

QUALITY AND SLEEP DURATION, EAT BEHAVIOR AT THE NIGHT AND ANEMIA IN ISLAMIC BOARDING SCHOOL STUDENTS

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ABSTRACT

Background: The dense activities of santriwati causes physical fatigue which possibly impairs the quality and duration of sleep. This condition mixed with unbalanced nutritional intake might impact the nutritional status and health conditions, such as anemia.

Aim: This study aims to analyze the relationship between sleeping habits and eating behavior at night, the relationship between eating behavior at night and the nutritional status, and the relationship between nutritional status and hemoglobin levels of santriwati.

Methods: This was an analytic observational study with a cross-sectional approach held at the Askhabul Kahfi Islamic Boarding School in Semarang City. There were 137 samples of santriwati with an age range of 15-18 years old who had randomly selected by a simple random sampling method. Nutritional status data were from body weight and height measurements and processed by the WHO Anthroplus application based on BMI/Age. Sleep quality and duration were measured from the PSQI. Food behavior data at night were from the NEQ questionnaire, then confirmed by the 3x24 hour recall method and were processed by Nutrisurvey. Hemoglobin level was measured by the cyanmethemoglobin method to determine the anemia status. Bivariate analysis performed by Spearman Test.

Results: Santriwati with more nutritional status accompanied by anemia (28.2%) are greater than santriwati with less nutritional status accompanied by anemia (16%). Sleep quality are closely related to eating behavior at night ($p=0.001$; $r=0.365$), while sleep duration has no significant relationship with eating behavior at night ($p>0.05$). Eating behavior at night positively correlates with nutritional status ($p=0.006$; $r=0.232$). There is a significant relationship between nutritional status and hemoglobin levels, with the direction of the relationship being reversed ($p=0.048$; $r=-0.169$).

Conclusion: Poor sleep quality is associated with increased eating behavior at night. Excessive eating behavior at night has a correlation with increased nutritional status and higher nutritional status is associated with lower hemoglobin levels in santriwati.

Keywords: hemoglobin level, sleep quality, sleep duration, eating behavior at night, santriwati

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