Are Parents in Tune with Music Their Adolescent Children Enjoy? Are There Missed Opportunities for Sexual and Reproductive Health Dialogue?

D Holder-Nevins, K James, A Bailey, D Eldemire-Shearer

ABSTRACT

The perspectives of adolescents were solicited on the issue of sexual and reproductive health messages they received through dancehall music as well as their perceptions of parents' views of such messages and adolescents' indulgence with this genre of music.

Methods: This sequential mixed methods study was completed in 2008. The study's qualitative component was summarized as the novel ALODAC (Ask, Listen and Observe, Discuss, Analyse and Confirm) model, involving a series of steps to engage adolescents 10–19 years to share their perspectives on sexual and reproductive health messages enunciated in the dancehall music to which they listen. The quantitative component saw 1626 adolescents in public schools responding to an interviewer-administered questionnaire which included questions about their families and how they respond to dancehall content. Five messages determined from content analysis of songs on adolescents' music menu were used to initiate discussions with adolescents about the issues.

Results: Almost equal proportions of respondents in the survey lived with either their mothers (37.3%) or both parents (35.6%). Most adolescents reported enjoying dancehall music and learning specific messages even when some parents were against use of such music. There were significant gender differences observed regarding perceptions about parents agreement with lyrics on transactional sex (p < 0.001), prevention of pregnancy (p < 0.01), condom use (p < 0.01) and multiple relationships (p < 0.01).

Conclusions: Whether or not parents are in tune with the music their adolescent children listen to does not seem to affect the pleasure and lessons adolescents gain from this medium. Opportunities for discussing sexual issues common in Jamaican dancehall music exist but are missed.

Keywords: Adolescents, ALODAC, dancehall music, reproductive health.

¿Están los Padres en Sintonía con la Música que a sus Hijos Adolescentes les Gusta? ¿Se Desaprovechan Oportunidades Para Conversar Sobre Salud Sexual y Reproductiva?

D Holder-Nevins, K James, A Bailey, D Eldemire-Shearer

RESUMEN

Se pidió a un número de adolescentes dar sus perspectivas acerca de los mensajes acerca de la salud sexual y reproductiva recibidos a través de la llamada música dancehall, así como sus percepciones de los puntos de vista de sus padres sobre esos mensajes y la indulgencia de los adolescentes con este género de música.

Métodos: Este estudio de métodos mixtos secuenciales se completó en 2008. El componente cualitativo del estudio fue resumido como el modelo novel ALODAC, que incluye una serie de pasos para hacer que adolescentes de 10 a 19 años de edad compartan sus perspectivas sobre los mensajes sobre salud sexual y reproductiva contenidos en la música dancehall que escuchan. El componente cuantitativo comprendió 1626 adolescentes de las escuelas públicas, quienes respondieron un cuestionario administrado por el entrevistador, que incluía preguntas acerca de sus familias y cómo respondían al contenido dancehall. Cinco mensajes determinados a partir del análisis del contenido de canciones en

From: Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, Jamaica, West Indies.

Correspondence: Dr D Holder-Nevins, Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, Jamaica, West Indies. Fax: (876) 977-6346, e-mail: d_levins@hotmail.com el repertorio musical de los adolescentes, fueron utilizados para iniciar conversaciones con los adolescentes acerca de las cuestiones.

Resultados: Casi las mismas proporciones de encuestados en el estudio vivían, bien con sus madres (37.3%), bien con ambos progenitores (35.6%). La mayor parte de los adolescentes reportó disfrutar de la música dancehall y aprender de los mensajes específicos, incluso cuando algunos padres y madres estaban en contra del uso de este tipo de música. Se observaron diferencias significativas de género en relación con las percepciones sobre el acuerdo de los padres con respecto a las letras sobre las transacciones sexuales (p < 0,001), la prevención del embarazo (p < 0,01), el uso de preservativos (p < 0,01) y las relaciones múltiples (p < 0,01).

