

Research Article

Intake of Alcohol and Tobacco among School Students in Congo-Brazzaville

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Abstract: This study was conducted on an assessment of taking alcohol and tobacco (psychotropic substances) in an adolescent population in different students. The method used was the interview, type questionnaire hint of alcohol intake and various types of tobacco. Sixty days survey was conducted in Brazzaville setting (high school). It concerned 119 subjects aged 14 to 17 years old (63 boys and 56 girls). The interrogation focused on taking drinks and exciting products, the reasons which lead to take tobacco and strong wines. Anthropometric data were taken on all subjects. It appears from our results that a girl taking type of drinks was 19.64 and 42.85% for boys, the various types of tobacco among males was 7.93% of girls of 3.57%. The difference was not significant $p>0.05$. The reasons for taking strong drinks were for 53.57% for girls, it turns out to be insufficient in 20.63 per cent boys. The reasons for taking tobacco among males were 14.28 and 5.25% for girls. The level of alcohol and tobacco a risk and does not present the same similarities with the data from the international literature. To do this, there should be mechanisms upstream and downstream to influence these practices accordingly.

Keywords: Alcohol, high school, students, tobacco

INTRODUCTION

Taking alcohol and tobacco is for some years a public health problem in the world especially among teens that have between them fourteen and seventeen years (schoolchildren) (Bailly, 1996; Gottlieb *et al.*, 1993; Leselbaum *et al.*, 1985; Liard *et al.*, 1989; Report of the Special Committee of the Canadian, 2002). Thus, Westerners have many studies and learn more determinants that influence the taking of alcohol and tobacco (Diop *et al.*, 1980; Cubeau and Pequinot, 1976; Maher *et al.*, 1979). In Africa, reported the young person works are rare (Ohara *et al.*, 2000; De Peretti and Leselbaum, 1996). This rarity legitimizes the lack of attention of Governments thereon. In Congo, the available data on the taking of alcohol by adolescents date from 1994 World Health Organization (WHO, 1994). Following the opening of the plant of tobacco in 2005, Brazzaville is passed the big city consumer of tobacco in the Congo.

Pointe-Noire is the second of the Congo and does not derogate from the rule. According to national estimates the annual harvest is about 7 cigarettes per

person over 15 years. The alcohol and tobacco are major toxics of our civilization. Taking alcohol and tobacco among school students is not recent (Parquet *et al.*, 2000; De Peretti and Leselbaum, 1996), because since the colonial era the Congolese man drank and smoked already. This to several consequences when more rapid absorption of 4,000 products (Lagrué *et al.*, 2005; Ratte and Martzel, 2004). Adolescence is one of the most fascinating life stages and might also be the more complex. It is often presented as a specific problem suicide, various risk behavior (alcohol, unprotected sex, dangerous sport, risk road addictions to various products, etc. (Bouyer and Caffet, 1997; Harrabi *et al.*, 2002).

The increase in consumption of alcohol and tobacco among school students reveals the need to develop policies and programs access on a segment of the population, in order to combat the marketing strategies that target these adolescents by associating tobacco use in independence to the prestige and harmonious relations in individuals or groups (Kintz, 1985; Schwartz, 1969). Early taking alcohol and tobacco pose hazards? Do it for the enthusiasm,

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courage and other social reasons. It should be attention over this period (Mbemba *et al.*, 2007a) and teachers are this item from saw, very concerned.

The objective of this study is therefore to evaluate the prevalence of psychotropic substances in a teenage girl (high school students) from Congo-Brazzaville population and identify the factors that determine, their knowledge should understand the relationship between learning achievements on the harms of psychotropic substances and the behavior as high school students.

MATERIALS AND METHODS

This study was conducted from January 4 to March 4, 2013 in Brazzaville schools (high schools) following a draw. The sample of students was 119 topics (63 boys and 56 girls) aged from 14 to 17 years. The method used was that of the interview, feedback about indicators on alcohol intake and of various types of tobacco in subjects. The investigation has gone for 8 weeks. It was to discover the nature and the quantity of the exciting products; the types of beverages; the reasons which lead to smoke and take strong wines were made.

Gender male and female subjects, were weighed by their sports uniforms (shorts and tee short). Then, we classified the indices of body mass BMI = P/T2 (kg/m²) into six groups: values less than 18.5 for underweight; 18.5 to 24.9 normal weight; 25 to 29.9 overweight, 30 to 34.9 obese; 35 to 39.9 for severe obesity and values greater than 40 for very severe obesity (Doros, 2000).

