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Sexual well-being among young people in remote rural island communities in Scotland: a mixed methods study

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ABSTRACT

Background It has been identified that rural young people face barriers to accessing support for their sexual well-being such as availability and transport, knowing healthcare staff personally, and fear of being judged negatively within their community. These factors may contribute to widening health inequalities and expose young people living in rural areas to increased risk of poor sexual well-being. Little is known about the current needs of adolescents residing in remote rural island communities (RRICs).

Methods A cross sectional mixed methods study was conducted with 473 adolescents aged 13–18 across the islands of the Outer Hebrides of Scotland. Analysis included descriptive, inferential statistics and thematic analysis.

Results 59% (n=279) of participants held the perception there was no support, or did not know if there was support, about condoms and contraception in their local area. 48% (n=227) said that free condoms were not easily available for local young people. 60% (n=283) said they would not use youth services if they were locally available. 59% (n=279) said they did not receive enough relationships, sexual health and parenthood (RSHP) education. Opinion differed significantly by gender, school year group, and sexual orientation. Qualitative analysis identified three key themes: (1) alone yet visible, (2) silence and disapproval, and (3) safe spaces, with an underpinning theme of island cultures.

Conclusions A need for further sexual well-being support that addresses the complexities and challenges for young people residing in RRICs is identified. The intersectionality of being LGBT+ and residing in this context may increase the experience of inequality in sexual well-being support.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Rural young people report facing practical and social barriers to accessing support for their sexual well-being. Adolescents residing in remote rural island communities (RRICs) are an under-represented population within this research.

WHAT THIS STUDY ADDS

⇒ Adolescents living in RRICs need further education and support for their sexual well-being. LGBT+ young people are more likely to express this need.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ The findings identify the need for an intersectional approach to the creation of place-based sexual well-being support for young islanders. This support should be co-produced with adolescents living in the local and social context.

INTRODUCTION

Globally, issues such as limited employment opportunities, insufficient housing, poor transport, and lack of access to health services can make living in rural remote places challenging and may increase health inequity for adolescents.[1] Sexual well-being is conceptualised as encompassing sexual health alongside broader socially and structurally influenced aspects of access to well-being support.[2 3] Findings about the sexual well-being of young people in remote rural island communities (RRICs) are lacking within the UK context. Evidence from similar high-income countries such as the USA, Australia and Ireland indicates

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that early sexual initiation, variable condom use, and lower rates of HIV/sexually transmitted infection (STI) testing in young men who have sex with men have been associated with living in rural areas.[4–6] Young people may also perceive that residing in an RRIC, rather than an urban locale, is a protective factor for acquiring STIs, especially HIV.[7–9]

Accessing confidential support and information for sexual well-being can be difficult for individuals in very remote rural areas where transport is sparse, and where healthcare professionals are known personally.[10] Adolescents living in rural communities which hold religious, traditional, and conservative values may avoid accessing contraception services out of fear of being judged negatively.[11 12] Such issues have been highlighted previously for young people in rural areas of Scotland.[13] Social isolation and lack of access to information or youth services can exacerbate health risk.[14] LGBT+ adolescents living in rural areas of Scotland are more likely to report feeling lonely and of experiencing prejudice or discrimination within their local community than their urban counterparts.[15] Thus, it has been suggested that access to comprehensive school-based relationships and sexual health education is of particular importance in supporting rural young people's sexual well-being.[16]

No studies addressing the specific experiences of young people residing in Scottish RRICs have been undertaken to date; therefore, the experiences and sexual well-being needs of this population group remain unclear. This study aimed to explore the sexual well-being perceptions, experiences and needs of young people within one remote and rural island grouping in Scotland.

METHODS

Design

A cross sectional mixed methods sequential explanatory approach was used to address the study aim.

Setting

The geographical location of the research was the Outer Hebrides (current population 26 500), a chain of islands off the West Coast of Scotland. The islands lie approximately 40 miles (65 km) from the Scottish mainland. Data were collected from February to June 2022.

