Bridging the gap between adolescent sexuality and HIV risk: the urban Malaysian perspective

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ABSTRACT

Introduction: This study aimed to qualitatively explore adolescents' sexuality and their relation to human immunodeficiency virus (HIV) risk in Malaysia.

Methods: This study was conducted in 2002 among 16 male and female private college students aged between 18 and 22 years old, all of whom were sexually active. Semi-structured individual interviews were carried out.

Results: There were definite differences in gender roles in terms of how adolescents perceived sex, selection of sex partners and communication with their partners. Definitions of stable and casual relationships differed between males and females. Most participants were concerned about pregnancy rather than sexually transmitted diseases or HIV infection when they interpreted safe sex. Reasons for not practising safe sex include trust between sex partners, complacency, low perception of risk, and negative attitudes towards condom use.

Conclusion: These findings were closer to those observed in the developed countries. The findings from this study will serve as a guide to plan for local adolescent health education. It can also serve as a basis for more in-depth quantitative and qualitative research on adolescent sexuality.

Keywords: adolescent sexuality, human immunodeficiency virus, qualitative research, sex education, sexuality

Singapore Med J 2006; 47(6):482-490

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INTRODUCTION

Human immunodeficiency virus (HIV) infection is a growing problem both domestically[1] and globally[2]. There are at present approximately 57,000 people infected with HIV/acquired immune deficiency syndrome (AIDS) in Malaysia, with data registering a rising incidence[3]. Recent statistics from the World Health Organisation (WHO) AIDS epidemic update 2002 reported that the main mode of transmission for adults living with HIV/AIDS was heterosexual transmission[2]. However, in Malaysia, intravenous drug users (IDU) constituted more than 70% of the infection, followed by sexual intercourse (18%) and perinatal infection (1.7%) in year 2000[1]. Some caution should be taken when interpreting these local data as it tends to lean closer towards IDU transmission through inclusion by compulsory testing among prisoners and inmates at drug rehabilitation centres[4,5]. Most of these respondents were males. Furthermore, high prevalence of unprotected sex with girlfriends (55%) and commercial sex workers (31%) were reported among IDU[6], making the actual mode of transmission among the IDU unclear. There were also difficulties in collecting data regarding prevalence of sexually transmitted disease (STD) in Malaysia as most studies were not designed systematically[2]. Despite these limitations, recent epidemiological data did register some worrying trends. Firstly, it affected a relatively young age group, between the ages of 20-29 years old; and secondly, there was a rising incidence among women. Similarly, statistics in the USA revealed that at least 50% of the new HIV infections were occurring among persons below 25 years of age, in particular young women and ethnic minorities[7].

Adolescence is a period during which individuals seek interpersonal relationships and many of these relationships involved sexual activities. Virginity rates of both young men and women have fallen[8]; increasingly, adolescents have multiple sexual partners[9], use few disease-related sexual protective measures, and fail to use them consistently[10]. All these activities put them at risk of contracting an STD such as HIV infection. In Malaysia, research in this area has been scarce and mainly descriptive[11-13]. Zulkifli found, in his

study on 520 Malaysian adolescents (mainly in urban areas), that although both male and female respondents might have high knowledge score of transmission and prevention of HIV/AIDS, 72% still did not use condoms during sexual intercourse, and 62% did not perceive themselves to be at risk[11]. Similarly, research in both the USA and developing countries has shown that although knowledge about HIV/AIDS is clearly important for young people, knowledge, in and of itself, is not necessarily associated with HIV preventive actions such as condom use[14,15] or fewer number of sex partners[16].

Understanding why adolescents at risk for STD/HIV infection engage in unprotected sex is an important aspect of developing and implementing prevention programme. There are many theories that attempt to explain this behaviour. The Theory of Gender and Power proposed that power differentials and social norms that favour males pose significant health risks for females[17]. This concept needs to be verified and explored in the context of sexuality and HIV risk. Other important theoretical models (e.g. The Theory of Planned Behaviour, Health Belief Model, Social Cognitive Theory) suggest that correlates such as negative attitudes towards condom use[18], physical and environmental barriers to using condoms[19], and lack of self-efficacy for negotiating condom use[20] had been found to be predictive of low use. Perception of risk was another important factor, particularly with respect to partner type. Adolescents demonstrated markedly different sexual attitudes and behaviours in relation to main sex partners in contrast with casual partners[21], and age of partners[22]. In addition, effective communication strategies within interpersonal relationships have been found to be a key factor in the ability of women to implement sexual protection. However, barriers exist in the relationships that hinder such communication. All these factors require further and detailed exploration.

