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Merseyside university students' health and wellbeing, feelings of safety, and exposure to violence and adverse childhood experiences

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About this report

In 2023, Liverpool John Moores University (LJMU) was commissioned to support the implementation of an adult household population survey across Merseyside, examining feelings of community safety and experiences of violence and ACEs (2). However, a critical evidence gap remains the experiences of children and young people in Merseyside, including the experiences of university students. To complement the adult household population survey and address the evidence gap on the experiences of young people, the Merseyside Violence Reduction Partnership have commissioned LJMU to support the implementation of a survey with young people across school and university settings in Merseyside. This report specifically focuses on the findings of the survey implemented with university students.

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Contents

1. Introduction	1
2. Methods	3
2.1 Data source	3
2.2 Measures.....	3
2.3 Data analyses	5
2.4 Reporting conventions	5
3. Findings	6
3.1 General health	6
3.2 Mental wellbeing	6
3.3 Health risk behaviours	7
3.4 Adulthood violence victimisation	11
3.5 Adulthood violence perpetration.....	22
3.6 Experiencing financial difficulties.....	22
3.7 Feelings of safety in different settings	23
3.8 Adverse childhood experiences	25
3.9 Associations between experiencing ACEs and general health, mental wellbeing, and health risk behaviours.....	31
3.10 Associations between experiencing ACEs and experiencing financial difficulties, and violence victimisation and perpetration	35
3.11 Associations between experiencing ACEs and perceptions of safety	37
4. Summary of key findings.....	39
5. References	43
6. Appendices	46

Merseyside university students' health and wellbeing, feelings of safety, and exposure to violence and adverse childhood experiences

The MVRP have commissioned LJMU to support the implementation of a survey with young people across school and university settings in Merseyside to better understand young people's feelings of safety across different settings, and exposure to violence and adverse childhood experiences. This research aims to inform the targeting of future resources and work programmes to prevent and respond to violence. This report focuses on the findings of the survey implemented with **292** students at Liverpool John Moores University from February to May 2026.

Health Risk Behaviours

	77.4% drink alcohol 13.3% weekly binge drinking* 17.4% high risk alcohol drinking*		18.6% used any drug within the past year
	31.8% currently smoke tobacco and/or use electronic cigarettes/vapes		30.4% gambled in the past year 26.4% were at risk of gambling-related harm*

Adulthood Violence Victimisation

Any violence	Physical violence	Psychological abuse and coercive control
 59.2% since age 18 years 27.4% past year	 31.2% since age 18 years 9.6% past year	 23.3% since age 18 years 9.6% past year
Stalking and harassment	Indecent exposure	Sexual violence
 18.8% since age 18 years 8.6% past year	 18.2% since age 18 years 4.5% past year	 33.2% since age 18 years 9.9% past year

Feelings of safety

Proportions of students reporting feeling safe

 In university buildings or on university campus 90.6%	 In their accommodation 88.7%	 In pubs, bars and clubs 37.6%	 On public transport or at public transport stations 37.0%
 In their neighbourhood 63.9%	 In Liverpool City Centre 52.1%	 In Merseyside generally 51.2%	

* of those who reported drinking alcohol / of those who reported gambling in the past year.

Adverse childhood experiences

ACE count prevalence*

0

29.8%

1

18.5%

2-3

26.4%

4+

25.3%

Prevalence of thirteen individual ACE types

Community: Bullying



47.4%

Community: Witnessing violence



30.9%

Abuse: Verbal



47.5%

Abuse: Physical



27.2%

Abuse: Sexual



13.5%

Abuse: Physical neglect



7.3%

Household: Parental separation



38.8%

Household: Witnessing domestic violence



22.0%

Household: Mental illness



35.1%

Household: Alcohol harm



25.4%

Household: Drug harm



12.8%

Household: Gambling harm



6.6%

Household: Incarceration



5.2%

1. Introduction

For many students, higher education is a crucial transition period in which health, wellbeing, and social and educational outcomes are shaped by numerous factors, including how students adapt to university life, their ability to form new social connections and develop a sense of belonging, and engagement in new social environments and settings (5). Evidence from the UK highlights some of the health and wellbeing challenges which university students face. For example, mental ill health is a significant concern, with a high prevalence of anxiety and depression, associated with poorer quality of life (6). Additionally, health risk behaviours such as drinking alcohol, use of illicit substances, and gambling are important drivers of poor health and wellbeing outcomes, with behaviours closely tied to social norms regarding student social life (e.g. alcohol consumption and night-life participation) (7-9). Evidence indicates that experiences of violence, including physical violence, sexual violence, and harassment, are not uncommon among university students in the UK, particularly amongst certain sociodemographic groups (10-12). These experiences of violence are likely to have substantial implications for students' health, wellbeing, feelings of safety, and ability to engage in university life socially and academically – including increased risks of students dropping out of university and/or having poor academic outcomes, and over the longer-term increase the risks of poor health and social outcomes (10, 11).

However, the impact of childhood experiences that students bring with them to university is often overlooked. A recent meta-analysis found that over half (55%) of university students in the UK had experienced at least one adverse childhood experience (ACEs, see Box 1), which is comparable to the prevalence observed in a general population study in England (47%) (13, 14). Furthermore, research conducted specifically with first year undergraduate students from one English university found that those who are exposed to greater numbers of ACEs are more likely to experience anxiety and poorer quality of life (15). This finding aligns with extensive evidence indicating that exposure to ACEs can have detrimental impacts on health and social outcomes throughout the life course, including heightened risks of poor health and wellbeing outcomes, engagement in health risk behaviours, violence victimisation and perpetration, and poorer educational and employment outcomes (3, 4, 16-20). There are also important considerations about university students in general which may have implications on how ACEs impact on this group, and in turn how best to support students who are impacted by ACEs. For example, most students starting university are young adults, as such their experiences of ACEs may be more recent (particularly among those just entering adulthood) compared to adults in general population sample studies. Evidence also suggests that parts of the brain (including the prefrontal cortex, responsible for cognitive skills and emotion regulation) are still developing into early adulthood (21, 22). Additionally, there are likely to be differences across different areas where students come to university from (both within the UK and internationally) in societal understanding of ACEs, and provision and access to appropriate support services. While higher education can be a critical period of transition which many individuals can struggle with, those who have experienced ACEs may be a group that have a greater degree of difficulties in adapting to new social, learning, and living environments. Therefore, university may offer a platform during a critical period of development and change in which interventions could be put in place to mitigate against the impacts which ACEs can have on the brain and body, and subsequently on behaviours, and may improve outcomes for students in terms of retention and attendance at university, and academic achievement (3).

Box 1: Adverse Childhood Experiences (ACEs)

ACEs refer to potentially traumatic events which individuals are exposed to in childhood. While there are no set definitions for what constitutes an ACE, ACEs typically include direct forms of violence against children (physical, verbal, and sexual abuse), household-level adversities (e.g. household member mental illness or incarceration, witnessing domestic violence), and may include community-level adversities (e.g. witnessing violence in the community or bullying). Since the initial ACEs study conducted in 1998 (1), knowledge on ACEs and their potential long-term detrimental impacts on individuals, communities, and society has developed considerably. Evidence highlights how ACEs are likely to increase the risks of poor health outcomes through mechanisms such as increasing the likelihood of engagement in health risk behaviours, but also through direct changes to brain development and physiology (3). However, experiencing ACEs does not mean that individuals will always experience poor outcomes, with many people avoiding the negative consequences of ACEs across the life course. This may in part be due to sources of resilience in childhood which help to mitigate against the impacts which ACEs can have (3, 4).

University students are often active participants in local communities and economies, including the night-time economy. Additionally, many students go on after their studies to take up key roles across a range of sectors within the workforce. As such, the impacts of factors affecting students' health and wellbeing may extend beyond the individual, influencing issues such as community safety, pressures on key services (e.g. healthcare and policing), and the future provision of services across the public, private and third sectors. Therefore, promoting the health and wellbeing of this population is likely to have important implications for wider society, as well as the student population.

Together, all of the above factors highlight the need to better understand the nature and impacts of experiences of ACEs and violence, and to identify risk and protective factors, specifically amongst university students. In 2023, Liverpool John Moores University was commissioned to support the implementation of an adult household population survey across Merseyside, examining feelings of community safety and experiences of violence and ACEs (2). However, a critical evidence gap remains regarding the experiences of children and young people in Merseyside, including the experiences of university students. To complement the adult household population survey, the MVRP have commissioned LJMU to support the implementation of a survey with young people across school and university settings to inform the targeting of future VRP resources and work programmes to prevent and respond to violence. This report focuses on the findings of the survey implemented with university students.

The overarching research question for this study was: how do ACEs and sociodemographic factors shape university students' health and health risk behaviours, experiences of violence and perceptions of safety? The aims of the current study are to examine:

- University students' general health, mental wellbeing, engagement in health risk behaviours, violence victimisation, and feelings of safety in different settings.
- The prevalence of ACEs among university students (including ACE count and ACE types).
- The prevalence of having received support related to ACEs among university students.
- The sociodemographics associated with health risk behaviours, violence victimisation, feelings of safety in different settings, and ACEs.
- Associations between ACEs and health and wellbeing, health risk behaviours, experiencing financial difficulties, violence victimisation and perpetration, and feelings of safety in different settings.

2. Methods

2.1 Data source

This report uses data from an online cross-sectional survey of university students undertaken from February to May 2026. The questionnaire captured information on participant sociodemographics, health and wellbeing, engagement in health risk behaviours, experiences of violence, perceptions of safety in different settings, and ACEs. Eligible participants were undergraduate and postgraduate students aged 18+ years who were enrolled at LJMU during the study period. Participants were recruited for the survey through convenience sampling approaches, including advertising the survey on the LJMU website and in LJMU buildings, social media posts, and by staff approaching students to share study information in person. A total of 292 students were included in the final sample. Ethical approval was granted by Liverpool John Moores Research Ethics Committee (reference number 25/PAH/014).

2.2 Measures

An overview of the measures utilised in the current study is provided below. For full details on the measures see Appendix A1.

Table 1: Overview of survey measures

Measures	Responses/coding
Sociodemographics <i>Gender.</i> <i>Age (years).</i> <i>Ethnicity.</i> <i>Home student status.</i>	Male; Female. 18-21; 22-25; 26+. White; Other ethnicities. Home student; International student.
General health and mental wellbeing <i>Poor general health</i> (defined as more than one standard deviation below the mean score using the EQ-VAS – part of the EQ-5D-5L instrument (23)). <i>Low mental wellbeing</i> (defined as more than one standard deviation below the mean score using the Short Warwick Edinburgh Mental Wellbeing Scale (24, 25)).	Poor general health; Average or above average general health. Low mental wellbeing; Average or above average mental wellbeing.
Health risk behaviours <i>Alcohol consumption risk level</i> (measured using the Alcohol Use Disorders Identification Test Consumption (26)). <i>Smoking tobacco and use of e-cigarettes/vapes</i> (measured using one item asking about how often participants smoked/used e-cigarettes/vapes). <i>Drug use</i> (measured whether participants used a number of drugs ever or in the past year). <i>Gambling harm</i> (measured using the Problem Gambling Severity Index Short Form (27)).	Low risk; Increasing risk; Higher risk; Possible dependence. Currently; Previously but not currently; Never. Daily; Not daily. Any drug use ever (Yes, No); Any drug use past year (Yes, No). No gambling harm; Low risk of harm; Moderate risk of harm; High risk of harm.
Adulthood violence victimisation	

Measures	Responses/coding
<i>Violence victimisation</i> (measured using five items on whether after the age of 18 years the individual experienced five types of violence victimisation). Follow up questions about the individual's relationship to the perpetrator, where the violence took place, and reporting of the violence were completed by those who reported experiencing each violence type.	Yes; No. All types since age 18 years and in the past 12 months (referred to as past year hereafter). Any violence victimisation. Physical violence. Psychological abuse and coercive control. Stalking and harassment. Indecent exposure. Any sexual violence.
Violence perpetration <i>Adulthood violence perpetration</i> (one item asked participants about whether they had ever physically hit, kicked, pushed/shoved, or intentionally physically hurt someone in some way, since turning 18 years of age).	Violence perpetration since 18 years (Yes, No).
Financial difficulties <i>Current financial difficulties</i> (one item asked participants about how easy they find it to make ends meet, namely, to pay for usual necessary expenses (e.g. rent, food, bills)).	Somewhat or very difficult; Not difficult.
Feelings of safety <i>Feelings of safety</i> (measured using seven items asking to what extent participants feel safe in different settings).	Unsafe or very unsafe; Neither safe nor unsafe; Safe or very safe. In their accommodation. In and around university buildings/campus. In pubs, bars and clubs. On public transport or at public transport stations (including taxi ranks). In their neighbourhood. In Liverpool City Centre. In Merseyside generally.
Adverse childhood experiences (ACEs) <i>ACE types</i> (measured using 13-items adapted from the ACE International Questionnaire (28)). <i>ACE count</i> (summing the total number of nine ACEs excluding Physical neglect, Bullying, and Witnessing violence in the community). <i>Support related to ACEs</i> (participants were asked whether they had received support related to their experiences of ACEs).	Yes; No. Abuse: Physical, Verbal, Sexual, Physical neglect. Household: Mental illness, Alcohol harm, Drug harm, Gambling harm, Incarceration, Parental separation, Witnessing violence. Community: Bullying, Witnessing violence. 0 ACEs; 1 ACE; 2-3 ACEs; 4+ ACEs. In childhood only; In adulthood only; In both childhood and adulthood; No support.

2.3 Data analyses

Quantitative analyses were undertaken in SPSS (v.30). Chi-square for Independence (with Continuity Correction) was used to explore associations between ACEs and sociodemographics, and other outcomes (e.g. health and wellbeing, health risk behaviours etc.). Logistic regression was used to examine the relationship between ACE count and outcomes of interest. This type of analyses allows examination of the relationship between ACEs and outcomes of interest while accounting for the effects which sociodemographics (gender, age, ethnicity) may have on these associations.

2.4 Reporting conventions

The following caveats and conventions should be considered when interpreting the findings in this report.

- Figures presented throughout the report are all sample level data and cannot be considered representative of all university students.
- Reported statistical associations are significant if their p-value is less than 0.05 (i.e. <0.05). P-values help understand whether given results are due to chance. Low p-values suggest findings are likely meaningful and not due to chance.
- As with all cross-sectional population surveys, findings represent an association only and do not imply causation in any direction.
- Findings in tables and figures may not sum to 100% due to rounding.

3. Findings

3.1 General health

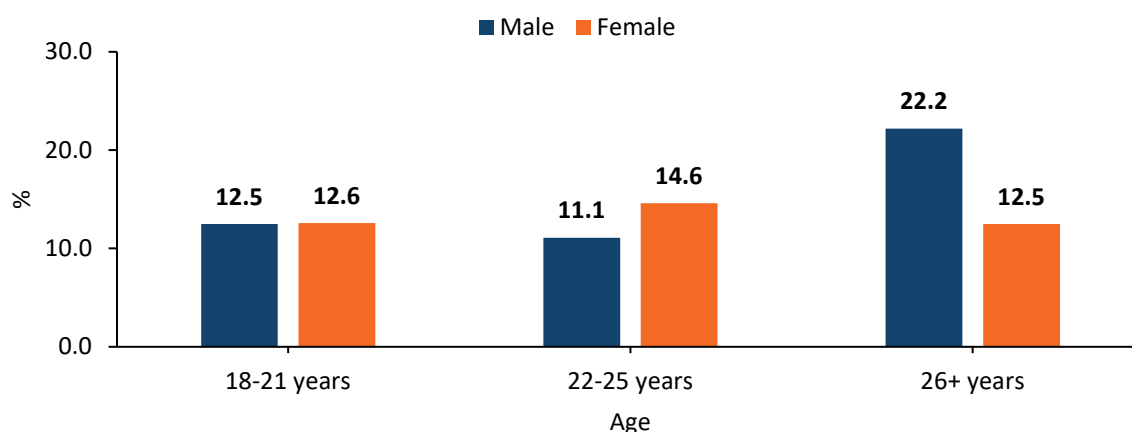


Students were asked to give their health a score on the day of completing the survey, from 0 to 100, where 0 represents “the worst health you can imagine” and 100 represents “the best health you can imagine”. Scores of 49 or less were classed as having poor general health, being more than one standard deviation (20.68) below the mean (69.99).

14.0% of students had poor general health

- There were similar proportions with poor general health amongst males (15.6%) and females (13.0%; Table A1).
- There were similar proportions with poor general health amongst those aged 18-21 years (13.6%), 22-25 years (13.6%), and 26+ years (15.1%; Table A1).
- There were no significant associations between poor general health and gender, age group, ethnicity, or home student status (Table A1).

Figure 1: Poor general health by gender and age



3.2 Mental wellbeing

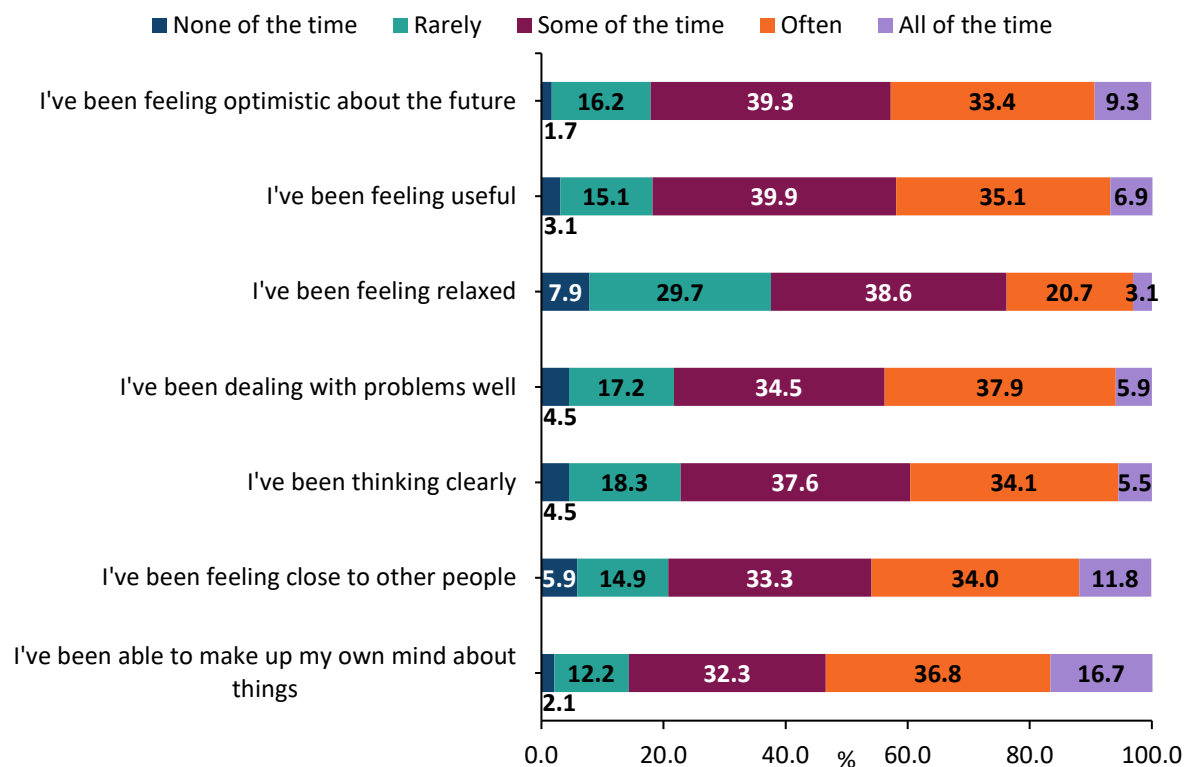


Students were asked to respond to seven statements about elements of their mental wellbeing over the past two weeks (Figure 2), with item scores summed, and low mental wellbeing being classified as scores more than one standard deviation (3.82) below the mean (20.94).