Data collection

The survey was conducted in person, in schools during a personal and social education (PSE) lesson scheduled within the timetable of a school day. Participants responded to the questions using small individual hand-held clicker response units. This data collection method has been described elsewhere.[17] Quantitative data were analysed using IBM SPSS Statistics For Windows version 28.0.1.1. After data cleaning and coding, Pearson's χ^2 analysis was used. The significance threshold was set at $p \leq 0.05$. Participants recruited from the survey sample took part in focus groups. Focus group recordings were transcribed verbatim. Qualitative data were analysed thematically using Braun and Clarke's method.[18] Two authors independently read and familiarised themselves with the data, coded the data, met to discuss and, following consensual agreement, themes were defined and named. To reflect the context in which the research was conducted the conceptual framework of Bourke *et al*[19] was used to understand better specific complex inter-relationships between health and context in rural settings, to guide the thematic analysis.

Participants

Participants were recruited from all four secondary schools across the Outer Hebrides. According to the Scottish government's urban/rural classification, three schools are within very remote rural areas and one is within a very remote small town.[20] School rolls across the four schools were 74, 277, 91 and 1050; participants were aged 13–18 years in second to sixth year of secondary school.

Participant recruitment

Cluster sampling was used to generate a purposive sample for the research. A letter outlining the purpose of the study was sent to parents/guardians via the schools. Contact details for the researcher were provided with the option to contact the researcher should they wish to withdraw their young person from participation. An information sheet detailing the study procedure with an invitation to take part was given to all young people identified as possible participants, with the options to indicate to teachers or the researcher if they chose not to participate. It was made clear that participation in the research was voluntary, and that they could withdraw from the study at any time without giving a reason. Before attending data collection sessions in school, participants were informed that the study was being conducted and were given the option not to attend. At the start of all data collection sessions participants were made aware that they did not have to participate and could leave without giving a reason. Nine parents contacted the researcher to withdraw their young person from participating, and 35 participants across all the schools used their right to withdraw from the study and left the classroom before the survey sessions commenced. At the end of the survey sessions participants were invited to take part in focus groups. Focus group participants indicated their interest in taking part to the researcher and guidance teachers. All participants gave informed consent to participate in the study before taking part.

Patient and public involvement

Four informal scoping groups with young people (n=30) aged 14–20 years from each school area across

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Table 1 Demographic characteristics (%) of participants (n=473)

Age	%	Year group	%	Gender	%	Sexual orientation	%
13	11	S2 (13–14 years)	14	Female	51	Heterosexual	77
14	27	S3 (14–15 years)	28	Male	38	Bisexual	7
15	19	S4 (15–16 years)	22	Non-binary	4	Gay	5
16	19	S5 (16–17 years)	17	Trans female	3	Lesbian	2
17	19	S6 (17–18 years)	18	Trans male	4	Pansexual	4
18	5					Asexual	<1
						Don't know	4

the Outer Hebrides were conducted before the creation of the study materials. The groups discussed relationships and sexual health issues that young people thought were important to include. Proposed materials were shared with the groups; this allowed for collaboration and co-creation of the survey content and wording with young people living in the local context. Study results will be disseminated to study participants and local stakeholders via educational and public health establishments.

RESULTS

Quantitative

A total of 473 participants completed the in-person survey in schools. Demographic questions assessed participants' age, school year group, gender, and self-reported sexual orientation. Table 1 presents participant demographics.

The majority of participants identified as female (51%) or male (38%); 11% of participants (n=50) identified as non-binary or trans; 77% of participants reported being heterosexual; and 23% (n=103) reported being LGB+. Non-binary or trans, and minority sexual orientation data were aggregated into demographic groups to allow for further analysis.[21] The following supplemental tables report the χ^2 analysis for homogeneity of responses by gender, school year group and sexual orientation. Online supplemental table 1 presents reported sources of information and experience of communication about relationships and sex with others. Online sources (37%) and friends (21%) were main sources of information and communication. Significant differences in talking openly with parents was reported by year group and gender (online supplemental table 1). Online supplemental table 2 presents knowledge of local sexual health services and opinion of relationships, sexual health and parenthood (RSHP) education: 48% (n=227) said that free condoms were not easily available for local young people. 60% (n=283) of participants reported they would not access local youth services; significantly more non-binary and trans (48%) and LGB+ (39%) participants reported they would access services; 59% (n=279) reported they did not get enough RSHP; and significantly more S2 and LGBT+participants reported wanting more RSHP (online supplemental table 2). Online supplemental table 3 presents reported relationship and behavioural experience: 67% reported current or previous relationship experience; 61% reported being sent a nude image; and 72% reported viewing pornography online. These experiences differed significantly by gender and sexual orientation. Physical experience increased significantly in older school year groups and those identifying as LGBT+ (online supplemental table 3).

