

Factors Influencing Teenage/Youth Smoking Behaviour In Mauritius

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I. Introduction

Deviance from socially acceptable behaviour vary from society to society, from culture to culture, from one religion to another and so on. In the case of Mauritius, a multi-religious, multi-ethnic and multi-cultural society, socially acceptable behaviour may vary among people of different cultural roots, religious beliefs, socio-economic status, sex, age and so on. Social deviance if considered as a movement away from what is socially acceptable will vary among different groups/communities of people in Mauritius. However, for this study the focus is on one such deviant behaviours which is not dogmatically rejected by any specific community, and that is smoking. It is not uncommon for young people to become smokers under influence whose source are varied in terms of factors. This study becomes especially important in the context of a series of studies in deviant behaviour among youngsters in Mauritius which remain to be carried out to prevent the youth from ill-effects of socially deviant behaviour, which are many. For instance, there may be a direct link between cigarette smokers who later develop into smokers of harder drugs. Habits like smoking and drinking can be avoided while being young, it may be less likely that these people will engage in more undesirable deviant behaviour. While these remain hypotheses to be tested, this paper will investigate into the factors that influence smoking among Mauritian teenagers/youths with a view to test a limited number of hypotheses to gain an insight into the problematics and to lead to more comprehensive studies in scale, scope, depth and so on in the future.

II. Literature Review: Smoking as a Deviant Behaviour among Youths

People have been using tobacco for over (3000) years. Even before the invention of cigarette making machine in 1818 (Kane, Blake, Frye, Miller, Wittington, 1997) people have used tobacco. Needless to say that cigarette smoking causes serious health problems to both smokers and those exposed to smoking (passive smoking) (Warner, 1989), harm to people, threat to public health (Dekker, Looman, Andriaanse and Van Der Mass, 1993), and to the economy. As a result of these negative impacts on the macro levels of society, smoking behaviour may be viewed as a “deviant behaviour” (Lawson E., 1994, Markle & Troyer 1979).

Cigarette smoking has not become only a national social problem, but a global one. Worldwide, the World Health Organization (WHO) estimates that smoking is responsible for 2,7million deaths per year, two thirds of who live in non-western nations (Stebbins, 1991 p.1318). Smokers need 20 years on average to start suffering from smoking-related diseases. (Stebbins, 1994). An estimated one billion smokers consume 5 trillion cigarettes per year and their lives will be in danger (Stebbins, 1991, p.1317). There has been a global awareness for the negative impact of smoking on health. The World Health Organization (WHO) had called for "Health For all by the year 2000" as a goal to be achieved to eliminate the increasing number of smokers in the world, who suffer from the smoking-related diseases. This goal is far from being achieved in the Third World countries. The WHO estimates that 3 million persons will die annually during 1995 as a direct result of smoking (Stebbins, 1994, p.106). Global cigarette consumption over the past 30 years has been growing at rate of about 2.1% each year, exceeding the world's 1.2% population growth rate. Worldwide approx. 5.3 trillion cigarettes were produced in 1989. Cigarette production in less developed countries has been increasing by 3% per year

while decreasing 1% annually in the developed nations (Battlefield,1989). In 1990 U.S. exported 164.3 billion cigarettes representing 41.3% increase over 1989. These cigarettes are equivalent to (18) round trips to the moon. The American companies accounted for 40% of the world cigarette productions (Stebbins, 1994, p.106).

Cigarette smoking is legal but it is not socially or religiously desirable, and this makes it less deviant compared to other drugs. Cigarette smoking for a large number of people over the world is an everyday activity. The study of the article named 'Attitude toward cigarette smoking as deviant behaviour' showed a change in attitude amongst students during 1991 to 1995. Significant differences were found in the attitude towards cigarette smoking attributed to time lag, smoking status, sex, and job. However, the attitudes towards smoking are changing over the time (Markle & Troyer, 1979). The change in attitudes is attributed to factors such as male's masculinity, and women's independence and liberation, Cigarette contains drugs which cause physical as well as psychological dependence. Smokers have accepted negative social labels attached to their smoking behaviours. There is an increase in the amount of this acceptance over the time.

