent girls (S. Linda, 2019).

Data reported by the Indonesian Ministry of Health in 2019 showed that Indonesia's population reached 268,074,565 individuals, consisting of 133,136,131 males and 134,416,946 females. Adolescents constituted the largest age group within the population pyramid, with a total of 45,351,300 individuals. This demographic profile reflects a youth-dominated population structure, indicating that the proportion of adolescents is greater than that of other age groups. Given the substantial size of this population, efforts to promote adolescent health and well-being, particularly in the area of reproductive health, are of critical importance (Harahap, 2024). According to the World Health Organization (WHO), inadequate attention to external genital hygiene remains a significant concern among women worldwide. Consequently, millions of women, including adolescents, experience vaginal infections each year, particularly infections caused by *Candida* species. The burden of these infections remains substantial, with a notable proportion of affected women presenting symptoms such as abnormal vaginal discharge. This high prevalence is often attributed to insufficient knowledge of reproductive health and reproductive organ function among adolescents, coupled with limited access to education on proper hygiene practices during puberty. These factors may increase vulnerability to reproductive tract infections and adversely affect reproductive health outcomes (Amanda, 2022).

Failure to maintain adequate personal hygiene during menstruation may have substantial implications for reproductive health. Poor menstrual hygiene practices can increase susceptibility to reproductive and urinary tract infections, including vulvovaginal candidiasis (thrush), bacterial vaginosis, infections caused by *Chlamydia trachomatis* and *Trichomonas vaginalis*, urinary tract infections (UTIs), and pelvic inflammatory disease (PID). Beyond causing immediate discomfort and morbidity, these conditions may result in long-term reproductive health complications and potentially impair reproductive function when not appropriately managed (Avianty, 2020). Insufficient attention to genital hygiene among adolescent girls is recognized as a potential risk factor for pathological vaginal discharge. Pathological vaginal discharge is commonly considered an indicator of infection or abnormalities within the reproductive tract and is often associated with inadequate hygiene practices, including irregular replacement of sanitary pads, prolonged use of damp underwear, and improper genital cleansing. These behaviors may create favorable conditions for microbial growth and increase the risk of reproductive tract infections (Kustin et al., 2023). During adolescence, peer relationships become an influential aspect of social development, significantly affecting adolescent girls' attitudes, behaviors, and health-related practices (Kustin & Handayani, 2024b).

Peer support is a significant determinant of adolescents' knowledge, attitudes, and behavioral practices, including menstrual hygiene management. During adolescence, peers often function as key sources of information, social influence, emotional support, and experience sharing. This role becomes particularly important when addressing sensitive topics such as menstruation, which may be associated with embarrassment, stigma, or limited communication within the family and broader community. Consequently, positive peer support may contribute to the adoption of healthier menstrual hygiene practices among adolescent girls (Hennegan & Montgomery, 2016). Evidence from previous studies suggests that peer support is one of the most influential factors affecting menstrual hygiene behaviors among adolescent girls. Research has consistently reported a significant positive relationship between peer support and the adoption of appropriate menstrual hygiene practices. This influence is facilitated by supportive peer environments that encourage open communication, foster a sense of acceptance, and provide opportunities for experience sharing. Furthermore, adolescents often rely on their peers as trusted sources of reproductive health information in addition to their parents. As a result, peers play a crucial role in shaping health-related knowledge, attitudes, and behaviors, including menstrual hygiene management (Anggraeni *et al.*, 2023). Peers exert a substantial influence on adolescents' health behaviors, not only by providing social support but also by serving as behavioral role models. Through observation and social interaction, adolescents often imitate the attitudes and practices demonstrated by their peers, thereby facilitating the adoption of healthy behaviors and lifestyle habits (M. Linda *et al.*, 2020).

Peer support was found to be a significant predictor of menstrual hygiene behavior, with adolescent girls receiving peer support demonstrating 2.963-fold higher odds of practicing good menstrual hygiene compared with those who did not receive such support. This association may be explained by the fact that adolescents often perceive their peers as trusted and approachable sources of information, making them more comfortable discussing sensitive health issues. Consequently, peer support can enhance knowledge sharing, strengthen positive attitudes, and encourage the adoption of healthy menstrual hygiene practices among adolescent girls (Safira & Devy, 2023). Good menstrual hygiene management involves several essential self-care practices. Sanitary pads should be replaced three to four times daily, or at intervals of no more than four hours, to reduce the risk of bacterial growth and infection. Following bathing or defecation, the external genital area should be cleansed from front to back to prevent the transfer of microorganisms from the anal region to the genital tract. Maintaining dryness of the genital area by using a clean towel or

cloth after cleansing is also important. Furthermore, wearing underwear made from breathable, moisture-absorbing fabrics can help maintain genital comfort and hygiene, thereby supporting overall reproductive health (Avianty, 2020).

