



# Truancy among School-Going Adolescents in Malaysia and Its Associated Factors: Findings from the National Health and Morbidity Survey 2022

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## Abstract

**Background:** Truancy is correlated with variety of unfavorable outcomes that can negatively impact adolescents' development and well-being. We investigated the prevalence of truancy and its associated factors among school-going adolescents in Malaysia in 2022.

**Methods:** We used secondary data from the National Health and Morbidity Survey 2022. It is a cross-sectional study with a multistage stratified cluster sampling study design including 32,290 students aged 13 to 17 years old. It utilized the self-administered questionnaire from the validated Malaysian Global School-based Health Survey (GSHS). The associations between the truancy and its associated factors were examined using multivariate logistic regression, a complex sample analysis with sampling weightage.

**Results:** The prevalence of truancy was 25.6% (95% CI=24.25, 26.98). In the multivariate analysis, truancy was significantly associated with older age groups ( $P<0.001$ ), adolescents with separated/ divorced/ widowed parents ( $P<0.001$ ), those with current any tobacco product use ( $P<0.001$ ), those with ever drug use ( $P<0.001$ ), those who have been physically attacked ( $P<0.001$ ) and being bullied ( $P<0.001$ ).

**Conclusion:** Gender, age, parent marital status, and adolescents with risk behavior were associated with truancy. This information may provide evidence for the implementation of effective prevention and intervention strategies to reduce truancy among these school-going adolescents.

**Keywords:** Absenteeism; Truancy; Adolescent; Protective factor; Malaysia

## Introduction

Truancy is commonly defined as specified numbers of unexcused absences from school during a designated period (1). Truancy and related school attendance issues are a serious problem nationwide and are often addressed each year as it is closely associated with adult criminal behavior,

disaffection, unemployment, and subsequently marital disharmony (2). In Malaysia, truancy has always been a serious problem in many schools. It should not be taken lightly as it will lead to school dropout and many other antisocial activities such as substance abuse, alcohol consump-



tion, criminal damage, gang fights, and other offenses (3).

In a study among six Associations of Southeast Asian Nations (ASEAN) countries, the overall prevalence of past 30 days truancy among school children aged 13-15 years between 2007 to 2013 was 32.0% in Indonesia, 27.7% in Malaysia, 19.9% in Myanmar, 31.4% in Philippines, 18.2% in Thailand and 15.1% in Vietnam (4). The prevalence of truancy in a separate study in Ghana was 31.0% (5) and 36.5% (6) in 2012. In 2015, the prevalence of truancy was studied using GSHS by various countries for example in Kuwait (48.5%) (7), Mozambique (36.6%) (8), Timor-Leste (36.0%) (9) and Laos 40.7% (10). In Malaysia, the prevalence of truancy in 2012 was 30.8% (11) and was decreasing to 29.4% in 2017 (12). The prevalence of truancy is varied according to countries with an inconsistent trend.

Truancy was associated with various high-risk behaviors and caused adverse consequences for students. Truancy is a predictor of multiple health risk behaviors among adolescents. Adolescents who engage in truancy are at higher risk and display more serious externalizing behaviors such as alcohol and drug use, engaging in serious fights at school, selling illegal drugs, stealing, and attacking to cause serious harm intentionally (13). Truant adolescents may have poor academic performance, delinquency, school dropout, employment problems with poorly paid jobs, unwanted pregnancies, and also get involved in drugs and alcohol abuse (3, 14–16). Exploring the factors contributing to truancy provides an effective intervention to reduce the number of truants. Among these ASEAN member states, truancy was associated with older age, male, and externalizing behavior such as tobacco use, being involved in a physical fight, being bullied, and having sustained an injury (4-5,10). In Malaysia, the prevalence of truancy was associated with smokers, current drug users, current alcohol use, having been bullied, and not currently living with both parents (15-16).

In Malaysia, there are no updated nationally-representative studies on the prevalence of truancy and its associated factors among school-going

adolescents. Having information about truancy and its correlates can provide evidence to implement programs or to justify the effectiveness of policies. Therefore, we aimed to investigate the prevalence and factors associated with truancy among school-going adolescents in Malaysia.