Qualitative

Focus groups consisted of female (n=10) and male (n=6) participants aged 15–17 years. Two mixed gender focus groups, comprising all who volunteered, aimed to understand the meanings underlying young people's responses to the survey questions and their perceptions and experiences of access to sexual well-being support. Qualitative analysis identified three key themes: (1) alone yet visible, (2) silence and disapproval, (3) safe spaces; an underpinning theme of island cultures was identified throughout the narratives. It is important to note that themes were connected and interrelated.

Alone yet visible

Participants expressed the influence both of spatial and social isolation when considering accessing support, but also of the real possibility of being noticed by others within the community. The experience of being situated geographically on, and within, a small island community constituted and contained social relations that made them easily identifiable. Young people identified that confidentiality and anonymity were important needs when considering accessing sexual information, condoms, and advice, however perceived that the island context and culture was at odds with these needs.

> *'Everyone knows everyone and everyone's business is everyone else's whether they like it or not.'* Female participant (f)

Lack of transport was a significant issue; participants said that they would have to ask for a lift from their parents or walk for several hours to a possible service on the island and would be visible in a small community

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if they did this. Some were unaware of local places to get free condoms, others had knowledge of availability in GP practices, although they would not access these due to the lack of anonymity. Participants expressed a sense of belonging to the community, but also fears of judgement from others due to a perceived shame associated with sexual activity. This perception was identified as a significant barrier to seeking support,

> *'But I think the main issue is the people in the community rather than there being a lack of services, I think if there was services people still probably wouldn't use them because of the way people would think about them.'* Male participant (m)

Participants used words such as 'taboo', 'stigma' and 'shunning' when discussing sexual topics, and expressed understandings that the expected health response of young people in their rural locale was to keep silent and not seek support with relationships and sexual health. For some participants this created a sense of being alone and separate from the community,

> *'I think that's the problem, I think people just wouldn't go to anyone…they'd try and deal with it themselves.'* (m)

SILENCE AND DISAPPROVAL

The idea of accessing a local sexual support service for young people or buying condoms at the local shop was expressed as impossible. Participants perceived an automatic disapproval from others towards subjects involving relationships or sex; this was identified as a strong local social norm embedded in the cultural religious heritage of the islands. Adults were viewed as the decision-makers within the community whose voices were acted on; their silence and perceptions of 'closed minds' on this subject made participants unsure and fearful about reactions to communicating, or seeking support for, sexual well-being. Some expressed that their parental relationship would be altered.

> *'It would like change the way they looked at you.'* (f)
> *'I mean it's never been openly spoken about before.'* (f)
> *'They could react negatively to it, but you don't know that…you just don't want to take the chance.'* (m)

Experiences of RSHP education at school reinforced the perception of silence around this subject. Some participants said that they had never received any of this education in primary school and therefore were 'shocked' when it was introduced in secondary school. Young people expressed views that the education received was delivered too late, lacked LGBT+ inclusion, and focused on biomedical risk, legalities, and negative consequences of being sexually active,

> *'I think they just delay it* [RSHP], *like all of the information here, I think they just delay it…too long… I think it's just the mentality of the islands and what they do here.'* (m)
> *'The promotion of abstinence and stuff like that… It's just 'do this, don't do this' a set of rules and just the legalities of it rather than help or guidance.'* (m)

Young people expressed a dissonance between the perceived regulation of information and silence of adults, and their own lived experience of sharing information openly with friends, being in relationships, the ease of access to online pornography and being sent nudes via social media channels.