Conclusiones: Que los padres estén o no en sintonía con la música que escuchan sus hijos adolescentes, no parece afectar el placer y las lecciones que los adolescentes derivan de este medio. Existen oportunidades para debatir cuestiones sexuales comunes en la música dancehall jamaicana, pero no se aprovechan.

Palabras claves: Adolescentes, ALODAC, música dancehall, salud reproductiva

INTRODUCTION

Mass media play a very important role in socializing societies around the world. As new communication technologies are developed and media take on new forms and approaches, there is the trade-off between society being much more informed and some vulnerable groups being over-exposed to undesirable content that shapes values and lifestyle practices. Adolescence is often described as a critical point in the life cycle when values are inculcated and media use takes on increased importance (1).

The World Health Organization describes adolescence (10–19 years) as the period of transition between adulthood and childhood which starts with puberty during which there are changes in hormonal levels and the appearance of secondary sexual characteristics. There are complex interactions of physical, cognitive, environmental and psychosocial processes during adolescence which in turn influence risk-taking and self-awareness (2). Many behaviours, both healthy and unhealthy, adopted during adolescence persist into adult life (3). Studies show that adolescents are often influenced by family and peers in making decisions (4–6).

The Jamaica Youth Risk and Resiliency Survey 2006 (7) has shown that among adolescents ages 10–19 years, one in five had initiated sexual activity by age 14 years, 55% by age 16 years and over 85% by age 19 years. Further evidence of the level of sexual activity is that adolescents aged 10–19 years account for 21% of maternal deliveries at public health facilities in Jamaica (8). Sexually transmitted diseases are also increasing; 8.2% in 2004 among adolescent females and 14.4% in 2008. AIDS is the leading cause of death among adolescents (15–24 years) and girls are three times more likely than boys to have the disease (9).

Several studies have sought to examine what social factors influence adolescents' sexual choices. Music has been identified as an important part of their lives and an important source of sex education. In the United States of America (USA) there has been substantial research into the

West Indian Med J 2011; 60 (2): 159

various three forms of media and especially music and the effect on sexual and reproductive health (SRH) attitudes and behaviour (10–16). One study found that 42% of compact discs had sexually explicit lyrics and that adolescents are prime users of this medium (12). L'Engle (15) found that regardless of the influence of peers, family and religious connections, high media diet had a significant relationship with increased sexual activity and/or intention to engage in such activities.

The Caribbean has a rich musical heritage and some of the genres convey clearly sexually explicit lyrics. It is important to understand the effect of music on sexual knowledge, attitudes, feelings and practices. Arnett suggests that research of this nature should include identifying whether the sexuality issues in music are perceived as portraying real life (16).

A national study conducted between 2005 and 2006 sought to explore the role of music in SRH education among adolescents attending public schools in Jamaica (17). This paper is informed by data from that study with a focus on how adolescents perceive parental views on the SRH issues common in the dancehall music genre and how they are affected by such views. Given the fact that data on adolescents' health point to the need for ongoing SRH interventions and since this has implications for the achievement of the Millennium Development Goal #6 to combat AIDS/HIV, malaria and other diseases (18), research in this area is vital. Parents have a key role in influencing decisions, values and behaviours and the extent to which this is done must be understood for appropriate responses.

Theoretical framework

Studies seeking to understand individual experiences about specific phenomenon are largely explorative allowing study participants to speak freely about experiences (19). Leedy and Ormrod have suggested that findings from such studies can be discussed in light of known theoretical perspectives without altering the real meanings of study participants (20). The Social Learning Theory [SLT] (21) developed by Bandura provides a suitable paradigm for discussing the impact of music on adolescents. This theory implies that health behaviour results from the interaction between three major factors: the behaviour itself, individual attributes and environmental influences. Observational learning, one of the constructs of this theory, describes the indirect way in which behaviours are learnt from families, peers and friends/ acquaintances. The Social Learning Theory explains that people learn from role models in their environment by just observing what they do and how this brings them rewards including fame. The individual attributes driving this include understanding of the behaviour itself, the value placed on that behaviour, expected positive responses from others when the behaviour is enacted, ability to learn by observation and confidence in performing the behaviour (21). This study sought to explore the perceptions and attitudes adolescents have about dancehall music lyrics that convey sexual and reproductive health messages and how these relate to values and permissiveness of their parents. Ethical approval was obtained from the Faculty of Medical Sciences/The University of the West Indies/University Hospital of the West Indies Ethics Committee to conduct the study and the consent of parents and assent of adolescents were sought and obtained.