## **Materials and Methods**

### *Sample design & Sample size*

We utilized secondary data from the National Health and Morbidity Survey (NHMS) 2022. It was a nationwide cross-sectional study using a multistage stratified cluster sampling design among school-going adolescents aged 13 to 17 years old, currently in Form 1 to Form 5 based on the local school categorization. The first stage was the selection of a secondary school. The sampling frame comprised all the national secondary schools registered in 2021 (both government and private schools) under the Ministry of Education and Ministry of Rural and Regional Development (MARA). An equal proportion was sampled from 13 states and 3 federal territories to ensure the representation of adolescents in each state/ federal territory. The primary sampling unit was secondary schools from all eligible schools in Malaysia with a total of 2,798 secondary schools. Subsequently, only 240 schools were selected randomly with probability proportional to enrolment (PPS) in Forms 1 to 5. The final sample size for each state was 2,250 students. The second stage involved the selection of classes (secondary sampling unit). The list of students in the class for selected schools was used as a second sampling frame. Schools and classes were selected using systematic probability sampling with a random start. Finally, all students in the selected classes were eligible to participate in the survey (17-18).

A total of 33,523 students were included in this study with a response rate of 89.4%. Students with any missing data were excluded from this analysis (n= 1,233). Finally, 32,290 students were included in this study.

### Data Collection

This study used the Global School-based Student Health Survey (GSHS), a self-administered questionnaire from the WHO designed to measure and assess health behavior and protective factors among school-going adolescents. Only students with parental/ guardian consent and assent were included in this study. The questionnaire was answered on the optical mark recognition (OMR) answer sheet. The OMR answer sheet was scanned and data captured were verified by

trained verifiers. The completed dataset was finally saved on the server for data analysis purposes. Data collection was conducted from June to July 2022.

### Variable definition

The study variables used in this study were based on GSHS questionnaires. The sociodemographic and studied variables used are described in Table 1.

**Table 1:** Operational definitions of study variables

<i>Variables</i>	<i>Questions</i>	<i>Response options</i>
Age (yr)	“How old are you?”	1= 13 years old or younger, 2= 14 years old, 3= 15 years old, 4= 16 years old, 5= 17 years old, 6= 18 years old or older (Coded 1= 1, 2= 2, 3= 3, 4= 4, 5-6= 5)
Gender	“What is your sex?”	1= Male, 2= Female
Ethnicity	“What is your ethnicity?”	1= Malay, 2= Chinese, 3= Indian, 4= Bumiputera Sabah, 5= Bumiputera Sarawak, 6= Others (Coded 1= 1, 2= 2, 3= 3, 4-6= 4 (Others))
Form (year of study/ grade)	“Which form/class are you in?”	1= Form 1, 2= Form 2, 3= Form 3, 4= Form 4, 5= Form 5 (Coded 1-3= 1 (lower secondary students) and 4-5= 2 (upper secondary students))
Marital status of parents	“What is the marital status of your parents?”	1= married and living together, 2= married but living apart due to working in another place, 3= divorced, 4= widows or widowers (my mother or father has died), 5= separated (my parent do not live together) (Coded 1-2= 1 (married) and 3-5=2 (separated/ divorced/ widowed))
Truancy	“During the past 30 days, on how many days did you miss classes or school either physically or virtually without permission?”	1= 0 day/ never, 2= 1 or 2 days, 3= 3 to 5 days, 4= 6 to 9 days, 5= 10 or more days (Coded 1= no and 2-5= yes)
Current any tobacco product use	“During the past 30 days, did you use any of the tobacco products listed below?”	1= manufactured cigarettes, 2= shisha/hookah, 3= traditional hand rolled cigarettes, 4= roll-your-own cigarettes with cigarette papers, 5= cigar/cigarillos, 6= pipe smoking, 7= electronic cigarette (e-cig)/vape, 8= chewing tobacco, 9= snuff, 10= heated tobacco products (Each answer options were coded to categorical variables of yes or no, any yes answer was considered as current tobacco use)
Ever drug use	“During your life, how many times have you used drugs?”	1= 0 time/ never, 2= 1 or 2 times, 3= 3 to 9 times, 4= 10-19 times, 5=20 or more times (Coded 1= no and 2-5= yes)
Been physically attacked	“During the past 12 months, how many times were you physically attacked?”	1= 0 time/ never, 2= 1 time, 3= 2 or 3 times, 4= 4 or 5 times, 5= 6 or 7 times, 6= 8 or 9 times, 7= 10 or 11 times, 8= 12 or more times (Coded 1= no and 2-8= yes)
Being bullied	“During the past 30 days, on how many days were you bullied?”	1= 0 day/ never, 2= 1 or 2 days, 3= 3 to 5 days, 4= 6 to 9 days, 5= 10 or 19 days, 6= 20 to 29 days, 7= All 30 days (Coded 1= no and 2-7= yes)

**Statistical analysis**

Statistical analysis was done using complex sample analysis with sampling weightage. A weighting factor was applied to each student record to adjust for non-response and varying probabilities of selection. Weight estimation was calculated by:

$$W = W1 \times W2 \times F \times PS$$

W1= the inverse of the probability of selecting the school, W2= the inverse of the probability of selecting the class within the school, F= the inverse of a school, class, and student level non-response adjustment factor, PS= a post stratification adjustment factor calculated by class and gender.

