

Association of Truancy and Health Risk Behaviours among School-Going Adolescents in Malaysia

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Abstract

Truancy may act as a precursor or a consequence of many behavioural problems that might have potentially deleterious effects. This study examined factors associated with truancy among 27,497 school-going adolescents. Data were obtained from the National Health and Morbidity Survey 2017, a cross-sectional survey which targeted Malaysian school-going adolescents aged 13 to 17 years. A two-stage stratified cluster sampling was applied and data collection was conducted using validated self-administered questionnaire. Descriptive and multiple variables' logistic regression analysis was applied and p value < 0.05 was considered as a statistically significant result. Overall prevalence of truancy among school-going adolescents in Malaysia was 29.4% (27.78, 31.06). Truancy among Malaysian adolescent is associated with ever drug user [AOR = 2.51; 95% CI: (2.18, 2.90)], current cigarette smoker [AOR = 2.02; 95% CI: (1.86, 2.19)], other ethnicity [AOR = 1.41; 95% CI: (1.18, 1.68)], adolescent's parents who live apart [AOR = 1.38; 95% CI: (1.28, 1.47)], being bullied [AOR = 1.37; 95%-CI = (1.28, 1.47)], older aged [AOR = 1.37; 95% CI: (1.30, 1.45)] and male [AOR = 1.09; 95% CI: (1.03, 1.15)]. Truancy has been associated with various health risk behaviours that may influence its development and adulthood health status. Investigation on the true cause of truancy among adolescent may highlight the underlying problems and plan for further intervention.

Keywords

Associated Factor, Malaysia, School-Going Adolescent, Truancy

1. Introduction

Truancy among school-going adolescents remains an unsolved issue for many

years faced by education system globally. Increasing trends in truancy cases have drawn the attention not only from the educators and family, but also the public, since truant behaviour may lead to juvenile delinquency [1] [2]. In Malaysia, despite an increasing number of truancy cases and abundance of preventions taken to overcome this issue, truancy continues to exist as the number one discipline problem with 1.4 percent equivalent to 67,053 students from approximately five million of primary and secondary student all over Malaysia according to Ministry of Education records in 2017. Truancy was found to be the highest among secondary school students in Malaysia, and the second highest among eight types of discipline misbehaviour listed by Ministry of Education [3] [4]. Studies carried out in Malaysia show that the rate of student playing truant ranges from 20% to 40%. [3] [5].

Truancy is a psychiatric implication where it is a way for adolescents to express their feeling in dealing with school failures [6] [7]. It is also a self-esteem's interaction of the adolescent and peer pressure reflex [8]. Poor school engagement and less parental involvement may also lead to low grades and might turn to be the determinants of truancy [9]. Emphasizing on punishment instead of reward by some of the school systems might worsen truancy and reduce motivation of the student to go to the school [10]. A lot of studies focus on truancy as the determinants of the misbehaviour, which overlooked the potential factors contributing to truancy. Misbehaviour such as smoking, illicit drug misuse, alcohol, violence and bully has shown to be the contributing factor of truancy [11] [12]. A study in the United State reported that, being bullied in school has a strong association with risk of frequently absent [13]. This indicates that preventing the negative behaviour among school-going adolescent in school is vital in reducing truancy cases. Focusing on the positive behaviour of the youth and increasing school involvement in motivating them towards academic and life skills will reduce negative behaviour and promote optimal positive growth of the school going adolescent [14]. Therefore, this study aimed to identify the prevalence and associated factor of truancy among Malaysian adolescents aged 13 to 17 years old and give an overview on different perspectives in reducing truancy.

2. Methodology

2.1. Sampling Design

This cross-sectional, school-based study used two-stage stratified sampling design according to the national school frame to ensure national representativeness. Target population in the National Health Morbidity Survey 2017: Adolescent Health (NHMS 2017) was all school going adolescent aged 13 to 17 years old in randomly selected secondary schools. Students with mental retardation and from special education class were excluded from the survey.

2.2. Data Collection

A structured and validated questionnaire developed by WHO and the Centers

for Disease Control and Prevention (CDC) in collaboration with UNICEF, UNESCO, and UNAIDS in 2001 is used in the survey [15]. Local adaptation and validation of the questionnaire was performed before the data collection phase [16]. This study was conducted in the school where school-going adolescent completed self-administered questionnaires upon giving their consents. For accessing truant behavior, school-going adolescent were asked “During the past 30 days, on how many days did you miss classes or school without permission”. Those who answer miss classes for 1 to 30 days were considered playing truant.