16.1% of students had low mental wellbeing

- There were similar proportions with low mental wellbeing amongst males (17.8%) and females (15.9%; Table A1).
- There were similar proportions with low mental wellbeing amongst those aged 18-21 years (16.7%), 22-25 years (16.9%), and 26+ years (14.5%; Table A1).
- There were no significant associations between low mental wellbeing and gender, age group, ethnicity, or home student status (Table A1).

Figure 2: Students' responses to the seven statements about elements of mental wellbeing over the past two weeks



3.3 Health risk behaviours

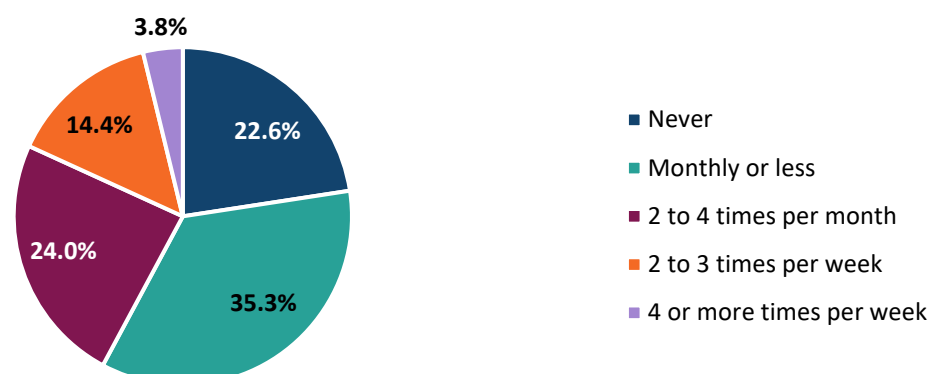
3.3.1 Alcohol consumption



42.1% of students reported drinking alcohol at least twice per month. Of students who reported drinking alcohol, 13.3% binge drank at least weekly, and 17.4% engaged in high risk alcohol consumption.

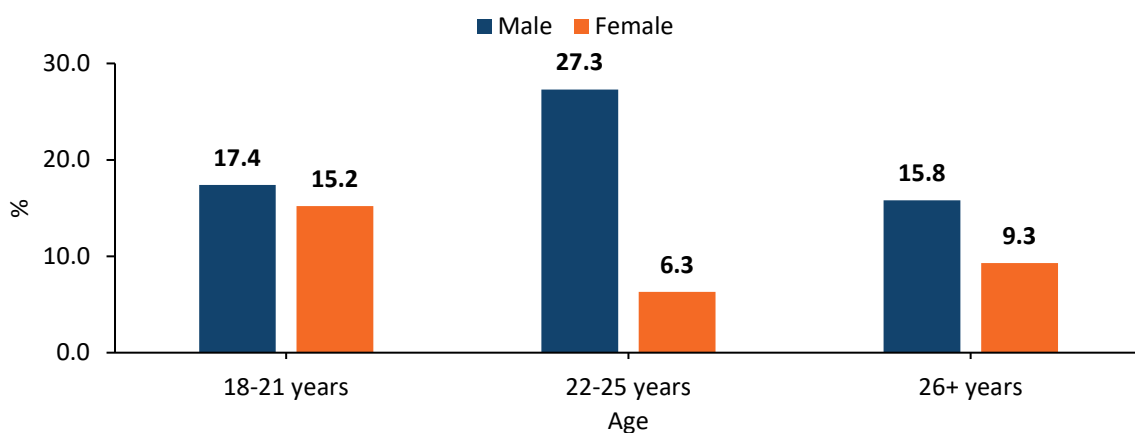
- Over two in ten (22.6%) students reported that they never drink alcohol, over a third (35.3%) did so on a monthly basis or less often, a quarter (24.0%) reported drinking alcohol 2 to 4 times per month, and 18.2% consumed alcohol at least twice per week (Figure 3).

Figure 3: Alcohol consumption frequency



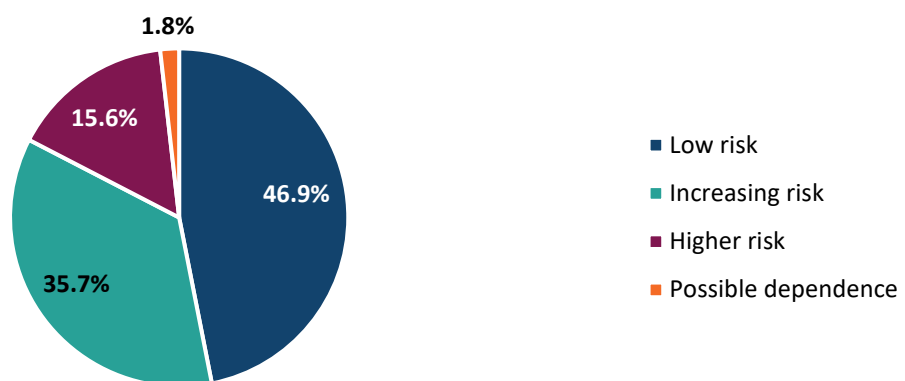
- Of students who reported that they ever drink alcohol, over two in ten (22.2%) reported that they never binge drink (having at least 6 units of alcohol if female, or 8 units of alcohol if male, on a single occasion). Four in ten (40.9%) students reported binge drinking on a less than monthly basis, a quarter (23.6%) did so monthly, and 13.3% binge drank on at least a weekly basis.
- The prevalence of weekly binge drinking was lower for females (12.0%) compared to males (18.9%; Table A2).
- The prevalence of weekly binge drinking decreased as age group increased (18-21 years 15.4%; 22-25 years 11.6%; 26+ years 10.8%; Table A2).
- There were no significant associations between weekly binge drinking and gender, age group, ethnicity, or home student status (Table A2).

Figure 4: Weekly binge drinking of students who reported ever drinking alcohol by gender and age



- Of students who reported ever drinking alcohol, over four in ten (46.9%) students' drinking was classified as being low risk, a third (35.7%) were classified as increasing risk, and 17.4% of students' drinking was classified as higher risk or possible dependence (Table A3; Figure 5).

Figure 5: AUDIT-C risk categories of students who reported ever drinking alcohol



- A higher proportion of females' (48.5%) compared to males' (40.4%) alcohol drinking was classified as low risk. Similar proportions of males' (36.5%) and females' (35.3%) alcohol drinking was classified as increasing risk. The prevalence of high risk alcohol consumption was lower among females (16.2%) compared to males (23.1%; Table A3).

- The proportion of students with alcohol drinking classified as low risk increased with age (18-21 years 40.2%; 22-25 years 47.6%; 26+ years 58.5%). The prevalence of high risk alcohol consumption decreased as age group increased (18-21 years 21.4%; 22-25 years 14.3%; 26+ years 12.3%; Table A3).
- There was a significant association between high risk alcohol consumption and ethnicity (White 20.7%; other ethnicities 6.5%; $p < 0.05$; Table A2).

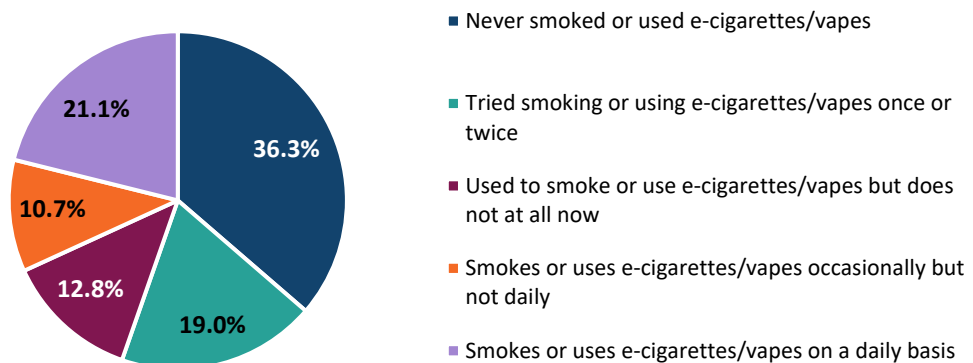
3.3.2 Tobacco smoking and electronic cigarette/vape use



31.8% of students currently smoke tobacco or use electronic cigarettes/vapes

- Over half (55.4%) of students had never smoked tobacco or used e-cigarettes/vapes or only tried smoking or using e-cigarettes/vapes once or twice. One in ten (12.8%) students used to smoke or use e-cigarettes/vapes but do not anymore. Three in ten (31.8%) students currently smoked or used e-cigarettes/vapes (including daily [21.1%] and occasionally [10.7%]; Figure 6).
- The prevalence of current smoking or e-cigarette/vape use was lower for females (30.9%) compared to males (35.5%). The prevalence of ex-smoking or using e-cigarettes/vapes was also higher amongst males (18.4%) than females (11.1%; Table A4).
- The prevalence of current smoking or using e-cigarettes/vapes was lowest amongst those aged 26+ years (23.5%) and highest amongst those aged 22-25 years (37.9%; Table A4).
- There were no significant associations between daily smoking or using e-cigarettes/vapes and gender, age group, ethnicity, or home student status (Table A4).

Figure 6: Tobacco smoking or e-cigarette/vape use status



3.3.3 Drug use

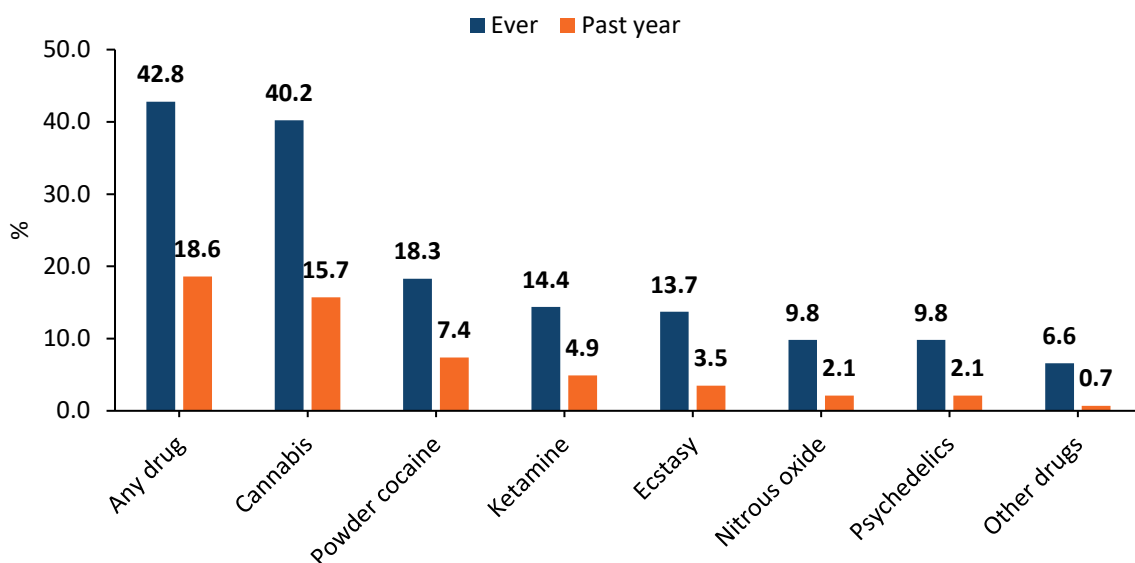


18.6% of students had used any drug within the past year

- Over four in ten (42.8%) of students had ever used any drugs, while under two in ten (18.6%) had done so within the past year (Table A5; Figure 7). The drug that students most commonly reported using was cannabis (40.2% ever; 15.7% past year), followed by powder cocaine (18.3% ever; 7.4% past year) and ketamine (14.4% ever; 4.9% past year; Figure 7).

- The prevalence of using any drugs ever was higher among females (44.6%) compared to males (34.7%), while the prevalence of using any drugs in the past year was similar among males (18.7%) and females (17.6%; Table A5).
- The prevalence of using any drugs ever was lowest amongst those aged 18-21 years (38.7%) and highest amongst those aged 26+ years (47.1%). The prevalence of using any drugs in the past year was lowest amongst those aged 26+ years (16.5%) and highest amongst those aged 22-25 years (20.7%; Table A5).
- Ever using any drugs was significantly associated with ethnicity (White 48.0%; other ethnicities 32.1%; $p < 0.05$) and home student status (home student 46.4%; International student 26.5%; $p < 0.05$; Table A5). There were no significant associations between past year drug use and gender, age group, ethnicity, or home student status (Table A5).

Figure 7: Ever and past year drug use, by drug type¹



3.3.4 Gambling



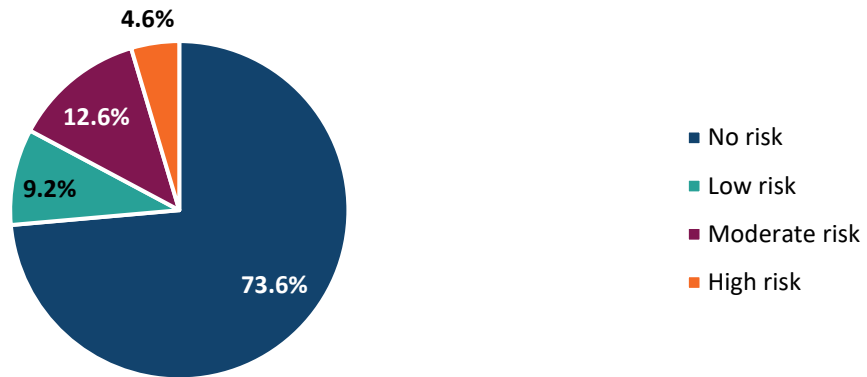
30.4% of students engaged in any gambling in the past year, and of those who gambled, 26.4% were at risk of harm related to their gambling

- Three in ten (30.4%) students engaged in any gambling activity within the past year (Table A6).
- Of students who reported past year gambling, a quarter (26.4%) were at risk of gambling related harm within the past year, with 17.2% at moderate or high risk (Table A7; Figure 8).
- The prevalence of past year gambling participation was similar among males (33.3%) and females (30.2%), however, the prevalence of being at risk of past year gambling harm was significantly higher amongst males (44.0%) compared to females (19.4%; $p < 0.05$; Table A6).
- The prevalence of past year gambling participation was lowest amongst those aged 18-21 years (26.9%) and highest amongst those aged 26+ years (37.3%). The prevalence of being at risk of part year gambling harm was similar across age groups (Table A6).

¹ Other drugs included: cognitive enhancers, anabolic steroids, GHB, mephedrone, heroin, crack cocaine, and other types of drugs. Each of these had less than 3% who reported using them ever, and less than 1% who reported using them in the past year.

- Past year gambling participation was significantly associated with ethnicity (White 36.3%; other ethnicities 16.9%; $p < 0.01$) and home student status (home student 33.1%; International student 17.0%; $p < 0.05$; Table A6). Being at risk of past year gambling harm was significantly associated with ethnicity (White 21.6%; other ethnicities 53.8%; $p < 0.05$; Table A6).

Figure 8: Risk of gambling related harm among those who gambled in the past year



3.4 Adulthood violence victimisation

3.4.1 Any adulthood violence



Any type of violence victimisation (i.e. physical violence; psychological abuse and coercive control; stalking and harassment; indecent exposure; any sexual violence) experienced as an adult since the age of 18 years

27.4% of students had experienced any violence victimisation in the past year

- Six in ten (59.2%) students had experienced any violence victimisation since age 18 years and over a quarter (27.4%) of students had experienced any violence victimisation in the past year (Table A8).
- The prevalence of violence victimisation since age 18 years was higher among females (61.1%) compared to males (55.8%), however, the prevalence of past year violence victimisation was similar among females (27.4%) and males (27.3%; Table A8).
- The prevalence of violence victimisation since age 18 years increased significantly as age increased (18-21 years 52.4%; 22-25 years 59.3%; 26+ years 70.9%; $p < 0.05$; Table A8).² The prevalence of past year violence victimisation was highest amongst those aged 18-21 years (30.6%) and lowest amongst those aged 22-25 years (23.7%; Table A8).
- Except for the significant association with age, there were no other significant associations between violence victimisation since age 18 years and gender, ethnicity, or home student status (Table A8). There were no significant associations between past year violence victimisation and gender, age group, ethnicity, or home student status (Table A8).

² Those who are in older age groups have had more time in which they could have been exposed to violence victimisation than those in younger age groups.

3.4.2 Any violence in the night-time economy



Any type of violence victimisation in the night-time economy (i.e. physical violence; psychological abuse and coercive control; stalking and harassment; indecent exposure; any sexual violence) as an adult since the age of 18 years

27.4% of students had experienced any violence victimisation in the night-time economy since age 18 years³

- Over a quarter (27.4%) of students had experienced any violence victimisation in the night-time economy setting, since age 18 years (Table A8).
- The prevalence of violence victimisation in the night-time economy since age 18 years was similar among females (28.4%) and males (26.0%; Table A8).
- The prevalence of violence victimisation in the night-time economy since age 18 years was lowest amongst those aged 22-25 years (23.7%) and highest amongst those aged 26+ years (29.1%; Table A8).²
- There were no significant associations between violence victimisation in the night-time economy since age 18 years and gender, age group, ethnicity, or home student status (Table A8).

3.4.3 Physical violence



Any physical violence victimisation experienced as an adult since the age of 18 years

31.2% of students had experienced physical violence victimisation since age 18 years

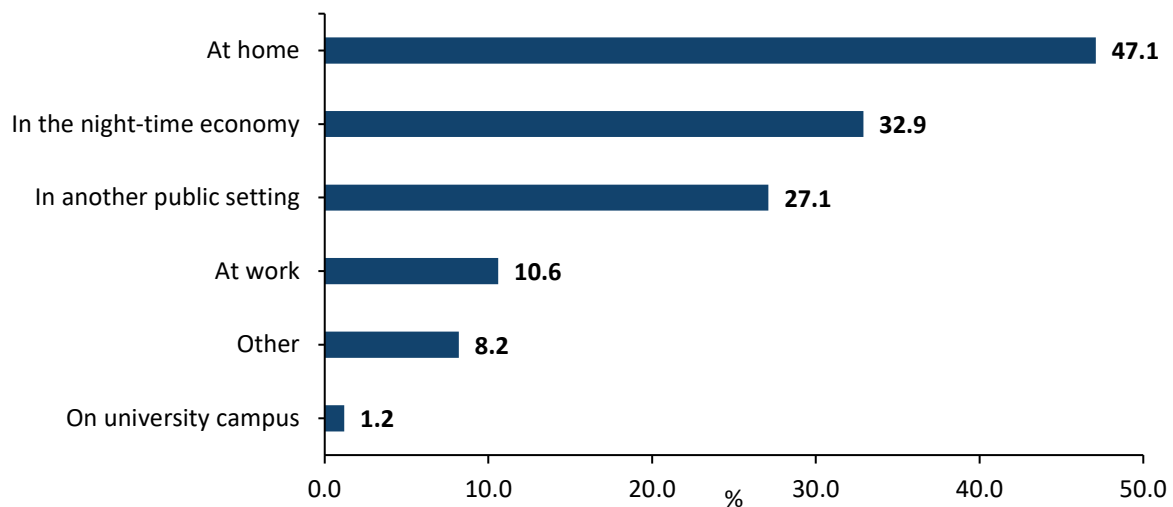
- Three in ten (31.2%) students had experienced physical violence victimisation since age 18 years, and one in ten (9.6%) had experienced this in the past year.
- The prevalence of physical violence victimisation since age 18 years was higher among males (37.7%) compared to females (28.8%; Table A9).
- The prevalence of physical violence victimisation since age 18 years increased significantly as age increased (18-21 years 21.1%; 22-25 years 30.5%; 26+ years 48.8%; $p < 0.001$; Table A9).²
- Except for the significant association with age, there were no other significant associations between physical violence victimisation since age 18 years and gender, ethnicity, or home student status (Table A9).

