

## **The Effectiveness of Menstrual Education Module for Children and Adolescent Refugees: A Pilot Study**

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**Objectives:** Females across low- to middle-income countries have limited knowledge and understanding about menstruation prior to reaching menarche. One of the marginalised populations prone to this challenge is the female refugees in Malaysia. The objective of this pilot study is to evaluate the effectiveness of a menstrual health module developed for children and adolescent refugees.

**Methods:** This is a pilot intervention study among children and adolescents aged 9 to 17 years old attending a school for refugees and stateless children located in Selayang, Selangor. A menstrual health module was developed containing basic knowledge on reproductive organs, changes during menstruation, menstruation cycle, and menstrual hygiene management. Activities were carried out during this program to engage the participants. A set of 20 quiz questions were given, pre- and post-intervention. Scores from the quiz were compared using paired T-test to evaluate the effectiveness of the module.

**Results:** A total of 11 children participated in the program (mean age:  $12.8 \pm 1.3$  years). All of the participants are Muslims and the majority of them are Myanmar refugees (n=10, 90.9%). The majority stayed with their parents (n=9, 81.8%). About half of the participants have fathers who are without any education (n=6, 54.5%), while most of the fathers were working full time (n=9, 81.8%). The majority of the participants had a monthly household income of less than RM2500 (n=10, 90.9%). The post-intervention mean score for the quiz questions was significantly higher than the pre-intervention mean score ( $15.9 \pm 2.3$  and  $6.3 \pm 4.9$  for post- and pre-intervention, respectively) ( $p < 0.001$ ).

**Conclusion:** The menstrual education module was shown to be effective in increasing the knowledge of menstruation and menstrual hygiene among children and adolescent refugees. Rooms for improvements were identified for further revision of the menstrual health module.

**Keywords:** menstruation, period, refugees, menstrual hygiene education

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