> *'We use social media a lot more than like our parents and all that…other people's nudes…yeah, that seems to happen quite a lot.'* (m)
> *'You can just be scrolling through like a random webpage, and it* [porn] *can just pop up on the side, like a picture, even though you are not looking for that…it's just there.'* (f)

SAFE SPACES

Safe spaces were seen as separate from the rural locale; networks perceived as not 'belonging' to adults and older community members, such as social media and online information, were identified as safe places for sexual expression and learning.

> *'I'd just get them* [condoms] *online, that's where everyone gets everything ordered from Amazon… yeah, that's like your safe place to just get what you want.'* (m)

The 'mainland' was idealised as an anonymous space when discussing the idea of accessing support for sexual well-being. Participants expressed perceptions of being a different person unrelated to the islands, and thus 'free' to be themselves,

> *'They* [mainland] *see you as you, rather than your parents, or your parent's son, or your grandparents' grandkids…but then on the mainland they would just know you…as you.'* (m)

Participants identified that some teachers were able to counter the perceived negative ideas of young people and sex. Those teachers who were 'open' and delivered RSHP education well, were highly valued and helped to create a safe space for 'comfortable conversations' discussing experiences and learning.

> *'They won't judge you…they won't like…shun you or whatever…you know?…they won't see you as different'.* (f)

Young people themselves identified further ways safe spaces could be created within their communities such as well-being rooms in schools with 'outsider' experts visiting regularly or with access to online sexual well-being services.

DISCUSSION

This study has revealed that young people in RRIC's require further support for their sexual well-being.

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Adolescents in this study expressed a need for further relevant comprehensive RSHP education delivered at a younger age with supportive and approachable teachers; this aligns with previous findings from young people in more urban settings across the UK, and in Scotland.[22 23] Key findings suggest that in RRICs young people mainly source information online or from friends; this differs from UK-wide evidence of adolescents increasingly identifying school as their main information source.[24] Most young people reported experience of being in a relationship and some of being sexually active. Consistent with evidence from young people across Scotland,[25] behavioural experience increased with age. However, this pattern was not echoed in the experience of viewing online pornography or receiving and sending nude images, with significant numbers in younger year groups reporting this.

Young people also reported that they would not access, or were unaware of, local support for their relationship and sexual health, and found communicating with parents and adults about sex and relationships difficult. Fears of judgement and stigma from the local community, a lack of anonymity and availability inhibited access to health protective behaviours and support. This is consistent with previous research, both internationally and in more urban areas of Scotland.[12 13] However, the findings suggest that residing in an RRIC may amplify this effect. Context and place had significant influence on this population group's choice of behaviours and access to support for their sexual well-being. These findings add to knowledge of the sexual health inequity that may be experienced by young people isolated both by geographical location and within their social context.

Although a minority of young people identified as LGBT+ in this study, those who did were significantly more likely to have viewed pornography, had experience of sending and receiving nudes, and to report behavioural experience. They were also the group who were significantly more likely to report that they would attend a local youth service if it were available, to request more RSHP in school and, consistent with recent Scottish evidence,[15] to report witnessing LGBT+ bullying. The intersectionality of being LGBT+ and residing in the remote rural context may increase the experience of inequality in sexual well-being support.

Limitations

While this study recruited a significant sample size—one third (32%) of all young people aged 13–18 attending secondary schools in the Outer Hebrides participated—it does not claim to be representative of all young people residing in island communities, and those from other islands and social contexts may have responded differently. Sixteen participants volunteered to be involved in focus groups, which may have introduced self-selection bias. Nevertheless, this study is the first of its kind to be conducted with this under-represented group of young people. Future research could include young people from other rural geographical island areas.

This study has identified a requirement for more RSHP education and confidential, accessible safe spaces for remote rural young people. Placed-based approaches have been successful in improving social environments to support positive health and health behaviours,[26] as has the importance of including young people in research and design of local sexual health services.[27] The findings identify the need for an intersectional approach to the creation of place-based sexual well-being support for young islanders. Importantly, this support should be co-produced with adolescents living in the local and social context.