Evidence from previous studies indicates that peer support–based interventions are effective strategies for promoting healthy behaviors among adolescents, including those related to reproductive health. Research has consistently demonstrated that peer-led educational programs significantly enhance adolescents’ knowledge of menstrual health and improve menstrual hygiene practices among adolescent girls. In addition, several studies have identified a positive relationship between peer support and menstrual hygiene management behaviors. These findings highlight the important role of peers in facilitating health education, reinforcing positive behaviors, and fostering supportive environments that encourage the adoption of appropriate menstrual hygiene practices (Ramadhanti & Wijayanti, 2023). Although previous studies have demonstrated the beneficial role of peer support in improving adolescent health behaviors, limited evidence is available regarding the extent to which peer support influences menstrual hygiene behaviors within the diverse sociocultural settings of Indonesia. Understanding this relationship is essential for developing culturally appropriate and adolescent-centered health promotion strategies. Therefore, this study aimed to analyze the effect of peer support on menstrual hygiene behavior among adolescent girls. The rationale for this study was strengthened by findings from a preliminary assessment conducted by the researchers. A preliminary study was conducted in 2024 among seventh- and eighth-grade female students at SMP Negeri 3 Situbondo, Indonesia, using a structured questionnaire to assess knowledge of menstrual hygiene practices. The preliminary findings showed that 7 out of 10 students (70%) had insufficient knowledge regarding appropriate sanitary pad replacement practices during menstruation. These findings highlighted the need for further investigation into factors influencing menstrual hygiene behavior among adolescent girls, particularly the role of peer support. This observation suggests that gaps in menstrual hygiene knowledge and practices remain prevalent among adolescents. Given the potential influence of peer relationships during adolescence, further investigation is warranted to determine whether peer support contributes to the adoption of positive menstrual hygiene behaviors among junior high school students.

Methods

A quantitative observational study with a cross-sectional design was conducted among female students in grades VII and VIII at SMP Negeri 3 Situbondo. The study population comprised

204 students, from which 136 respondents were selected through simple random sampling based on predefined inclusion and exclusion criteria. The inclusion criteria were: (1) female students aged 15–18 years, (2) enrolled at the selected senior high school during the study period, (3) had experienced menarche, (4) were able to read and understand the questionnaire, and (5) agreed to participate by providing informed consent (and parental consent where applicable). The exclusion criteria were: (1) students who were absent during data collection, (2) students who declined to participate in the study, (3) students who submitted incomplete questionnaires, and (4) students with communication or cognitive impairments that prevented them from completing the questionnaire independently. Peer support was examined as the independent variable, while menstrual hygiene behavior served as the dependent variable. Data were collected using a validated and reliable self-administered questionnaire. Data were collected using a structured self-administered questionnaire consisting of two variables: peer support and menstrual hygiene behavior. The peer support questionnaire comprised 15 items, while the menstrual hygiene behavior questionnaire consisted of 12 items. All items were scored using a four-point Likert scale, with higher scores indicating better peer support and healthier menstrual hygiene behavior. Total scores were categorized as good (76–100%), moderate (56–75%), and poor ($\leq 55\%$). Instrument testing showed that all questionnaire items were valid ($r\text{-count} = 0.564 > r\text{-table}$) and reliable, with a Cronbach's alpha coefficient of 0.92, indicating excellent internal consistency. Ethical approval was obtained from the Health Research Ethics Committee of dr. Soebandi University (No. 117/KEPK/UDS/III/2023). Statistical analyses were performed using SPSS software to assess the effect of peer support on menstrual hygiene behavior analyzed using the Chi-square test. Statistical significance was determined at $p \leq 0.05$. Results with p -values below the significance threshold were considered indicative of a significant association between peer support and menstrual hygiene behavior among adolescent girls.

Results

The demographic profile of the respondents included both general and specific characteristics, namely age and age at menarche (the onset of first menstruation). These variables were analyzed to provide an overview of the study population and their reproductive health characteristics.