Adolescence is a key developmental risk period for smoking initiation. Research indicates that a major adolescent risk factor for tobacco smoking is antisocial deviance, which includes such behaviours as aggression, risk-taking, and rule-breaking. The linkages between antisocial deviance and smoking suggest that these behaviours and their underlying attitudes can be important targets for smoking prevention programs.

Children who start smoking before they are 14 are more likely than other youngsters to start fights, tell lies and be absent, suspended or expelled from school, a researcher reports. The study suggests that certain children may have a genetic predisposition toward taking risks that also leads them to take up smoking, researchers said. "There is a strong relation between early smokers and their behavior," said the study's author, Dr. Naomi Breslau of Henry Ford Hospital in Detroit. In a study of 1,007 young adults between 21 and 30, she found that 32 percent of those who started smoking before age 14 were guilty of starting fights, compared with 21 percent of those who started later or 19 percent of those who never smoked. Twenty-six percent of the early starters had a problem with absence from school, compared with 16 percent of those who started at or after age 17 and only 12 percent of those who never smoked.

Factors associated with adolescent smoking including: Age, Gender, Parental smoking, Parental socio-economic status, Peer smoking, Attitudes of family and friends, School factors, Risk behaviour, Lifestyle, Media, Stress, Self-esteem, Attitude and health concern. A comprehensive review suggests that concerns about weight can also be an important factor for smoking especially among females. In modern societies the thin body ideal, and sociocultural pressures to be thin had a deep impact on the adolescent population; girls in particular are often dissatisfied with their body image and perceive themselves as overweight dieting and other weight control methods are well-known features of adolescent behaviour to achieve and idealized perfect body shape. (Borzekowski, 2015). For the scope of this paper, the number of hypothesis to be tested will be limited to those referred in the Methodology section.

III. Methodology

A survey on Smoking as a behaviour among teenagers was conducted for convenience sake at a local University having some 3000 students. The survey was conducted online using Google Form and was randomly sent to 1000 students across different schools of the University. It is to be noted that University students in Mauritius would, most of them, have just left secondary education and would be aged between 18 and 25. Their answers would reflect their experiences at Secondary school and at University level in Mauritius, and whose population can be considered as young. The objective is to study the factors influencing smoking behaviour among the youth. From the sample of 1000 forms sent randomly, 221 responses were received and formed the basis for analysis. While the factors that can influence smoking as a behaviour are numerous as spelt out by Borzekowski (2015), the factors considered for analysis of hypotheses with respect to influence on teenagers to smoke or not in this paper include: Parents and siblings smoking, ease of obtaining cigarettes, friends smoking, socio-economic status, exposure to tobacco marketing, media and peer pressure.

IV. Data Analysis

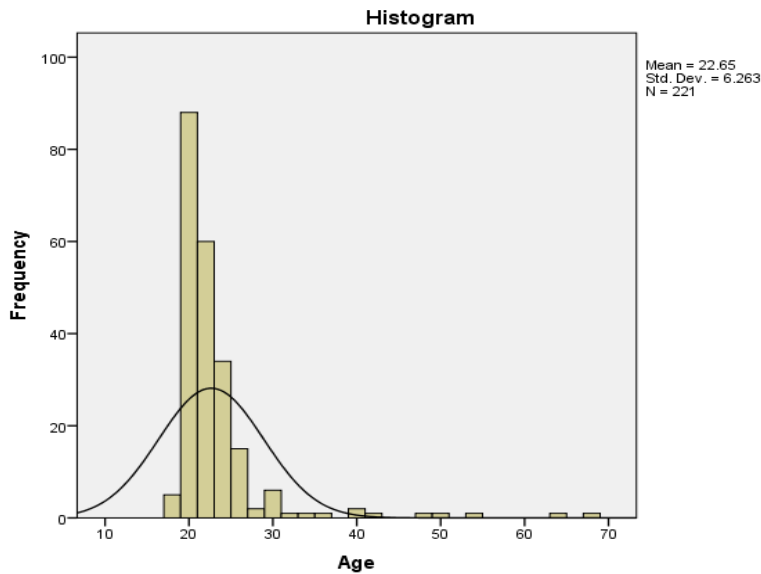
1. Gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	135	61.1	61.1	61.1
	Male	86	38.9	38.9	100.0
	Total	221	100.0	100.0	

61.1% of respondents were female and 38.9% were male.