Due to limitations of quantitative research in exploring attitudes and behaviours, few studies seek to look at the reasons for the lack of perception of risk, poor usage of condoms, and risky sexual behaviour of adolescents in an in-depth qualitative manner[23]. Furthermore, the attitudes and sexual practices among the local adolescents might differ from other regions, in view of a multiethnic and more conservative culture in Malaysia. Hence, this qualitative study aims to capture the complexities and subtleties of adolescent sexuality and its relation to HIV risk, in particular with regard to gender roles.

Table I. Themes explored regarding adolescent sexuality and HIV risks.

Topics
Adolescents' attitudes towards sexuality; to explore their beliefs and views from a gender perspective; particularly, exploring gender roles, identities, responsibilities and power in a sexual relationship.
To identify their level of knowledge about HIV/AIDS infections and risks.
To explore their sexual practices, particularly towards safe sex.

METHODS

This study was carried out between October and December 2002 at private colleges in Klang Valley, an urban area in Malaysia. A semi-structured interview guide was designed based on literature reviews and discussions among researchers and experts of relevant fields. The guideline was pilot-tested among seven adolescents from these private colleges (results are not included in the final analysis), and necessary revisions were made. The final interview guide highlighted various issues as shown in Table I. 16 (ten females and six males) participants were selected, based on the following criteria: sex, ethnicity, being sexually active (i.e. having engaged in premarital sex voluntarily) and middleclass background. They were recruited using the "snowballing" sampling method after obtaining their consent. These interviews were carried out at both private and public spaces depending on the participants' request. The researchers were anxious to maintain confidentiality and were therefore careful to carry out interviews in as discreet a fashion as possible.

The researchers, both men in their thirties, carried out in-depth individual interviews of the male respondents. For the female interviewees, a female research assistant, in her early twenties, was trained to conduct the interviews. The interviews were audiotaped, transcribed, and checked by one of the researchers. Analysis was carried throughout the research process, and a second interview was arranged, where necessary, to clarify further issues. As new themes emerged from the data, they were incorporated into the interview guides in subsequent interviews. The research was continued until both researchers agreed that saturation of themes was achieved in both gender groups. Manual as well as computer software (NUD*IST N6) were used to manage the qualitative data. Both researchers performed the analysis independently. Any differences or disagreements were discussed and both agreed on the final analysis.

Table II. Demographics of participating private college students.

Variables	Frequency (n = 16)		Mean (SD, range)
	n	%	
Age (in years)			19.8 (1.2, 18-22)
Sex			
Male	6	37.5	
Female	10	62.5	
Race			
Chinese	9	56.3	
Malay	4	25.0	
Indian	3	18.7	
Working (part-time)	5	31.3	
Age of first sex*			
Male			15.8 (0.8, 15-17)
Female			17.0 (2.2, 12-20)
Tried drugs (e.g. ecstasy, marijuana, heroin)			
Male	3	50	
Female	6	60	

* The Mann-Whitney test did not show any significant difference in age of first time sex between the male and female participants (Mann-Whitney U = 13.00).

RESULTS

The participants' background is summarised in Table II.

Attitudes towards sexual relationship

Stable versus casual sex

For both male and female respondents, sex was defined as the physical act of penetration, an exchange of fluids and an emotional experience. For female participants, they described sex as "being beautiful", something "to be fulfilled, like hunger or thirst", as "an act of love", "a way for you and your partner to get closer", and "makes the relationship better". Most of the female participants felt sex was an emotional experience. Even if they had casual sex, it had to be with someone they knew or liked. For those who had experienced it, they tended to feel guilty.