SUBJECTS AND METHODS

The approaches used in this sequential mixed methods study (19) have been described previously (22–23). The qualitative process 'ALODAC' is illustrated in Fig. 1 and constitutes a



Fig. 1: The qualitative approach to the study: the ALODAC model (16).

series of contacts with adolescents to probe their involvement with music and their perceptions about sensitive sexual issues (17). Five themes emerging from analysis of the qualitative data were used to inform part of the quantitative study and are discussed in this paper.

In the quantitative component, an interviewer-administered questionnaire included 13 items that sought to confirm whether or not adolescents were indulging in dance-hall music use and the nature of some sexual content they were aware of in popular songs. Another four questions were posed to assess adolescents' perception about the views of their parents and guardians pertaining to explicit sexual content that they may have been exposed to in such songs and how this influence their desire to adopt some behaviours promoted. These data were analysed using the Statistical Package for the Social Sciences (SPSS) version 12 and descriptive and inferential statistical measures applied.

Demographic characteristics were ascertained and major sexual and reproductive health themes from the data identified by content analysis of the scripts of the qualitative component of the study. These were then juxtaposed with quantitative results for further elucidation of issues. Results from both quantitative and qualitative arms of the study are presented below.

RESULTS

Demographic characteristics

One in five children was not living with either or both parents. Equivalent numbers lived with either their mothers (37.3%) or both parents (35.6%). While there was no significant overall difference between living arrangements and gender of the child, more boys (7.3%) than girls (5.6%) reported living with their fathers only.

The largest proportion of respondents (38.3%) reported that their household head worked in elementary occupations which include domestic and related workers, messengers, porters and labourers. Skilled, trade/craft workers accounted for another 29.7%. A quarter of the head of households were professionals and entrepreneurs (Fig. 2). Households with-

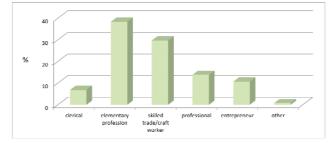


Fig. 2: Occupation of household heads.

out any real income were few (5.2%). Remittances were identified as a primary source of income of household heads by approximately five per cent of adolescents surveyed.

Self-reported indulgence with and responses to dancehall music

Most respondents (99%) reported that they liked to listen to music with dancehall (53.2%) and gospel (17%) named as the top two music forms preferred. These were followed by American music genres, 'Hip Hop' (12.4%) and 'Rhythm and Blues' (9.5%). Beenie Man (42%), Vybz Kartel (13%) and Elephant Man (10%) topped the list of favourite DJs named by participants whether or not they had dancehall as their favourite genre. Between the top two DJs cited, girls (48%) were more likely than boys (36.5%) to select Beenie Man as a favourite, while boys (18.1%) were twice as likely as girls (9%) to select Vybz Kartel as their favourite. Although the majority of respondents (78%) said they disliked the explicit sexual lyrical content of many dancehall songs, 21% of boys and 16% of girls said they liked such lyrics. Most respondents (79%) reported that dancehall music makes them either want to sing and dance or experience other feelings that could be considered positive (Fig. 3).

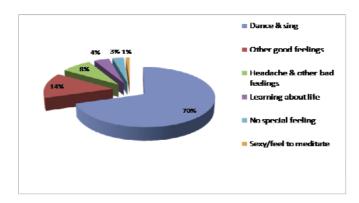


Fig. 3: Self-report of feelings elicited listening to dancehall music. (p = 0.010).