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Contributors RM was the Principal Investigator, led the study design and acted as guarantor. RM obtained ethical approval. RM and IS supported study implementation and aided recruitment. RM, TS and IS collected quantitative data. RM conducted focus groups and transcribed them. RM led the statistical analysis and interpretation of data. RM and TS conducted the qualitative analysis. RM drafted the paper. All authors contributed to revisions and final approval of the version for submission.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants and was approved by The University of the Highlands and Islands Research Ethics Committee ETH2021-1406. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement No data are available.

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	Total %	**School year %**							**Gender %**					**Sexual orientation %**			
Main information source		**S2**	**S3**	**S4**	**S5**	**S6**	***X^2***	***p***	**Female**	**Male**	**Nonbinary & Trans**	**X^2**	***p***	**Heterosexual**	**LGB+**	**X^2**	***p***
Online	37	33	33	38	43	42			36	40	40			35	46		
Friends	21	13	28	17	22	22			26	17	13			23	13		
School	16	26	16	9	15	18			13	17	28			15	17		
Social media	14	3	15	23	7	16			16	12	13			14	15		
Parents	12	25	8	12	13	3	43.56	***<0.01***	9	13	15	15.37	=0.052	12	7	8.53	=0.07
Can talk openly with:																	
Mum/female carer																	
Yes	39	39	38	30	57	32			46	31	26			43	23		
No	45	38	38	53	36	60			36	56	54			41	60		
Don't know	16	23	23	16	7	7	31.73	***<0.001***	17	13	20	18.18	***<0.001***	16	17	14.12	***<0.001***
Dad/male carer																	
Yes	14	28	18	3	13	10			6	19	36			12	19		
No	72	47	68	84	68	86			85	55	62			71	77		
Don't know	12	26	14	12	18	4	41.86	***<0.001***	8	26	2	67.39	***<0.001***	17	4	11.9	***<0.05***
Friends at school																	
Yes	75	77	69	75	78	82			80	65	86			73	82		
No	16	8	19	19	13	14			11	23	14			16	15		
Don't know	9	15	13	6	8	4	13.81	=0.087	9	13	-	19.39	***< 0.001***	11	3	5.68	=0.058

Data Table 2: Reported sources of information and experience of communication about relationships and sex with others, *X^2=chi-square, p=significance, statistical significance at the $p<0.05$ level is italicised in bold*

	Total %	School year %							Gender %					Sexual orientation %			
		S2	**S3**	**S4**	**S5**	**S6**	X^2	***p***	**Female**	**Male**	**Nonbinary & Trans**	X^2	***p***	**Heterosexual**	**LGB+**	X^2	***p***
Contraception /condoms advice available locally																	
Yes	41	46	45	35	41	40			40	39	48			43	35		
No	39	36	39	47	37	39			41	34	46			36	51		
Don't know	20	17	16	18	22	20	9.13	0.33	19	27	6	11.08	***<0.05***	21	14	7.64	***<0.05***
STI support available locally																	
Yes	52	62	44	45	66	52			54	46	64			52	51		
No	31	23	35	38	26	30			31	33	32			30	38		
Don't know	16	15	20	16	8	18	15.14	0.056	16	21	4	9.44	0.051	18	10	4.72	0.094
Free condoms easily available locally																	
Yes	19	29	14	13	18	23			17	19	28			18	22		
No	48	46	49	56	51	39			48	47	56			48	50		
Don't know	32	25	37	31	31	38	12.47	0.131	38	39	15	8.52	0.074	34	28	2.05	0.35
Would access local youth services if available																	
Yes	22	27	12	25	36	19			21	16	48			18	39		
No	60	44	68	57	56	72			61	68	37			65	46		
Don't know	18	29	21	18	8	8	33.07	***<0.001***	18	17	15	22.62	***<0.001***	18	14	20.5	***<0.001***