Location of physical violence victimisation

Of those who experienced physical violence victimisation since age 18 years, the most commonly reported location the violence took place in was at home (47.1%), followed by in the night-time economy (32.9%; Figure 9). Only a very small proportion of students who reported experiencing physical violence victimisation reported it took place on university campus (1.2%; Figure 9).

³ From here onwards, unless stated otherwise, analyses of violence victimisation is on violence since the age of 18 years. This is due to small sample sizes of those experiencing violence in the past year, by violence subtypes.

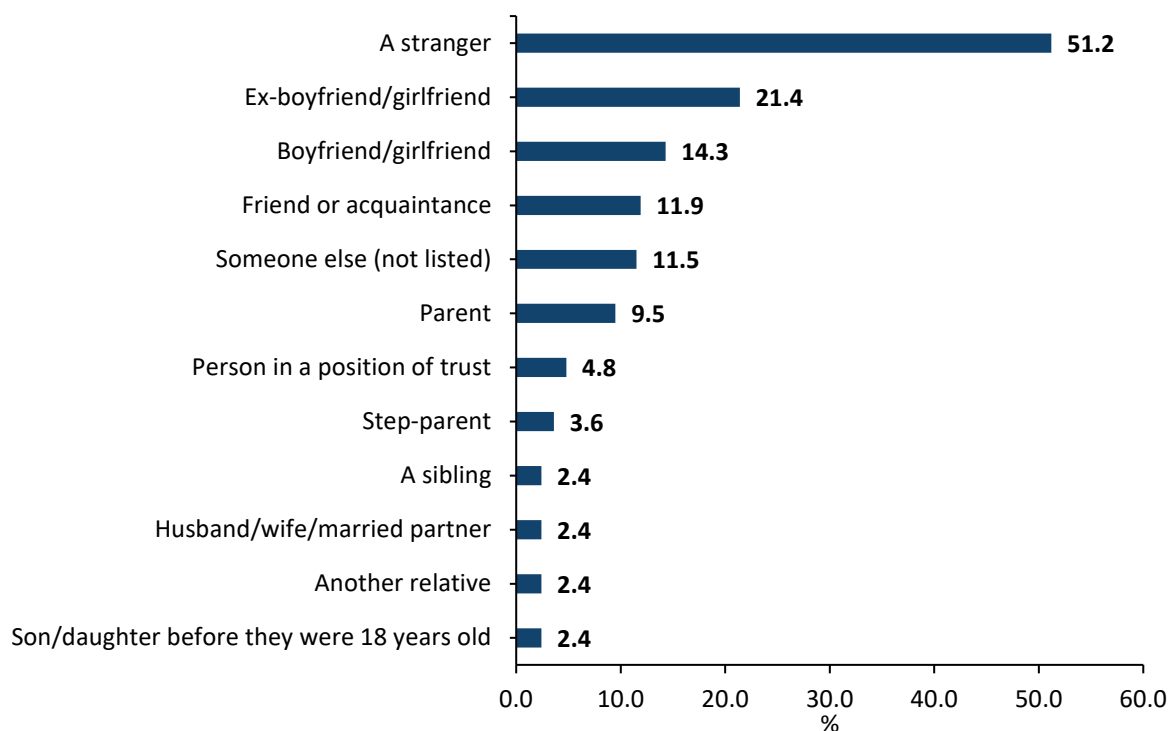
Figure 9: Location of physical violence victimisation



Relationship to the perpetrator

Of those who experienced physical violence victimisation since age 18 years, over half reported that this was perpetrated by a stranger (51.2%), while a fifth (21.4%) of students reported it was perpetrated by an ex-boyfriend/girlfriend (Figure 10).

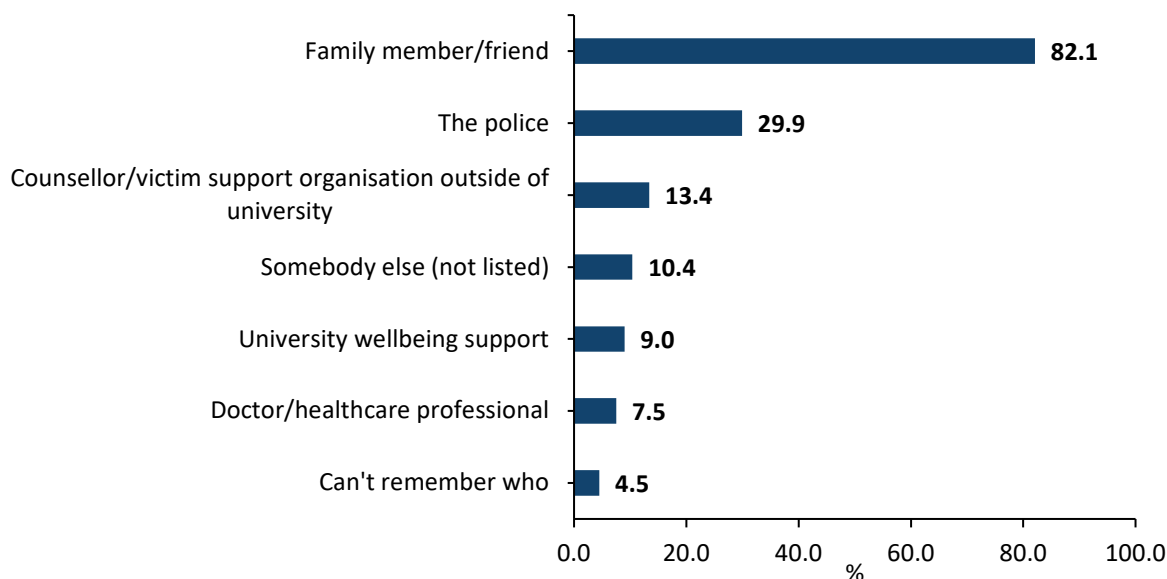
Figure 10: Relationship to the perpetrator of physical violence



Reporting of physical violence victimisation

Of those who experienced physical violence victimisation since age 18 years, the majority (76.1%) had reported this to at least one person. Of those who reported the violence, most (82.1%) had told a family member or friend, while three in ten (29.9%) had reported the violence to the police (Figure 11).

Figure 11: Reporting of physical violence victimisation



3.4.4 Psychological abuse and coercive control



Any psychological abuse or coercive control victimisation experienced as an adult since the age of 18 years

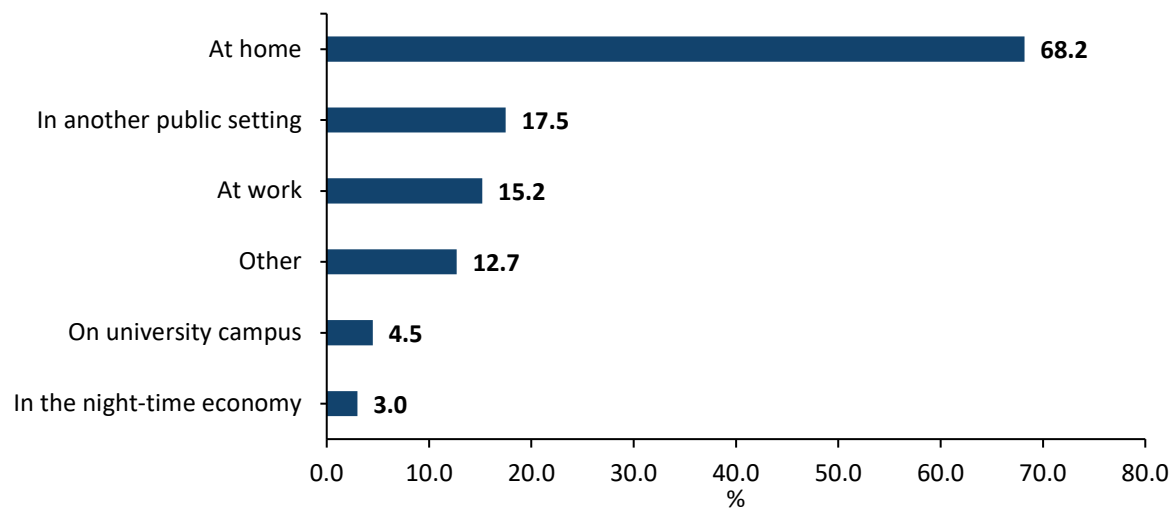
23.3% of students had experienced psychological abuse or coercive control since age 18 years

- Over two in ten (23.3%) students had experienced psychological abuse/coercive control since age 18 years, and one in ten (9.6%) had experienced this in the past year.
- The prevalence of psychological abuse/coercive control since age 18 years was higher among females (24.0%) compared to males (19.5%; Table A9).
- The prevalence of psychological abuse/coercive control since age 18 years was significantly higher among those aged 26+ years (41.9%) compared to those aged 18-21 years (15.6%) or 22-25 years 15.3%; $p < 0.001$; Table A9).²
- In addition to the significant association with age, ethnicity was also significantly associated with psychological abuse/coercive control, with the prevalence higher among those from non-White backgrounds (31.6%) compared to White backgrounds (19.8%; $p < 0.05$; Table A9).

Location of psychological abuse/coercive control

Of those who experienced psychological abuse/coercive control since age 18 years, the most commonly reported location the violence took place in was at home (68.2%), followed by in another public setting (17.5%; Figure 12). A small proportion of students who experienced psychological abuse/coercive control reported it took place on university campus (4.5%; Figure 12).

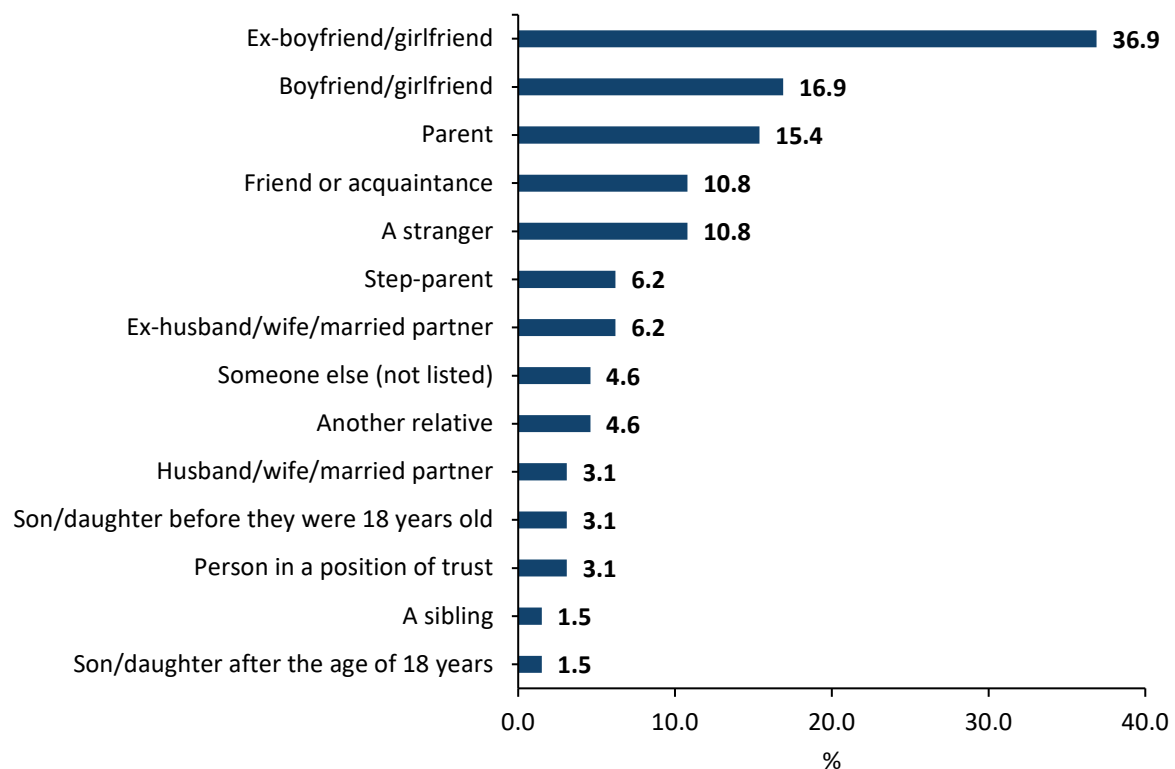
Figure 12: Location of psychological abuse/coercive control



Relationship to the perpetrator

Of those who experienced psychological abuse/coercive control since age 18 years, over a third reported that this was perpetrated by an ex-boyfriend/girlfriend (36.9%), while over one in ten (16.9%) students reported it was perpetrated by a boyfriend/girlfriend (Figure 13).

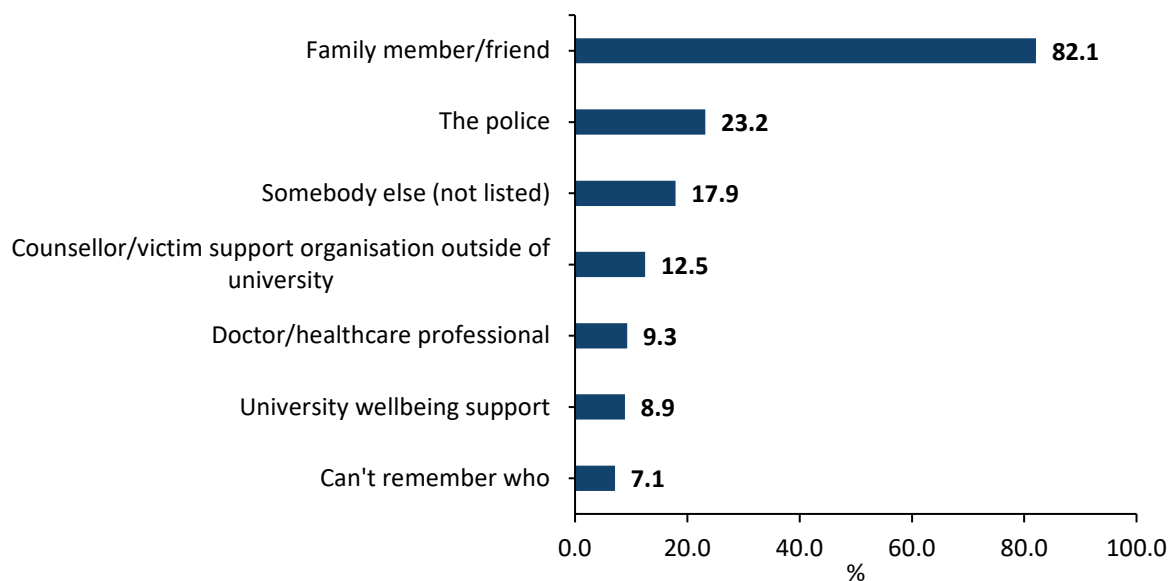
Figure 13: Relationship to the perpetrator of psychological abuse/coercive control



Reporting of psychological abuse/coercive control

Of those who experienced psychological abuse/coercive control since age 18 years, the majority (84.8%) had reported this to at least one person. Of those who reported the violence, most (82.1%) had told a family member or friend, while two in ten (23.2%) had reported the violence to the police (Figure 14).

Figure 14: Reporting of psychological abuse/coercive control



3.4.5 Stalking and harassment



Any stalking and harassment victimisation experienced as an adult since the age of 18 years

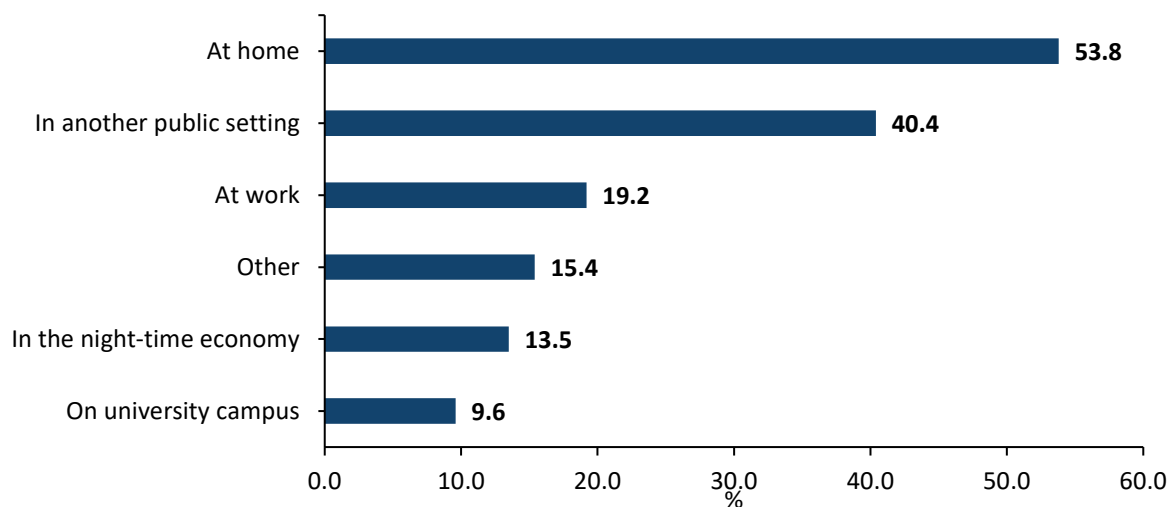
18.8% of students had experienced stalking and harassment victimisation since age 18 years

- Just under two in ten (18.8%) students had experienced stalking and harassment victimisation since age 18 years, and just under one in ten (8.6%) had experienced this in the past year.
- The prevalence of stalking and harassment victimisation since age 18 years was higher among females (21.2%) compared to males (11.7%; Table A9).
- The prevalence of stalking and harassment victimisation since age 18 years was highest among those aged 26+ years (26.7%) and lowest among those aged 22-25 years (13.6%; Table A9).²
- There were no significant associations between stalking and harassment victimisation and gender, age group, ethnicity, or home student status (Table A9).

Location of stalking and harassment victimisation

Of those who experienced stalking and harassment victimisation since age 18 years, the most commonly reported location the violence took place in was at home (53.8%), followed by in another public setting (40.4%; Figure 15). One in ten (9.6%) students who experienced stalking and harassment victimisation reported it took place on university campus (Figure 15).

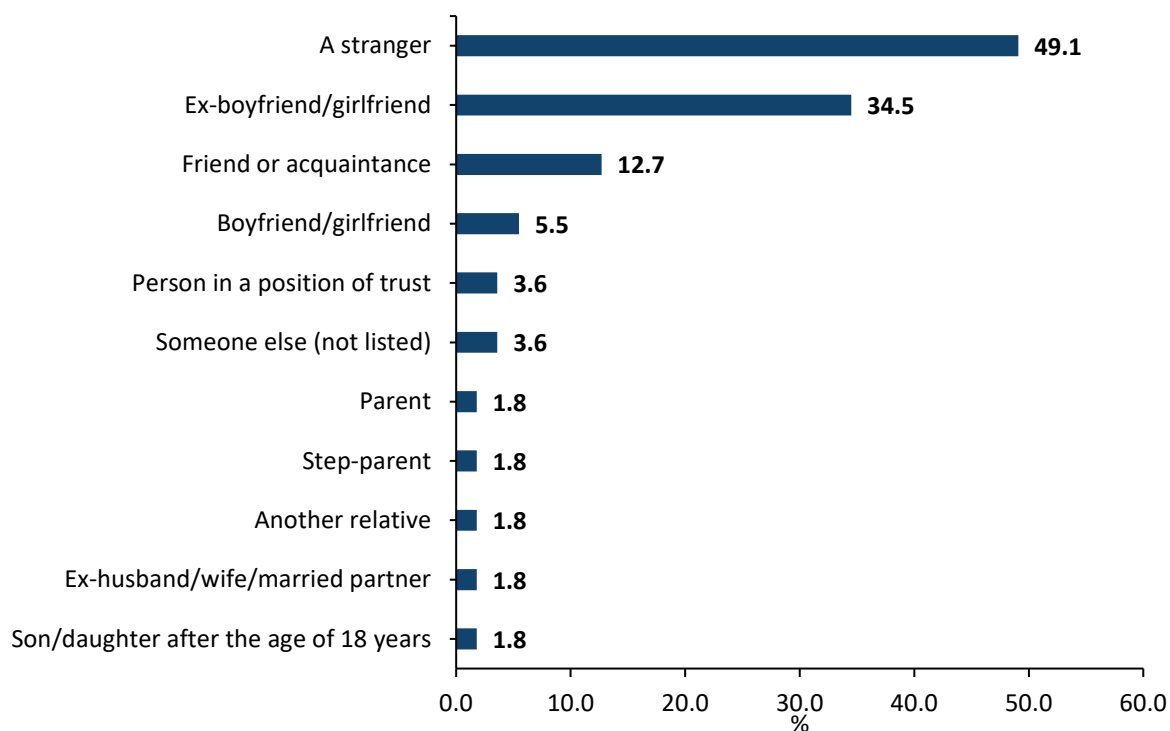
Figure 15: Location of stalking and harassment victimisation



Relationship to the perpetrator

Of those who experienced stalking and harassment victimisation since age 18 years, half reported that this was perpetrated by a stranger (49.1%), and a third reported that this was perpetrated by an ex-boyfriend/girlfriend (34.5%; Figure 16).