2. How old are you?

As can be seen from the figure below, there were more students in the age of 20 who have responded. There are also a number of Students in the ages of 19, 21, 22 and 23 who have well responded to this form. Moreover, we got least responses from students of the age of 18, 24, 25, 26 and 30, and very less responses from students of the remaining age.



3. Do you smoke?

Do you smoke?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	187	84.6	84.6	84.6
Valid Yes	34	15.4	15.4	100.0
Total	221	100.0	100.0	

84.6% of students say that they do not smoke and 15.4 said that they smoke.

4. How old were you when you first tried a cigarette?

How old were you when you first tried a cigarette?

	Frequency	Percent	Valid Percent	Cumulative Percent
13-17 years old	23	67.6	67.6	67.6
Valid 18 years or older	5	14.7	14.7	82.4
7 years old or younger	4	11.8	11.8	94.1
8-12 years old	2	5.9	5.9	100.0
Total	34	100.0	100.0	

This table shows that there are more students (67.6%) at the age of 13-17 when they first tried a cigarette and less one (5.9%) first tried smoking at the age of 8-12 years old. 14.7% of students first tried a cigarette at the age of 18 or older and 11.8 tried it when 7 years old or younger.

5. How many cigarettes do you smoke on average in one day?

How many cigarettes do you smoke on average in one day?

	Frequency	Percent	Valid Percent	Cumulative Percent
10 or more	5	14.7	14.7	14.7
Valid 1-2	14	41.2	41.2	55.9
3-5	11	32.4	32.4	88.2
6-9	4	11.8	11.8	100.0
Total	34	100.0	100.0	

There is a mass of 41.2% who smoke 1-2 cigarettes in one day and 32.4% who smoke 3-5 cigarettes in one day. For around 10 or more cigarettes, we got 14.7% of them and 11.8% of respondents smoke 6-9 cigarettes in one day.

6. Who of your parents or guardians use any form of tobacco?

Who of your parents or guardians use any form of tobacco

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None of them	20	58.8	58.8	58.8
Both	1	2.9	2.9	61.8
Father or male guardian	13	38.2	38.2	100.0
Total	34	100.0	100.0	

There are 58.8% of parents or guardians who do not use any form of tobacco but 38.2% responded that their father or male parent make use of tobacco. 2.9% responded that both their parents or guardians use tobacco.

7. How do you usually get your own cigarettes?

How do you usually get your own cigarettes

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I buy them in a store, shop, or from a street vendor	33	97.1	97.1	97.1
I get them from other ways	1	2.9	2.9	100.0
Total	34	100.0	100.0	

97.1% responded that they buy cigarettes in a store, or from a street vendor but 2.9% said that they get cigarettes from other ways.

8. Did your friends influence you to smoke?

Did your friends influence you to smoke

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	14	41.2	41.2	41.2
No	20	58.8	58.8	100.0
Total	34	100.0	100.0	

41.2% responded that their friends influenced them but 58.8 said no.

9. Does the religious community you belong to have a general attitude towards smoking tobacco?

Does the religious community you belong to have a general...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Don't know/Not sure	10	29.4	29.4	29.4
I do not belong to any religious community	4	11.8	11.8	41.2
My religious community does not approve of smoking	4	11.8	11.8	52.9
My religious community does not have a dominant attitude towards smoking	12	35.3	35.3	88.2
My religious community use tobacco in its ceremonies	2	5.9	5.9	94.1
Smoking is accepted by my religious community	2	5.9	5.9	100.0
Total	34	100.0	100.0	

35.3% responded that their religious community does not have a dominant attitude towards smoking. 11.8% responded that they do not belong to any religious community and that their religious community does not approve of smoking. 29.4% said that they don't know. 5.9% said that their religious community use tobacco in its ceremonies and that smoking is accepted by their religious community.