Enough RSHP information in school																	
Yes	18	27	21	9	15	23			15	24	14			19	17		
No	59	55	56	67	68	52			65	48	68			56	68		
Don't know	23	18	23	24	17	25	13.24	0.1	20	28	18	13.42	***<0.05***	25	15	5.75	0.056
Would like more information/lessons																	
Yes	42	50	44	45	43	24			41	35	64			37	58		
No	38	28	39	32	34	60			36	48	24			42	28		
Don't know	20	22	17	22	23	16	22.16	***<0.05***	22	17	12	17.11	***<0.05***	21	14	14.52	***<0.001***
School is a good place to learn this subject																	
Yes	26	24	23	24	43	20			29	22	27			28	21		
No	41	43	34	46	28	51			33	45	64			36	56		
Don't know	33	33	42	29	28	29	21.25	***< 0.05***	38	32	9	22.05	***<0.001***	35	22	12.37	***<0.05***
Learned about LGBT+ relationships in school																	
Yes	33	29	26	29	35	47			28	39	32			36	22		
No	67	71	74	71	65	53	10.95	***<0.05***	71	61	68	4.65	0.097	64	78	7.14	***<0.05***
Witnessed LGBT+ bullying																	

Yes	68	70	69	77	60	60			65	67	82			63	86		
No	22	11	33	17	30	31			25	23	18			27	8		
Don't know	9	18	8	6	10	9	18.41	***<0.05***	10	10	5	7.94	0.094	10	6	20.58	***<0.001***

Data Table 3: *Knowledge of local sexual health services, opinion, and experiences of RSHP education, X^2=chi-square, p=significance, statistical significance at the p<0.05 level is italicised in bold*

	Total %	School year %							Gender %					Sexual orientation %			
Relationship experience		**S2**	**S3**	**S4**	**S5**	**S6**	***X^2***	***p***	**Female**	**Male**	**Nonbinary & Trans**	**X^2**	***p***	**Heterosexual**	**LGB+**	**X^2**	***p***
Currently	30	50	28	26	29	25			27	27	47			27	38		
Previously	37	31	48	47	32	48			37	40	36			37	39		
Never	32	19	42	26	39	27	26.39	***<0.001***	36	32	18	9.39	0.052	35	23	6.67	***<0.05***
Been sent a nude pic/video																	
Yes	61	68	49	70	58	70			64	51	81			54	83		
No	33	32	41	23	43	28			32	41	15			39	15		
Don't know	5	-	10	8	-	2	30.09	***<0.001***	4	8	4	16.01	***<0.05***	6	2	26.94	***<0.001***
Been asked to send a nude pic/video																	
Yes	54	57	39	67	51	62			61	33	88			48	79		
No	46	43	61	33	49	38	19.86	***<0.001***	39	66	12	53.39	***< 0.001***	52	21	29.97	***<0.001***
Sent a nude pic/video																	
Yes	26	27	15	28	33	33			23	23	53			19	51		
No	74	73	85	72	67	67	11.34	***<0.05***	77	77	47	20.01	***< 0.001***	81	49	38.41	***<0.001***
Viewed online pornography																	
Yes	72	79	66	70	73	80			65	82	73			69	80		
No	23	14	29	22	23	20			32	11	19			26	15		
Don't know	5	7	5	8	3	-	13.39	0.099	3	6	8	25.73	***<0.001***	4	5	4.84	0.089

Experience kissing																	
Yes	55	47	41	65	51	78			58	47	72			53	67		
No	45	53	59	35	49	26	33.34	***<0.001***	42	33	28	10.212	***< 0.05***	47	33	6.25	***<0.05***
Experience sexual touching																	
Yes	35	20	25	32	34	65			31	28	72			29	57		
No	61	77	72	59	66	33			65	68	26			67	40		
Don’t know	4	3	2	9	-	2	53.72	***<0.001***	4	3	2	35.13	***<0.001***	4	3	24.5	***<0.001***
Experience oral sex																	
Yes	26	18	18	22	25	47			23	18	63			20	46		
No	70	82	77	71	69	53			73	79	33			75	54		
Don’t know	4	-	5	7	6	-	32.81	**<0.001**	4	4	4	43.14	***<0.001***	5	-	30.15	***<0.001***
Experience full sex																	
Yes	26	13	12	29	23	49			20	22	53			20	41		
No	70	84	82	69	77	45			76	75	41			80	53		
Don’t know	4	3	6	2	-	4	47.51	***<0.001***	4	2	6	27.74	***<0.001***	3	5	20.58	***<0.001***

Data Table 4: *Reported relationship, online and behavioural experiences,* X^2*=chi-square, p=significance, statistical significance at the p<0.05 level is italicised in bold*