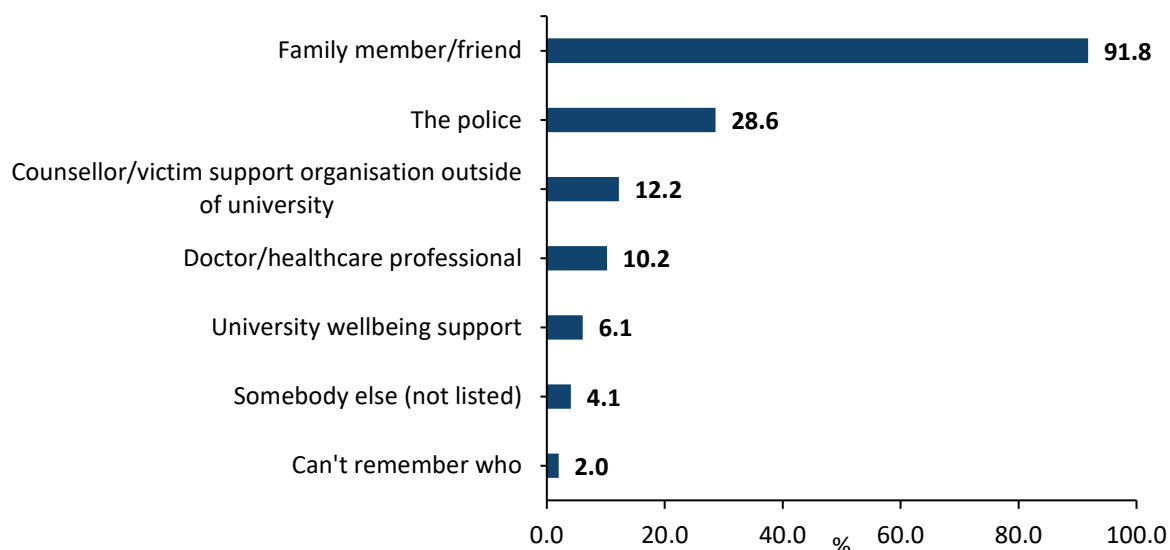
Figure 16: Relationship to the perpetrator of stalking and harassment victimisation



Reporting of stalking and harassment victimisation

Of those who experienced stalking and harassment victimisation since age 18 years, the majority (90.7%) had reported this to at least one person. Of those who reported the violence, most (91.8%) had told a family member or friend, while nearly three in ten (28.6%) had reported the violence to the police (Figure 17).

Figure 17: Reporting of stalking and harassment victimisation



3.4.6 Indecent exposure



Any indecent exposure victimisation experienced as an adult since the age of 18 years

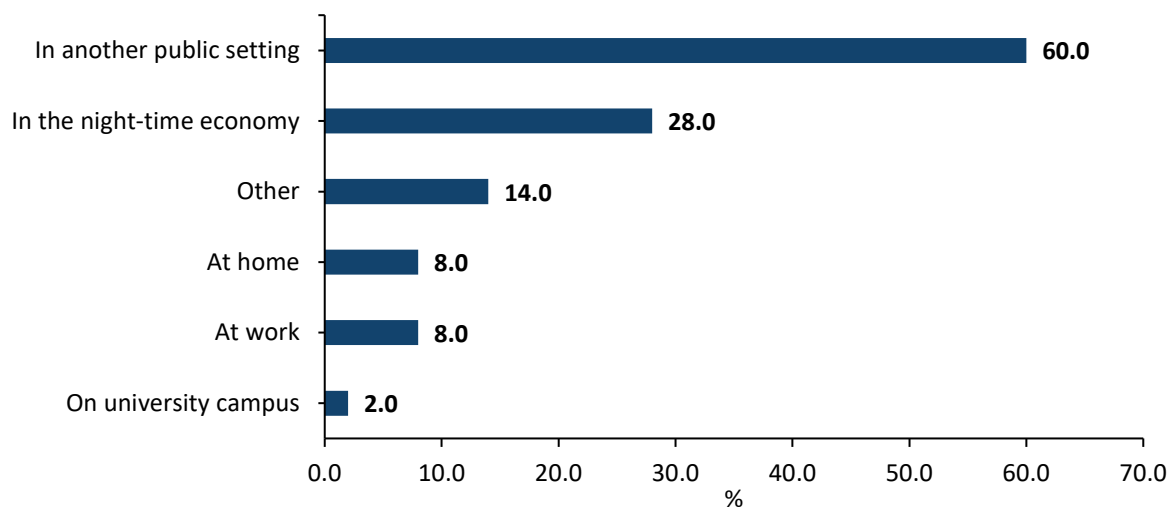
18.2% of students had experienced indecent exposure victimisation since age 18 years

- Just under two in ten (18.2%) students had experienced indecent exposure victimisation since age 18 years, and just under one in twenty (4.5%) had experienced this in the past year.
- The prevalence of indecent exposure victimisation since age 18 years was significantly higher among females (20.7%) compared to males (9.1%; $p < 0.05$; Table A10).
- The prevalence of indecent exposure victimisation since age 18 years was highest among those aged 26+ years (24.4%) and lowest among those aged 22-25 years (13.6%; Table A10).²
- Except for the significant association with gender, there were no other significant associations between indecent exposure victimisation since age 18 years and age group, ethnicity, or home student status (Table A10).

Location of indecent exposure victimisation

Of those who experienced indecent exposure victimisation since age 18 years, the most commonly reported location the violence took place in was in another public setting (60.0%), followed by in the night-time economy (28.0%; Figure 18). A very small proportion (2.0%) of students who experienced indecent exposure victimisation reported it took place on university campus (Figure 18).

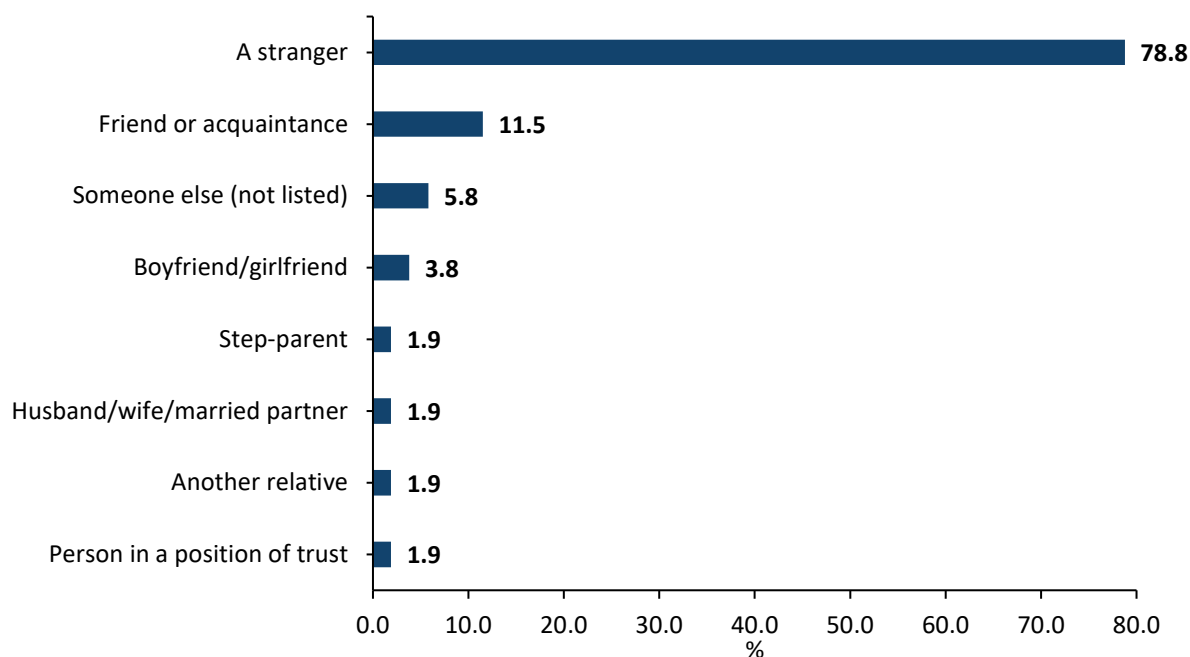
Figure 18: Location of indecent exposure victimisation



Relationship to the perpetrator

Of those who experienced indecent exposure victimisation since age 18 years, the majority reported that this was perpetrated by a stranger (78.8%), and one in ten reported that this was perpetrated by a friend or acquaintance (11.5%; Figure 19).

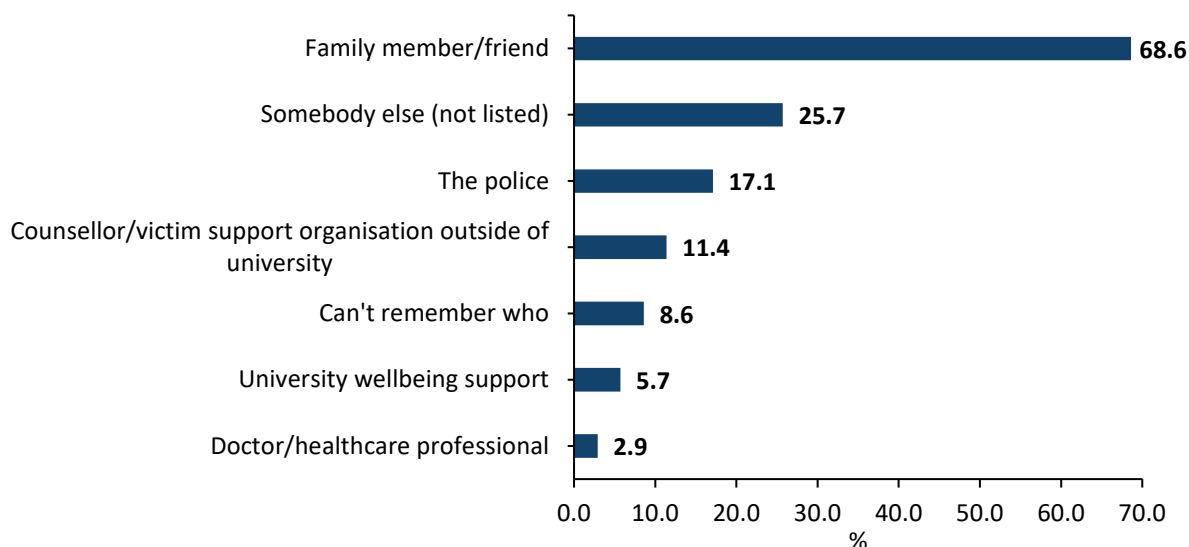
Figure 19: Relationship to the perpetrator of indecent exposure



Reporting of indecent exposure victimisation

Of those who experienced indecent exposure victimisation since age 18 years, two thirds (67.3%) had reported this to at least one person. Of those who reported the violence, nearly seven in ten (68.6%) had told a family member or friend, while less than two in ten (17.1%) had reported the violence to the police (Figure 20).

Figure 20: Reporting of indecent exposure victimisation



3.4.7 Any sexual violence



Any sexual violence victimisation, including unwanted sexual touching and any form of sexual assault, experienced as an adult since the age of 18 years

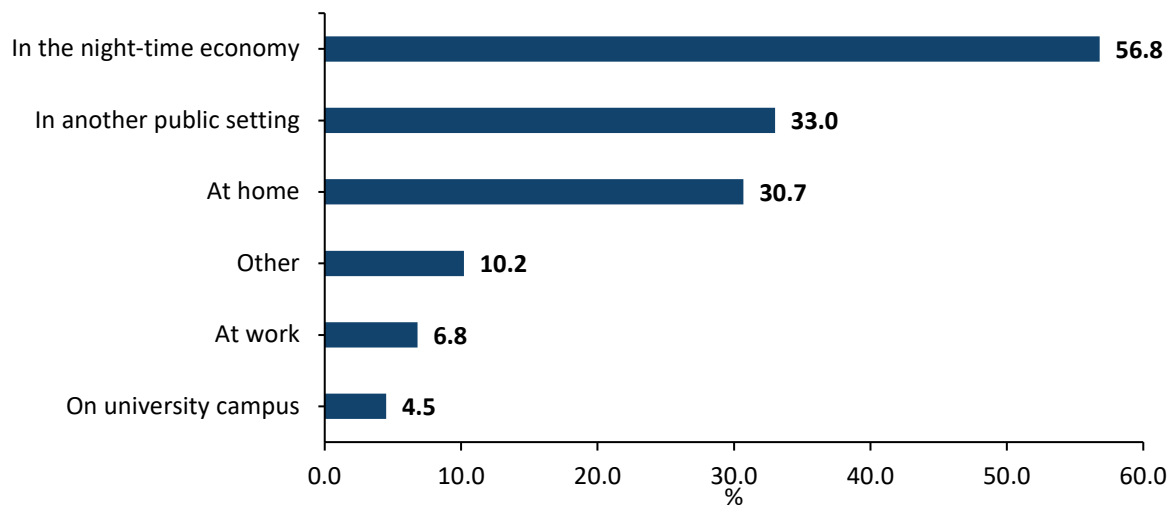
33.2% of students had experienced any sexual violence victimisation since age 18 years

- A third (33.2%) of students had experienced any sexual violence victimisation since age 18 years, and just under one in ten (9.9%) had experienced this in the past year.
- The prevalence of any sexual violence victimisation since age 18 years was significantly higher among females (39.9%) compared to males (14.3%; $p < 0.001$; Table A10).
- The association between any sexual violence victimisation since age 18 years and age was significant, with the prevalence highest among those aged 26+ years (41.9%) and lowest among those aged 18-21 years (25.2%; $p < 0.05$; Table A10).²
- Except for the significant associations with gender and age, there were no other significant associations between any sexual violence victimisation since age 18 years and ethnicity or home student status (Table A10).

Location of sexual violence victimisation

Of those who experienced sexual violence victimisation since age 18 years, the most commonly reported location the violence took place in was in the night-time economy (56.8%), followed by in another public setting (33.0%; Figure 21). One in twenty (4.5%) students who experienced sexual violence reported it took place on university campus (Figure 21).

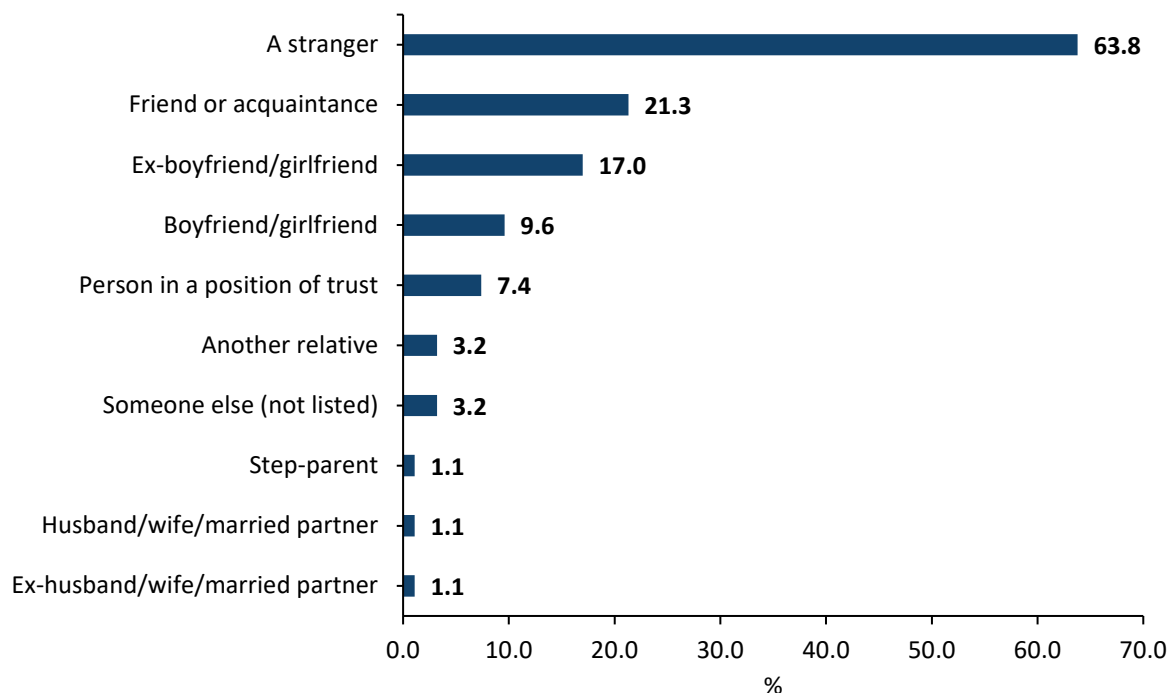
Figure 21: Location of sexual violence victimisation



Relationship to the perpetrator

Of those who experienced sexual violence victimisation since age 18 years, the majority reported that this was perpetrated by a stranger (63.8%), while a fifth reported that this was perpetrated by a friend or acquaintance (21.3%; Figure 22).

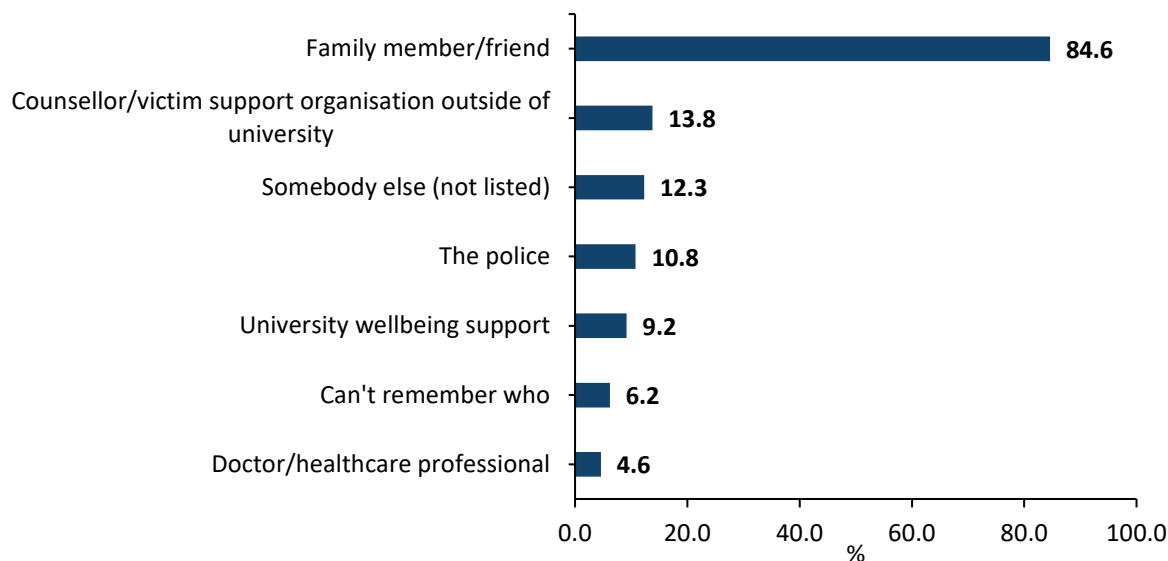
Figure 22: Relationship to the perpetrator of sexual violence



Reporting of sexual violence victimisation

Of those who experienced sexual violence victimisation since age 18 years, two thirds (67.0%) had reported this to at least one person. Of those who reported the violence, the majority (84.6%) had told a family member or friend, while one in ten (10.8%) reported the violence to the police (Figure 23).

