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Ellis, Sonja J.; Aitken, Robyn

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Sexual health practices of 16 to 19 year olds in New Zealand: an exploratory study

Sonja J. Ellis BSocSc, MSocSc(hons), PhD, AFBPsS, SFHEA, MPH;[1,3] Robyn Aitken RN, B.Ed.St, M.Ed.St, PhD[2]

[1] Te Kura toi Tangata (School of Education), The University of Waikato, Hamilton, New Zealand
[2] Menzies School of Health Research, Charles Darwin University Australia; Top End Health Service, Darwin, NT, Australia
[3] Corresponding author. Email: sonja.ellis@waikato.ac.nz

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ABSTRACT

INTRODUCTION: New Zealand sexual health surveillance data suggest that young people aged 15–19 years are at considerable risk of contracting sexually transmitted infections. Although there is an established body of international research around sexual behaviours and sexual health practices among teenagers, there is a dearth of local research focusing on this age group.

AIM: The aim of this study was to explore the sexual repertoires and sexual health practices among teenagers in New Zealand with a view to better understanding levels of risk in this age group.

METHODS: This study comprised a cross-sectional online survey designed to ask questions about sexual behaviours. A convenience sample of young people ($n = 52$) aged 16–19 years living in New Zealand completed the survey.

RESULTS: Most participants (71.2%) were sexually active, reporting engagement in a range of sexual practices. The most commonly reported sexual behaviours were penis-in-vagina sex (86.5%) and oral sex with a person-with-a-penis (81.1%). Infrequent and inconsistent use of barrier protection across all types of sexual behaviour was also reported.

DISCUSSION: The findings of this study highlight the importance of ensuring that young people have access to sexual health education that routinely includes health information and advice addressing the full range of sexual practices, regardless of the identity classifications they may use, or that may be attributed to them.

KEYWORDS: Young people; sexual behaviour; sexual health; STI prevention; New Zealand

WHAT GAP THIS FILLS

What we already known: Internationally, much is known about the sexual health practices of young people, but despite sexually transmitted infections being a significant public health issue among young people in New Zealand, there is limited information on 16 to 19 year olds.

What this study adds: This study explores the sexual repertoires of people aged 16–19 years living in New Zealand and sheds light on the extent to which youth in this age group engage in good sexual health practices for a range of sexual behaviours.

Introduction

Sexually transmitted infections (STIs) are a significant public health issue, especially among young people. In New Zealand (NZ), sexual health surveillance data indicate that between 2011 and 2015, young people aged 15–19 years were at considerable risk of contracting the most common STIs: chlamydia and gonorrhoea.[1] Of people presenting for medical care for chlamydia in 2014, females aged 15–19 years consistently demonstrate the highest burden of disease, with a laboratory-confirmed prevalence rate of 4630 per 100,000 population compared to 640 per 100,000 population nationally.

Prevalence of chlamydia is lower in males, but prevalence among males aged 15–19 years (1142 per 100,000 population) is higher than any other age group except for males aged 20–24 years. Chlamydia is asymptomatic and attendance at STI clinics for this age group is low, so true rates are likely to be even higher.[2] Although these patterns of disease prevalence are similar to those of other western nations, NZ rates are frequently substantially higher.[3–5]

A dominant assumption in medical research is that most young people are exclusively heterosexual and engage in penis-in-vagina sex to the exclusion of other sexual activities.[6] However, recent international research indicates that young people today engage in a wide range of sexual practices including oral sex, anal sex and sex toy use, regardless of how they identify their sexuality.[6–8]

Population studies are an important source of public health knowledge, and information about teenage sexual health has typically been collected through targeted national studies.[6–10] To date, there is no NZ research that comprehensively explores the sexual activities, sexual health practices and knowledge of STI among teenagers and, therefore, little is currently known about prevalence of STIs among 15 to 19 year olds. The NZ survey of secondary school students (Youth 2012) is the only national survey to ask about sexuality relevant to this study's research age group.[11] Its limited scope includes only a narrow range of gender identities and sexual attraction, whether respondents were sexually active, if they used contraception, whether they used condoms for contraception or STI prevention and if they talked to their partner about these decisions. A handful of small NZ studies of young people's sexual health has focused on university students (youth aged 18–25 years) and therefore provides limited information about the practices of teenagers more generally.[3–5]

Internationally, research relating to sexual risk-taking and its consequences has primarily focused on patterns of condom use; finding that a large proportion of young people report inconsistent or no use of condoms when engaging in sexual activities.[12,13] This pattern holds true across all types of sexual practices including, but not restricted to, fellatio[14] and anal sex performed by young men on young women.[15] Studies of same-sex sexual encounters tend to focus on adults, but find levels of engagement in good sexual health practices similarly inconsistent or low.[16,17] Despite evidence that young people engage in sex toy use,[18] especially, but not exclusively, among women-who-have-sex-with-women, to date, no research has explored either sex toy use or associated sexual health practices among teenagers.