2.3. Statistical Analysis

Statistical Package for Social Science (SPSS) version 20 software was used for data analysis [17]. Descriptive and summary statistic was carried out for the prevalence of truancy among the school-going adolescent. Bivariate/multivariate logistic regression analyses were used to determine the associated factors of truancy among school going adolescents in Malaysia. Association between truancy with socio-demographic characteristic, ever drug use, current cigarette smoking and being bullied were analysed using bivariate analysis. Crude odds ratio was used to measure the single association of dependent and independent variables. While for factors associated with truancy, multivariable logistic regression model was applied by including the independent variables. Significant variables with *p*-value less than 0.25, was counted into the final model. The adjusted OR was calculated with *p*-value less than 0.05 was considered significant.

2.4. Variable Definition

Truancy was defined as missing at least one day of class or school without permission in the past 30 days. Locality was categorized as urban and rural based on Department of Statistical Malaysia. Respondents were divided into two groups: 13 - 15 years old (*n* = 8229) and 16 - 17 years old (*n* = 4906). For ethnicity, Bumiputera Sabah and Bumiputera Sarawak refer to Sabahan and Sarawakian respectively. Others are those who do not belong to the above ethnic groups including aborigines (orang asli and foreigners) Marital status of parent was categorised into living together and living apart. Ever drug user was defined as school-going adolescents who had history of drug use in their lifetime. Current cigarette smoker refers to school going adolescent who smoked manufactured cigarette, rolled-your-own, or traditional hand roll cigarette in the past 30 days. While for being bullied, was referred to when a student or group of students were being attacked by other students in the past 30 days.

This survey was reviewed and approved by the Medical Research and Ethics Committee, Ministry of Health, Malaysia. All respondents were given an information sheet and a copy of signed consent form. For those who were illiterate, the information sheet and consent form were read to them and their thumb prints were taken in lieu of signatures.

3. Results

Overall response rate for this survey was 89.2% involving school going adolescent aged 13 to 17 years old. From 27,497 school going adolescents involved in this survey, 13,135 (49.6%) were male and 14,362 (50.4%) were female. In terms of ethnicity, 63.1% were Malays decent, followed by 16.7% Chinese decent, 7.0% Indian decent, 7.0% Bumiputera Sabah decent, 4.5% Bumiputera Sarawak and 1.8% Others. More than half of the schools going adolescent were those of younger age group. (60.7%) (**Table 1**). A total of 27,497 schools going adolescent responded to the truancy module. Among them, 7985 (29.4%) were found to play truant. High prevalence was found in male, old age, others ethnicity, parents living apart, ever drug user, current cigarette smoker and being bullied (**Table 2**). Univariate analysis showed significant association between truancy and socio demographic characteristic as well as other variables; ever drug user, current cigarette smoker and being bullied. Multivariate analysis showed determinants of truancy found to be male, old age, others ethnicity, parents living apart, ever drug user, current cigarette smoker and being bullied after controlling with other variables. Adjusted odd ratio values of these determinants were tabulate in **Table 3**.

4. Discussions

Overall prevalence of truancy among school going adolescent in Malaysia for 2017 was 29.4% which is comparable with previous studies conducted in Malaysia; 30.8% [18], 30.4% [3], and 34.4% [19]. These findings were found to be higher than other countries; 20.4% in Thailand [20], 21.6% in Swaziland [21] and 11% in the United State [9]. The gap of findings might be due to differences in definition of truancy, different study design or method and nature of lifestyle and culture in each country.

Many studies found that, male adolescent were prone to play truant compare to female [3] [22] and [23]. A study done in Japan, [21] stated that cultural expectation might be the reason why male adolescent were more likely to be truant than female. Another study, [24] reported that there is significant difference of perception on causes of truancy among male and female adolescent. However, we also found few studies stated that gender difference did not influence truant behaviour and the prevalence of truancy among the gender show no significant different [18] [25] and [26].

Among age group, older age group adolescent (15 to 17 years old) shows higher prevalence, 32.8% and were 1.36 odd to truant compare to younger age group (13 to 14 years old). Truant behaviour increase parallel with adolescent age [3]. These might be due to younger age adolescent are protected from truant behaviour due to strictly supervised by the parent. In terms of ethnicity, our finding are in accordance with previous studies [27]. [28] and [29] showing that prevalence of truancy varies among ethnicity and ethnic minority groups show higher prevalence and were likely to play truant compare to adolescent from ethnic majority groups.

