Jamaican Youth Health Status 2005

K Fox[1], G Gordon-Strachan[2], A Johnson[3], D Ashley[4]

ABSTRACT

The purpose of this survey is to determine health-seeking behaviour, nutritional status and lifestyles of adolescents aged 10–15 years. A random sample of 3003 (1 422 males and 1 581 females) school-children, aged 10–15 years, was studied in a cross-sectional, interviewer-administered school-based survey conducted in all school types islandwide in a nationally representative sample of Jamaican children currently attending school. Some 3003 youths, 1422 males and 1581 females were interviewed. Males and females had similar healthcare-seeking behaviour but fewer students attending schools in rural areas reported having their eyes or hearing checked, or had seen a dentist than those attending urban schools. Some twelve per cent of adolescents were overweight/ obese. More females than males and more urban than rural students were overweight or obese. More boys (86.3%) were physically active in the last week than girls (75%). Physical activity peaked at age 13 years and was lowest at ages 11 and 14–15 years.

Some 13% of adolescents 10–15 years old reported having had sexual intercourse, with boys being four times as likely as girls to report sexual activity (OR– 4.97; C.I. – 3.82, 6.47). The median age of sexual debut was 15.43 years for boys and over 15 years for girls. One-third of adolescents drank alcohol and 3% smoked marijuana in the past year. More boys than girls used drugs ($p < 0.01$*). Some 14% of adolescents felt lonely, sad or wanted to cry most of the time/always. One-tenth seriously considered suicide.*

This study concluded that most adolescents attending primary and secondary schools in Jamaica were not involved in risky behaviour. However, it reveals some critical areas of concern with regard to nutritional status and physical activity, emotional well-being, drug use and sexual activity.

Nivel de Salud de la Juventud Jamaicana en el 2005

K Fox[1], G Gordon-Strachan[2], A Johnson[3], D Ashley[4]

RESUMEN

El propósito de este estudio es determinar el comportamiento de búsqueda de la salud, el nivel nutricional, y los estilos de vida de adolescentes de 10–15 años. Una muestra aleatoria de 3003 (1422 varones y 1581 hembras) escolares de 10–15 años de edad, fue sometida a una encuesta transversal aplicada por el entrevistador. La encuesta con sede en la escuela, fue conducida en todos los tipos de escuela a lo largo de la isla en una muestra nacionalmente representativa de niños y niñas jamaicanos que asisten a la escuela actualmente. Se entrevistaron unos 3003 jóvenes, 1422 varones y 1581 hembras.

Los varones y las hembras tenían comportamientos de búsqueda de la salud similares pero el número de estudiantes que reportó haber tenido chequeos de la vista o de la audición, o haber visto a un dentista, fue menor entre aquellos que asistían a las escuelas en áreas rurales que entre los que asistían a escuelas urbanas. Alrededor del doce por ciento de los adolescentes eran obesos o estaban pasados de peso. Más hembras que varones y más estudiantes urbanos que rurales estaba pasados de peso o eran obesos. Más muchachos (86.3%) que muchachas (75%) estaban físicamente activos en la última semana. La actividad física alcanzó su punto máximo en la edad 13 años y el más bajo en las edades 11 y 14–15 años. Alrededor de 13% de adolescentes de 10–15 años reportaron haber tenido relaciones

From: [1]The Sir Arthur Lewis Institute of Social and Economic Studies, [2]Faculty of Medical Sciences, The University of the West Indies, Mona, Kingston 7, Jamaica, [3]Ministry of Health, Kingston, [4]School of Graduate Studies and Research, The University of the West Indies, Kingston 7, Jamaica, West Indies.

Correspondence: Dr K Fox, The Sir Arthur Lewis Institute of Social and Economic Studies, The University of the West Indies, Kingston 7, Jamaica, West Indies.

*sexuales, siendo el caso que la tendencia a reportar actividad sexual fue cuatro veces mayor en los muchachos que en las muchachas (OR– 4.97; C.I. – 3.82, 6.47). La edad promedio de la iniciación sexual fue de 15.43 años para los muchachos y mayor de 15 años para las muchachas. Un tercio de los adolescentes bebió alcohol y un 3% fumó marihuana el año pasado. Más muchachos que las muchachas consumían drogas (*p < *0.01). Alrededor del 14% de los adolescentes se sentían solos, tristes o sentían deseos de llorar la mayor parte del tiempo/siempre. La décima parte de ellos consideró seriamente la posibilidad de suicidio.*

Este estudio concluyó que la mayoría de los adolescentes que asisten a las escuelas primarias y secundarias en Jamaica no estuvieron involucrados en conductas de riesgo. Sin embargo, se ponen de manifiesto algunas áreas críticas de preocupación con respecto al nivel nutricional y la actividad física, el bienestar emocional, el uso de drogas y la actividad sexual.