Figure 23: Reporting of sexual violence



3.5 Adulthood violence perpetration



Ever having physically hit, kicked, pushed/shoved, or intentionally physically hurt someone in some way as an adult since the age of 18 years

12.4% of students had perpetrated physical violence since age 18 years

- Just over one in ten (12.4%) students had perpetrated physical violence since age 18 years and 4.1% had done so in the past year.
- The prevalence of physical violence perpetration since age 18 years was higher among males (15.6%) compared to females (11.1%; Table A11).
- The prevalence of physical violence perpetration since age 18 years increased as age increased (18-21 years 8.2%; 22-25 years 13.8%; 26+ years 18.8%; Table A11).⁴
- There were no significant associations between physical violence perpetration since age 18 years and gender, age group, ethnicity, or home student status (Table A11).

3.6 Experiencing financial difficulties



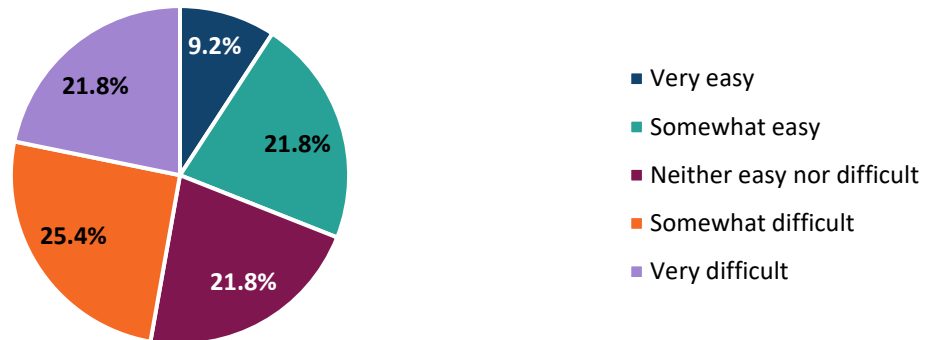
47.2% of students found it difficult to make ends meet financially

- Three in ten (31.0%) students found it easy to get by financially, a fifth (21.8%) found it neither easy nor difficult, while just under half (47.2%) of students found it difficult to make ends meet financially (Figure 24).
- The prevalence of finding it difficult to get by financially was higher among females (49.3%) compared to males (41.3%; Table A11).
- The prevalence of finding it difficult to get by financially increased significantly as age increased (18-21 years 39.2%; 22-25 years 53.4%; 26+ years 56.6%; $p < 0.05$ Table A11).

⁴ Those who are in older age groups have had more time in which they could have perpetrated violence than those in younger age groups.

- Apart from the significant association with age, there were no other significant associations between finding it difficult to get by financially and gender, ethnicity, or home student status (Table A11).

Figure 24: Students' ease of making ends meet financially

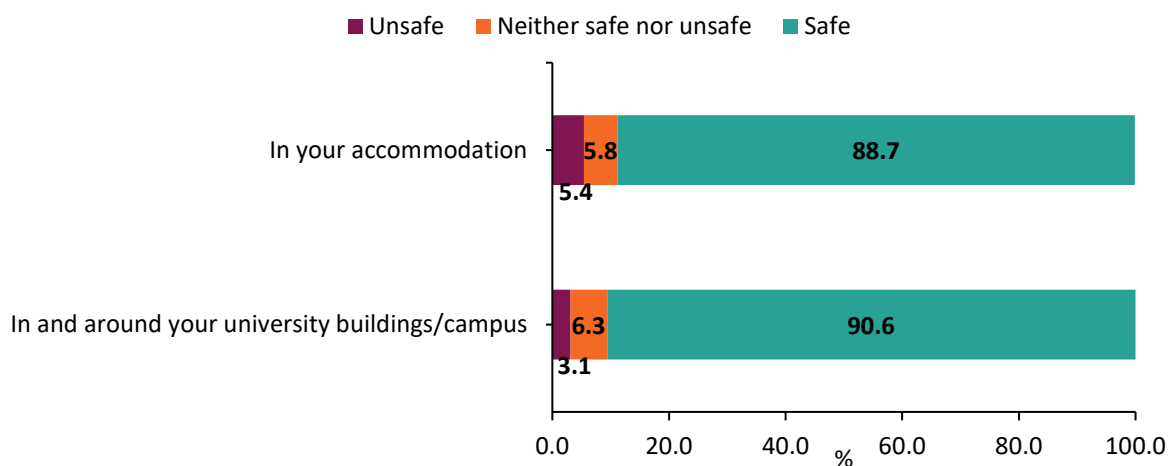


3.7 Feelings of safety in different settings

3.7.1 Students' perceptions of safety in their accommodation and at university

- Most students reported feeling safe or very safe in their accommodation (88.7%) and at university (90.6%; Table A12; Figure 25).
- There were no significant associations between students feeling unsafe in their accommodation or at university and gender, age group, ethnicity, or home student status (Table A12).

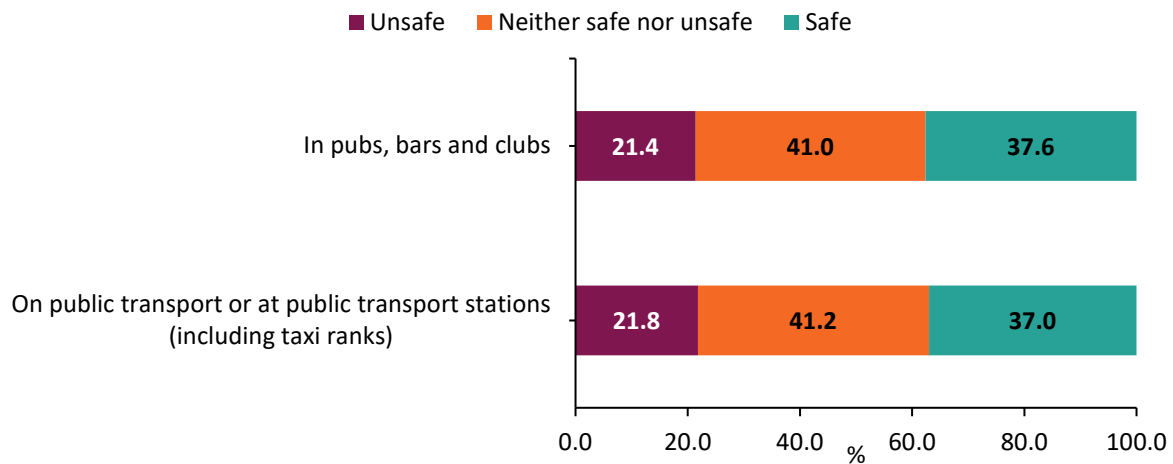
Figure 25: Students' feelings of safety in their accommodation and at university



3.7.2 Students' perceptions of safety in recreation and transport settings

- Less than four in ten students reported feeling safe or very safe in pubs, bars and clubs (37.6%) and in transport settings (37.0%). One in five students reported feeling unsafe or very unsafe in these settings (Table A13; Figure 26).
- There were no significant associations between students feeling unsafe in pubs, bars and clubs or in transport settings and gender, age group, ethnicity, or home student status (Table A13).

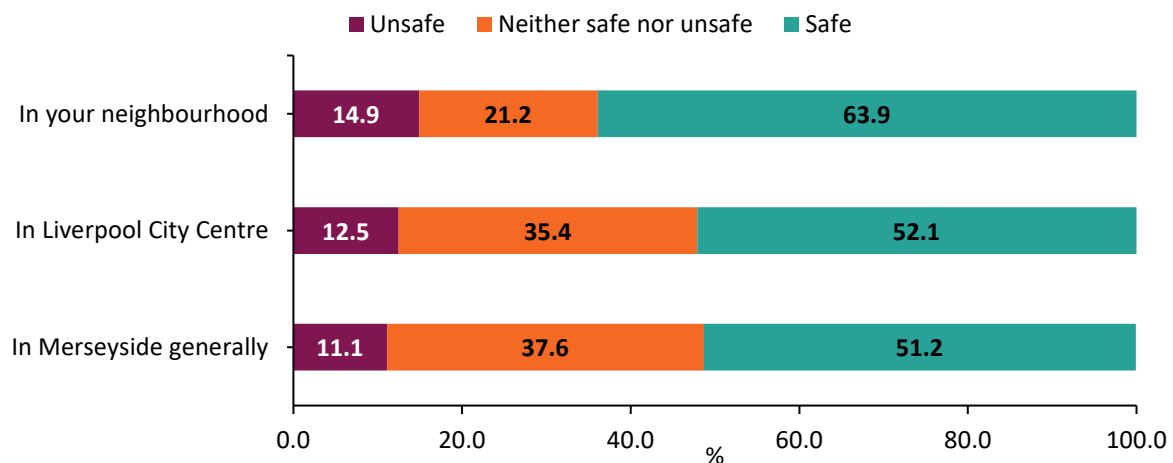
Figure 26: Students' feelings of safety in recreation and transport settings



3.7.3 Students' perceptions of safety in their neighbourhood, Liverpool City Centre, and Merseyside generally

- Six in ten students reported feeling safe or very safe in their neighbourhood (63.9%), and over half felt safe or very safe in Liverpool City Centre (52.1%) and Merseyside generally (51.2%). One in ten students reported feeling unsafe or very unsafe in these settings (Table A14; Figure 27).
- There were no significant associations between students feeling unsafe in their neighbourhood, Liverpool City Centre, or in Merseyside generally and gender, age group, ethnicity, or home student status (Table A14).

Figure 27: Students' feelings of safety in their neighbourhood, Liverpool City Centre, and Merseyside generally

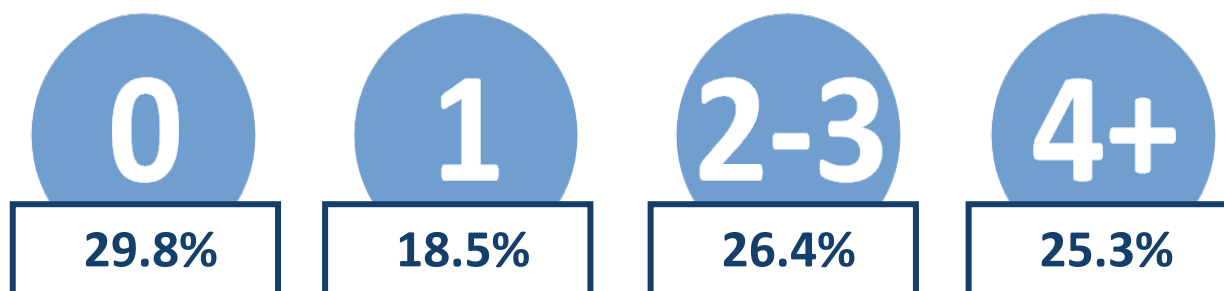


3.8 Adverse childhood experiences

3.8.1 ACE count prevalence

The prevalence of those experiencing different numbers of ACEs (ACE count) was calculated using nine of the thirteen measured ACEs (i.e. verbal, physical, and sexual abuse; household mental illness; alcohol abuse; drug abuse; incarceration; witnessing domestic violence; and parental separation). Overall, three in ten (29.8%) students experienced no ACEs, 18.5% experienced one ACE, 26.4% experienced two to three ACEs, and a quarter (25.3%) of students experienced 4+ ACEs (Figure 28).

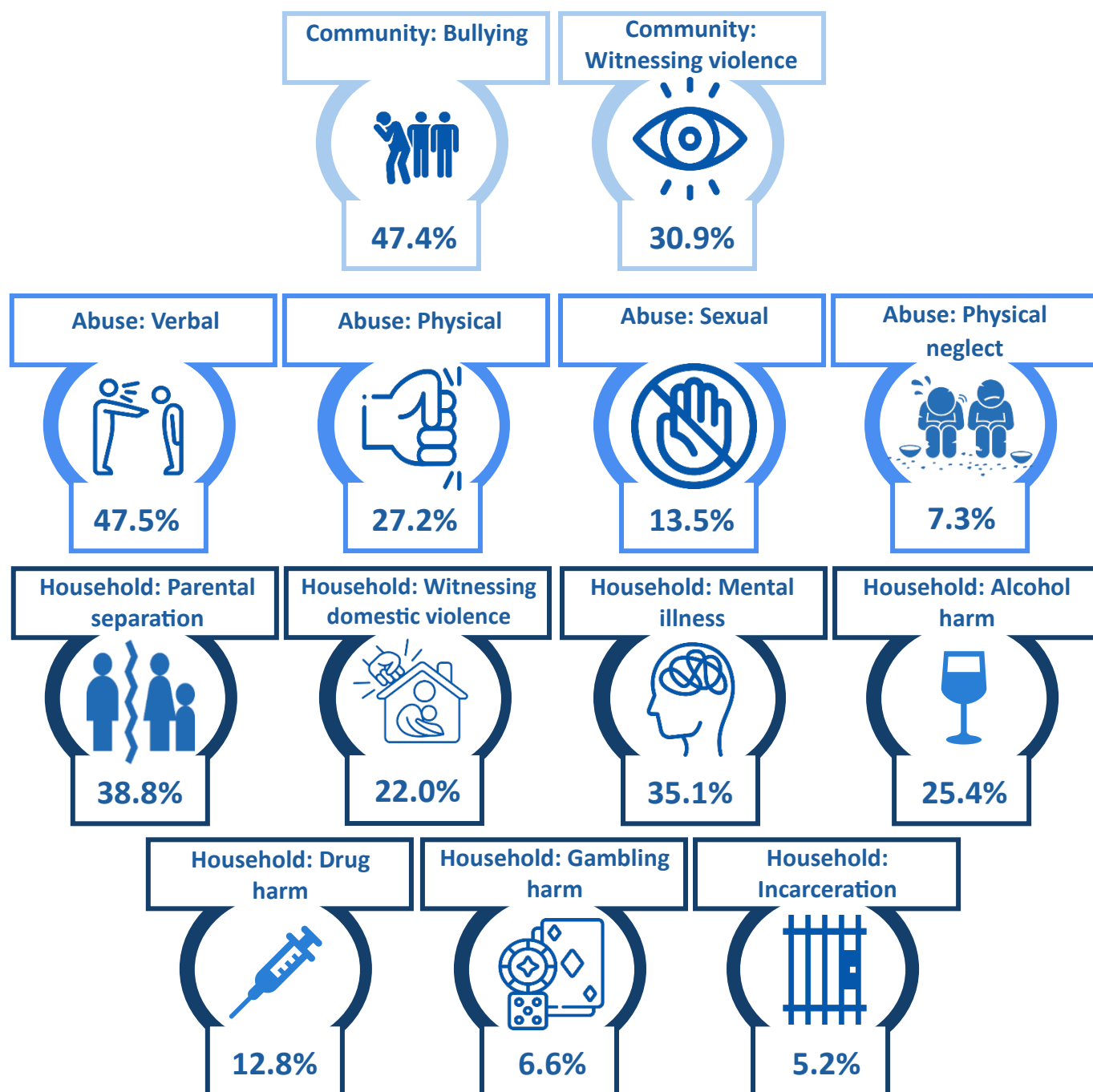
Figure 28: Prevalence of ACE count amongst university students



3.8.2 Individual ACEs prevalence

Figure 29 shows the prevalence of all thirteen individual ACEs. The most common ACE was verbal abuse (47.5%) followed by bullying (47.4%). Over three in ten students reported experiencing parental separation (38.8%), living with a household member who had a mental illness (35.1%), and witnessing violence in the community (30.9%). More than a fifth of students reported experiencing physical abuse (27.2%), living with a household member who experienced alcohol harms (25.4%), and witnessing domestic violence (22.0%). More than one in ten university students reported experiencing sexual abuse (13.5%) and living with a household member who experienced drug harms (12.8%). Less than one in ten university students reported experiencing physical neglect (7.3%), living with a household member who experienced gambling harms (6.6%), or who was incarcerated (5.2%).

Figure 29: Prevalence of thirteen individual ACEs amongst university students



3.8.3 ACEs and sociodemographics

Table 2 shows the prevalence of ACE count by sociodemographics. In bivariate analyses, there were no significant associations between ACE count and any sociodemographics.

- **Gender:** A higher proportion of males (35.1%) compared to females (27.9%) reported experiencing no ACEs. A higher proportion of females (26.9%) compared to males (19.5%) reported experiencing 4+ ACEs (Table 2).
- **Age group:** The lowest prevalence of experiencing no ACEs was among those aged 22-25 years (25.4%), and the highest was amongst those aged 18-21 years (32.7%). The highest prevalence of experiencing 4+ ACEs was among those aged 26+ years (30.2%), and the lowest was amongst those aged 18-21 years (21.1%; Table 2).
- **Ethnicity:** A higher proportion of those from other non-White backgrounds experienced no ACEs (34.2%) than those from White backgrounds (27.5%). However, a slightly higher proportion of those from non-White backgrounds experienced 4+ ACEs (27.8%) than those from White backgrounds (24.2%; Table 2).
- **Home student status:** A higher proportion of International students (40.8%) compared to home students (27.2%) reported experiencing no ACEs. A higher proportion of home students (26.8%) compared to International students (18.4%) experienced 4+ ACEs (Table 2).

Table 2: ACE count by sociodemographic factors

		None % (n)	1 % (n)	2-3 % (n)	4+ % (n)	p
All	% (n)	29.8 (87)	18.5 (54)	26.4 (77)	25.3 (74)	-
Gender	Male % (n)	35.1 (27)	22.1 (17)	23.4 (18)	19.5 (15)	NS
	Female % (n)	27.9 (58)	17.3 (36)	27.9 (58)	26.9 (56)	
Age group (years)	18-21 % (n)	32.7 (48)	20.4 (30)	25.9 (38)	21.1 (31)	NS
	22-25 % (n)	25.4 (15)	22.0 (13)	23.7 (14)	28.8 (17)	
	26+ % (n)	27.9 (24)	12.8 (11)	29.1 (25)	30.2 (26)	
Ethnicity	White % (n)	27.5 (57)	19.3 (40)	29.0 (60)	24.2 (50)	NS
	Other ethnicities % (n)	34.2 (27)	16.5 (13)	21.5 (17)	27.8 (22)	
Home student status	Home student % (n)	27.2 (65)	18.8 (45)	27.2 (65)	26.8 (64)	NS
	International student % (n)	40.8 (20)	18.4 (9)	22.4 (11)	18.4 (9)	

NS. Not significant at $p < 0.05$ level.

There were significant associations between gender and reporting living with a household who had a mental illness ($p < 0.05$), or who has experiencing alcohol harms ($p < 0.05$; Table 3). The prevalence of each of these ACEs was higher amongst females compared to males.

