Nutrition knowledge and behaviors among urban adolescent girls in lower secondary schools, Vientiane Capital, Lao PDR

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Introduction

- **Underweight and overconsumption** are common among adolescent girls in LMICs.
- **Overweight occurs alongside persistent burdens of underweight**, is **higher in women** versus men, and **in urban compared with rural** settings.
- Poor dietary intake includes high consumption of high fat and sweet foods, and inadequate fruits and vegetables. These poor dietary habits are problematic for health throughout the lifespan.

This study investigate the nutrition-related knowledge and practices of adolescent girls in lower secondary schools in Vientiane Capital, Lao PDR, and the factors that affect their practices.

Methods

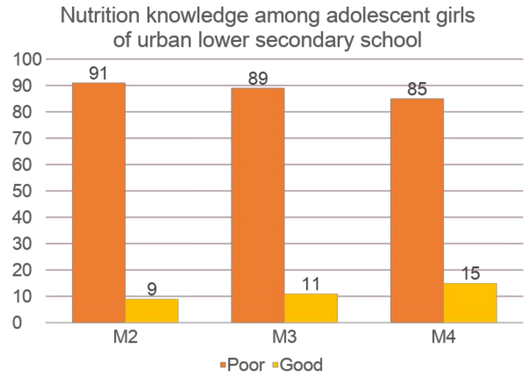
- School based-cross sectional survey to assess adolescent girls' nutrition practice
- 410 adolescent girls selected using simple random sampling from eight lower secondary schools in Vientiane Capital
- Nutrition questions from Global School-based Student Health Survey. Knowledge items based on school curriculum
- Anthropometry was used to measure weight and height to formulate body mass index.
- Study approved by IRB of UHS Ethical Committee

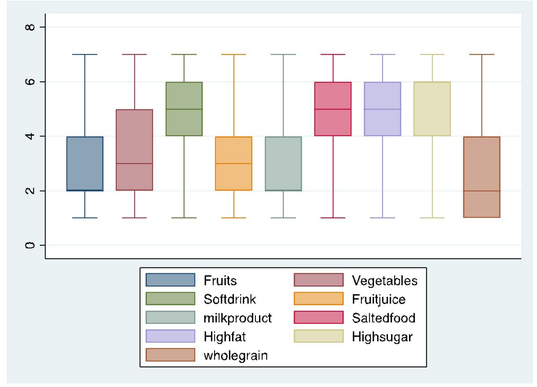
Data Analysis: Data were cleaned and analyzed in Stata version 17.0

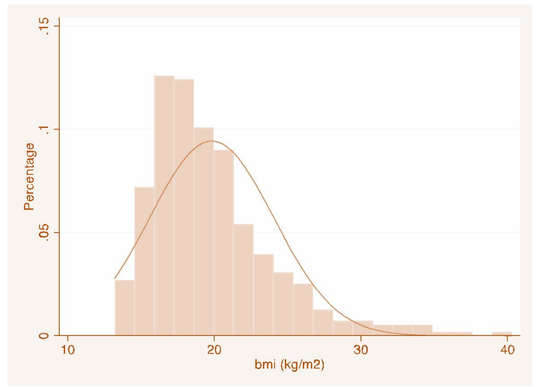
- Descriptive statistics calculated for sociodemographic characteristics, nutrition knowledge, eating habits, attitude to their eating habits and sources of nutrition information.
- Logistic regression was used to assess factors associated with eating behaviors. Multiple logistic regression used to report adjusted odds ratio, 95% CI

Results

Majority of participants (70%) were from public school and proportions of each class were almost equal among 2nd, 3rd and 4th year (35%, 30% & 35%, respectively). Age ranged from 11 to 17 years of age (SD $\pm$ 13). Mainly, they live with their parents (91.2%) and about 47% had more than one sibling. **Good nutrition knowledge increased with class progression, while good behaviors decreased.** Figure and table below demonstrate their nutrition knowledge, proportion eating, BMI and associated factors to nutrition practice.







Variables	n (%)	OR	95%CI	P-value	aOR	95%CI	P-value
Type of participants' class							
2nd year	144 (35.12)	Ref			Ref		
3rd year	123 (30.33)	0.4	0.3 - 0.8	0.003	0.4	0.2 - 0.7	0.001
4th year	143 (34.88)	0.6	0.4 - 1.0	0.071	0.5	0.2 - 0.9	0.027
Age of participants							
	135 (32.9)	Ref			Ref		
> 13 years of age	275 (67.1)	0.9	0.7 - 1.1	0.293	1.2	0.9 - 1.6	0.336
Ethnicity of participants							
Lao-tai	376 (91.7)	Ref			Ref		
Non- Lao tai	34 (8.3)	0.6	0.3 - 1.3	0.182	0.5	0.2 - 1.0	0.056
Religion of participants							
Buddhist	386 (94.2)	Ref			Ref		
Non-Buddhist	24 (5.8)	2.0	0.7 - 6.1	0.201	3.1	0.9 - 9.9	0.063
Occupation of their parents							
Don't have occupation	14 (3.4)	Ref			Ref		
Has occupation	396 (96.6)	2.6	0.9 - 7.7	0.076	3.1	1.0 - 9.8	0.046
Knowledge on nutrition							
Poor knowledge	362 (88.3)	Ref			Ref		
Good knowledge	48 (11.7)	0.8	0.4 - 1.5	0.410	0.8	0.4 - 1.5	0.468

Girls had low nutrition knowledge and good nutrition behaviors, but still consume much fatty, salty, and sweet foods and sugar-sweetened beverages. Girls with employed parents had significantly higher odds of healthy behaviors. Sociodemographic factors play an important role in their eating habits. Recommendations for stakeholders, particularly schools and parents, should play more attention to their eating pattern such as salted food, fatty, sweetness, and carbonate soft drink. Future studies should explore eating practices in-depth, using qualitative approaches w the parents of adolescent girls, and by using 24-hour recall and photo reports of daily eating practices with adolescent girls.

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References

Kamat S, Sengupta R. Nutrition intervention for improvement of knowledge on anaemia prevention among adolescent girls in Mumbai (16-19 years). Nutrition 2019;4:136–9.Shahabuddin A, Talukder K, Talukder M-K, Hassan M, Seal A, Rahman Q, et al. Adolescent nutrition in a rural community in Bangladesh. Indian J Pediatr 2000;67:93–8.

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