Survey-weighted descriptive statistics were applied to provide nationally representative estimates. Multivariate logistic regression was used to determine the associations of truancy and its associated factors. Significant variables (with a *P*-value < 0.25) in the univariate analysis were subsequently included in the multivariable model (19-20). An adjusted odd ratio with a *P*-value < 0.05 was considered significant. All analyses were conducted with SPSS version 29 (IBM Corp., Armonk, NY, USA).

**Ethical approval**

This study was approved by the Medical Research & Ethics Committee (MREC) of the Ministry of Health Malaysia (NMRR-21-157-58261)

followed by approval from the Educational Planning and Research Division, Ministry of Education. There is no consent required to conduct this analysis because the database used consists of de-identified secondary data released for research purposes. This study was conducted in compliance with the ethical standards outlined in the Declaration of Helsinki and Ministry of Health Malaysia guidelines and regulations.

**Results**

**Sample characteristics**

Overall prevalence of truancy among school-going adolescents aged 13 to 17 years old in Malaysia for 2022 was 25.6%. Table 2 presents the characteristics of school-going adolescents in this study. The proportion was higher among males with 26.6% compared to females with 24.5%. Truancy was higher among the older age. Almost 32.2% of these students have a separated/ divorced/ widowed parent. Among the truant, 38.0% were currently using tobacco products, 36.1% ever drug use, 35.7% had been physically attacked and 36.4% were being bullied.

Fig. 1 shows the prevalence of risk behavior among the truant school-going adolescent in Malaysia by gender.

**Table 2:** Characteristics of school-going adolescents in Malaysia

Variable	Total sample		School truancy	
	Unweight frequency (n)	Weighted percentage (%)	Unweight frequency (n)	Weighted percentage (%)
All	32,290		8,212	25.6
Gender				
Male	14,768	49.4	3,936	26.6
Female	17,522	50.6	4,276	24.5
Age (yr)				
13	6,713	20.9	1,327	19.6
14	6,603	20.8	1,477	22.7
15	6,307	20.5	1,586	25.4
16	6,551	19.0	1,865	29.1
17	6,116	18.9	1,957	32.0
Ethnicity				
Malay	22,396	63.3	6,203	28.5
Chinese	4,868	18.1	640	13.3

Table 2: Continued ...

Indian	1,467	5.9	299	20.3
Others	3,559	12.6	1,070	31.0
Form				
1-3	19,654	62.3	4,387	22.6
4-5	12,636	37.7	3,825	30.6
Marital status of parents				
Married	27,550	85.2	6,710	24.4
Separated/divorced/widowed	4,740	14.8	1,502	32.2
Current any tobacco product use				
Yes	5,597	18.2	2,111	38.0
No	26,693	81.8	6,101	22.8
Ever drug use				
Yes	1,550	5.1	575	36.1
No	30,740	94.9	7,637	25.0
Been physically attacked				
Yes	4,656	14.6	1,618	35.7
No	27,634	85.4	6,594	23.8
Being bullied				
Yes	2,659	8.4	947	36.4
No	29,631	91.6	7,265	24.6

