THE RELATIONSHIP BETWEEN PHYSICAL INACTIVITY AND SUBSTANCE USE DISORDERS AMONG ADOLESCENTS IN MALAYSIA.

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Introduction

- Tobacco use, physical inactivity, and the harmful use of alcohol are modifiable behavioural risk factors for chronic disease and premature death.
- These risky behaviours are often interconnected, and individuals who engage in these behaviours are at a higher risk of experiencing adverse health outcomes, with 830,000 deaths annually can be attributed to insufficient physical activity [1].
- This study explored the relationships between physical inactivity and substance use disorders.

Methodology

- The study utilized data from the nationwide cross-sectional Adolescent Health Survey 2022, with 33,523 school-going adolescents participating in this survey.
- This self-administered survey used the Global School-based Student Health Survey core questionnaire modules.
- Physical inactivity was defined as not being physically active for at least 60 minutes daily for five days or more in the past seven days.
- Descriptive and bivariate analyses were performed using SPSS version 26.0.

Discussion

- Substance use disorder and physical inactivity are largely incongruent behaviours and are influenced by multiple factors. Our discovery of the substantial prevalence of physical inactivity contradicts commonly held beliefs.
- For example, according to a systematic review by Dodge et al., higher rates of alcohol consumption are associated with higher levels of physical activity; however, there is no clear evidence in the published literature as to which variable is driving this relationship or whether it is reciprocal [2].
- We found that the adolescents that never used drug was higher prevalence in physical inactivity. However, a longitudinal population study reported that the persistent inactivity increased risk for drug use [3].
- In addition, a local study reported that smoking status was significantly related to the active physical activity, where smokers were 60 percent less physically active than nonsmoker [4].
- The study examined several potential interpretations. At the outset, health-conscious adolescents exhibiting risky behaviour may choose to participate in physical activity to mitigate potential harm. In addition, when adolescents gather for physical activities, the presence of peers may increase the likelihood of risky health behaviour initiation Despite this, these hypotheses have limited empirical testing, leaving the underlying rationale for the connection between these risky behaviour and physical activity somewhat obscure [5].

Results

- The prevalence of physical inactivity was 78.6% (95%CI:77.64,79.56), with a significant difference between males (71.9%,95%CI:70.58,73.19) and females (85.3%,95%CI:84.25,86.32). Physical inactivity was significantly more prevalent among Bumiputera Sarawak (83.7%,95%CI:84.25,86.32) and 13 years old students (80.2%,95%CI:78.61,81.67). (See Table 1)
- By substance use disorders, adolescents who ever drank alcohol (79.9%,95%CI:78.17,81.61) and never used drugs (78.7%,95%CI:77.75,79.70) were reported to have a higher prevalence of physical inactivity. In addition, the prevalence of physical inactivity was significantly higher among adolescents that currently not cigarette smokers (78.9%,95%CI:77.83,79.84) and not e-cigarette/vape users (79.4%,95%CI:78.34,80.40).

Table 1: Prevalence of physical inactivity among adolescents in Malaysia

Variables	Physical inactivity		p- value
	Prevalence (%)	95% CI	
Overall	**78.6**	**(77.64,79.56)**	
Sex			**<0.001***
Male	71.9	(70.58,73.19)	
Female	85.3	(84.25,86.32)	
Ethnicity			**<0.001***
Malay	78.3	(77.07,79.42)	
Chinese	81.9	(79.64,83.92)	
Indian	68.1	(64.68,71.36)	
Bumiputera Sabah	77.9	(74.37,81.11)	
Bumiputera Sarawak	83.7	(81.10,85.98)	
Others	79.8	(75.93,83.25)	
Age			**<0.001***
13 years old or younger	80.2	(78.61,81.67)	
14 years old	78.6	(76.85,80.30)	
15 years old	78.1	(76.38,79.79)	
16 years old	78.6	(76.95,80.24)	
17 years old	77.5	(75.50,79.32)	
18 years old or older	73.0	(65.58,79.28)	
Ever Alcohol Drinker			**<0.001***
Yes	79.9	(78.17,81.61)	
No	78.3	(77.20,79.26)	
Current Alcohol Drinker			**0.462**
Yes	78.1	(75.67,80.35)	
No	78.6	(77.60,79.57)	
Ever drug			**0.04***
Yes	75.1	(72.08,77.82)	
No	78.7	(77.75,79.70)	
Current Drug			**0.447**
Yes	74.9	(71.18,78.32)	
No	78.7	(77.65,79.62)	
Current Cigarette smoker			**<0.001***
Yes	74.9	(72.04,77.62)	
No	78.9	(77.83,79.84)	
Current E-cigarette/vape user			<0.001*
Yes	74.1	(72.25,75.81)	
No	79.4	(78.34,80.40)	

*P-value <0.05

Conclusion

- Health-related behaviours, including smoking, excessive alcohol consumption, drug use, and physical activity, are intricate and subject to diverse individual, social, and environmental influences. Personal inclinations, cultural standards, socioeconomic conditions, resource accessibility, and various other determinants shape decisions surrounding these behaviours.
- Therefore, it is essential to interpret these findings with caution and consider the broader context when examining the relationship between high-risk behaviours and physical inactivity.

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