Reported reasons for infrequent and inconsistent use of condoms are varied. Some young people view condom use as not applicable when they are in a monogamous relationship, can trust their partner or know that their partner was 'clean' following recent testing for STIs. Others do not use condoms because sex is 'unplanned', 'unexpected' or they got 'carried away'.[19,20] Other commonly reported reasons include embarrassment,[21] an erroneous belief of not being at risk of STIs, that STIs are not serious,[4,22] that condoms will reduce pleasure,[23] lack of self-efficacy within a couple relationship[12,24] and socio-cultural norms of non-use among one's peer group and community.[24–26] The extent to which these reasons may apply to NZ youth is unclear.

In light of these limitations, the current study explores the sexual repertoires and sexual health practices of 16 to 19 year olds in NZ with the aim to gain a better understanding of STI risk factors in this cohort.

Methods

Ethical approval for this research was granted by relevant Human Research Ethics Committees in Australia and New Zealand.

Study design and recruitment

We used an Internet-enabled quantitative cross-sectional survey design. The survey was hosted on Qualtrics (Provo, UT, USA), and open for 6 weeks. An initial call for participants was circulated via the first author's professional Facebook profile page and to Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) groups (e.g. UniQ groups at NZ universities), professional listservs and select groups of first-year university students (Education and Social Science Majors) using a range of electronic

media. The target population for this survey was young people aged 16–19 years living in NZ.

Survey instrument

The survey instrument was developed specifically for this study to avoid limitations in the wording and construction of existing instruments that include a narrow range of sexual practices and use of language that excludes people with experience of same-sex sexual relationships from responding fully about their experiences.[6,10,11]

The first section of the survey asked about participant characteristics (sex, gender, sexual orientation). To maximise inclusivity and clarity, these questions were worded to include response options appropriate for all potential respondents. A wide range of gender options were provided, including sex assigned at birth (male, female, indeterminate) and current gender (woman or girl; man or boy; transman, transwoman; transsexual; *tangata ira tāne*; *whakawahine; fa'afafine; fakaleiti)*. Body-related terms 'person with a penis' and 'person with a vulva' were utilised rather than referring to men and women. Also, the term 'penis-in-vagina sex' was adopted rather than 'vaginal sex'.[27]

In most studies, when identifying whether participants are sexually active, there is a lack of clarity as to what 'counts' as sex.[7] To maximise inclusivity, this survey asked participants 'have you ever had sex (however you define it) with another person?'.

In addition to general questions (e.g. number of sexual partners; discussion with partners), the survey included a range of questions on oral sex, penis-in-vagina sex and anal sex. Participants were specifically asked about their engagement with each of these, the frequency of barrier protection use and reasons for not using barrier protection. Participants were also asked about sex toy use. All survey questions were fixed choice with single or multiple response options as relevant.

To ensure accessibility and comprehension for the target age group, the survey was piloted by a reference group comprising young people, rangatahi (Māori youth), LGBTQ youth, Māori academics and a health professional. Feedback was incorporated into the survey and re-confirmed as suitable by the reference group.

Data analysis

The aggregated data were downloaded from Qualtrics, imported into SPSS (IBM Corp, Armonk, NY, USA) and analysed using descriptive statistics.

Results

The study sample comprised 52 respondents aged 16–19 years, living in NZ. Most (92%) lived in the upper North Island (Auckland, Northland, Waikato or Bay of Plenty). Of the sample, 55.7% ($n = 29$) identified exclusively as female, 30.8% ($n = 16$) identified exclusively as male and 13.5% ($n = 7$) identified as trans or gender diverse. Just over half reported being exclusively sexually attracted to people of a different gender; the remainder reported being attracted to the same gender, both males and females, or all genders. Just over two-thirds of respondents (67.7%) identified exclusively as Pākehā/New Zealand European; 17.3% identified as Pākehā/New Zealand European and either Māori, Samoan, Tongan or Cook Island Māori. Two respondents (3.8%) identified exclusively as Māori, two as Chinese and one exclusively as Samoan. The remaining respondents identified with other ethnicities.