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INTRODUCTION

In Jamaica, lifestyle habits, such as smoking and alcohol consumption, have been identified as risk factors for violence, aggression and inappropriate sexual behaviour and these have now begun to have a significant impact on the adolescent. With an adolescent fertility rate of 65/1000 in 2004, Jamaica is amongst the highest in the Caribbean (1) with 40% of Jamaican females becoming pregnant at least once by the age of twenty years and 80% of these pregnancies were unplanned (2). Adolescents and young adults also suffer disproportionately from sexually-transmitted infections;10–14-year old girls have twice higher risk and those 15–19 years old have thrice higher risk than boys of similar age group of contracting HIV/AIDS (3).

In 1998, 31% of all suicides in Jamaica were amongst youth 15–24 years old. Overall, 11% of Jamaican youth 15–24 years old contemplated suicide at least once and 3% attempted it multiple times (4). Alcohol is very widely used as it is readily available and inexpensive (5).

This study sought to determine health-seeking behaviour, nutritional and emotional status, sexual behaviour and drug and alcohol use among adolescent students aged 10–15 years in a nationally representative sample.

SUBJECTS AND METHODS

The study was a cross-sectional, interviewer-administered school-based survey conducted in all school types islandwide. Children aged 10–15 years attending school were eligible to participate. A listing of primary and secondary schools and their enrolment records provided the sample frames. Schools were randomly selected with probability proportional to size. At each school, children within the grades with the required age groups were randomly selected from the school register. Written informed consent and assent were obtained from parent/guardian and the child, respectively. Children who reported that they had been abused, or had considered or attempted suicide, were referred to Child Guidance Clinics.

The questionnaire was compiled using validated questions from previous surveys on the same age group of Jamaican children (5–7). Validation of the final questionnaire for this study was done during the pre-testing phase of the project. In addition to the questionnaire, the students were weighed and measured.

Main types of analyses included frequencies, cross tabulations and adjusted odds ratios to explore associations using SPSS ver. 11. The data were weighted by age, gender, school type and parish. The levels of overweight and obesity were determined using the International Obesity Task Force (8) cut-off points for body mass index. These cut-offs evaluate overnutrition but not undernutrition.

RESULTS

Demographic Characteristics

A total of 3003 children were surveyed with similar distribution by gender (Table 1). More boys were in primary, all-age and junior high schools, when compared with girls. The majority of the children attended schools in urban areas (52.6%) based on the classification used by the Ministry of Education, Youth and Culture (MOEYC).

Table 1: Distribution of adolescents aged 10–15 by gender, age, school type and school location

Characteristic		Sex				Total	
		Male		Female			
		Nos.	%	Nos.	%	Nos.	%
Age (Years)	10	232	16.3	263	16.6	495	16.5
	11	246	17.3	284	18.0	531	17.7
	12	244	17.2	278	17.6	523	17.4
	13	238	16.7	271	17.2	509	17.0
	14	227	16.0	257	16.3	485	16.1
	15	234	16.5	227	14.3	461	15.3
School type	Primary	320	22.5	362	22.9	682	22.7
	All-age	398	28.0	376	23.8	774	25.8
	Jnr High	146	10.3	86	5.4	232	7.7
	High	558	39.2	756	47.8	1314	43.8
School Location	Urban	729	51.3	864	54.6	1 593	53.0
	Rural	538	37.9	579	36.6	1 117	37.2
	Remote rural	155	10.9	138	8.7	293	9.8
	Total	**1422**	**100.0**	**1580**	**100.0**	**3002**	**100.0**

Data weighted, therefore totals may not add up due to rounding.

Healthcare-seeking Behaviour

Of the 2756 children who responded to the question "where do you usually go for medical/healthcare", 3% of adolescents did not seek healthcare, while 38%, 31% and 28% sought healthcare at the public health centre, the private doctors and the hospital respectively. There were no gender differences. Students attending schools in rural areas were less likely to report ever having their eyes (OR – 0.53; C.I. 0.46, 0.61) or hearing (OR – 0.58; C.I.; 0.50, 0.67) checked or ever having visited a dentist (OR – 0.58; C.I. – 0.49, 0.68) than those living in urban areas.