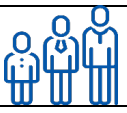
Table 3: Prevalence of individual ACEs by gender

	 Male % (n)	 Female % (n)	p
Abuse: Verbal	45.3 (34)	47.8 (96)	NS
Abuse: Physical	27.6 (21)	26.9 (54)	NS
Abuse: Sexual	9.2 (7)	14.6 (29)	NS
Abuse: Physical neglect	6.6 (5)	7.8 (16)	NS
Household: Parental separation	31.1 (23)	41.3 (85)	NS
Household: Witnessing domestic violence	17.3 (13)	22.9 (46)	NS
Household: Mental illness	22.4 (17)	39.0 (78)	<0.05
Household: Alcohol harm	14.7 (11)	29.1 (60)	<0.05
Household: Drug harm	7.9 (6)	15.0 (31)	NS
Household: Gambling harm	4.0 (3)	7.2 (15)	NS
Household: Incarceration	6.6 (5)	4.4 (9)	NS
Community: Witnessing violence	37.3 (28)	27.5 (56)	NS
Community: Bullying	39.5 (30)	49.3 (101)	NS

NS. Not significant at $p < 0.05$ level.

There were significant associations between age group and experiencing physical abuse ($p < 0.05$), sexual abuse ($p < 0.01$), and witnessing domestic violence ($p < 0.05$; Table 4). The prevalence of each of these ACEs was highest amongst those in the 26+ years age group and lowest in the 18-21 years age group.

Table 4: Prevalence of individual ACEs by age group

	18-21 years % (n)	22-25 years % (n)	26+ years % (n)	p
Abuse: Verbal	47.5 (67)	44.8 (26)	49.4 (41)	NS
Abuse: Physical	19.7 (28)	29.8 (17)	38.1 (32)	<0.05
Abuse: Sexual	7.9 (11)	12.3 (7)	23.8 (20)	<0.01
Abuse: Physical neglect	6.3 (9)	6.9 (4)	9.5 (8)	NS
Household: Parental separation	41.7 (60)	39.0 (23)	33.7 (28)	NS
Household: Witnessing domestic violence	15.5 (22)	24.6 (14)	31.3 (26)	<0.05
Household: Mental illness	31.7 (44)	36.2 (21)	40.0 (34)	NS
Household: Alcohol harm	21.0 (30)	37.3 (22)	24.7 (21)	NS
Household: Drug harm	13.1 (19)	13.6 (8)	11.8 (10)	NS
Household: Gambling harm	5.5 (8)	6.8 (4)	8.3 (7)	NS
Household: Incarceration	3.4 (5)	7.0 (4)	7.1 (6)	NS
Community: Witnessing violence	29.9 (43)	27.1 (16)	35.4 (29)	NS
Community: Bullying	50.0 (72)	35.6 (21)	51.2 (43)	NS

NS. Not significant at $p < 0.05$ level.

There were significant associations between ethnicity and experiencing physical abuse ($p < 0.001$), sexual abuse ($p < 0.001$), parental separation ($p < 0.05$), and living with a household member who experienced alcohol harms ($p < 0.001$) or drug harms ($p < 0.05$; Table 5). The prevalence of physical abuse and sexual abuse was higher amongst those from non-White backgrounds compared to those from White backgrounds. The prevalence of parental separation, living with a household member who

experienced alcohol harms, or drug harms was higher amongst those from White backgrounds compared to those from non-White backgrounds.

Table 5: Prevalence of individual ACEs by ethnicity

	 White % (n)	 Other ethnicities % (n)	p
Abuse: Verbal	44.5 (89)	55.8 (43)	NS
Abuse: Physical	20.9 (42)	42.9 (33)	<0.001
Abuse: Sexual	8.5 (17)	26.3 (20)	<0.001
Abuse: Physical neglect	8.3 (17)	5.1 (4)	NS
Household: Parental separation	43.4 (89)	27.6 (21)	<0.05
Household: Witnessing domestic violence	18.9 (38)	28.9 (22)	NS
Household: Mental illness	37.0 (74)	29.9 (23)	NS
Household: Alcohol harm	30.9 (63)	10.3 (8)	<0.001
Household: Drug harm	15.5 (32)	5.1 (4)	<0.05
Household: Gambling harm	5.8 (12)	6.5 (5)	NS
Household: Incarceration	5.8 (12)	3.9 (3)	NS
Community: Witnessing violence	29.1 (59)	33.8 (26)	NS
Community: Bullying	50.0 (102)	41.0 (32)	NS

NS. Not significant at $p < 0.05$ level.

There were significant associations between home student status and experiencing sexual abuse ($p < 0.05$), parental separation ($p < 0.001$), and living with a household member who had a mental illness ($p < 0.05$), or who experienced alcohol harms ($p < 0.01$) or drug harms ($p < 0.05$; Table 6). The prevalence of sexual abuse was higher amongst International students compared to home students. The prevalence of parental separation, living with a household member who had a mental illness, or who experienced alcohol harms, or drug harms was higher amongst home students compared to International students.

Table 6: Prevalence of individual ACEs by home student status

	 Home student % (n)	 International student % (n)	p
Abuse: Verbal	47.8 (110)	46.9 (23)	NS
Abuse: Physical	26.7 (62)	30.6 (15)	NS
Abuse: Sexual	11.3 (26)	25.0 (12)	<0.05
Abuse: Physical neglect	7.3 (17)	8.2 (4)	NS
Household: Parental separation	43.2 (102)	14.9 (7)	<0.001
Household: Witnessing domestic violence	21.6 (50)	21.3 (10)	NS
Household: Mental illness	38.1 (88)	20.8 (10)	<0.05
Household: Alcohol harm	28.9 (68)	8.2 (4)	<0.01
Household: Drug harm	14.8 (35)	2.0 (1)	<0.05
Household: Gambling harm	7.2 (17)	4.2 (2)	NS
Household: Incarceration	5.5 (13)	2.1 (1)	NS
Community: Witnessing violence	30.8 (72)	33.3 (16)	NS
Community: Bullying	48.9 (115)	40.8 (20)	NS

NS. Not significant at $p < 0.05$ level.

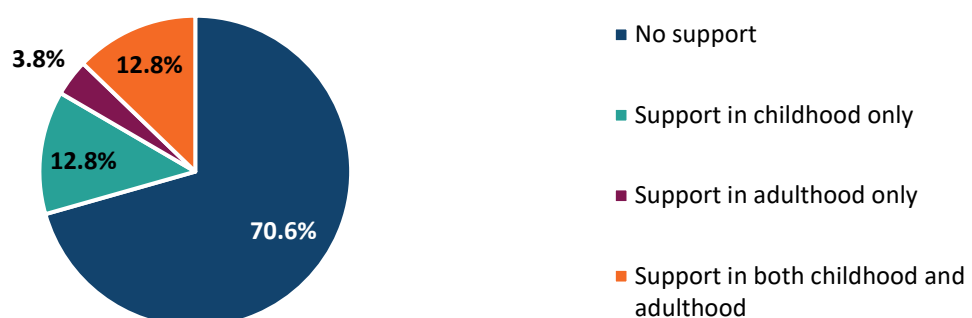
3.8.4 Support related to ACEs



29.4% of students who reported experiencing any ACEs had ever received support

- Overall, three in ten (29.4%) students who reported experiencing any ACEs had received support in either childhood or adulthood related to the ACEs they reported experiencing (Table A15; Figure 30).
- Students more commonly reported receiving any support in childhood (25.6%) compared to in adulthood (16.6%; Table A15; Figure 30).⁵

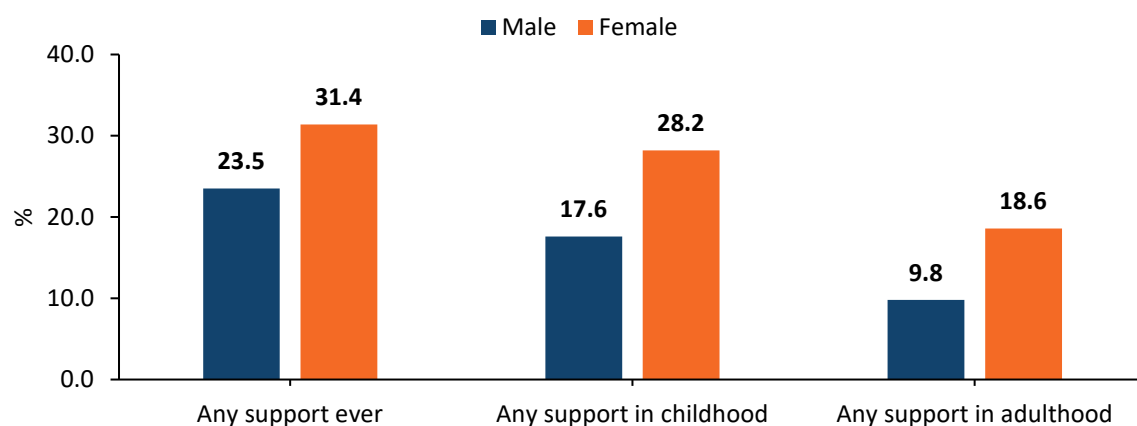
Figure 30: Support students received in relation to ACEs, of those who experienced any ACEs



⁵ Percentages provided in text relate to any support received in childhood/adulthood, with responses of receiving support in both childhood and adulthood combined with receiving support in childhood and adulthood only. As such in text percentages do not match those in Figure 30.

- The prevalence of receiving support related to ACEs was higher among females (31.4%) than males (23.5%), including support received in childhood or adulthood (Table A15; Figure 31).
- The prevalence of ever receiving support related to ACEs was highest amongst those aged 18-21 years (34.5%) and lowest amongst those aged 26+ years (18.3%; Table A15). There was a significant association between age group and receiving support related to ACEs in childhood, with the prevalence highest amongst those aged 18-21 years (32.7%) and lowest amongst those aged 26+ years (13.3%; $p < 0.05$; Table A15).
- There were no significant associations between ever receiving support, or receiving support in adulthood related to ACEs and gender, age group, ethnicity, or home student status (Table A15). Other than the significant association with age group ($p < 0.05$) there were no other significant associations between receiving any support in childhood related to ACEs and gender, ethnicity, or home student status (Table A15).

Figure 31: Prevalence of receiving any support ever, in childhood, and in adulthood related to ACEs, by gender, of those who experienced any ACEs



3.9 Associations between experiencing ACEs and general health, mental wellbeing, and health risk behaviours

Participants were asked about their general health and mental wellbeing, and their engagement in several health risk behaviours (i.e. alcohol consumption, smoking tobacco or e-cigarette/vape use, drug use, and gambling harm).

Increased risk in adults experiencing ACEs vs. 0 ACEs

Controlling for gender, age, and ethnicity

	1 ACE	2-3 ACEs	4+ ACEs
 Low mental wellbeing (current)	2.8x	5.5x*	3.1x
 Smoking and/or using e-cigarettes/vapes (current, daily)	2.1x	3.6x*	4.1x*
 Drug use (any, ever)	1.3x	1.8x	3.2x*

**Denotes relationship is significant at $p < 0.05$. Only significant results are presented in the above table.*

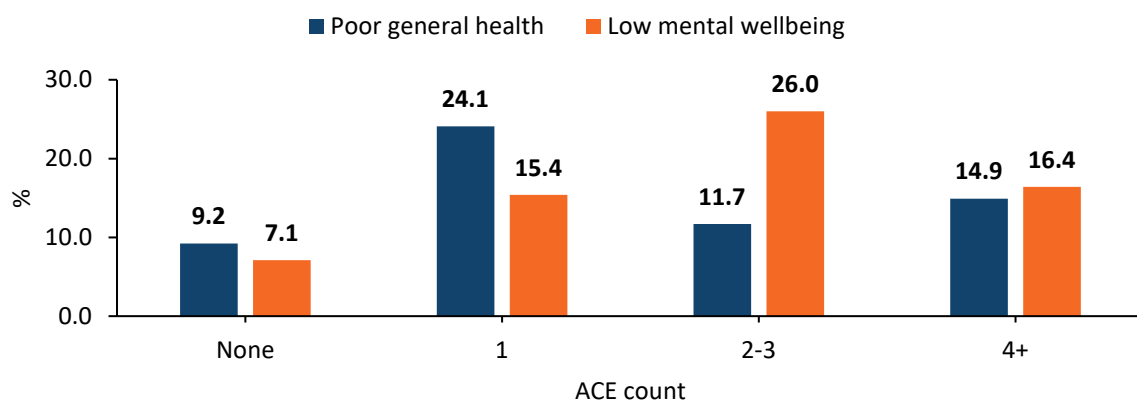
3.9.1 General health and mental wellbeing



14.0% of participants currently experienced poor general health and 16.1% experienced low mental wellbeing

The prevalence of poor general health was highest among those who experienced one ACE and lowest among those who experienced no ACEs (Figure 32). However, this relationship was not significant ($p=0.086$; Table A1).⁶ There was a significant association between ACE count and low mental wellbeing, with the prevalence highest among those who experienced 2-3 ACEs and lowest among those who experienced no ACEs (0 ACEs 7.1%; 1 ACE 15.4%; 2-3 ACEs 26.0%; 4+ ACEs 16.4%; $p<0.05$; Table A1; Figure 32). While controlling for sociodemographics, the association between experiencing ACEs and low mental wellbeing remained significant. Those who experienced 2-3 ACEs were over five times more likely (AOR=5.51, 95% CIs [1.94, 15.66]; $p<0.01$) to experience low mental wellbeing than those who experienced no ACEs. There was no significant difference in the odds of experiencing low mental wellbeing between those who experienced one ACE ($p=0.083$) or 4+ ACEs ($p=0.051$), compared to those who experienced no ACEs.

Figure 32: Prevalence of poor general health and low mental wellbeing by ACE count



3.9.2 Alcohol consumption



Of those who reported ever consuming alcohol,⁷ 17.4% of participants' alcohol consumption was classed as high risk (AUDIT-C score of 8 or higher)

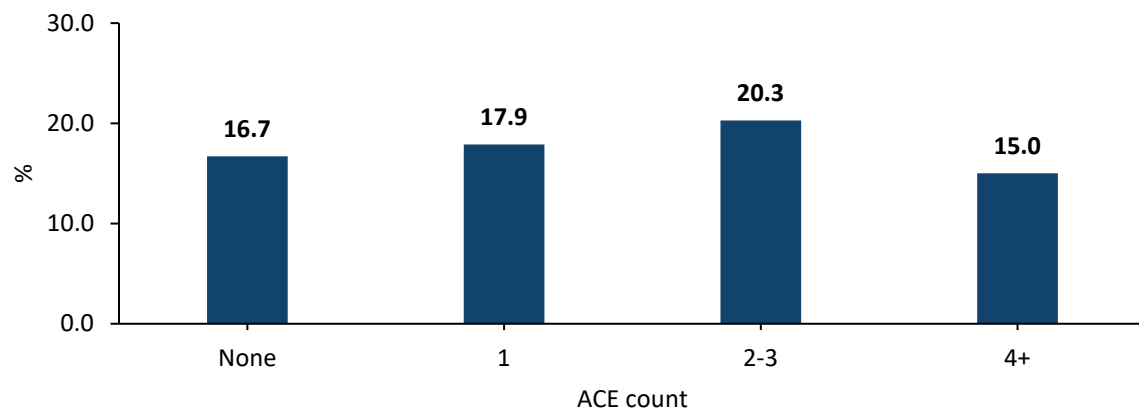
The prevalence of high risk alcohol consumption was highest among those who experienced 2-3 ACEs and lowest among those who experienced 4+ ACEs (0 ACEs 16.7%; 1 ACE 17.9%; 2-3 ACEs 20.3%; 4+ ACEs 15.0%; Table A2; Figure 33). However, this relationship was not significant ($p=0.890$; Table A2).⁸

⁶ No logistic regression was ran for the relationship between ACEs and poor general health as this was not significant in bivariate analysis.

⁷ 77.4% of participants reported ever drinking alcohol.

⁸ No logistic regression was ran for the relationship between ACEs and high risk alcohol consumption as this was not significant in bivariate analysis.

Figure 33: Prevalence of high risk alcohol consumption by ACE count



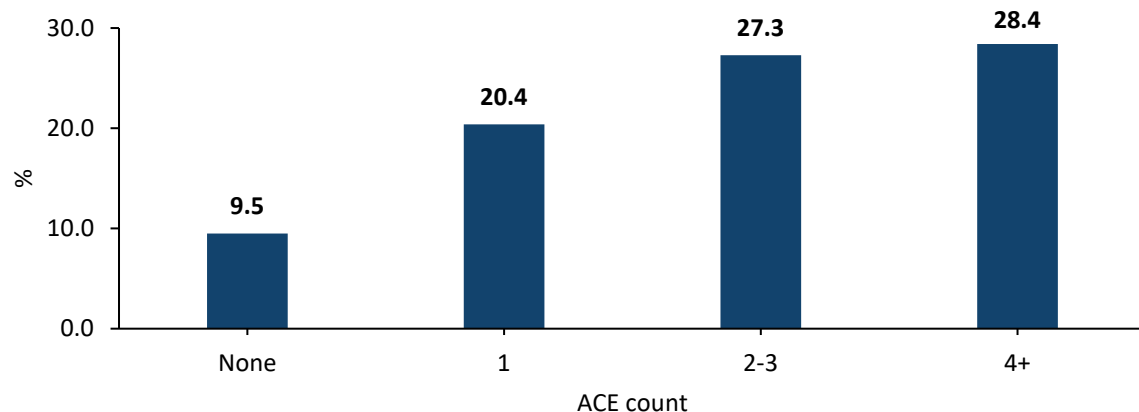
3.9.3 Tobacco smoking and/or using e-cigarettes/vapes



One in five (21.1%) participants currently smoked tobacco and/or used e-cigarettes/vapes daily

There was a significant association between ACE count and tobacco smoking and/or e-cigarette/vape use, with prevalence increasing as ACE count increased (0 ACEs 9.5%; 1 ACE 20.4%; 2-3 ACEs 27.3%; 4+ ACEs 28.4%; $p < 0.05$; Table A4; Figure 34). While controlling for sociodemographics, the association between experiencing ACEs and daily tobacco smoking and/or e-cigarette/vape use remained significant. Those who experienced 4+ ACEs were four times more likely (AOR=4.11, 95% CIs [1.67, 10.16]; $p < 0.01$) to smoke tobacco and/or use e-cigarettes/vapes daily than those who experienced no ACEs, and those with 2-3 ACEs were over three times more likely (AOR=3.57, 95% CIs [1.46, 8.75]; $p < 0.01$). There was no significant difference in smoking and/or e-cigarette/vape use between those who experienced one ACE ($p = 0.158$), compared to those who experienced no ACEs.