Statistical analysis: Data were processed using the STATISTICA software (STAT SOFT, WORD 2010 and WINDOW-8). Descriptive statistics quantitative trait has been used for all of the ingested products studied. Averages were accompanied by the gap type with the test of student between these subjects. The statistical analysis was significant at the 5% threshold.

RESULTS AND DISCUSSION

Methods: The method by interview allowed the estimation of the gripping of products by querying on various exciting products such as alcohol and tobacco

(Business Forum, 2007). It allowed to know if these teens were taking these products and knows also the number of times that they have taken. The number of times that his subjects had taken these products runs the risk of cardiovascular diseases and hypertension (Smadja, 2004). In addition, a reminder of the intake of alcohol and various types of tobacco was sought in adolescents over the last hours (Mbemba *et al.*, 2005). Each technique has its purposes of use.

The interview on the questionnaire method was the most adapted to this study although it has required more days on other subjects and investigators experienced (Cubeau and Pequinot, 1976).

Power of adolescents: Anthropometric characteristics (Table 1) body mass index shows that 50.42% of normal weight, this is may be due to a balanced diet. Furthermore, 47.07% are underweight. This deficit is associated with taking too many different alcohols and tobacco.

In our study, the drink outlet shows that there were 25% of patients (girls) who once drank red wine and 7.93% of boys; the difference was not significant p>0.05 (Table 2). This rise was due to multiple causes (Diop *et al.*, 1980; Ohara *et al.*, 2000). The study of Mbemba *et al.* (2007b) had not shown this distinction to cause their target sample was oriented to the major topics. However, our study sample was minor subjects.

We find that his subjects consume alcoholic beverages (Ohara *et al.*, 2000; WHO (World Health Organization), 1994; Leselbaum *et al.*, 1985). Stop abuse must be done in order to avoid tuberculosis of lung signified by Ratte and Martzel (2004).

The results obtained in high school were 11.50%; which showed a significant outlet of 7.93% exciting boy's products to 3.57% for girls. The difference was not significant p>0.05 (Table 3). The boys smoked more compared to girls. Several authors had found the same reasons (Report of the Special Committee of the (Canadian), 2002; Stoebner *et al.*, 2003) and had proposed measures to fight against the taking of exciting products. It turns out that smoking is responsible for more than 30% of all deaths caused by

Table 1: Anthropometric characteristics

Variables	Boys (63)		Girls (56)		P
	$\bar{x} \pm$	δ	$\bar{x} \pm$	δ	
Age (an)	17.52	1.23	17.01	1.15	>0.05
Weight (Kg)	55.52	2.44	50.21	2.72	>0.05
Size (cm)	1.70	0.20	1.610	0.20	>0.05
BMI (Kg/m ²)	19.0	2.00	19.20	1.54	>0.05

P: Significance concerning the difference between the values of boys and girls; δ : standard deviation; \bar{x} : average; BMI: body mass index; Age of 17.52 \pm 1.23 boys and 17.01 \pm 1.05 for females. The difference between the sexes was not significant p>0.05. The weight for males was 55.52 \pm 2.44 and 50.21 \pm 2.72 in girls or a significant difference p>0.05. Body Mass Index (BMI) had an average accompanied by 19 \pm 2 among boys and 19 deviation, 20 \pm 1.54 for females. The difference was not significant p>0.05. On 119 subjects, 47.07% (n = 56) were underweight (BMI<18.5) 50.42% (n = 60) showed a normal weight is between 18.5 and 24.99 including body mass index and was overweight people who had a BMI between 25 and 29.99

Table 2: Taken drink

Drinks	Once			Many times		
	Boys (n:63)	Girls(n:56)	P	Boys(n:63)	Girls(n:56)	P
Beer	6.34	17.85	>0.05	42.69	19.64	>0.05
Whisky	6.34	10.71	>0.05	12.69	7.140	>0.05
red wine	7.93	25.0	>0.001	31.74	21.42	>0.05
palm wine	3.17	3.57	>0.05	34.92	39.28	>0.05
Canne wine	1.58	5.35	>0.05	7.93	/	/
Wine of maize	3.17	3.57	>0.05	1.58	/	/

n: Number of subjects; P: Significance; Red wine taken once among girls was 25% and is lower among boys from 7.93% or a difference significant $p < 0.001$. Furthermore, drinks such as beer, whisky, Palm wine, wine of cane and corn wine were very low percentage and between 1.58 percent and 10.71%. The difference was not significant $p > 0.05$, Taken beer several times was 42.85% for boys and 19.64% for girls; the difference was not significant $p > 0.05$. On the other hand, Palm wine was more consumed with the girls 39.28% than boys (34.92%); the difference was not significant $p > 0.05$