Nutritional Status

Overall, 6.4% of the students were underweight (BMI < 5th percentile) with slightly more boys (7.6%) than girls (5.4%) being underweight. Some 11.6% were overweight/obese (Table 2). At all ages, students attending schools in the urban areas had higher levels of obesity (OR – 1.45; C.I. – 1.14, 1.86) and males were less likely to be overweight/obese than females (OR – 0.58; C.I. – 0.46, 0.73). The prevalence of obesity increased with age (Fig. 1).

Physical Exercise

The majority of children (83.0%) reported doing exercise at school; 81.3% were involved in physical exercise for at least 30 minutes during the previous week. However, boys were more likely than girls to have participated in physical activity in the past week (OR – 2.18; C.I. – 1.80, 2.63) [Table 2]. Fluctuations in the percentage of children involved in physical activity occurred with activity being lowest at age 11 years and at ages 14 to 15 years and peaking at age 13 years (Fig. 2).

Sexual Behaviour

Overall, 12.8% of the adolescents reported having had sexual intercourse, with four times more boys (20.9%) than girls (5.5%) having done so (OR – 4.97; C.I. – 3.82, 6.47). Sexual activity increased with age ($p < 0.01$), the major increase being after 12 years of age. Using life tables to account for the adolescents who were not yet sexually active, the median age of first sex was calculated at 15.43 for boys and over 15 years for girls. Figure 3 displays the survival functions of first sexual intercourse for boys and girls 10 to 15 years old and shows the cumulative proportion of cases surviving *ie* the probability of not having sex up to the end of each interval of time. At age 15 years, the probability of girls not having sexual intercourse was 0.64 but for boys this figure was 0.26; *ie* it is expected that 64% of adolescent girls in school would not have had sexual intercourse but only 26% of boys in school would not have done so.

Of the 376 sexually active adolescents, 76% stated that they had agreed to it on the first occasion, but significantly more boys (80%) than girls (65%) stated that this was so ($p < 0.05$). Some 24.2% of all the sexually active girls stated that they had been forced, while another 12% had allowed the sex to occur without agreeing to it.

A little over half of those who were sexually active (52%) stated that they/their partner had used a condom the

Table 2: Percentage reporting and adjusted odds ratios[1] for selected health risk factors and risk behaviour by sex and location of school

			Sex (males/females)	Age	Location of school (Urban/rural)
	%	N	OR (95% CI)	OR (95% CI)	OR (95% CI)
Is Overwt/Obese	11.2	2981	0.58 (.46–.73)	1.35 (1.26–1.49)	1.45 (1.14–1.86)
Was Physically Active Last Week	80.1	2977	2.18 (1.80–2.63)	n.s.	1.25 (1.04–1.51)
Has had sexual intercourse	12.8	2948	4.97 (3.82–6.47)	1.73 (1.59–1.87)	n.s.
In past year has consumed alcohol	32.3	2973	1.50 (1.28–1.75)	1.36 (1.29–1.43)	n.s.
Has ever smoked cigarettes	10.0	2981	1.37(1.07–1.75)	1.36 (1.26–1.47)	1.46 (1.13–1.89)
In past year has smoked marijuana	2.7	2913	1.99 (1.24–3.20)	1.84 (1.54–2.20)	2.03 (1.19–3.46)

[1] Adjusted for age sex and location of school

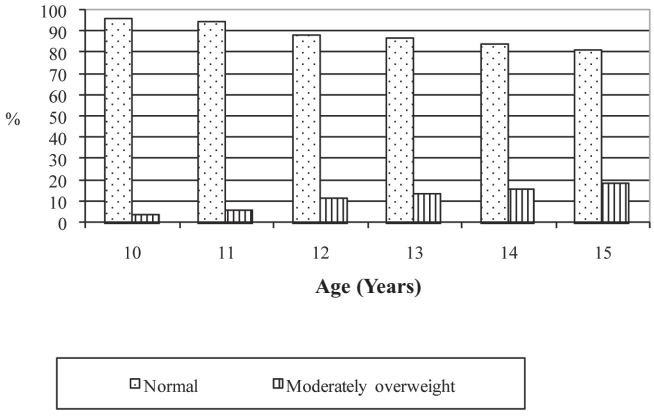

Fig. 1: Nutritional status by age of student

Table 3: Emotions by gender of adolescent, Jamaica, 2005

	Gender				Total	
	Male		Female			
	Nos.	%	Nos.	%	Nos.	%
During past year, felt lonely sad or wanted to cry – most of the time/always*	1406	9.7	1560	17.3	2966	13.7
During past year, worrying affected sleep – most of the time/always	1416	8.0	1561	6.9	2976	7.4
During the past year, has considered suicide*	1418	7.2	1579	11.6	2997	9.5
Has tried to commit suicide	1418	2.6	1579	3.5	2997	3.1
During the past year, has made a plan to commit suicide	1418	3.9	1579	5.2	2997	4.6