Figure 34: Prevalence of daily tobacco smoking and/or e-cigarette/vape use by ACE count



3.9.4 Drug use

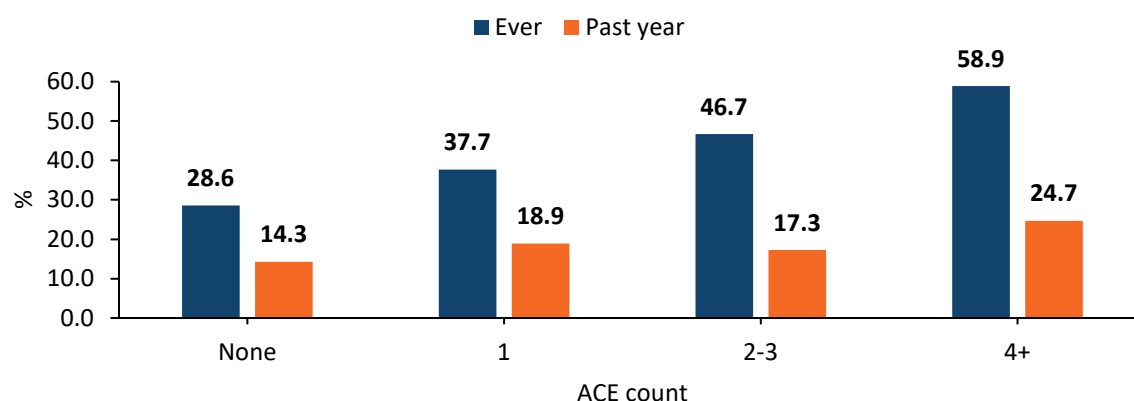


42.8% of participants had ever used any drug and 18.6% had done so in the past year

There was a significant association between ACE count and any drug use (ever), with a higher prevalence of ever using any drug as ACE count increased (0 ACEs 28.6%; 1 ACE 37.7%; 2-3 ACEs 46.7%;

4+ ACEs 58.9%; $p < 0.01$; Table A5; Figure 35). However, the relationship between ACE count and past year drug use was not significant ($p = 0.410$; Table A5).⁹ While controlling for sociodemographics, the association between experiencing ACEs and any drug use (ever) remained significant. Those who experienced 4+ ACEs were three times more likely (AOR=3.20, 95% CIs [1.60, 6.43]; $p < 0.01$) to ever use any drug than those who experienced no ACEs. There was no significant difference in the odds of ever using any drug between those who experienced one ACE ($p = 0.449$) or 2-3 ACEs ($p = 0.077$), compared to those who experienced no ACEs.

Figure 35: Prevalence of any drug use ever and past year by ACE count



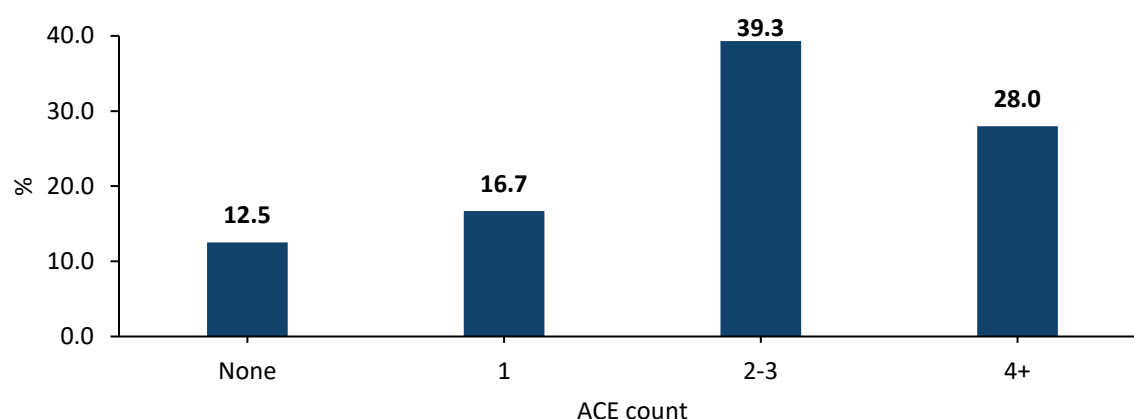
3.9.5 Gambling related harm



Of those who gambled in the year,¹⁰ 26.4% experienced gambling related harm

The prevalence of gambling harm was highest among those who experienced 2-3 ACEs and lowest among those who experienced no ACEs (0 ACEs 12.5%; 1 ACE 16.7%; 2-3 ACEs 39.3%; 4+ ACEs 28.0%; Table A6; Figure 36). However, this relationship was not significant ($p = 0.180$; Table A6).¹¹

Figure 36: Prevalence of gambling related harm of those who gambled in the past year by ACE count



⁹ No logistic regression was ran for the relationship between ACEs and past year drug use as this was not significant in bivariate analysis.

¹⁰ 30.4% of participants engaged in any form of gambling in the past year.

¹¹ No logistic regression was ran for the relationship between ACEs and gambling harm as this was not significant in bivariate analysis.

3.10 Associations between experiencing ACEs and experiencing financial difficulties, and violence victimisation and perpetration

Participants were asked about how easy they find it to make ends meet financially, whether they had ever been a victim of violence or perpetrated violence during adulthood.

Increased risk in adults experiencing ACEs vs. 0 ACEs

Controlling for gender, age, and ethnicity

		1 ACE	2-3 ACEs	4+ ACEs
	Experiencing current financial difficulties	1.2x	2.5x*	3.5x*
	Violence victimisation (since age 18 years)	1.4x	3.2x*	11.9x*
	Violence victimisation (past year)	1.0x	3.8x*	5.5x*
	Violence perpetration (since age 18 years)	2.1x	1.3x	5.5x*

**Denotes relationship is significant at $p < 0.05$. Only significant results are presented in the above table.*

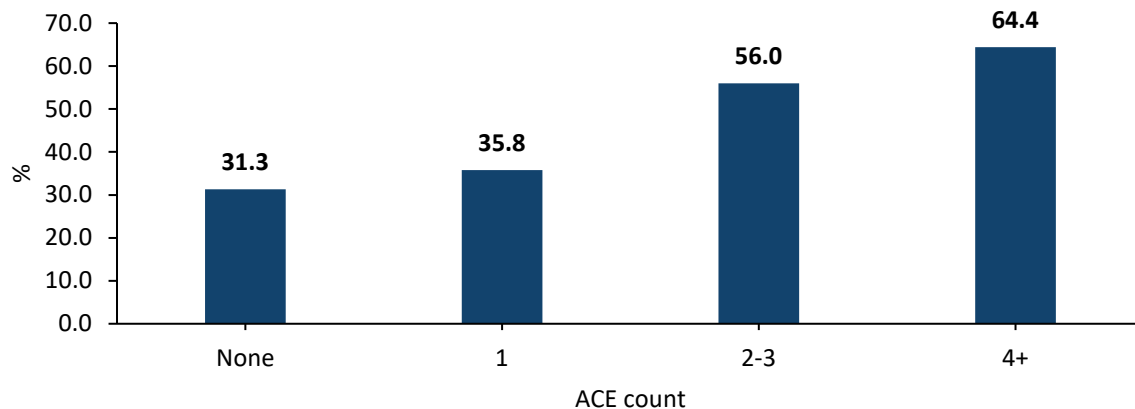
3.10.1 Financial difficulties



47.2% of participants currently experienced financial difficulties in making ends meet

There was a significant association between ACE count and experiencing current financial difficulties, with the prevalence of current financial difficulties increasing as ACE count increased (0 ACEs 31.3%; 1 ACE 35.8%; 2-3 ACEs 56.0%; 4+ ACEs 64.4%; $p < 0.001$; Table A11; Figure 37). While controlling for sociodemographics, the association between experiencing ACEs and current financial difficulties remained significant. Those who experienced 4+ ACEs were over three times more likely (AOR=3.53, 95% CIs [1.76, 7.08]; $p < 0.001$) to experience current financial difficulties than those who experienced no ACEs, those who experience 2-3 ACEs were over twice as likely (AOR=2.53, 95% CIs [1.30, 4.94]; $p < 0.01$). There was no significant difference in experiencing current financial difficulties between those who experienced one ACE ($p = 0.711$), compared to those who experienced no ACEs.

Figure 37: Prevalence of current financial difficulties by ACE count



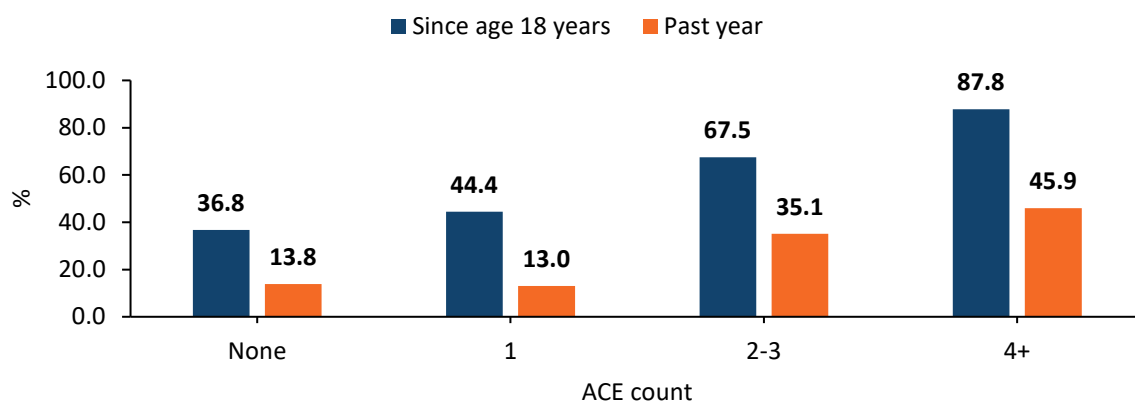
3.10.2 Violence victimisation



Overall, nearly six in ten (59.2%) students had experienced any violence victimisation since the age of 18 years and 27.4% experienced violence victimisation in the past year

There were significant associations between ACE count and ever having experienced violence since age 18 years ($p < 0.001$), and in the past year ($p < 0.001$) with a higher prevalence of violence victimisation as ACE count increased (Table A8; Figure 38). While controlling for sociodemographics, the associations between ACEs and ever experiencing violence since age 18 years and experiencing violence in the past year remained significant. Those who experienced 4+ ACEs were over eleven times more likely (AOR=11.92, 95% CIs [5.00, 28.44]; $p < 0.001$) to have experienced violence since age 18 years, and over five times more likely (AOR=5.53, 95% CIs [2.46, 12.42]; $p < 0.001$) to have experienced violence in the past year, than those who experienced no ACEs. Those with 2-3 ACEs were three times more likely (AOR=3.23, 95% CIs [1.66, 6.28]; $p < 0.001$) to experience violence since age 18 years and three times more likely (AOR=3.84, 95% CIs [1.73, 8.52]; $p < 0.001$) to experience violence in the past year. There was no significant difference in the odds of violence victimisation since age 18 years ($p = 0.316$) and violence victimisation in the past year ($p = 0.933$) between those who experienced one ACE ($p = 0.316$), compared to those who experienced no ACEs.

Figure 38: Prevalence of violence victimisation since age 18 years and past year by ACE count



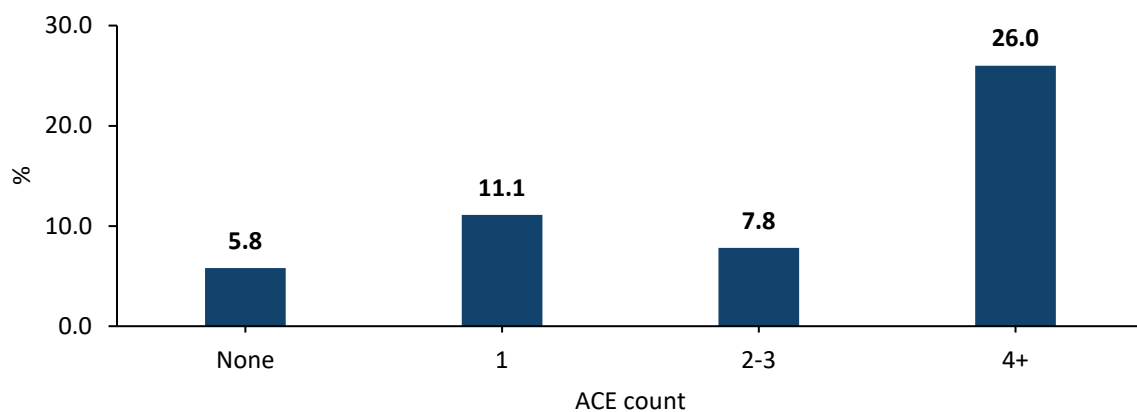
3.10.3 Violence perpetration since age 18 years



12.4% of participants had perpetrated physical violence since the age of 18 years

There was a significant association between ACE count and having perpetrated violence since age 18 years, with the prevalence highest among those who experienced 4+ ACEs and lowest among those who experienced no ACEs (0 ACEs 5.8%; 1 ACE 11.1%; 2-3 ACEs 7.8%; 4+ ACEs 26.0%; $p < 0.001$; Table A11; Figure 39). While controlling for sociodemographics, the association between ACEs and perpetrating physical violence since age 18 years remained significant. Those who experienced 4+ ACEs were over five times more likely (AOR=5.51, 95% CIs [1.88, 16.17]; $p < 0.01$) to have perpetrated physical violence since age 18 years, than those who experienced no ACEs. There was no significant difference in the odds of having perpetrated physical violence since age 18 years between those who experienced 2-3 ACEs ($p = 0.674$) or one ACE ($p = 0.257$), compared to those who experienced no ACEs.

Figure 39: Prevalence of physical violence perpetration since age 18 years by ACE count



3.11 Associations between experiencing ACEs and perceptions of safety

Participants were asked about their perceptions of safety in their neighbourhood, in Liverpool City Centre, and in Merseyside generally.

Increased risk in adults experiencing ACEs vs. 0 ACEs

Controlling for gender, age, and ethnicity

	1 ACE	2-3 ACEs	4+ ACEs
 Feel unsafe in their neighbourhood	0.7x	2.7x*	2.1x

**Denotes relationship is significant at $p < 0.05$. Only significant results are presented in the above table.*

3.11.1 Feeling unsafe in their neighbourhood

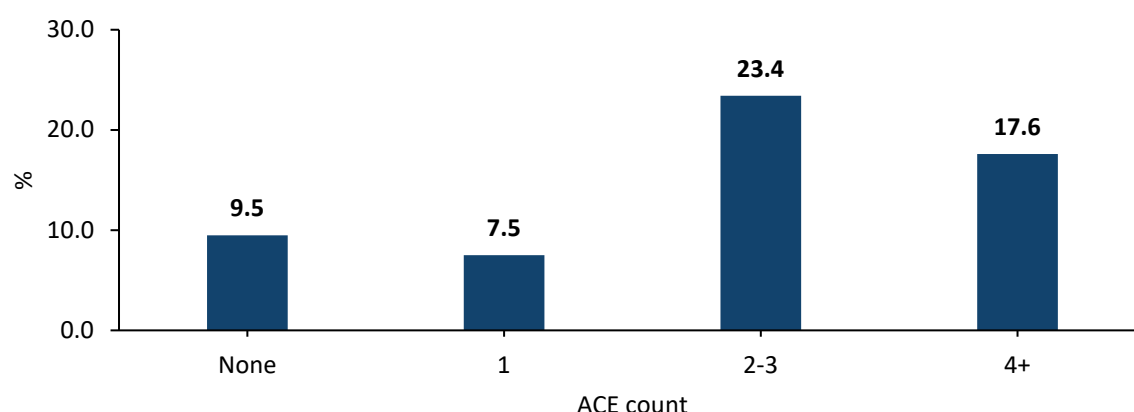


Overall, 14.9% of participants felt unsafe in their neighbourhood

There was a significant association between ACE count and participants feeling unsafe in their neighbourhood, with the prevalence highest among those who experienced 2-3 ACEs and lowest among those who experienced one ACE (0 ACEs 9.5%; 1 ACE 7.5%; 2-3 ACEs 23.4%; 4+ ACEs 17.6%;

$p < 0.05$; Table A14; Figure 40). While controlling for sociodemographics, the association between experiencing ACEs and participants feeling unsafe in their neighbourhood was no longer significant overall. However, those who experienced 2-3 ACEs were twice as likely (AOR=2.65, 95% CIs [1.05, 6.70]; $p < 0.05$) to feel unsafe in their neighbourhood than those who experienced no ACEs. There was no significant difference in the odds of feeling unsafe in their neighbourhood between those who experienced 4+ ACEs ($p = 0.145$) or one ACE ($p = 0.611$), compared to those who experienced no ACEs.

Figure 40: Prevalence of participants feeling unsafe in their neighbourhood by ACE count



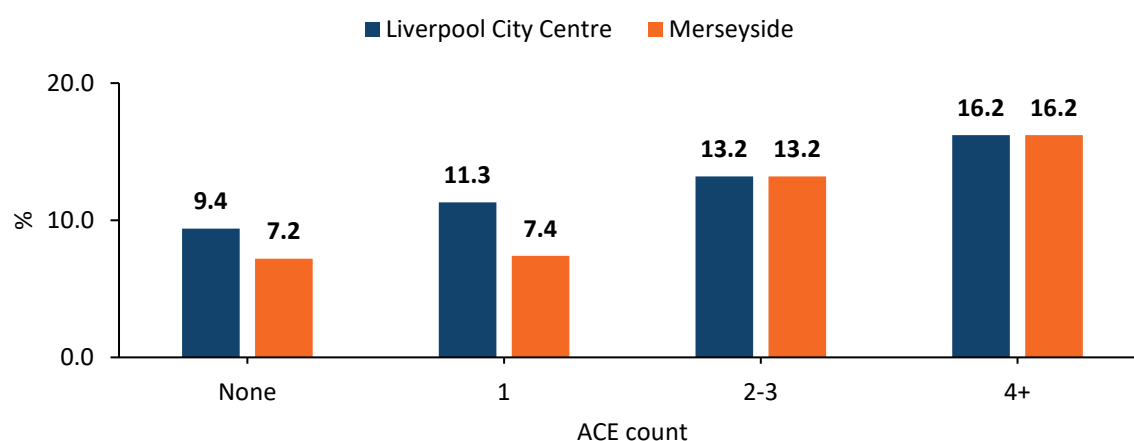
3.11.2 Feeling unsafe in Liverpool City Centre and Merseyside



12.5% of participants felt unsafe in Liverpool City Centre and 11.1% felt unsafe in Merseyside generally

The prevalence of feeling unsafe in Liverpool City Centre and in Merseyside generally both increased as ACE count increased (Table A14; Figure 41). However, neither relationship was significant (Liverpool City Centre $p = 0.621$; Merseyside generally $p = 0.233$; Table A14).¹²

Figure 41: Prevalence of feeling unsafe in Liverpool City Centre and Merseyside by ACE count



¹² No logistic regressions were ran for the relationships between ACEs and feeling unsafe in Liverpool City Centre and in Merseyside generally as these relationships were not significant in bivariate analysis.

4. Summary of key findings

In 2025/26 the Merseyside Violence Reduction Partnership (MVRP) collaborated with Liverpool John Moores University (LJMU) to implement surveys with children and young people across Merseyside. These surveys aimed to gain a better understanding of children and young people's experiences of violence and feelings of safety. As part of this work a survey was conducted with university students in Merseyside, exploring students' general health, mental wellbeing, engagement in health risk behaviours, experiences of violence, feelings of safety in different settings, and experiences of ACEs. Capturing the experiences of university students is essential to help identify the key issues impacting on students' health, wellbeing, and engagement in university life and beyond. Further, as active members of the communities in which they live and a critical part of the future workforce, the issues impacting on students are likely to have implications on the wider community, both presently and in the future. Understanding students' experiences may in turn inform the implementation of interventions and approaches to improve students' outcomes during university and beyond, with benefits that may extend into safer communities and reduced demand on public services. This report forms part of a suite of outputs from the children and young people surveys and focuses on findings from a survey completed by 292 students attending LJMU.

Comparable proportions of students experienced current poor general health (14.0%) and poor mental wellbeing (16.1%). The prevalence of both poor general health and low mental wellbeing were similar across gender and age groups. In relation to health risk behaviours, 77.4% of students reported drinking alcohol, with 18.6% drinking at least twice per week. While the overall prevalence of alcohol consumption in the current study is similar to that found in the 2024 Health Survey for England (77% reported drinking in the past year), the proportion drinking at least once a week in the Health Survey for England was 44%, higher than the 18.6% who reported at least twice per week in the current study (29). Of students who reported drinking alcohol, 13.3% reported binge drinking on at least a weekly basis, and 17.4% had alcohol consumption that was categorised as high risk. The prevalence of weekly binge drinking and high risk alcohol consumption was higher amongst males compared to females, however, this was not statistically significant. High risk drinking was significantly associated with ethnicity, with the prevalence higher among White students compared to students from other ethnic backgrounds.