"...okay, I am being conventional but I don't think you should just sleep around without any feelings because, for me, that is almost the same as prostitutes already. Because you don't have the feeling right? Then it is like if you have the love right? And then you are willing to commit, commit and sacrifice to do something for the person that you love. It is also for sexual gratification, to make yourself feel good right? That's my definition." (Female 6)

On the other hand, the male participants were more careful to differentiate between casual sex and sex in a relationship. For them, sex in a relationship meant commitment, emotional attachments and physical assertion, while casual sex did not constitute any emotional commitment or responsibilities, and were mainly to satisfy their sexual desires.

"When I love a person, and when I do it with my girlfriend, the person I love, I would call it making love. And it is a strong feeling there. But when some chick walks up to me and says hi in a club, and we start talking and all, and we have a one night stand, that is just to fulfil a desire, to unload. Hmmm, it would be sex, basically. Something a normal guy would want, just to fulfil the need." (Male A)

When another participant was asked why he had casual sex, *"because at that time, I wasn't a virgin. Sex drive is there, and I just want to do it. It's very common to all people I think, you just want to let it out, some people do masturbation, some people visit prostitutes." (Male E)*

Views on who should initiate sex

When asked about who should initiate sex, most male and female participants agreed that either partner could initiate sex. However, further probing revealed male dominance among some participants, preferring in this instance a submissive role for women.

"In every way, probably the guy has to make the first move. And the girls are supposed to respond to the affection or whatever. (Q: If she is the one who...) *Then probably, that relationship, it won't last... Most guys want to dominate, like... like the car, you know. It is their own car and they want to control their own car." (Male D)*

Despite agreeing that both partners could initiate sex, one female participant commented, *"Hmm... yeah, definitely. I find it a turn on because they show their manliness. Men are supposed to... I mean that's why I am conventional and traditional as I think guys should make the first move and they are like... they should be more aggressive." (Female 6)*

Talking to partners about past sexual experiences

There were some differences between the male and female participants regarding the willingness to talk about their past relationships and sexual experiences. Men tended to be less open to discussion about their experiences and enquire less about their partners' sexual lives. On the other hand, the female participants tended to ask their partners, and were more willing to share their past experiences. However, they also claimed that their partners probably would not want to know the details of their past relationships. Hence, the actual knowledge about their partner's sexual past is largely unknown to them.

"That is not a good thing to do, because what you do in the past is your memory and keep it as an experience. No, I wouldn't because basically everyone is different and they have their own styles of showing how they feel and you can't expect everyone to be the same." (Male D)

"... okay, basically I think most of the guys aren't as comfortable as compared to girls. When talking about their partners' sexual experience, I don't think they are really that comfortable. So you tend to hold back certain information." (Female 5)

Choice of partner

Both female and male participants preferred older partners. For men, the fear of commitment was the main reason for choosing older women and non-virgins. As for the females, they found older partners more mature and experienced, and felt that they would know how to take care of them. Virginity was not viewed as an important factor in choosing their partners.

"I look for older people because they are more experienced and they are definitely much more mature. It's not like a concept where oh... you go out with me and you have sex with me and we need to get into this serious commitment relationship. And then go out for four years and then get married. I'm not looking for that, so that's why I tend not to go for younger girls." (Male B)

"But I prefer older [men] because they are much mature and the way they... the way they can care for me and in that sense.... the younger ones cannot." (Female 6)

Views on cheating on partners

There were distinct differences in the views of male and female participants with regard to cheating on their partners. The males were more receptive towards the idea, and cited reasons such as "enjoyment", lack of sexual gratification from his current partner, and relationship problems. On the other hand, the female participants felt guilty and cheating happened while their relationships were on the rocks.

When commenting on cheating on partners, one participant explained, *"It is normal at this age because you are not married, you are not committed. At this age, most of their mentality would be enjoy while you can, enjoy as much as you can. Before you actually married, where you cannot do, a lot of things are limited."(Male A)*

"I didn't actually cheat on him, I meant I am not trying to justify myself but because I felt so guilty after that. It is more like the guy seduced me, that kind of thing. And I... I wasn't... I was really sad and yeah... no friends. But now it is over." (Female 10)

Attitudes towards sex

Reasons for engaging in sex

The female participants stated several reasons why they engaged in sex. These reasons ranged from feeling a need to fulfil their partner's demands, expressing love, maintaining or improving their relationship, to sexual pleasure. The reasons of engaging in sex and their attitudes towards sex changed with time, as they became more experienced. Most did not regret having sex and losing their virginity.