* $p < 0.01$

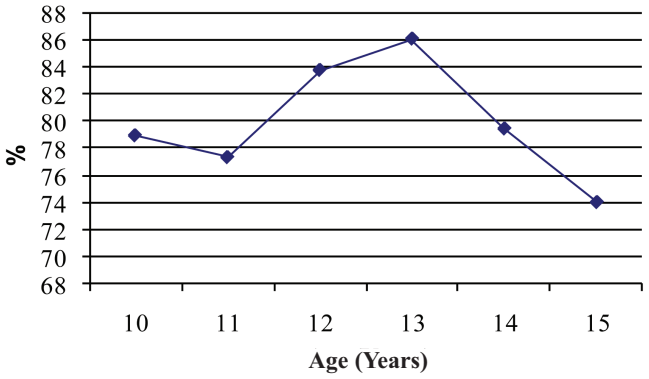

Fig. 2: Physical activity in previous week by age of student

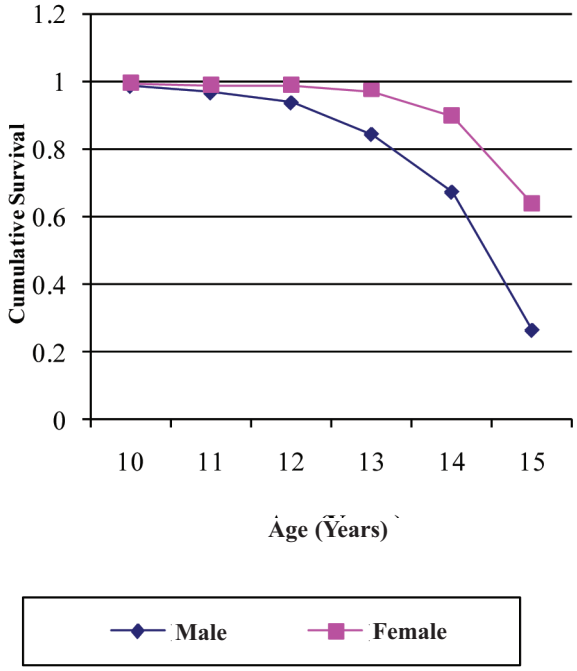

Fig. 3: Probability of not having sex by age and gender of student

last time they had sexual intercourse. Significantly more girls (68.5%) than boys (46.9%) had used a condom ($p < 0.01$).

Drug Use

Alcohol was the main type of drug used, with one-third of all adolescents having drunk alcohol in the past year (Table 2). Some 10% had ever smoked a cigarette while less than 5% had smoked marijuana in the past year. Significantly, more boys than girls had used drugs and children in urban areas were more likely to use drugs than those living in rural areas (Table 2). Drug use by age of adolescent is presented in Fig. 4. As age increases so does drug use, especially after 12 years

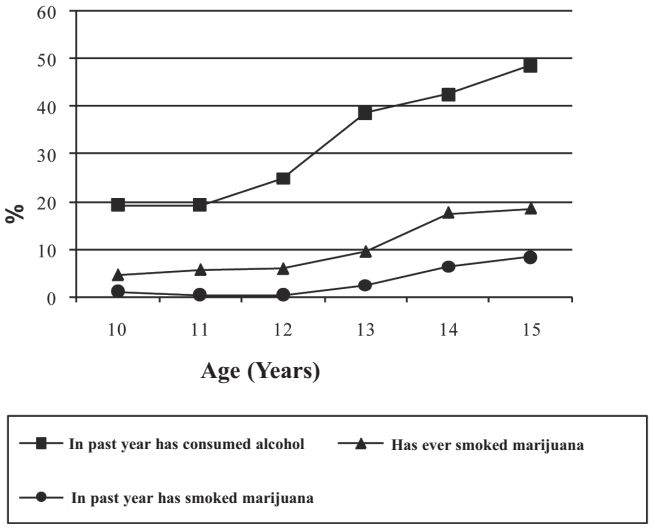

Fig. 4: Drug use by age of student

of age. By age 15 years, approximately 50% reported consuming alcohol; nearly 20% had smoked cigarettes and 8.4% had smoked marijuana.