Sexual experiences

Of the 52 respondents, 71.2% ($n = 37$) self-identified as having ever had sex with another person. Most (63.9%) just had one sexual partner in the last 6 months, 13.9% had two partners and 13.9% had three or more partners. The most commonly reported sexual activities for this sample were penis-in-vagina sex ($n = 32$, 86.5%) and oral sex with a person with a penis ($n = 30$, 81.1%), followed by sex using sex toys, objects or fingers ($n = 24$, 64.9%), anal sex ($n = 13$, 35.1%) and oral sex with a person with a vulva ($n = 11$, 29.7%). Virtually all participants who identified as being sexually active had engaged in more than one type of sexual practice ($n = 34$, 91.9%), with 64.8% ($n = 24$) of sexually active respondents having engaged in three or more different sexual practices. Almost all participants who reported having had sex did so on one or more occasions after or while

Table 1. Frequency of barrier protection use by sexual activity

Frequency of use	Penis-in-vagina sex (out of 32)		Oral sex on a person with a penis (out of 31)		Oral sex on a person with a vulva (out of 12)		Anal sex (out of 13)	
	n	%	*n*	%	*n*	%	*n*	%
Always	10	31.3	2	6.5	0	0.0	3	23.1
Most of the time	8	25.0	3	9.7	1	8.3	4	30.8
Sometimes	12	37.5	7	22.6	3	25.0	2	15.4
Never	2	6.3	19	61.3	8	66.7	4	30.7
		100.1		100.1		100		100

drinking alcohol ($n = 35$, 94.4%). Just over half (52.8%) reported having engaged in casual sex, and just over one-third ($n = 13$, 36.1%) after or while taking drugs.

Health-promoting, disease-preventing practices

Talking with sexual partners about preventing STIs and human immunodeficiency virus (HIV) is an important positive sexual health practice. Of respondents identifying as having had sex with another person, 53.9% indicated that they had talked about these issues with a partner they were in a relationship with. Common reasons for not having those conversations with a regular partner included knowing their partner's sexual history ($n = 13$; 25%), feeling it was too awkward or embarrassing ($n = 8$; 15.4%), having both been tested ($n = 5$; 9.6%), not having found the right moment to raise the issue ($n = 4$; 7.7%), taking birth control measures so not thinking that STI prevention mattered ($n = 4$; 7.7%) and thinking their partner will not trust them ($n = 3$; 5.8%). Fewer participants (23.5%) talked with casual partners about preventing STIs or HIV.

Another important measure in preventing STIs and HIV is using barrier protection (e.g. condoms, dental dams). Data from this sample indicated infrequent and inconsistent use of barrier protection across all types of sexual activity. Use of barriers was most common for penis-in-vagina sex, with 93.8% of respondents using protection always, most of the time or sometimes, and only 6.2% of respondents having 'never' used barrier protection. In comparison, 30.7%, 61.3% and 66.7% had 'never' used barriers during anal sex, oral sex on a person with a penis or a vulva respectively. Only 23.1% always used protection for anal sex (Table 1). Reasons for not using barrier protection during penis-in-vagina sex and oral sex are presented in Tables 2 and 3 respectively. For anal sex, the most commonly cited reasons for not using a condom were that the person was a regular partner (38.5%), anal sex did not carry the risk of pregnancy (23.1%) and a condom was not available at the time (15.4%). Very few respondents ($n = 1$–4) reported alcohol use as preventing use of barrier protection during vaginal, anal or oral sex.

Approximately two-thirds of respondents (64.9%) reported using sex toys. Washing sex toys before and after use and never sharing them was common practice (56%). However, this suggests that a sizeable minority were not engaging in this most basic sexual health practice.

Discussion

This study set out to gain a more nuanced understanding of sexual repertoires and sexual health practices among youth aged 16–19 years in NZ to better understand the risks for STIs in this age group. Consistent with other studies, young people in this study reported engaging in a range of sexual practices (penis-in-vagina sex; oral sex; anal sex; use of sex toys), with many having engaged in more than one type of sexual practice.[6,10] The extent to which young people in other studies have engaged in more than one type of sexual practice is unclear. Similar levels of engagement in fellatio and penis-in-vagina sex reported in this study are also reported elsewhere,[6,7] as was our finding that anal sex was less commonly reported.[6,10]

*Table 2. Reasons for not using a condom in penis-in-vagina sex**

Reason	Number of respondents (out of 32)	%
They are my regular partner	17	53.1
I/my partner was taking birth control so it didn't/doesn't matter	10	31.3
Using a condom would reduce the sexual pleasure my partner experiences	10	31.3
Using a condom would reduce the sexual pleasure I experience	9	28.1
My partner didn't want to use a condom	6	18.8
I didn't want to use a condom	6	18.8
Neither of us had a condom with us at the time	5	15.6
I/they can't get pregnant so a condom isn't necessary	4	12.5
One or both of us had been/were drinking alcohol	4	12.5
I felt too scared/intimidated	2	6.3
My partner might think I didn't trust them	1	3.1
It was my first time	1	3.1
One or both of us had been/were taking drugs	1	3.1
Condoms are too expensive to buy	1	3.1
Penis-in-vagina sex is a low-risk sexual activity	0	0

*Participants were asked to report all applicable responses.