Table 3: Taken of exciting products

Products	Once			Many times		
	Boys (n:63)	Girls(n:56)	P	Boys (n:63)	Girls(n:56)	P
Marlboro	4	/	/	/	/	/
Fine	6.34	1.78	>0.05	3.17	/	/
Mustang	7.93	3.57	>0.05	1.58	/	/
Strong Brazza	1.58	/	/	158	/	/
More	1.58	/	/	/	/	/
Hemp	4.7	/	/	/	/	/
papaya leaves	/	/	/	3.17	/	/
Grass	3.17	1.78	>0.05	/	/	/
Cocaine	1.58	1.78	<0.05	/	/	/

n: number of subjects; P: significance, Mustang smoking was the most smoke among boys, 7.93% or 3.57 per cent among girls; the difference was statically not significant $p > 0.05$, The fine was 3.34% for boys and 1.78% for girls; the difference was not significant $p > 0.05$, The cocaine was 1.58% among boys and girls of 1.78%; the difference was not significant $p < 0.05$

Table 4: Reasons which lead to strong wines

Variables	Boys (63)		Girls (n:56)	
	Yes (%)	No (%)	Yes (%)	No (%)
Enthusiasm	15.87	3.17	41.70	12.5
Fashion	7.93	34.92	53.57	/
Friends	15.87	/	17.85	36.71
Disappointment	20.63	34.92	25.00	28.57
Other reasons	20.63	79.36	25.00	75

n: number of subjects; %: Percentage, Other reasons and disappointment were increasing in 20.65% boys. For girls it is fashion that has supplanted for 53.57%. Furthermore, enthusiasm was 41.07%, friends of 17.85%, deception and other reasons were 25% for girls

Table 5: The reasons which lead to the capture of tobacco

Variables	Boys (63)		Girls (n:56)	
	Yes (%)	No (%)	Yes (%)	No (%)
Fear	4.770	95.23	3.58	96.42
Performance	1.590	98.41	1.79	98.21
Courage	12.70	89.30	/	100
Autres raisons	14.29	85.71	5.35	94.65

n: number of subjects; %: Percentage, The fear among boys was 4.76% and 3.57% for girls, Performance presented a percentage of 1.58% for boys and 1.78% for girls, Courage had 12.69% of boys, other reasons for boys represented 14.28% and girls 5.35%

cancer. Because tobacco causes cancer of the lung, mouth, pharynx, larynx, esophagus, pancreas, kidney, bladder, breast and cervix among women (Ratte and Martzel, 2004).

Our study suggested that these students had to consume a lot of foods rich in macronutrients (Mbemba *et al.*, 2013) and micronutrients such as the *isangiensis* (from Wild) *cuerveva N. Hallé* (Mbemba *et al.*, 2012). The study of Mbemba *et al.* (2007b) in the Congo had submitted 6.24% in patients with physical activity however our study showed a percentage 7.93% among

boys and 3.57% for girls. In view of these results we believe that tobacco consumption is considerable at school level.

Girls who follow many fashions, the percentage was for 53.57; as to men, deception and other reasons were 20.63% (Table 4). The alcohol and tobacco among adolescents resulted in various cardiovascular diseases, hypertension and death (Butts and Golding, 1979).

The reasons which lead to strong wines for boys have been supplanted by other reasons (14.29%) and 5.35% for girls (Table 5).

CONCLUSION

The taking of drink and tobacco seems most important, without the risk of being wrong or even remarkable among boys than among girls. The level of alcohol and tobacco runs a risk of development of cardiovascular disease and hypertension. For this, there should be mechanisms in place that can influence these practices accordingly. Also, search educational strategies that can inhibit these behaviors in the school environment.

ACKNOWLEDGMENT

To François Mbemba, Coordinator of the laboratory of nutrition, health and pumped for his wise counsel.