Table 1. Characteristics of the Respondents

Characteristic	Frequency	Percentage
Grade Level		
Grade VII	68	50.0
Grade VIII	68	50.0
Total	136	100

Age at Menarche		
11 years	15	11.03
12 years	32	23.53
13 years	35	25.74
14 years	54	39.70
Total	136	100

Source: Processed Primary Data

As shown in Table 1, the largest proportion of respondents was aged 14 years (39.70%), while the smallest proportion was aged 11 years (11.03%). Overall, the study participants were predominantly in the early to middle adolescent age range, with 14-year-old students comprising the majority of the sample.

Table 2. Distribution of Peer Support among Female Students in Grades VII and VIII at SMP Negeri 3 Situbondo

No	Category	Frequency	Percentage
1	Good	70	51.47%
2	Moderate	44	32.35%
3	Poor	22	16.18%
Total		136	100%

Source: Processed Primary Data

As shown in Table 2, most respondents reported receiving good peer support (51.47%), followed by moderate peer support (32.35%) and poor peer support (16.18%). Overall, the findings suggest that peer support was generally perceived positively among the participants.

Table 3. Distribution of Menstrual Hygiene Behavior among Female Students in Grades VII and VIII at SMP Negeri 3 Situbondo

No	Category	Frequency	Percentage
1	Good	75	55.15%
2	Moderate	34	25.00%
3	Poor	27	19.85%
Total		136	100%

Source: Processed Primary Data

As shown in Table 3, the majority of respondents exhibited good menstrual hygiene behavior (55.15%), followed by moderate behavior (25.00%) and poor behavior (19.85%). Overall, the findings suggest that menstrual hygiene behavior among the respondents was generally favorable, although nearly half of the participants still reported less-than-optimal practices.

Table 4. Cross-tabulation between Peer Support and Menstrual Hygiene Behavior among Female Students in Grades VII and VIII at SMP Negeri 3 Situbondo

Peer Support	Menstrual Hygiene						Total		p-value
	Good		Moderate		Poor		f	%	
	f	%	f	%	f	%			
Good	55	78.6	10	14.3	5	7.1	70	51.47	0.000
Moderate	18	40.9	16	36.4	10	22.7	44	32.35	
Poor	2	9.1	8	36.4	12	54.5	22	16.18	

Total	75	55.1	34	25.5	27	19.9	136	100
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Source: Processed Primary Data

As shown in Table 4, Based on the cross-tabulation analysis, the proportion of good menstrual hygiene behavior decreased as the level of peer support declined. Among adolescents with good peer support, 78.6% demonstrated good menstrual hygiene behavior, whereas only 9.1% of those with poor peer support exhibited good menstrual hygiene behavior. Pearson's Chi-square test showed a significant association between peer support and menstrual hygiene behavior ($\chi^2 = 36.84$, $df = 4$, $p < 0.000$).

Discussion

The findings demonstrated a statistically significant association between peer support and menstrual hygiene behavior among adolescent girls ($p < 0.001$), leading to the acceptance of the alternative hypothesis (H_a). These results suggest that peer support plays an important role in shaping menstrual hygiene practices during adolescence. In this context, peer support encompasses various forms of social assistance, including emotional encouragement, information sharing, motivation, and positive reinforcement, which may facilitate the adoption and maintenance of appropriate menstrual hygiene behaviors during menstruation. (Fadhillah et al., 2024). Such support includes the provision of information on proper external genital hygiene practices, such as washing hands before and after touching the genital area, and cleansing the genital region from front to back (vagina toward the anus) to prevent bacterial transfer. After urination, the genital area should be cleaned using mild soap, then dried with a clean and soft towel, while avoiding the use of shared or previously used towels. In addition, it is recommended to change underwear two to three times per day and to wear clean underwear made of 100% cotton to ensure adequate breathability and moisture absorption. Genital hygiene care also includes pubic hair removal at least once every seven days; however, it is generally advised that pubic hair grooming be performed at intervals not exceeding 40 days to maintain genital cleanliness. Furthermore, the use of sanitary pads that are comfortable, soft, highly absorbent, leak-proof, and non-irritating or non-allergenic is strongly recommended. Sanitary pads should ideally be changed at least four to five times per day to maintain hygiene and reduce the risk of infection. Peer support has been shown to be an effective approach in improving adolescents' reproductive health skills. One prominent strategy is peer counseling, which facilitates health education and behavioral change through peer-to-peer communication and support (Kustin & Handayani, 2024a).