Table 1. Distribution of School going adolescent by socio demographic profile (n = 27,497).

Variables	Male					Female					
	95% CI					95% CI					
	N	n	%	Lower	Upper	N	n	%	Lower	Upper	
Malaysia	1,064,953	13,135	49.6	46.38	52.85	1,081,492	14,362	50.4	47.15	53.62	
Age	Young (13 - 15)	655,718	8229	30.5	28.42	32.77	646,780	8723	30.1	27.97	32.39
	Old (16 - 17)	409,234	4906	19.1	17.13	21.17	434,712	5639	20.25	18.23	22.44
Ethnicity	Malay	667,495	8861	49.3	46.04	52.52	687,043	9852	50.7	47.48	53.96
	Chinese	182,840	2056	51.0	45.23	56.75	175,664	2044	49.0	43.25	54.77
	Indian	74,103	645	49.7	35.79	63.58	75,124	783	50.3	36.42	64.21
	Bumiputera Sabah	72,262	833	48.4	45.46	51.31	77,091	948	51.6	48.69	54.54
	Bumiputera Sarawak	49,746	481	51.4	44.44	58.26	47,077	440	48.6	41.74	55.56
	Others	18,505	259	48.7	41.99	55.46	19,491	295	51.3	44.54	58.01
Marital Status of Parents	Living together	878,224	10,833	49.9	46.60	53.13	882,894	11,796	50.1	46.87	53.40
	Living apart	157,028	1946	46.5	42.87	50.12	180,850	2356	53.5	49.88	57.13

Table 2. Distribution of School going adolescent by socio demographic profile (n = 27,497).

Variables	Yes					No					
	95% CI					95% CI					
	N	n	%	Lower	Upper	N	n	%	Lower	Upper	
Malaysia	630,100	7985	29.4	27.78	31.06	1,513,571	19,477	70.6	68.94	72.22	
Gender	Male	346,690	4188	32.6	30.61	34.65	716,848	8927	67.4	65.35	69.39
	Female	283,410	3797	26.2	24.46	28.10	796,722	10,550	73.8	71.90	75.54
Age	Young	353,275	4568	27.2	25.35	29.04	947,591	12,364	72.8	70.96	74.65
	Old	276,825	3417	32.8	30.36	35.43	565,979	7113	67.2	64.57	69.64
Ethnicity	Malay	394,237	5455	29.1	27.51	30.81	959,080	13,241	70.9	69.19	72.49
	Chinese	99,325	1068	27.7	24.12	31.69	258,630	3024	72.3	68.31	75.88
	Indian	48,280	447	32.5	27.36	38.11	100,245	977	67.5	61.89	72.64
	Bumiputera Sabah	51,635	577	34.6	26.93	43.11	97,707	1200	65.4	56.89	73.07
	Bumiputera Sarawak	22,566	226	23.3	19.50	27.66	74,144	694	76.7	72.34	80.50
	Others	14,055	212	37.2	31.84	42.82	23,763	341	62.8	57.18	68.16
Marital Status of Parent	Living together	490,903	6228	27.9	26.21	29.67	1,268,304	16,376	72.1	70.33	73.79
	Living apart	121,484	1534	36.0	34.00	38.14	215,530	2758	64.0	61.86	66.00
Ever Drug User	Yes	54,200	620	59.1	54.99	63.12	37,483	392	40.9	36.88	45.01
	No	575,900	7365	28.1	26.51	29.68	1,475,792	19,081	71.9	70.32	73.49
Current cigarette Smoker	Yes	145,379	1726	49.3	46.54	52.11	149,377	1861	50.7	47.89	53.46
	No	484,721	6259	26.2	24.67	27.83	1,363,974	17,613	73.8	72.17	75.33
Being Bullied	Yes	132,771	1669	38.4	35.80	41.07	212,974	2756	61.6	58.93	64.20
	No	495,616	6304	27.6	26.06	29.24	1,298,728	16,699	72.4	70.76	73.94

Table 3. Factors associated with truancy among school going adolescent using Multiple Logistic Regression (n = 27,462).