The feedback in focus groups was similar, as dancing and good feelings were linked to listening to dancehall music. This is how some participants in the 10–12-year age group expressed their feelings about the impact of the music:

I like them because when you play them you can dance. You can move to the beat and dance to the song. **Moderator:** What else? We see their body move on the TV. Their bodies shake The songs are full of vibes **Moderator asked:** What do you mean full of vibes? Dancing vibes; dance with girls

The songs build up the vibes to get [approach] a girl.

In another group of older boys 16–19 years old, one person said:

It's all about the beat. You just feel nice and want to dance and feel good.

Messages gleaned from dancehall songs

Five major themes emerged from the analysis of both focus groups and survey responses: transactional sex, condom use,

intolerance (abhorrence) of men who have sex with men (MSMs), multiple relationships and prevention of pregnancy. All themes were confirmed by study participants and five were subjected to detailed analysis because of their relevance to this paper. The messages confirmed as being gleaned from dancehall songs related to, hurting men who have sex with men (70.5%), condom use (55.5%), pregnancy prevention (35.4%), transactional sex (30.6%) and multiple relationships (52.9%). Most of those confirming the messages also agreed that they wanted to prevent pregnancy (56.5%) and use condoms (71.3%). Table 1 details the gender responses to this question and shows that 'multiple relationships' was the area having the widest gender disparity.

Perceptions about what parents know and agree with in dancehall

Respondents were questioned about whether or not they thought parents could decipher specific messages in dancehall music and if they thought that their parents would agree with and approve of them listening to the five identified messages. The majority of both males (70.8%) and females (71.1%) shared the view that their parents understood what DJs sing about all or some of the times. The minority either did not know or felt their parents did not understand the DJs' lyrics (Fig. 4). Focus group participants, however, felt that some parents perceived dancehall music as just noise and that they often reprimanded them to "turn off the noise in the house" or "I don't want to hear any of that noisy foolishness in here (the home)". Others said that they knew such music was offensive to their parents and quipped "I only play it when they are not at home" and "I use my ear phone; - and then they quarrel that I am not listening to them when they are talking because I have in the ear phones".

Assuming that parents understood the dancehall lyrics, how did participants perceive that their parents felt about the five targeted messages? Would they approve of them listening to these lyrics? Table 2 shows that there was no significant gender difference in the adolescents' perceptions about parents' agreement with hurting MSMs (32.6% males vs. 30.7% females). However, significantly more boys perceived that their parents would agree with the messages promoting transactional sex (p < 0.01) and multiple relationships (p < 0.01); significantly more girls perceived parents

 Table 1:
 Gender comparison of messages heard and the desire to practise these

Messages	Admitte	d hearing	message	Desired to practice the behaviour advocated			
	Males (%)	Females (%)	All (%)	Males (%)	Females (%)	All (%)	
Condom use	63.2	48.7	55.9	75.0	67.7	71.3	
Prevent pregnancy	28.7	41.3	35.0	55.2	57.8	56.5	
Have multiple relationships	65.3	41.9	53.6	34.5	3.3	18.9	
Transactional sex	31.1	30.1	30.6	17.2	3.0	10.1	
Hurt MSM's	69.8	71.1	70.5	44.0	29.1	36.5	

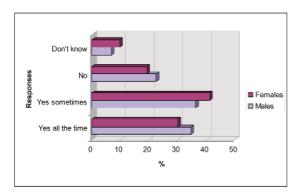


Fig. 4: Perceptions about frequency of parents' understanding of dancehall lyrics.

agreement with using condoms (p < 0.01) and prevention of pregnancy (p < 0.01).