Adolescents were asked whether they thought that drugs were easy or difficult to obtain. Almost all (93%) thought that cocaine/crack was difficult, if not impossible to

get. On the other hand, they thought that alcohol (73.2%) and cigarettes (70%) were easy to get. Some 42% also thought that it would be easy to obtain marijuana.

Emotions and Mental Health

Overall, 14% of adolescents felt lonely, sad or wanted to cry always or most of the time, while approximately 7% had worry-affected sleep most or all of the time (Table 3). More females (17%) than males (10%) were "sad, lonely or wanted to cry" ($p < 0.01$) but there was no significant difference between the genders in terms of "worrying". Approximately one in ten adolescents considered suicide during the past year. More females (12%) than males (7%) had suicidal thoughts but similar percentages of males and females had tried to commit suicide during the previous year.

DISCUSSION

This study of the health of adolescent students is a representative sample of the student population and the results can be extrapolated to the general student population in the age group 10–15 years in Jamaica. It relied on self-reported data (except the anthropometric measurements) from the children and therefore it can be expected that there is the limitation of recall biases. However, most of the questions had been administered to adolescents in earlier surveys (7) with acceptable results.

The level of physical activity was high with over 80% of children reporting their involvement. However, it decreased at ages when important external academic examinations occur suggesting that the importance of physical exercise is not entirely understood or appreciated. The prevalence of overweight and obesity was 12%. While this may appear relatively low, Jamaica is a part of the global trend towards increasing obesity as a result of increased affluence, decreased physical activity and changing dietary habit. Strong action is needed to reverse this and to ensure that the level of obesity does not rise.

The study found a high prevalence of alcohol consumption and cigarette smoking especially among males. Marijuana use was also more prevalent among boys than girls. As age increased, drug and alcohol used increased alarmingly especially after age 12 years. Abel *et al* reported similar findings in a 1997 study of slightly older students (10–18 years) of whom 48% were imbibing alcohol and 6% smoking marijuana with the same gender differences being noted (9).

Early initiation of sexual activity was reported especially among boys. Eccleston *et al* also observed high levels of sexual activity among adolescent 11–14 years and suggested that the much higher level among boys was related to social norms of acceptance and pressure to be engaged in sexual activity. Girls, on the other hand are negatively branded if their sexual activity is revealed (10).

In this study, girls appeared vulnerable to coercive sex. This is consistent with data from the Reproductive Health Survey of 2002 (11) which reported that one in every five girls, 15–19 years old, is forced to have sex. It suggests a level of passivity and powerlessness in decision-making among adolescent girls and point to the need for their empowerment to reduce the risk of sexually transmitted disease including HIV/AIDS and pregnancy. Studies show that early coercive sex is associated with compromised reproductive and sexual health including increased risk of subsequent unsafe consensual sex, and poor mental and social outcomes (12). Only half of the sexually active used a condom at last coitus with boys being less likely to do so than girls.

Overall, 14% of adolescents reported at least one symptom of depression while approximately 10% of adolescents considered suicide during the past year. These results are not precise measures of depression and therefore must be viewed with caution. However, they are similar to that of the United States of America (USA) where the lifetime prevalence of depression among adolescents was 14.0% in 2005 (13) and in Trinidad and Tobago where 14% of adolescents were depressed (14). Further analysis is needed to understand factors underlying "unhappiness" among young adolescents.

Boys differed from girls in almost every factor measured in this study, with more boys demonstrating negative behaviours such as drug abuse and sexual activity. However, more girls, especially those in urban areas, were obese and fewer girls were involved in physical activities. Also more girls displayed symptoms of depression. These gender differentials are worthy of note and emphasize the need for different strategies to address the issues affecting male and female students in Jamaica.

In summary, this study showed that most adolescents attending primary and secondary schools in Jamaica are not involved in high-risk behaviours. However, it pointed to some critical areas of concern with regard to nutritional status and physical activity, emotional well-being, drug use and sexual activity. With the exception of nutritional status and physical activity, boys were more likely to exhibit negative behaviour, while children in the rural areas were less likely to do so. Further analysis is needed to determine the role of associated factors in minimizing or exacerbating risk. In the meantime, the promotion of positive behaviours through health education at each level of the education system must be emphasized. The results informed the Ministry of Health in the development of programmes to encourage young people to engage in healthy lifestyles and provided baseline data for monitoring these programmes.

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