"Jeeze, first time it wasn't enjoyable. I didn't bleed and it didn't really hurt. I suppose that time yeah it was a way to show you know? Love. Like I love you and you love me that kind of things and bla...bla...bla... so let's do it kind of thing. That's about it. Then after that it becomes less and less important. You know? You don't take it as like make love kind of thing, it is just like having sex, intercourse. So after that it is just like that and you want to try new things, you want to be pleased even more." (Female 5)

"Also because if you pleasure your partner through sex right, then both of you feel better. It is like if you are sorry but you don't like to say sorry right, then you can just show it by sexual act." (Female 6)

Although the male participants engaged in sex mainly for pleasure and to satisfy their sexual desire, some voiced out that there was an emotional dimension to sex.

"For the fun of it, and basically... another vital factor, I would say.... to fulfil my manly desire." (Male B)

"I mean the reason why I have sex is because it is the emotional feeling. It is the emotional feeling and the interest, and somehow you know it's OK." (Male D)

What does sex give to men and women?

Again there was a difference in how men perceived the effect of sex on their partners. Men cited sexual satisfaction was what they and their partner would like to experience during sex. One participant felt that sex would also give him higher status in his social circle. However, the females perceived sex as more giving than receiving.

"Satisfaction! You feel good when you have sex. Yeah, when you are talking about, you know, impression, self-image. Some people feel they have sex and gain acceptance into their groups, into

their... it makes them sound more cool, and, it does. To me, I don't go around and telling people hey, you know, I have sex with. But those who know well, they certainly think a little more about me." (Male B)

"[For men] Maybe satisfaction, more powerful that you control the relationship. For women, it is more like they can make their partner happy." (Female 9)

Attitudes and practice of safe sex

Sexual practices

For those in a relationship, sex is a regular and open affair. They had sex and talked about it. Most of their sexual practices included petting, kissing, masturbation, oral sex, and vaginal intercourse. Two female participants, who had tried anal sex, did not like it and it was not part of their usual sexual repertoire. One female respondent was seeing someone from the USA and from time to time engaged in internet sex. The male participants in this study were less adventurous, staying to "normal" sexual practices.

Protection against pregnancy versus STD/HIV

When asked to define safe sex, the participants were able to give a fairly comprehensive definition that included both preventing being infected by STD and avoiding unplanned pregnancies. However, to all the participants, practising safe sex meant to avoid becoming pregnant. STDs, like HIV infection, were not part of their considerations. Some would only use protection with casual partners, and for the purpose of "cleanliness".

"Oh the first time, well... I don't know anything about safe sex. At that age, I didn't think about safe in the context of HIV. I think safe in the context of pregnancy. It is my number one fear." (Male A)

"... basically what I worry about is pregnancy more than STDs... if it is a casual partner then use the condoms. If you are not sure of the person and do not trust of the person being responsible then you will definitely use it". (Female 8)

Reasons for not using protective methods or contraceptives

Most participants, both male and female, did not practise safe sex. Although condom use was the most popular choice, most did not use it regularly. Some practised withdrawal and rhythm methods while others used morning-after pill, or just cleaned themselves (females) after sexual intercourse. Some misconceptions still prevailed regarding the use of various contraceptives or disease-related protective methods. Accessibility was not a problem because most of the participants knew where to buy condoms and oral contraceptives pills, and were not embarrassed to purchase them over the counter from pharmacies, convenience shops and supermarkets. The reasons for not using protection during sexual intercourse were explored further and summarised below.

• Trust

Both male and female participants in stable relationships trusted their partners, and felt that their risk of STDs were low because they were in a monogamous relationship. For those who had casual relationships, they judged their partner's risk by looking at their appearance. This trusting attitude was based on the perception of their partners and relationships, which in turn influenced their decision on condom use.