Peer involvement plays a significant role in influencing menstrual hygiene behavior among adolescent girls, especially during menstruation. Peer interactions shape behavior through several mechanisms, including observational learning, social reinforcement, emotional support, and the establishment of shared social norms. Adolescents often observe and imitate the menstrual hygiene practices of their friends, particularly those they perceive as knowledgeable or influential (Juniva Namlaun Nikmah & Kustin, 2025). Positive feedback, encouragement, and open discussions among peers can strengthen self-confidence and increase motivation to adopt appropriate menstrual hygiene practices, such as changing sanitary pads regularly, maintaining genital hygiene, and seeking accurate reproductive health information (Handayani *et al.*, 2022). These processes are consistent with Social Cognitive Theory, which emphasizes that behavior is learned through observing others, reinforcement, and self-efficacy, as well as with social norm theory, where individuals tend to conform to behaviors accepted within their peer group (Bandura, 2022).

The development of health behavior through peer influence is generally a gradual process rather than an immediate outcome. Behavioral change commonly occurs over several weeks to months, depending on the frequency and quality of peer interactions, repeated exposure to positive health messages, and opportunities to practice the recommended behaviors. Evidence from school-based peer education interventions suggests that significant improvements in adolescents' health knowledge, attitudes, and hygiene-related behaviors are typically observed after intervention periods ranging from approximately 8 to 24 weeks, indicating that sustained peer support is essential for establishing lasting behavioral change (Dodd *et al.*, 2022). Therefore, although the present cross-sectional study cannot determine the duration of behavior formation, the findings support the notion that continuous positive peer support may contribute to the gradual adoption and maintenance of healthy menstrual hygiene behaviors (Kustin & Handayani, 2024b).

Various forms of peer support, such as informational assistance, emotional encouragement, social approval, and practical help, contribute to shaping and reinforcing appropriate and consistent menstrual hygiene practices. Behavior, in this context, refers to observable and learned actions that can be influenced by environmental and social factors, including peer interactions (Tirta Suminar & Nur Anisa, 2020). Based on the theoretical framework, peer support, as a component of reinforcing factors, plays a crucial role in shaping changes in menstrual hygiene behavior. Menstrual hygiene behavior during menstruation comprises a series of daily practices that, when grounded in adequate knowledge, not only improve individual health outcomes but also enable adolescent girls to function as role models

within their peer groups. This dynamic facilitates the diffusion of positive health behaviors and supports the adoption of appropriate menstrual hygiene practices among adolescents. (Notoatmodjo, 2021).

Adolescents generally demonstrate a tendency to be more receptive to their peers as primary sources of validation and information. Continuous exposure to accurate and appropriate information regarding menstrual hygiene practices may positively influence the development of healthy hygienic behaviors. Consequently, peer support plays a significant role in shaping and reinforcing menstrual hygiene behavior among adolescent girls. Adolescence is a critical developmental stage characterized by heightened peer influence on the formation of attitudes, values, and behavioral patterns (Rahmawati et al., 2024). During this developmental stage, adolescents typically spend more time with their peers than with family members. Consequently, peers serve as key sources of information, emotional support, and reference points in health-related decision-making processes, including those related to reproductive health. This increased peer interaction reinforces the influence of peer networks on adolescent health behaviors and perceptions (Santrock JW., 2019). Positive peer support can encourage adolescents to exchange information regarding menstruation, maintain proper menstrual hygiene practices, and provide motivational reinforcement for adopting appropriate health-related behaviors. Such supportive interactions within peer groups may facilitate the dissemination of accurate knowledge and promote the consistent practice of healthy behaviors during menstruation (WHO, 2023). The findings of this study are consistent with Bandura's Social Learning Theory, which posits that individuals acquire behaviors through observational learning and imitation of role models within their social environment. Among adolescents, peers often function as more influential and relatable behavioral models compared to adults. Consequently, when peer groups demonstrate appropriate menstrual hygiene practices, these behaviors are more likely to be observed, internalized, and replicated by other adolescents, thereby reinforcing the diffusion of healthy behavioral patterns (Bandura, 2022). Adolescent girls who receive peer support and peer-based education are more likely to adopt appropriate menstrual hygiene practices compared to those who do not receive such support. Peer support contributes to improved knowledge, enhanced self-confidence, and reduced embarrassment in discussing menstruation, which in turn facilitates more positive health-related behaviors. These psychosocial mechanisms highlight the important role of peer influence in shaping adolescent menstrual hygiene practices (Fadhillah et al., 2024). A supportive peer environment contributes to improved menstrual hygiene management practices among adolescent girls. Adolescents who are able to openly discuss menstruation with their peers are more likely to

develop a better understanding of the importance of regular sanitary pad changes, appropriate genital hygiene practices, and the use of suitable menstrual products. Such open communication within peer groups facilitates knowledge sharing and reinforces healthy menstrual hygiene behaviors (Kaur et al., 2018).