REFERENCES

- Bailly, D., 1996. Consumption of substance dependence and addiction among student Addiction. 91(37): S-90.
- Bouyer, S. and A. Caffet, 1997. Sociology and anthropology of tobacco. The HARMATTAN, pp: 250-255.
- Business Forum, 2007. Drug use. pp: 47-52.
- Butts, N.K. and L.A. Golding, 1979. Effect of 24 hours of smoking with drawled on cardio respiratory fonctions at rest and exercise. J. Sport. Med. Phys. Fit., 19: 389- 396.
- Cubeau, J. and G. Pequinot, 1976. Survey methodological testing the validity of an examination covering food passed a group of males. J. Epidemiol. Publ. Health, 24: 61-67.
- De Peretti, C. and N. Leselbaum, 1996. Les jeunes et les drogues: Réflexions pour la prévention. Rev. Fr. Pédagogie, 114(1): 29-43.
- Diop, S., T. Bayle and A. Hountondji, 1980. The tobacco in Africa, current problem and future of public health. Med. Afr. Black, 27(3): 237-242.
- Dorosz, P.H., 2000. Table of colories. Maloine, Paris, pp: 160.
- Gottlieb, A., S.K. Pope, V.I. Rickert and B.H. Hardin, 1993. Patterns of smokeless tobacco use by young adolescents. Pediatrics, 91(1): 75-78.
- Harrabi, I., H. Ghannem, A. Ben Abdelaziz, R. Gaha, and L. Trabelsi, F. Lazreg *et al.*, 2002. Smoking among school children in Sousse, Tunisia. Rev. Mal. Respir., 19(3) 311-314.
- Kintz, P., 1985. Addiction screening, methods of dosages and action. Eurobiol., 21: 37-43.
- Laguer, G., C. Mautrait, C. Behar, S. Cormier and S.I. Pelissolo, 2005. Development of adolescent addictions. Role of Psychology vulnerability. Addict. Addiction, 27: 201-209.
- Leselbaum, A., C. Coridian and J. Defrance, 1985. Tobacco, alcohol, drugs of students respond. INRP, HC. E. IA. 29. D'ulm, Cedex 05, Paris.
- Liard, R., Y.D. Cayarcy, S. Perdizet and M. Levallois, 1989. Smoking in adolescents in Guadeloupe. Rev. Mal. Respir, 6(2): 151-154.
- Maher, F.A., O.H.L. Bing and G.H. Hubert, 1979. The direct effect of tobacco smoke on the ventilator cost. Environ. Res., 1(20): 282-288.
- Mbemba, F., M. Bantsimba, A. Massamba and P. Senga, 2005. Power supply a population active in Brazzaville (Congo). Med. Nut., 4(4): 183-188.
- Mbemba, F., S.G. Ouissika and P. Senga, 2007a. Intakes of carbohydrates in the diet of the top athletes in Brazzaville: Impact on balanced diet. Med. Nut., 43(2): 80-87.
- Mbemba, F., P. Bazolo, G.S. Ouissika, A. Bazaba and P. Senga, 2007b. Hypertension: Lack of physical activity or nutritional origin. Med. D'Afr. Noire, 54(7): 383-387.
- Mbemba, F., N.K. Tatola, S. Itoua-Okouango, D. Massamba, J.M. Nzikou *et al.*, 2012. Composition in mineral elements of the traditional vegetables leaves of *Cuervea isangiensis* (de wild.) N.hallé in Congo-Brazzaville. Curr. Res. J. Biol. Sci., 4(6): 738-742.
- Mbemba, F., J.M. Moutsambote, J.M. Nzikou, M. Mvoula-Tsieri, S. Itoua-Okouango, I. Nganga, Z. Mboundou and T. Silou, 2013. Physical features and nutritional value of the traditional picking vegetable, *cuerveaisangiensis* (of Wild) N. Hallé. Adv. J. Food Sci. Technol., 5(1): 72-76.
- Ohara, T.L., D.E. Obo and J.P. Salomon, 2000. Current Situation of smoking in Burkina Faso: Comprehensive data on the ofe and LCDR surveys among young people of the city of Ouagadougou. Notebook Health, 10: 117-118.
- Parquet, P.D., D. Bailly, D. Lejeune and D. Gignac, 2000. Problem of alcoholism among students. Rev. Prat., 51: 227-233.
- Ratte, S. and A. Martzel, 2004. Fight against smoking: Information and misinformation. Rev. Prat., 54(17): 1911-1918.
- Report of the Special Committee of the (Canadian), she cited September, 2002. Scenan on drugs. Archives (1).
- Schwartz, D., 1969. Methods of Doctors and Biologists Use Statistics. 3rd Edn., FLAMMARION, Paris, pp: 318.
- Smadja, O., 2004. Methodological and substantive on alcohol. Soc. Med. Sci., 58(1): 22-53-65.
- Stoebner, D., N.C. Nguye, S. Ratte and A. Hirsh, 2003. The aid for the cessation of smoking among adolescents. THS-SPT, 981-7.
- WHO, 1994. Health of Adolescents in the Congo. Analysis of the Situation of 1994, pp: 32-34.