"No. I mean usually guys they don't like to wear. For me it is nothing. Because I trust the guy and I don't think he got AIDS." (Female 8)

"But basically, one night stands, I still choose people. She has to at least look clean. I have to at least know her in a way, like through friends. But it is mutual understanding, there and then." (Male A)

• Reliance on partners

Some relied on their partners to practise safe sex, rather than openly discussing with their partners or taking a proactive role.

When commenting on using rhythm method, *"Yeah, that's why I look for, in a sense, those of my partners who are experienced. So they, you know, they know when it is possible and when it is not." (Male B)*

• Control

There were some couples who practised withdrawal method. One male participant took pride in his ability to "control" his ejaculation, and hence obviate the need for condoms.

"I was 16. The first time I had, I was worried. Was worried that I couldn't control myself, in terms of coming. What I do is that the first few times I had, my first experience is that I wear condoms. And after some time, I get the idea of when to come and when not to come, and I stop using condoms. It is all a matter of control. A man needs to control, how they really want, and when they want to come." (Male E)

• Less pleasurable and troublesome

For the male participants, the use of condoms during

sexual intercourse was felt to be less pleasurable and troublesome. The female participants were more passive when it comes to using condoms, citing their partners' preference as the main reason for not using it.

"But to me, I hate to use condoms, because there is no pleasure in there. (Q: How did your girlfriend feel?) *Same way. She told me wearing it she couldn't really feel it, and without it is really a big difference, and so I never wear one." (Male E)*

"Yeah, I use it before. But I don't like to use condoms. And guys they said no feel. But to me, girl.... nothing because only one layer of plastic." (Female 8)

• Fear of harmful effects of contraceptive pills

There were some concerns regarding the harmful effects of oral contraceptives pills and most would avoid using it as a result. In this study, men seemed to be the ones making the decisions regarding the choice of contraception or protection.

"It (contraceptive pill) causes side effects. It is like I worry the safety for her. I don't want her to get any side effects." (Male A)

"Actually I did think about it before that. I wanted to take control pills but he doesn't allow me. He said how about using condoms but both of us also prefer like this. And once we tried, and we both don't like it (condom). (Q: Why he doesn't allow you to take control pills?) *Errr... he said some side effects." (Female 4)*

• Lack of awareness and complacency

Some participants (both male and female) had not put much thought into the possibility of pregnancy and STD. Some were complacent because they were not pregnant or infected with HIV despite practising unprotected sex for a long time.

"What would I do? Oh, no way! (Laugh) What would I do? I guess....mmmm... we wouldn't get there. I will make sure it doesn't happen. (Q: How?) *Well, the condom is just... it is safe sex, you know. And I will make sure...* (Q: follow the cycle is not 100% you know) *If she is not... get the pills, that's it. Morning-after pills. Well, some of them I don't know whether they have but I know some of them will do so. But it is not like they tell me but just they do it on their own. Probably they have it at home." (Male B)*

"No, we actually used condoms before but I don't like it. But after a while, you don't feel anything. So we don't use it. So yeah, I actually got scared but so far nothing happen. I think if I were to get pregnant, then I will go for abortion." (Female 9)

• Pressure from partners

One female participant, who has a high-risk partner, felt that her partner would be angry with her if she did not give in to his sexual demands.

"Ermmm...I asked him that I don't want to let this thing happen again. I am really scared, you know. I am scared that something happens. I am scared at my mom, you know. But at one time, he asked for that and I didn't give him and he was pissed off with me." (Female 3)

• Perception of risk

When asked about their perception of risk of contracting STD/HIV infections, most participants felt that they were not at risk, citing having a stable, "clean" partner as the main reason.

"I'm physically clean and she is also physically clean. (Q: What do you mean by clean?) *Clean as in most of my girlfriends are free from any kind of drugs, or drinking." (Male D)*

"No, as long as you are having sex with only one partner, which will be, me for him and him for me, then no. As long as you stay that way no, I don't think so." (Female 5)

Perception of STD risk was felt to be different from HIV risk, and there seemed to be some misconceptions about the two diseases.