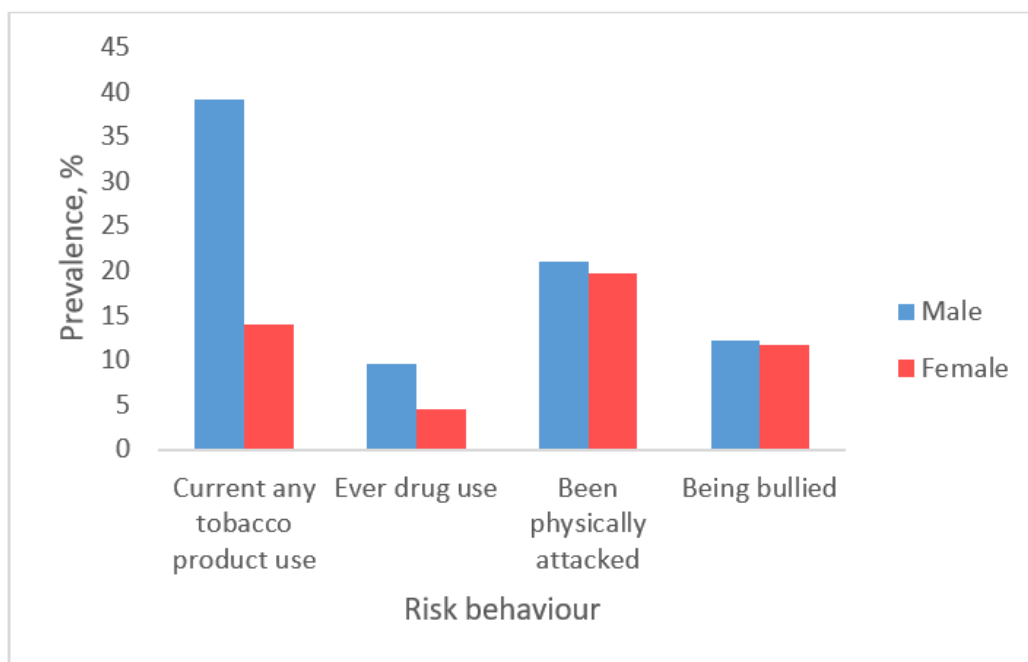


Fig. 1: Prevalence of risk behavior among truant school-going adolescents in Malaysia, by gender

### Factors associated with truancy

Table 3 shows the results of the multivariate logistic regression for factors associated with truancy, with crude and adjusted odds ratio (aOR) and their 95% confidence interval (CI). Results from bivariate analysis showed that being male, older

age, Chinese and Indian ethnic, upper secondary class, separated/ divorced/ widowed parents, current any tobacco product use, ever drug use, being physically attacked, and being bullied were significantly associated with truancy among the adolescents.

**Table 3:** Factors associated with truancy among school-going adolescents in Malaysia

<i>Variable</i>	<i>Unadjusted Odds Ratio (95% CI)</i>	<i>Adjusted Odds Ratio (95% CI)</i>
Gender		
Female	1.00	1.00
Male	1.12 (1.04-1.20) **	0.99 (0.92-1.07)
Age (yr)		
13	1.00	1.00
14	1.20 (1.07-1.34) **	1.20 (1.07-1.34) **
15	1.40 (1.22-1.60) ***	1.43 (1.25-1.64) ***
16	1.68 (1.46-1.94) ***	1.70 (1.16-2.49) **
17	1.93 (1.72-2.16) ***	1.92 (1.31-2.81) ***
Ethnicity		
Malay	1.00	1.00
Chinese	0.39 (0.32-0.47) ***	0.36 (0.29-0.45) ***
Indian	0.64 (0.50-0.81) ***	0.63 (0.49-0.79) ***
Others	1.13 (0.99-1.30)	1.01 (0.87-1.16)
Form		
1-3	1.00	1.00
4-5	1.51 (1.39-1.64) ***	1.03 (0.73-1.44)
Marital status of parents		
Married	1.00	1.00
Separated/divorced/widowed	1.47 (1.34-1.63) ***	1.35 (1.23-1.49) ***
Current any tobacco product use		
Yes	2.08 (1.90-2.27) ***	1.66 (1.52-1.82) ***
No	1.00	1.00
Ever drug use		
Yes	1.69 (1.49-1.92) ***	1.27 (1.12-1.46) ***
No	1.00	1.00
Been physically attacked		
Yes	1.77 (1.62-1.94) ***	1.58 (1.44-1.74) ***
No	1.00	1.00
Being bullied		
Yes	1.76 (1.57-1.97) ***	1.44 (1.27-1.64) ***
No	1.00	1.00

Note: \*\*\*  $P < 0.001$ ; \*\*  $P < 0.01$ ; \*  $P < 0.05$ . The model fitness was 74.6%

In multiple logistic regression analysis, truancy was significantly associated with older age and among those with separated/ divorced/ widowed parents. By ethnicity, Chinese and Indian were less likely to be truant compared to the Malay. Truancy was associated with current any tobacco product use (aOR= 1.66; 95% CI= 1.52, 1.82), ever drug use (aOR= 1.27; 95% CI= 1.12, 1.46), being physically attacked (aOR= 1.58; 95% CI= 1.44, 1.74) and being bullied (aOR= 1.44; 95% CI= 1.27, 1.64).