Like other studies, respondents in this study also reported infrequent and inconsistent use of barrier protection, with protection most commonly used for penis-in-vagina sex, and less frequently for other sexual activities.[12,13] A high percentage of respondents reported having 'never' used barrier protection during oral sex, which is also consistent with other studies.[14,16] Despite high levels of alcohol consumption being reported in association with sexual activity and existing research indicating that alcohol consumption contributes to unprotected sex,[28] few participants reported alcohol consumption as a reason for not using protection.

Although the number of respondents reporting having engaged in anal sex was low, it is concerning that less than one-quarter of respondents used a condom when engaged in this activity, given the risk of HIV transmission. Unfortunately, this is consistent with findings from NZ studies involving adult men-who-have-sex-with-men.[17] Washing sex toys before and after use and never sharing them was much less frequently reported in this study than in other studies.[18]

The most commonly reported reason for not using protection across all sexual practices was that the person was a regular partner. This is consistent with other studies where being in a committed relationship also features strongly.[19,20] However, other commonly reported reasons differ somewhat from the main reasons reported in other studies, where a belief of not being at risk[4,24] or that condoms are not necessary,[20] dominated. Selection of reasons such as 'taking birth control' (penis-in-vagina sex), 'cannot get pregnant' (oral sex with a person with a vulva) and 'oral sex is a low risk activity' by participants in this study may indicate that some young people are unclear about the risk of STIs.

Limitations

Recruitment to this research was limited by the short time available for data collection within the period the first author was undertaking a degree. While the results provide valuable insights into the sexual repertoires and sexual health practices of NZ youth aged 16–19 years, the sample was small, self-selecting and low on male participation compared to the overall composition of the NZ population. Together, these factors mean that the extent to which these young people might be representative of 16 to 19 year olds in NZ more generally is unclear, that our understanding of STI risk factors among

*Table 3. Reasons for not using barrier protection while performing oral sex**

Reason	Oral sex with a person with a penis		Oral sex with a person with a vulva	
	Number of respondents (out of 31)	%	Number of respondents (out of 12)	%
They are my regular partner	16	51.6	5	41.7
They can't get pregnant so it isn't necessary	3	9.7	4	33.3
Oral sex is a low-risk sexual activity	7	22.6	5	41.7
Condoms/dental dams don't taste very nice	10	32.3	5	41.7
It would reduce the sexual pleasure my partner experiences	10	32.3	6	50.0
It would reduce the sexual pleasure I experience	8	25.8	6	50.0
Neither of us had any protection with us	6	19.4	4	33.3
My partner didn't want to use protection	4	12.9	3	25.0
I didn't want to use protection	5	16.1	5	41.7
Worried that my partner would lose an erection	3	9.7	NA	NA
They might have thought that I didn't trust them	2	6.5	1	8.3
I felt too scared/intimidated	2	6.5	2	16.7
It was my first time	2	6.5	3	25.0
One or both of us had been drinking alcohol	3	9.7	5	41.7
One or both of us had been taking drugs	0	0	3	25.0
Protection is too expensive to buy	2	6.5	0	0
It is embarrassing to buy protection	1	3.2	1	8.3

NA, not applicable.
*Participants were asked to report all applicable responses.

this group remains limited, and undertaking subgroup comparisons was not indicated.

From a public health perspective, social determinants of health such as poverty, homelessness and family dysfunction may play a large role in sexual health and may be barriers to sexual health education and positive change.[29,30] This research did not include demographic questions or data linkage, so how social determinants may have influenced responses is unknown.

Conclusion

While the present study provides some useful insights, there is an urgent need for a large-scale, population-based study to provide a better indication of the sexual health risks of young people in NZ. It is clear from this study that a population-based study needs to be comprehensive in its coverage of sexual behaviours and associated sexual health practices, and to be cognisant of the sexual and gender diversity prevalent among NZ youth today. Particular attention to social determinants that may affect these practices would also be useful. Māori and Pacific Islander youth are disproportionately represented in poverty experiences and low socioeconomic status, and Māori and Pacific Island young women carry the greatest burden of disease from STIs. Accordingly, there is a pressing need to better understand how these social determinants affect engagement in good sexual health practices and how they operate to produce poorer sexual health.

Despite the small sample, the findings of this study indicate that teenagers in NZ engage in a wide range of sexual practices and that those practices are prevalent in heterosexual and same-sex sexual contexts. Attention, therefore, needs to be paid to ensuring that all young people are fully informed of the sexual risks associated with different practices and equipped with relevant information about sexual health practices relating to oral and anal sex, in particular.

Competing interests

The authors have no competing interests to declare.

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