"Actually STD, we might be at risk because I don't know about it. But for HIV, I think should be safe. I don't think he sleeps around and I definitely not sleeping around. And I have not injected for a long time." (Female 9)

Knowledge and attitudes towards HIV/AIDS

The knowledge regarding STD and HIV/AIDS were discussed. Although all of them were studying in a college, the level of knowledge varied considerably. Most were aware of the term "STD" and "HIV" or "AIDS", but when probed, a few were unable to explain further. Most participants knew that HIV could be transmitted through unprotected sex and intravenous drug use but few could cite vertical transmission and blood transfusion as other modes of transmission. Most were able to cite safe sex (condoms) and use of clean needles among IDU as preventive measures.

When asked about their attitudes towards victims of HIV infections, most participants sympathised with them and none conveyed a negative attitude towards them. All participants would seek help from the medical doctors (either hospitals or clinics) if

they suspected they had HIV infections. Most would discuss with their partners while few would tell their family about the diagnosis. Regarding the source of information pertaining to STD and HIV, few participants had some exposure while in secondary school but most felt that the information was insufficient and the presentation was unattractive.

DISCUSSION

In this study, there was no clear distinction between gender roles. The notion of femininity as submissive, pure and raised in an environment cloaked by secrecy about sex, as suggested by Gupta[24], did not appear relevant among our participants. Generally, there were only subtle differences in their attitudes towards mutual sexual satisfaction, initiation of sex, right to refuse sex, virginity, sourcing for information and decision on contraceptives. Most found no difficulty talking to friends about their sexual experiences. However, further analysis revealed definite differences in gender roles with respect to how they perceived sex, the age they first had sex, attitudes towards prostitution, communication with partners, and to a lesser degree, their response to losing their virginity. However, if their attitude towards sexuality reflects the socialisation to different genders, their sexual practices reflect a more egalitarian relationship based on sharing and a subtle nuance of power.

Although there were some differences in the reasons for having sex between the male and females adolescents, there were also significant overlaps. Our findings challenged the assumption that females are motivated primarily to have sex in order to feel cared for or in order to maintain their relationship, and that males are generally motivated to have sex for pleasure[25]. This traditional view reflects an artificial dichotomy and does not address both males' and females' emotional and physical desires for sex. In this study, females endorsed sexual pleasure as an important reason to have sex, while the male participants felt an emotional need for sex. These findings were echoed in Ozer et al's study which explored gender differences for having sex in 145 African-American adolescents[26]. In addition, it should be recognised that the reasons for having sex changed with time, from their first sexual encounters to their later sexual relationships. The initial experimentation with sex due to peer pressure and curiosity did not assume an important role with subsequent sexual encounters. Any intervention should respond to the diversity of motivations for sex with respect to gender differences and similarities, as well as sexual experiences. Adolescent health professionals in clinical practice should assess the adolescents' reasons for having sex, along with other health risks and health promoting behaviour, and emphasise the relevant risk reduction techniques (e.g. focus on strategies for increasing pleasure during condom use rather than resistance, skills to combat peer pressure, etc).

In this study, there was a distinct difference in the definitions of stable and casual partners between the male and female adolescents. The female adolescents stressed on love, intimacy, and emotional fulfilment in a stable relationship, while the males viewed it more as a commitment and to satisfy their sexual needs. This was again reflected in their choice of partners. The females preferred mature and experienced older men who would look after them, while the male adolescents went for non-virgin older women who were more sexually experienced and would not "cling" on to them. For casual partners, the female participants insisted on men they knew or liked, while the males did not have to know their sexual partner. This significant difference between the choices of partners and views on relationships increased their risks of STD/HIV infection, especially when the majority did not practise safe sex.

One possible explanation for higher risk behaviour among adolescent females who have older partners, is an increased power imbalance due to the age difference[27]. Such power imbalances may lead to male-controlled sexual decision-making. Generally, males may be less likely than their younger female partners to desire condom use. Thus, this desire of older males may prevail. As for adolescent males, their non-committal attitudes towards relationships might promote high-risk behaviour of seeking multiple sexual partners, and many adolescents who have had sexual intercourse with more than one partner do not use condoms[28]. Furthermore, their non-discriminatory attitudes towards choosing partners multiply their risk of contracting STDs and HIV infection.