10. How often do you see actors smoking when you watch TV, movies, or videos?

How often do you see actors smoking when you watch TV movie...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid A lot	1	2.9	2.9	2.9
	15	44.1	44.1	47.1

I do not watch TV, movies, or videos	1	2.9	2.9	50.0
Sometimes	17	50.0	50.0	100.0
Total	34	100.0	100.0	

2.9% responded that they don't see actors smoking when they watch TV, movies or videos, and that they do not watch, movies or videos.

11. Did movies and actors have an impact on making you smoke?

Did movies and actors have an impact on making you smoke? 2.9% responded that movies and actors have an impact on making them smoke but 75.5% said that these do not have any impact on them. 20.6% responded that these can have an impact on them.

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	1	2.9	2.9	2.9
No	26	76.5	76.5	79.4
Valid Maybe	7	20.6	20.6	100.0
Total	34	100.0	100.0	

12. How often do you see smoking advertisements on television, radio, billboards, posters, newspapers, and magazines?

44.1% responded that they sometimes see smoking advertisements on television, radio, etc ... but 14.7% said that they don't know or are not sure. 23.5% responded that they never saw smoking advertisements. Instead 17.6% saw smoking advertisements a lot.

How often do you see smoking advertisements on television radio...

	Frequency	Percent	Valid Percent	Cumulative Percent
A lot	6	17.6	17.6	17.6
Don't know/not sure	5	14.7	14.7	32.4
Valid Never	8	23.5	23.5	55.9
Sometimes	15	44.1	44.1	100.0
Total	34	100.0	100.0	

13. Did advertisements have an impact on influencing you to smoke?

79.4% responded that they are not influenced by advertisements to smoke. 17.6% said that they can be influenced. 2.9% responded that advertisements have an impact on influencing them to smoke.

Did advertisements have an impact on influencing you to smoke

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	1	2.9	2.9	2.9
Valid No	27	79.4	79.4	82.4
Maybe	6	17.6	17.6	100.0
Total	34	100.0	100.0	

14. How much stress do you experience in your life?

How much stress do you experience in your life

	Frequency	Percent	Valid Percent	Cumulative Percent
None or very little	1	2.9	2.9	2.9
Valid A lot	20	58.8	58.8	61.8
Don't know/not sure	6	17.6	17.6	79.4
Some	7	20.6	20.6	100.0

Total	34	100.0	100.0	
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58.8% responded that they have a lot of stressful experience in life but only 2.9% said they do not have or experience little in their lives. 17.6% said they don't know or are not sure of that and 20.6% responded that they have some stressful experience in their lives.

15. Did stress have an impact in influencing you to smoke?

Did stress have an impact in influencing you to smoke

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	67.6	67.6
	No	4	11.8	79.4
	Maybe	7	20.6	100.0
	Total	34	100.0	100.0

67.6% responded that stress has an impact on influencing them to smoke while 11.8% said that stress does not influence them. 20.6% said that stress can have an impact on them to smoke.

16. How well off is the family you live with?

How well off is the family you live with?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Don't know/not sure	1	2.9	2.9
	We live comfortably	3	8.8	11.8
	We struggle to make ends meet	24	70.6	82.4
	We were very well off	5	14.7	97.1
	Total	34	100.0	100.0

70.6% said that they live comfortably and 8.8 % responded that they don't know or are not sure. 2.9% responded that their families are well off. 14.7% responded that they struggle to make ends meet.

17. Does your family financial situation have an impact on influencing you to smoke?

Does your family financial situation have an impact on influencing...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	5.9	5.9
	No	26	76.5	82.4
	Maybe	6	17.6	100.0
	Total	34	100.0	100.0

75.5% responded that the financial situation of their family have no impact on influencing them to smoke. 17.6% said that they can be influenced by their parent's finance. 5.9% responded that the financial situation of their parents influence them to smoke.

18. Would you advise/encourage others to smoke?

Would you advise encourage others to smoke

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	2.9	2.9
	No	28	82.4	85.3
	Don't know	5	14.7	100.0
	Total	34	100.0	100.0

82.4% responded that they do not advise or encourage others to smoke but 2.9% said that they advise or encourage others. 14.7% said they don't know.