Based on the cross-tabulation findings, the proportion of good menstrual hygiene behavior declined as the level of peer support decreased. Based on the cross-tabulation findings, the proportion of good menstrual hygiene behavior decreased as the level of peer support declined. Adolescents who reported good peer support were more likely to demonstrate appropriate menstrual hygiene practices than those with poor peer support. This finding may be explained by the important role of peers during adolescence, a developmental stage in which young people spend considerable time interacting with friends and often seek advice, emotional support, and social acceptance from their peer groups. Positive peer support may facilitate the exchange of accurate information, encourage healthy practices, increase confidence in managing menstruation, and reinforce positive social norms regarding menstrual hygiene. Consequently, adolescents with supportive peer networks are more likely to adopt and maintain appropriate menstrual hygiene behaviors (Bandura, 2022) (Viner et al., 2012).

However, the findings also highlight a potential negative aspect of peer influence. Adolescents with poor peer support were less likely to practice good menstrual hygiene, suggesting that inadequate or unsupportive peer relationships may limit opportunities to receive accurate reproductive health information and positive behavioral reinforcement. Furthermore, if peer groups possess misconceptions or negative attitudes toward menstruation, these beliefs may be shared and normalized, potentially leading to inappropriate menstrual hygiene practices, persistent menstrual stigma, embarrassment in discussing menstruation, and reluctance to seek information from parents, teachers, or healthcare professionals. Therefore, while peer support can promote healthy behaviors, it may also contribute to the spread of misinformation and unhealthy practices when the peer environment is not supportive or lacks adequate reproductive health knowledge (WHO, 2023). Because this study employed a cross-sectional design, the observed association should not be interpreted as evidence of causality. Nevertheless, the findings suggest that strengthening positive peer support within schools may be an important strategy for promoting healthy menstrual hygiene behaviors among adolescent girls.

Among adolescents reporting good peer support, nearly eight in ten exhibited good menstrual hygiene behavior (Kustin et al., 2024). Conversely, only a small proportion of those with poor peer support demonstrated good menstrual hygiene practices. These results suggest

that peer social support plays a crucial role in shaping adolescent health-related behaviors. Peer support may operate through multiple mechanisms, including information sharing, motivational reinforcement, positive behavioral modeling, and emotional support during the physical and psychological transitions of puberty, thereby facilitating the adoption of appropriate menstrual hygiene practices (UNICEF, 2021).

The findings of this study highlight that peer support is a significant contributing factor to menstrual hygiene behavior among adolescent girls. Therefore, school-based reproductive health promotion programs should integrate peer education and peer support strategies to enhance appropriate menstrual hygiene practices. The development of structured, supportive, and educational peer groups is expected to sustainably improve adolescents' reproductive health knowledge and behaviors, while fostering a positive peer environment that reinforces healthy practices (WHO, 2023). This study has several limitations. First, the cross-sectional design does not allow causal relationships between peer support and menstrual hygiene behavior to be established. Second, the study was conducted in only one junior high school, which may limit the generalizability of the findings to adolescents in other settings or regions. Third, the data were collected using self-administered questionnaires, making the responses susceptible to social desirability and recall bias. Finally, although this study identified a significant association between peer support and menstrual hygiene behavior, other potential confounding variables, such as parental support, socioeconomic status, menstrual health knowledge, access to menstrual hygiene facilities, and cultural beliefs, were not controlled for and may have influenced the observed findings. Therefore, future studies employing longitudinal or experimental designs with more diverse samples and additional control variables are recommended to provide stronger evidence regarding the relationship between peer support and menstrual hygiene behavior.

Conclusion

In conclusion, adolescents with better peer support were more likely to report good menstrual hygiene behavior.. Peer support was found to have a significant influence on menstrual hygiene behavior among adolescent girls ($p < 0.05$), with higher peer support associated with better menstrual hygiene practices. These findings highlight the important role of peer support in promoting healthy menstrual hygiene behaviors during adolescence.

Author Contributions

All authors contributed significantly to this study. Author 1 (Agnes Monica Dewi) was responsible for the study conception and design, data collection, and drafting of the manuscript.

Author 2 (Kustin) contributed to data analysis, interpretation of the results, and critical revision of the manuscript. Author 3 (Nurul Maurida) assisted in data validation, literature review, and manuscript editing. All authors read and approved the final version of the manuscript and agreed to be accountable for all aspects of the work.

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