A44 Knowledge, attitude, & practice (KAP) on iron deficiency anemia (IDA) and its associations on the hemoglobin concentration among female students in Universiti Putra Malaysia (UPM)

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Insufficient iron-containing foods consumption is one of the main causes of iron deficiency, which later resulted in anemia. However, poor KAP towards IDA has also been demonstrated to contribute to the IDA development. Thus, a cross-sectional study aimed to determine the KAP on IDA and its association with hemoglobin (Hb) concentration was carried out among 171 female students with mean age±SD of 22.18±1.37 years. A self-administered socio-demographic and FAO KAP questionnaires were used to assess participant's personal background and KAP levels. Height and weight were measured to obtain body mass index, whilst Hb concentration was assessed using HemoCue Hb 201+ Analyzer with WHO cut-off of <12.0 g/dL considered as anemia. The KAP levels were classified by scores (poor: <50.0%; satisfactory: 50.0-65.0%; good: >65.0%), attitude (negative: <60.0%; positive: ≥60.0%) and practice (poor: <50.0%; good: ≥50.0%). Pearson correlation test was used to determine the associations between intended variables (p<0.05). The prevalence of anemia was 38.6 % with mean±SD Hb concentration of 12.13±1.53 g/dL. Majority of the participants had good knowledge level (43.3%) (mean±SD: 56.99 ± 17.20%), negative attitude level (76.0%) (mean±SD: 46.15±23.21) and poor practice level (59.1%) (mean±SD: 46.53±21.6%). The study found no significant association between knowledge (r=-0.101, p=0.187), attitude (r=-0.104, p=0.174), and practice (r=-0.109, p=0.156) with Hb concentration. However, significant association was observed between knowledge and attitude (r=0.295, p=0.000) suggesting increase in knowledge led to improvement in attitude. This study did not observe significant increase in KAP levels leading to improvement in Hb concentration as hypothesized, which may only influence iron-rich food consumption, but not to the extent to improve iron status in general.