Using SPSS to test the relationship between male and female smokers

19. How many male smoker and non smoker have respond

Male		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	27.9	27.9	27.9
	No	62	72.1	72.1	100.0
	Total	86	100.0	100.0	

27.9% responded are males who smoke and 72.1% responded are males who does not smoke.

20. How many female smoker and non-smoker have responded

Female		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	7.4	7.4	7.4
	No	125	92.6	92.6	100.0
	Total	135	100.0	100.0	

7.4% females responded that they smoke and 92.6% females responded that they do not smoke.

Hypothesis Testing

- The factors referred to in the methodology section are analysed using SPSS software(one sample t-test and chi-square for multiple responses) to evaluate whether we will reject **or** do not reject H_0 .
- Using test value as 1.71 that is the population mean for smokers and test at a 95% confidence interval
- We based our decision making on : if $\mu > 0.05$ we will not reject H_0
: if $\mu \leq 0.05$ we will reject H_0
- μ is the value of Sig.(2 tailed)in SPSS

1. Parents and siblings smoking

H_0 : Parents and siblings do influence teenagers to smoke
 H_1 : Parents and siblings do not influence teenagers to smoke

Since $\mu = 0.0268$ which is less than 0.05 we do reject H_0 and conclude that statistically parents and siblings do not influence teenagers to smoke.

2. Ease of obtaining cigarettes

H_0 : Ease of obtaining cigarettes does influence teenagers to smoke
 H_1 : Ease of obtaining cigarettes does not influence teenagers to smoke

Since $\mu = 0.855$ which is greater than 0.05 we do not reject H_0 and conclude ease of obtaining cigarettes does influence teenagers to smoke.

3. Socio-economic status

H_0 : Socio-economic status does influence teenagers to smoke
 H_1 : Socio-economic status does not influence teenagers to smoke

Since $\mu = 0.042$ which is less than 0.05 we do reject H_0 and conclude that Socio-economic status does not influence teenagers to smoke.

4. Exposure to tobacco marketing

H_0 : Exposure to tobacco marketing does influence teenagers to smoke
 H_1 : Exposure to tobacco marketing does not influence teenagers to smoke

Since $\mu = 0.152$ which is greater than 0.05 we do not reject H_0 and conclude that Exposure to tobacco marketing does influence teenagers to smoke

5. Media

H_0 : Media does have a relationship in influencing teenagers to smoke
 H_1 : Media does not have a relationship in influencing teenagers to smoke

Since $\mu = 0.165$ which is greater than μ we do not reject H_0 and conclude that peer pressure does have a relationship in influencing teenagers to smoke

6. Peer pressure

H_0 : Peer pressure does have a relationship in influencing teenagers to smoke

H_1 : Peer pressure does not have a relationship in influencing teenagers to smoke

Since $\mu = 0.165$ which is greater than μ we do not reject H_0 and conclude that peer pressure does have a relationship in influencing teenagers to smoke

V. Conclusion and Some Policy Implications

Cigarette smoking by youth and teenagers have immediate adverse health consequences, including addiction, and accelerates the development of many types of diseases across the full life course. Prevention efforts must focus on both adolescents and youth because among adults who become daily smokers, nearly all first use of cigarettes occurs by 18 years or older of age (82.4%), with 94.1% of first use by 7 years old or younger of age. By the analysis above, we assumed that any of these factors influenced youth and teenagers to smoke. From the data obtained, it cannot be deduced whether parents smoking behaviour and socio-economic status influence teenage smoking behaviour. However, the analysis of gathered data does allow to find a relationship among Mauritian youths smoking behaviour to be influenced by ease of obtaining cigarettes, exposure to marketing strategies and media and peer pressure. While further studies on more factors and larger samples of data may reveal other critical factors that influence teenage/youth smoking behaviour in Mauritius, this study is useful to the extent that some policy implication do become apparent to reduce opportunities for the youth in Mauritius to become prey to smoking habit. Policy makers may make accessibility more difficult, consider banning overt marketing of cigarettes and censoring media projections of smoking and campaigns to discourage peers from putting pressure on friends to smoke can go a long way in reducing influence on youth to adopt smoking behaviour.

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