On the issue of parental approval to these messages (Table 2), the majority of both genders felt their parents would approve of them listening to lyrics about condom use. Girls were more likely than boys to feel that their parents would approve of them listening to pregnancy prevention lyrics (p = 0.01) while boys were more likely to identify transactional sex (p < 0.01) and multiple relationships (p < 0.01) as meeting parental approval.

benefit of some men's money. They were against having many women for this reason. Comments included:

They only just want to use men. [16-year old male] Girls only want our things but don't want to give up anything. [13-year old boy]

Participants' desires and perceptions of what their parents' wanted

Which of the messages did participants desire to act on and how were such responses related to their perceptions about parents' agreement and approval? The three messages having the highest responses were selected for analysis: pregnancy prevention, condom use and desire to hurt MSMs. With all three messages, there was a significant positive relationship between desires to act on them and their perceptions about parents' agreement with and approval to listen to the lyrics. These relationships are shown in Table 3. The greatest difference for both genders was in the area of condom use. Eight per cent more girls felt their parents agreed with messages about condom use than those who said parents would approve of them listening to such lyrics. For boys the margin of difference was 2%.

Table 2:	Respondents	perception	about	parents'	agreement	with	key	messages	and
	approval for listening to these.								

Messages	Would agree (% yes)		P value	Would liste	P value	
				(%		
	М	F		М	F	
Use a condom	62.7	70.3	< 0.01	60.2	63.7	0.17
Prevent pregnancy	48.1	59.0	< 0.01	44.9	57.1	0.01
Hurt MSM's	32.6	30.7	0.23	30.4	26.9	0.12
Transactional sex	12.3	5.7	< 0.01	10.9	5.1	< 0.01
Multiple relationships	23.0	7.9	< 0.01	14.2	7.4	< 0.01

Multiple responses/ total not applicable

A recurrent theme in the interviews was that condom use and pregnancy prevention messages were very common in the society from sources other than dancehall and therefore were not perceived as messages parents would condemn. Girls were, however, adamant that it was not good practice to take gifts from males and many said their parents had warned them against this.

My mother says I must not take anything from men 'cause they will want something back. [14-year old girl]

The risk of getting pregnant and having sexually transmitted diseases including HIV were factors cited by girls and younger boys for not wanting to have multiple relationships. Older boys felt girls and women only want the

DISCUSSION

In the context of sexual and reproductive health and music, singers/performers that are admired by adolescents and are modelling/promoting various values about SRH have the potential to influence such adolescents accordingly. Analogies can be made about similar relationships between children and parents in respect of sexual and reproductive health values.

There is evidence to support the belief that cultural and social factors, whether obvious or not, can influence reproductive health decisions (24–25). Issues of fertility, condom use, transactional sex and intolerance to homosexuality are common in dancehall music and may be a source of values for many young people. Can such issues influence the thinking and behaviour of adolescents? Baronski, Perry and

Table 3: Relationship between the messages both genders desired to do and their perceptions about parents' agreement with and approval of listening to those messages

		ents woul 1 message	8	Parents would approve of me listening to lyrics			
Messages in the lyrics —	N	%	p value	Ν	%	p value	
Boys							
Want to use condom	410	(89.3)	0.000	384	(87.3)	0.000	
Want to prevent pregnancy	252	(71.2)	0.000	239	(72.9)	0.000	
Want to hurt MSMs	161	(67.4)	0.000	162	(68.5)	0.000	
Girls							
Want to use condom	229	(90.9)	0.000	374	(82.7)	0.000	
Want to prevent pregnancy	336	(69.4)	0.000	374	(71.1)	0.000	
Want to hurt MSMs	140	(56.0)	0.000	140	(56.0)	0.000	

Parcel, based on SLT, posit that it can. Some of the values and behaviours modelled by the dancehall artists reflect what actually obtains in the wider society and enhances internalisation of those values. The values of parents and guardians are also very important in this mix. The association found between desires to act on some messages and perceptions of parents' approval of the messages is therefore expected.