## Discussion

The prevalence of truancy among adolescents in Malaysia in 2022 was 25.6%. It showed a decreasing trend compared to the Adolescent Health Survey in 2012 which was 30.8% (11) and 29.4% in 2017 (12). Around the world, truancy still commonly occurs and is a serious problem associated with numerous negative outcomes. These findings were lower compared to GSHS 2015 in Mozambique with 36.6% (8) and in Timor-Leste with 36.3% (9). However, there is no recent study using GSHS, specifically to study the impact of COVID-19 endemic on school attendance prob-

lems. The challenge of the COVID-19 pandemic required these adolescents to make significant psychological and lifestyle adjustments to cope with during pandemic and endemic before school re-openings (21-23).

Our study found that truancy was significantly associated with socio-demographic factors of older age adolescents and adolescents with separated/ divorced/ widowed parents. These findings were similar to the National Survey on Drug Use and Health (NSDUH) in the US which is significantly higher for older adolescents compared to younger adolescents considering the trend of truancy by age (24-25). The older adolescents were more likely to miss school because they were more likely to engage in externalizing and delinquent behavior, and more freedom to play truant due to being not closely monitored within the school environment compared to younger adolescent (6). Younger adolescents were less likely to be truant due to strict supervision by the parent or guardian (26-27).

According to this study, Chinese and Indian ethnicities were less likely to have skipped school. However, other research showed that the impact of truancy among different ethnicities was significantly associated with the environment in the school, the environment outside the school, and school administration factors (28). These cultural differences were also due to the differences in the socio-economic status of the family.

There was also a significant association between parental marital status and truancy. These findings were similar to a study in Kuala Lumpur using the Youth Self Report tool that showed a significant association between truancy and having divorced parents (29-30) and single parents (25). Adolescents from separated/ divorced parents received less social support and supervision which eventually attributed to the risk of delinquency (30). In Pakistan family-related factors such as divorce, separation, remarriage, and being in a joint family were the major contributors to truancy by adolescents due to stress (31).

This study found that truancy was significantly associated with adolescents involved in current any tobacco use, ever drug use, being physically

attacked, and being bullied. Pengpid and Peltzer also found a similar association of truancy with externalizing behaviors which is current tobacco use, lifetime amphetamine use, having been physically attacked, and being bullied (10). These findings were similar to Mozambique adolescents who used tobacco and were more likely to be truant due to having more unsupervised time to engage in tobacco and alcohol use (8).

In a separate study by Fadhli et al, adolescents who ever used drugs were associated with truancy (32). Truant adolescents were more likely to engage in substance use and deviant behavior suggesting truancy as part and parcel of an externalizing behavior spectrum (13). Substance use can affect cognitive functioning, motivation, and decision-making, and eventually affect their attendance at school and academics (9).

Those who experienced bullying victimization also committed truancy to escape further victimization (8,26-27,33). Adolescents who experience bullying are more likely to be truant in school because they find the school environment threatening and decide to dissociate from the threat as a coping response, eventually committing truancy (9). Adolescents who sustained injury and engaged in physical fights were significantly associated with truancy, due to various reasons such as the need for further medical attention, fear of being involved in another fight, or feeling too embarrassed to be laughed at for losing a fight (5).

Knowing the causes of truancy can help in formulating a plan of action. The Ministry of Education (MoE) in collaboration with the Royal Malaysia Police launched a "*Jom Ke Sekolah*" (Let's Go to School) program. This program is carried out every year on the 1<sup>st</sup> day of school or during the transition week to prevent students from skipping school, or engaging in criminal or immoral activities both in and out of school.

There are a few limitations in this study. It is a self-reported questionnaire and there may have been a recall bias. In addition, the data were collected only from students who were available on the day of the study, thus, it may not accurately represent the views of the absent students either

with excuses or those who have negative attitudes towards school that may have responded differently. However, assurance of confidentiality with teacher absence during the data collection will increase the reliability of this study. Despite all the limitations, the strength of this study was the utilization of data from a nationwide study with a high response rate, and representative sample from all school-going adolescents in this country. Future studies should be done to study the association of truancy with protective factors for example peer pressure and parental or guardian-related factors. This can also be included to explore the reasons for them to be truant.

## Conclusion

One out of four school-going adolescents aged 13 to 17 years old in Malaysia commit truancy. Understanding that truancy varies by sociodemographic factors such as gender, age, parent marital status, and among the adolescents with risk behavior is crucial to develop specific prevention or intervention strategies towards these adolescents' groups. Implementation of awareness such as anti-bullying or extra monitoring towards them may be effective in reducing truancy, in line with the transformation of the Malaysian education system to be effective and sustainable in line with Malaysia Education Blueprint 2013-2025.

## Journalism Ethics considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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## Conflict of Interest

None of the authors declared a conflict of interest.

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