The worries of pregnancy overpowered the fear of STD such as HIV infection, among the participants in this study. Most did not perceive themselves to be at risk of contracting STD or HIV infection. This was explained by their belief that having a main partner in a stable relationship would not put them at risk. Recent studies have also found that increased familiarity with a sex partner fostered beliefs regarding the STD safety of these partners[29]. They are also likely to underestimate both the severity and their risk of STD or HIV infection[15]. They tend to link HIV/AIDS to risk groups rather than risk behaviour[30]. This attitude is disturbing as some of the participants, especially the males,

visited sex workers and had casual unprotected sex with strangers. Intervention programmes should seek to dispel adolescents' misconceptions with regard to beliefs that the long-term sex-partner is not a potential source of STD infection.

In addition, male adolescents in particular relied on physical appearances to make decisions on certain women being safe and therefore not requiring condoms for sexual intercourse. Indirect methods, for example by evaluating the partner's appearance, have been used by college women to gain information about a partner[31]. These methods offer a false sense of security by stereotyping individuals and contributing to the denial of risk by young people. Another reason cited by both male and female participants for not using condoms was the interference with sexual pleasure and finding it troublesome to use. Similar findings were found in a focus-group study among Latin and African-American teens[18]. However, there were some indications that this negative attitude towards condom use was possibly male in origin and internalised by young women. Women who cited this as a reason were generally passive in their attitudes, and did not negotiate with their partners. An important theory for conceptualising these relational factors is the Theory of Gender and Power[17]. This theory posits that power differentials favouring the males constitute health risks for females, and it may be operative within these relationships. However, alternative explanations are also plausible, e.g. adolescent females who select sex partners may have a greater tendency to yield to those partners' desire to avoid condom use.

Furthermore, some of the adolescents in this study were complacent about safe sex. Several reasons may account for this complacency. For example, adolescents may perceive HIV as an unlikely event either because they trust their partners' safety[32] or because they do not see evidence of HIV infection among their peers. They may feel that they are exempted from HIV infection based on their perceived absence of infection despite repeated episodes of risky behaviour. This phenomenon has been described as an "absent-exempt" hypothesis, in which individuals reason that they must not be vulnerable because they remain uninfected by HIV despite practising risky behaviour[33]. This could explain why in some studies, there was no significant correlation between worry about HIV/STD and high-risk behaviour, such as unprotected sex with steady or casual partners[34,35]. Factors, found in other studies, such as peer norm and pressure[36], negative adult attitudes[37], restricted availability of condoms[23], male violence and coercion on their ability to negotiate condom use or refuse sex[38] did not appear to be important in this group of adolescents.

This study focused on urban middle-class adolescents in their late teens. Hence, generalisation of these findings on adolescents of different socio-economic strata and geographical settings would be difficult. As there is a lack of national statistics on the profile of adolescents and adults with HIV infection, the usefulness of these findings in helping to plan for intervention programmes would be limited. However, it can serve as a guide for planning of sex education in targeted groups of adolescents. Ethnicity may be an important factor when it comes to sexual behaviours in a heterogeneous society. In Malaysia, where there are three main ethnic groups, Malay, Chinese and Indians, each race has to be studied separately to look for similarities and differences in adolescent sexuality. In this study, which is limited by its small number of participants, no significant difference in attitudes and sexual behaviours was observed.

In conclusion, this study reveals many factors which influence adolescent sexuality, namely gender roles, power inequality, culture, social class, peer group influence, and access to information. Understanding the multifaceted nature of this issue helps to explain the complexities of adolescents' high-risk sexual behaviour. This has significant impact on their risk of HIV infection. The challenge to reduce this risk is to identify an appropriate medium to transmit the information and to provide a platform for the adolescents to discuss sex in a legitimate manner.

ACKNOWLEDGEMENT

This research project was supported by the University of Malaya F-Vote Research Fund.

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