Joy as expressed in singing and dancing was the dominant emotion expressed as being triggered by listening to music and begs the question whether rhythm is not the dominant force in dancehall. While the issue of explicit sexual lyrics, especially those considered demeaning to women, is a moot topic in the Jamaican society, this was not the dominant concern for a large proportion of respondents who seem to enjoy dancehall music even if parents were against it. Nevertheless, one cannot lose sight of the possibility that behaviours advocated in the music may be learnt subtly and, based on SLT, these may be expressed at a time perceived as appropriate (21). Yet unqualified condemnation of dancehall music as wholly maleficent would be shortsighted as most of those reporting the effects of the music, expressed pleasant experiences.

On the issues of homophobia and transactional sex, one would wonder if these are made common in the society because of dancehall or is it that dancehall makes public what is already a common phenomenon. Homophobia often triggers violent acts against persons perceived to be homosexual males and discussions are necessary to deconstruct messages that trigger this phobia. The issue of transactional sex in this study supports those of Chevannes (25), who found that from a very early age, Jamaican boys are socialised to think that girls like money and giving money to them is an investment that may be rewarded with sexual favours.

Parents' negative attitudes to dancehall and its messages do not prevent adolescents from indulging in such musical experiences nor exposure to the contained messages. The existence of instruments to make listening to music more individual and private has implications for parents' awareness about what their adolescents are exposed to in this informal socialisation process. Without this knowledge, there are missed opportunities for raising dancehall message issues with adolescents. It also suggests that even while interventions like media literacy are done to target adolescents, parents may well benefit from such interventions and it can stimulate actions on their part to understand and discuss the sexuality issues with their children. Parents' values are being communicated to adolescents regarding issues like homosexuality, condom use, transactional sex, multiple relationships and pregnancy prevention. Whether directly or indirectly communicated, there is the sense that these adolescents know what their parents and guardians like or dislike on the subject of sexual and reproductive health. This, however, does not limit adolescents in making their own decisions. These latter observations are consistent with recent findings in Tanzania where parents' attempts to supervise children and prevent risky sexual behaviours were found to be futile (26).

CONCLUSION

'Dancehall' is the current preferred musical genre among Jamaican adolescents. The music, liked for its enrapturing rhythm, is infused with various messages pertaining to sexual and reproductive health. Adolescents hear and recognise them. Social Learning Theory indicates that these messages may be internalised and later expressed as behaviour, socially desirable or undesirable. Many parents are not in tune with the music their adolescent children listen to and this is a missed opportunity for discussing sexuality, correcting myths and promoting values clarification concerning such issues.

REFERENCES

- Chapin JR. Adolescent sex and mass media a developmental approach. Health publications [internet] available from: http://findarticles. com/p/articles/mi_m2248/is_140_35/ai_70777841/pg_2/?tag=content; col1.
- 2. World Collaborating Centre on Adolescent Health, University of Minnesota. A Portrait of Adolescent Health in the Caribbean. Pan

American Health Organization Regional Office of the World Health Organization 2000. p 5.