Truancy	Simple Logistic Regression (SLR)			Multiple Logistic regression (MLR)		
	<i>b</i>	Crude OR (95% CI)	<i>p</i> -Value	<i>b</i>	Adjusted OR* (95% CI)	<i>p</i> -Value
<i>Sex</i>						
Male	0.27	1.34 (1.24, 1.37)	<0.001	0.09	1.09 (1.03, 1.15)	0.002
Female	0	1	-	0	1	-
<i>Age</i>						
Young	0	1	-	0	1	-
Old	0.26	1.30 (1.23, 1.37)	<0.001	0.31	1.37 (1.30, 1.45)	<0.001
<i>Ethnicity</i>						
Malay	0	1	-	0	1	-
Chinese	-0.15	0.86 (0.79, 0.93)	<0.001	-0.14	0.87 (0.80, 0.94)	<0.001
Indian	0.11	1.11 (0.99, 1.25)	0.077	0.03	1.03 (0.91, 1.16)	0.665
Bumiputera Sabah	0.16	1.17 (1.05, 1.30)	0.004	0.07	1.08 (1.0, 1.20)	0.184
Bumiputera Sarawak	-0.24	0.79 (0.68, 0.92)	0.003	-0.37	0.69 (0.60, 0.81)	<0.001
Others	0.41	1.51 (1.27, 1.80)	<0.001	0.34	1.41 (1.18, 1.68)	<0.001
<i>Marital Status</i>						
Living together	0	1	-	0	1	-
Living apart	0.40	1.49 (1.39, 1.9)	<0.001	0.32	1.38 (1.28, 1.47)	<0.001
<i>Ever illicit drug user</i>						
Yes	1.41	4.10 (3.60, 4.66)	<0.001	0.92	2.51 (2.18, 1.47)	<0.001
No	0	1	-	0	1	-
<i>Current Cigarette Smoker</i>						
Yes	0.96	2.61 (2.43, 2.80)	<0.001	0.70	2.02 (1.87, 2.19)	<0.001
No	0	1	-	0	1	-
<i>Being Bullied</i>						
Yes	0.47	1.60 (1.50, 1.72)	<0.001	0.31	1.37 (1.28, 1.47)	<0.001
No	0	1	-	0	1	-

*Backward LR Multiple Logistic regression was applied. Multicollinearity and interaction were checked and not found. Classification Table (overall correctly classified percentage = 71.9%. Area under ROC curve = 61.8%, with significant at ($p < 0.05$) were accepted to check model fitness.

Family circumstances including parental separation and marital conflicts might affect adolescent psychology and contribute to truancy behaviour [30] [31], and [32] due to poor parent-child relationship. When the parents are not staying together, it is difficult due to lack of ability for single parent to monitor the adolescent's behaviour, thus leave them unsupervised and exposed to misbehaviour [33]. This was showed in our result, where adolescent who parents are

not living together have higher prevalence and were 1.4 times likely to commit truancy compare to adolescent who their parent live together. In agreement with study done by [34], truancy behaviour increases when the adolescent lives with only one parent, either mother or father compare to adolescent who live with both parents.

Looking at risk factors, our findings are consistent with previous studies showing that illicit drug used, smoking and bully are high risk behaviour that contribute to truancy [13] [35] [36] and [37]. Health problem caused by smoking had led to high rate of school absenteeism and affect the academic performance among high school student in Indonesia [38]. [39] mention that both bullies and bullies' victim are more likely to play truant; bullies skipping school while victim absence from school due to fear. Psychological problem such as depression, anxiety, suicidal ideation and low self-esteem suffered by adolescent involve in bullying increase truant behaviour [5] [30] [40] and [41].

We have found several limitations for this study. School going adolescent's feedback was self-reported and subject to social desirability bias where the student might have tendency to answer the questionnaire either over reporting in good behaviour or under reporting on bad behaviour. Relationship of the factors stated in the study should be treated as an estimated association instead of causation due to the study design.

5. Conclusion

This study concluded that truancy can be the consequence of psycho-social factors influenced by family issues and psycho-behavioural factors due to curiosity in trying new thing among school going adolescent. Dynamic strategic approaches involving all parties concerned are essential to tackle school truant in order to prevent further negative effects of truancy, such as encouraging more parent's involvement in school activities, providing more creative, sport and recreational activities centers for the school going adolescent and improving on monitoring system in school to control truancy rate.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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