- Andrews MM, Boyle JS. Transcultural concepts in nursing care. 5th ed.USA: Lippincott Williams & Wilkins; 2008.
- Vuttamont U, Greenhalgh T, Griffin M, Boynton N. "Smart boys" and "sweet girls" – Sex education needs in Thai teenagers: a mixed method study. The Lancet 2006; 368: 2068–80.
- Fox K, Gordon-Strachan G. Jamaica youth risk and resiliency behaviour survey 2005 [Online]. [2007] [cited 2011 Jan 10]; Available from: URL:http://www.cpc.unc.edu/measure.
- Wilks R, Younger N, McFarlane S, Francis D, and Van Den Broeck J. Jamaican youth risk and resiliency behaviour survey 2006 available online at MEASURE Evaluation http://www.cpc.unc.edu/measure.
- 7. Ministry of Health Jamaica. KAPB survey 2008.
- Statistical Institute of Jamaica (STATIN). Demographic Statistics 2008.
 Ministry of Health Jamaica. National HIV/STI Surveillance Report
- 2008.
- Steele JR. Teens and Movies: Something to do, plenty to learn. In: Brown JD, Steele JR, Walsh-Childers K, editors. Sexual teens, sexual media: Investigating media's influence on adolescent sexuality. New Jersey: Lawrence Erlbaum Ass Inc; 2002 p 227–52.
- Cope-Farrar KM, Kunkel D. Sexual messages in teens' favourite prime time television programs. In: Brown JD, Steele JR, Walsh-Childers K, editors. Sexual teens, sexual media: Investigating media's influence on adolescent sexuality. New Jersey: Lawrence Erlbaum Ass Inc; 2002. p. 59–78.
- Kunkel D, Cope K, Farenola W, Biely E, Rollin E, Donnerstein E. Sex on TE'A biennial report to the Kaiser Family Foundation. 2001 California: The Henry Kaiser Family Foundation.
- Escobar-Chaves SL, Tortolero SR, Markham CM, Low BJ, Eitel P, Thickstun P. Impact of the media on adolescents' sexual attitudes and behaviours. Pediatrics 2005; 116: 303–26.
- Ward LM, Gorvine B, Cytron A. Would that really happen? Adolescent perceptions of sexuality according to primetime television: In: Brown JD, Steele JR, Walsh-Childers K, editors. Sexual teens sexual media: Investigating media's influence on adolescent sexuality. New Jersey: Lawrence Erlbaum Ass Inc; 2002. p. 95–124.

- Holfschire LJ, Greenberg BS. Media's impact on adolescents' body dissatisfaction: In: Brown JD, Steele JR, Walsh-Childers K, editors. Sexual teens sexual media: Investigating media's influence on adolescents' sexuality. New Jersey: Lawrence Erlbaum Ass Inc; 2002. p. 125–49.
- L'Engle KL, Brown JD, Kenneavy K. The mass media are an important context for adolescents' sexual behaviour. J Adol Health 2006; 38: 186–92.
- Arnett JJ. The sounds of sex: sex in teens' music and music videos. In: Brown JD, Steele JR, Walsh-Childers K, editors. Sexual teens sexual media. New Jersey: Lawrence Erlbaum Ass Inc; 2002. p 253–64.
- Holder-Nevins D. Beyond the music: assessing adolescents' perceptions and values about sexual and reproductive health. Ph.D thesis. University of West Indies.
- Millennium project: About MDG's [internet]. United Nations, available from: http://www.unmillenniumproject.org/goals/index.htm
- Creswell JW. Research Design: Qualitative, quantitative, and mixed methods approaches. 3rd ed. Los Angeles: Sage; 2009.
- Leedy PD, Ormrod JE. Practical Research: Planning and design 8th ed. USA: Merrill Prentice Hall; 2005.
- Baronski T, Perry CL, Parcel GS. How individuals, environments, and health behaviour interact. In: Glanz K, Lewis FM, Rimer BK editors. Health behaviour & health education – Theory research and practice 3rd ed. San Francisco: Jossey-Bates; 2004. P. 165–84.
- Holder-Nevins D, Eldemire-Shearer D, McCaw-Binns A. Adolescents ears: An avenue into their sexual and reproductive health values. West Indian Med J 2009; 58: 124–9.
- Holder-Nevins D, Eldemire-Shearer D, McCaw-Binns A. Competition for adolescents' sexual and reproductive health values: Is the media winning. West Indian Med J 2009; 58: 226–30.
- Smith EJ. Discussing sexuality fosters sexual health. Network 2002; 21: 5–8.
- Chevannes B. Grannitree. In: Learning to be a man: Culture, socialization and gender identity in five Caribbean communities. Jamaica: UWI press; 2001. p. 134–67.
- Wammoy J, Jenwick A, Urassa M, Zaba B, and Stones W. BMC Public Health 2011, 11:106 available from: http://www.biomedcentral. com/1471-2458/11/106.