Overall, 31.8% of students reported currently smoking tobacco and/or using e-cigarettes/vapes, with 21.1% doing so daily. This prevalence of current tobacco smoking and/or e-cigarette/vape use is higher than figures reported in the 2024 Health Survey for England (11% currently smoking; 10% currently using e-cigarettes/vapes (29)). Four in ten (42.8%) students reported that they have ever used any drugs, however, less than two in ten (18.6%) reported doing so in the past year. These prevalences are higher than those found in a recent household general population study in Merseyside (ever used any drug 19.1%; past year drug use 5.6%) (30). The prevalence of lifetime drug use was significantly higher among White students and home students compared to students from other ethnic backgrounds and international students.

Three in ten (30.4%) students reported any gambling in the past year, and of these students around a quarter (26.4%) were identified as being at risk of gambling-related harm using the short form PGSI (27). The prevalence of gambling harm amongst those who had gambled in the past year in the current study is similar to that found by the 2024 Gambling Survey for Great Britain (24.6%; 14.8% PGSI score 1-2; 5.3% PGSI score 3-7; 4.5% PGSI score 8+ using the full PGSI) (31). However, methodological differences mean this comparison should be considered cautiously. Findings demonstrated that while

gambling participation was similar among males and females, a higher proportion of males were at risk of gambling-related harm (44.0%; females 19.4%). This is consistent with prior literature indicating that males are more likely to be at risk of experiencing gambling harms, compared to females (32). While gambling participation was significantly higher among White students, among those who gambled, students from other ethnic backgrounds were at higher risk of gambling-related harm (53.8%; White 21.6%). This is in line with findings nationally which suggest that those from non-White backgrounds may be less likely to gamble than those of White ethnicity, however, those that do gamble may be more likely to experience harm (33).

Findings highlighted that violence victimisation in adulthood was common. Almost six in ten students (59.2%) reported ever experiencing any form of violence since age 18 years and over a quarter (27.4%) reported experiencing this within the past year. These prevalences were much higher than those found in a recent household general population study in Merseyside (any violence victimisation since age 18 years 32.9%; any violence victimisation in the past year 4.5%) (34). For most of the subtypes of violence, the violence most commonly took place in students' own home, or for sexual violence and indecent exposure in the night-time economy or another public setting. Students' relationship to the perpetrator of the violence varied by violence subtype. Overall, strangers were the most common perpetrators of indecent exposure (78.8%), sexual violence (63.8%), physical violence (51.2%), and stalking and harassment (49.1%). While psychological abuse and coercive control were most commonly perpetrated by an ex-partner (36.9%). Although the reporting of violence also differed across the violence subtypes, in general, most violence (67.0% for sexual violence to 90.7% for stalking and harassment) was reported to at least one source. For all types of violence, the most common source that the violence was reported to was a friend or family member (68.6%-91.8%), the police however was far less commonly utilised as a source that violence was reported to (10.8%-29.9%). Findings on the location of the violence, the perpetrator, and reporting of the violence are similar to findings from the broader Merseyside population (34). However, in the current study across the different violence subtypes there were higher proportions who had reported violence victimisation to any source, and of those reporting the violence, a higher proportion reported it to family or friends (34).

The majority of students reported feeling safe in university buildings or on campus and in their accommodation. Over six in ten (63.9%) students felt safe in their own neighbourhood, however, around half felt safe in Liverpool City Centre (52.1%) and Merseyside more broadly (51.2%). For each of their own neighbourhood, Liverpool City Centre, and Merseyside generally, around one in ten (11.1%-14.9%) students reported feeling unsafe. The same figures for the general population of Merseyside were broadly similar (own neighbourhood, 83.0% safe, 5.4% unsafe; Merseyside generally, 64.7% safe, 10.8% unsafe – both during the daytime) (35). There were much smaller proportions of students who felt safe in pubs, bars and clubs (37.6%), and in public transport settings (37.0%), and two in ten (21.4%-21.8%) students reported feeling unsafe in these settings. The same figures for the general population of Merseyside (pubs, bars and clubs, 65.5% safe, 13.0% unsafe; public transport settings, 76.0% safe, 7.3% unsafe – both during the daytime), could suggest that while students overall feel generally safe in these settings, their perceptions of safety may be slightly poorer compared to the general population of Merseyside (35). However, findings should be considered carefully given methodological differences between the two studies, particularly because in the Merseyside general population study perceptions of safety were considered for both the daytime and the night-time separately.

Across the sample, 70.2% of students reported experiencing at least one ACE, a prevalence higher than that identified in a meta-analysis of samples of UK university students (55% (14)). A quarter (25.3%) of students in the current study reported experiencing four or more ACEs, with this prevalence higher than that found in 2014 among a general population sample of adults in England (9.0% (13)). However, the current study had a relatively small sample size and utilised a convenience sampling approach, whereas the study conducted by Bellis et al. for example was a large representative household study (13). Additionally, the current study may utilise different measures for examining ACEs compared to other studies. Therefore, care should be taken when drawing comparisons between the results of the current study and other ACE studies. The ACE which students most commonly reported in the current study was verbal abuse (47.5%). While the profiles of individual ACE types experienced differed across sociodemographic groups, there were no significant associations between sociodemographics and ACE count. In line with previous ACE studies (4, 16, 36), ACE count was significantly associated with a range of negative outcomes. While controlling adjusting for gender, age, and ethnicity, students with 4+ ACEs were significantly more likely than those with no ACEs to have experienced violence victimisation since age 18 years (11.9x) and in the past year (5.5x), and to have perpetrated violence since age 18 years (5.5x). They were also more likely to smoke and/or use e-cigarettes/vapes daily (4.1x), to have ever used drugs (3.2x), and to be currently experiencing financial difficulties (3.5x). While those who experienced 2-3 ACEs were significantly more likely than those with no ACEs to have current low mental wellbeing (5.5x) and to feel unsafe in their neighbourhood (2.7x). Overall, three in ten students who reported experiencing any ACEs had received support in childhood or adulthood related to their ACEs. Where students did receive support, this was more commonly received in childhood (25.6%) than in adulthood (16.6%). The prevalence of receiving any support related to ACEs was higher amongst females (31.4%) compared to males (23.5%), however, this was not statistically significant. There was a significant association between receiving support related to ACEs in childhood and age group, with the prevalence highest amongst those aged 18-21 years (37.4%) and lowest amongst those aged 26+ years (13.3%).

These findings highlight the need for preventative, trauma-informed, and system-wide responses both within and beyond higher education settings. Supportive interventions and the strengthening of sources of resilience are essential, particularly given that the majority of students within this sample were younger and as such are still in a critical period in terms of their brain development (21, 22) and in terms of their life course – for example, most are likely not yet to have caring responsibilities or be in full-time employment. Higher education institutions are beginning to adopt trauma-informed approaches, emphasising the importance of building safety, trust, empowerment, and developing cultural responsiveness (37). These approaches may include development of trauma-informed pedagogical strategies. For example, utilising relational-based approaches to promote learners' feelings of safety and sense of community and reducing risks of students being re-traumatised through consideration of the potential for course content to traumatise (38, 39). Other more targeted approaches may also prove effective, such as developing and implementing programmes of support for those most at risk. For example, one study from the United States found that utilising a short mindfulness intervention helped to reduce the stress levels of trauma-experienced students by increasing their emotion regulation skills and adoption of a non-judgemental attitude towards themselves (40). Another important approach may be to offer training to staff to improve their attitudes and skills in responding to students' trauma-related needs. Higher education institutions which are trauma-responsive may be able to act as an equalising environment to address ACEs and their impacts and help counteract poorer societal attitudes and structural disadvantages (e.g. ACEs being more prevalent amongst those who are more socioeconomically deprived (18)) which certain



sociodemographic groups may be impacted by. However, to embed a system-wide trauma-informed approach it is important that the impacts of trauma are acknowledged in policies across institutions. Further, undertaking research to better understand the needs and the trauma-informed knowledge and attitudes of students and staff may be critical in developing approaches which are evidence-based and locally relevant.

5. References

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6. Appendices

Appendix A1: Full methodological detail on measures utilised

Sociodemographics: Sociodemographic characteristics included: gender (male, female); age (years: 18-21, 22-25, 26+) ethnicity (White, other ethnicities); and home student status (home student, international student).

General health: The EQ-VAS (part of the EQ-5D-5L instrument (23)) was used to assess participants' general health. The EQ-VAS is a self-reported measure that uses a vertical visual scale ranging from 0 to 100, where 0 represents "the worst health you can imagine" and 100 represents "the best health you can imagine".¹³ For this survey, poor general health was defined as a score more than one standard deviation (20.68) below the mean (69.99), with poor general health categorised as scores of 49 or less. "Prefer not to say" responses were coded as missing and were excluded from the analyses.

Mental wellbeing: The Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS; (24, 25)) was used to assess participants' mental wellbeing. This validated scale comprises seven items that evaluate an individual's current mental wellbeing, each rated on a 5-point scale (1=none of the time, 2=rarely, 3=some of the time, 4=often, 5=all of the time.) Total raw scores are then summed ranging from 7 to 35, with higher scores indicating greater mental wellbeing. These raw scores are converted into metric scores using a standard conversion table (24). To identify low mental wellbeing, scores were dichotomised, with low mental wellbeing defined as more than one standard deviation (3.82) below the mean (20.94), thus low mental wellbeing was categorising as scores of <17.12. Participants who responded "prefer not to say" for any of the seven SWEMWBS items were classified as having missing data and were excluded from the analysis.

Alcohol consumption: Alcohol consumption was measured using the Alcohol Use Disorders Identification Test Consumption (AUDIT C; (26)). The AUDIT C asks three questions about participants alcohol consumption, answered on a 5-point scale, with each item scored 0-4. Scores for each item are summed and participants categorised in terms of the riskiness of their alcohol consumption as follows: 0-4=low risk, 5-7=increasing risk, 8-10=higher risk, 11-12=possible dependence. For the analysis, scores were dichotomised into 0-7=low or increasing risk and 8+=high risk or possible dependence. "Prefer not to say" responses to any item were coded as missing and were excluded from the analyses.

Smoking tobacco and use of e-cigarettes/vapes: Smoking tobacco and use of e-cigarettes/vapes was measured using one item asking how often participants had smoked and/or used e-cigarettes/vapes. Response options included never, once or twice, used to but do not currently, occasionally but not daily, daily, or prefer not to say. For analysis, responses were grouped into smoking tobacco and/or using e-cigarettes/vapes on a daily basis or not. "Prefer not to say" responses were coded as missing and were excluded from the analyses.

Drug use: The survey measured use of drugs that were not prescribed by a doctor or medical professional including: cannabis, powder cocaine, ketamine, ecstasy, nitrous oxide, psychedelics,

¹³ In this study, the EQ-VAS was adapted by removing the visual component of the scale, asking participants to report their score directly on a scale from 0 to 100.

cognitive enhancement drugs, anabolic steroids, GHB, mephedrone, heroin, crack cocaine, and other drugs. Response options included never, yes – but not in the past year, yes – in the past year, and prefer not to say. Responses were grouped into ever using any drug (included yes – in the past year or yes – ever responses to any of the drugs) and using any drug in the past year (included yes – in the past year responses only to any of the drugs). “Prefer not to say” responses to at least two drug types were coded as missing and were excluded from the analyses.

Gambling harm: Assessment of gambling harm was measured using the Problem Gambling Severity Index Short Form (27). The PGSI-SF asks three questions about participants feelings around their gambling behaviours, answered on a 4-point scale (0=never, 1=sometimes, 2=most of the time, 3=almost always). Scores for each item are summed and participants categorised as 0=no gambling harm, 1=low risk gambling, 2-3=moderate risk gambling, and 4+=high risk gambling. For the analysis, scores were dichotomised into 0=no gambling-related harm and 1+=any gambling-related harm. “Prefer not to say” responses to any item were coded as missing and were excluded from the analyses.

Adulthood violence victimisation: Adulthood violence victimisation was measured using five items and included whether after the age of 18 years the individual experienced at least one of the following types of violence: physical violence; psychological abuse and coercive control; stalking and harassment; indecent exposure; unwanted sexual touching and sexual assault. Response options were yes – in the past year, yes – but not in the past year, no – never, and prefer not to say. Follow up questions were also completed by individuals who reported experiencing each violence type. These follow up questions asked about the individual’s relationship to the perpetrator, where the violence took place, and whether they had reported it to anybody. Subtypes of violence were combined to create overall measures of any violence victimisation (ever and past year) and any violence in the night-time economy. For these measures “prefer not to say” responses were combined with “no” responses.

Violence perpetration: Participants were asked one item about whether they had ever physically hit, kicked, pushed/shoved, or intentionally physically hurt someone in some way, since turning 18 years of age. Response options were yes – but not in the past year, yes – in the past year, no – never, and prefer not to say. “Prefer not to say” responses were coded as missing and were excluded from the analyses.

Financial circumstances: Participants were asked about how easy they find it to make ends meet, namely, to pay for usual necessary expenses (e.g. rent, food, bills). Response options were very easy, somewhat easy, neither easy nor difficult, somewhat difficult, very difficult, don’t know, and prefer not to say. Responses were grouped into experiencing current financial difficulties (somewhat and very difficult) or not. “Prefer not to say” and “don’t know” responses were coded as missing and were excluded from the analyses.

Feelings of safety: Participants were asked to what extent they felt safe in seven different settings including their accommodation, in and around university buildings/campus, in pubs, bars, and clubs, on public transport or at public transport stations (including taxi ranks), in their neighbourhood, Liverpool City centre, and Merseyside generally. Participants could respond for each setting on a 5-point scale (1=very unsafe, 2=unsafe, 3=neither safe nor unsafe, 4=safe, 5=very safe). Responses were

grouped into feeling unsafe (included unsafe and very unsafe) or not, in each setting. For each of these outcomes, “prefer not to say” responses were coded as missing and were excluded from the analyses.

ACEs: Participants were asked whether they had experienced ACEs before the age of 18, using 13-items adapted from the ACE International Questionnaire (ACE-IQ; (28)). The measures included questions about exposure to physical, verbal, or sexual abuse, physical neglect, and household stressors (e.g. witnessing domestic violence or living with someone who had issues with alcohol or drug use, mental illness). It also included experiences of bullying and witnessing community violence. To allow for consistency and comparison with other national surveys, responses for nine out of the 13 ACEs (excluding parental gambling harm, bullying, witnessing community violence, witnessing verbal domestic violence, and physical and emotional neglect) were summed to calculate the number of ACEs an individual had experienced (i.e. ACE count). This total was categorised into four groups: 0 ACEs, 1 ACE, 2-3 ACEs, and 4 or more ACEs. To ensure a minimum total ACE count, “prefer not to say” responses were recoded as “no”. Participants were also asked about whether they had received any support related to their experiences of ACEs. Response options were yes – in childhood only, yes – in adulthood only, yes – in both childhood and adulthood, no, and prefer not to say. “Prefer not to say” responses were coded as missing and were excluded from the analyses.

Table A1: Poor general health and low mental wellbeing, by sociodemographics and ACE count

	Poor general health % (n)	<i>p</i>	Low mental wellbeing % (n)	<i>p</i>
All	14.0 (41)	-	16.1 (46)	-
Gender				
Male	15.6 (12)		17.8 (13)	
Female	13.0 (27)	0.709	15.9 (33)	0.852
Age (years)				
18-21	13.6 (20)		16.7 (24)	
22-25	13.6 (8)		16.9 (10)	
26+	15.1 (13)	0.943	14.5 (12)	0.891
Ethnicity				
White	14.5 (30)		16.6 (34)	
Other ethnicities	11.4 (9)	0.624	13.2 (10)	0.605
Home student status				
Home student	13.4 (32)		16.6 (39)	
International student	18.4 (9)	0.494	14.6 (7)	0.897
ACE count				
None	9.2 (8)		7.1 (6)	
1	24.1 (13)		15.4 (8)	
2-3	11.7 (9)		26.0 (20)	
4+	14.9 (11)	0.086	16.4 (12)	0.014

Table A2: Weekly binge drinking and high risk alcohol consumption (of students who reported ever drinking alcohol), by sociodemographics and ACE count

	Weekly binge drinking % (n)	<i>p</i>	High risk alcohol consumption % (n)	<i>p</i>
All	13.3 (30)	-	17.4 (39)	-
Gender				
Male	18.9 (10)		23.1 (12)	
Female	12.0 (20)	0.296	16.2 (27)	0.353
Age (years)				
18-21	15.4 (18)		21.4 (25)	
22-25	11.6 (5)		14.3 (6)	
26+	10.8 (7)	0.636	12.3 (8)	0.255
Ethnicity				
White	16.0 (28)		20.7 (36)	
Other ethnicities	4.3 (2)	0.070	6.5 (3)	0.043
Home student status				
Home student	13.7 (27)		18.4 (36)	
International student	11.1 (3)	0.944	11.1 (3)	0.509
ACE count				
None	12.1 (8)		16.7 (11)	
1	15.0 (6)		17.9 (7)	
2-3	13.6 (8)		20.3 (12)	
4+	13.3 (8)	0.980	15.0 (9)	0.890

Table A3: AUDIT-C alcohol consumption risk categories (of students who reported ever drinking alcohol), by sociodemographics

	Low risk % (n)	Increasing risk % (n)	High risk or possible dependence % (n)
All	46.9 (105)	35.7 (80)	17.4 (39)
Gender			
Male	40.4 (21)	36.5 (19)	23.1 (12)
Female	48.5 (81)	35.3 (59)	16.2 (27)
Age (years)			
18-21	40.2 (47)	38.5 (45)	21.4 (25)
22-25	47.6 (20)	38.1 (16)	14.3 (6)
26+	58.5 (38)	29.2 (19)	12.3 (8)
Ethnicity			
White	42.5 (74)	36.8 (64)	20.7 (36)
Other ethnicities	63.0 (29)	30.4 (14)	6.5 (3)
Home student status			
Home student	43.9 (86)	37.8 (74)	18.4 (36)
International student	70.4 (19)	18.5 (5)	11.1 (3)

Table A4: Smoking or e-cigarette/vape use categories and daily smoking or e-cigarette/vape use status, by sociodemographics and ACE count

	Smoking or e-cigarette/vape use categories			Daily smoking or e-cigarette/vape use	
	Never smoked or used e-cigarettes/vapes % (n)	Ex smoker or user of e-cigarettes/vapes % (n)	Currently smokes or uses e-cigarettes/vapes % (n)	Daily smoking or e-cigarette/vape use % (n)	<i>p</i>
All	55.4 (160)	12.8 (37)	31.8 (92)	21.1 (61)	-
Gender					
Male	46.1 (35)	18.4 (14)	35.5 (27)	23.7 (18)	0.715
Female	58.0 (120)	11.1 (23)	30.9 (64)	20.8 (43)	
Age (years)					
18-21	53.4 (78)	12.3 (18)	34.2 (50)	19.2 (28)	0.414
22-25	51.7 (30)	10.3 (6)	37.9 (22)	27.6 (16)	
26+	61.2 (52)	15.3 (13)	23.5 (20)	20.0 (17)	
Ethnicity					
White	52.2 (108)	12.6 (26)	35.3 (73)	21.7 (45)	0.764
Other ethnicities	62.8 (49)	14.1 (11)	23.1 (18)	19.2 (15)	
Home student status					
Home student	52.9 (126)	12.6 (30)	34.5 (82)	22.7 (54)	0.290
International student	66.7 (32)	12.5 (6)	20.8 (10)	14.6 (7)	
ACE count					
None	69.0 (58)	9.5 (8)	21.4 (18)	9.5 (8)	0.012
1	64.8 (35)	9.3 (5)	25.9 (14)	20.4 (11)	
2-3	48.1 (37)	16.9 (13)	35.1 (27)	27.3 (21)	
4+	40.5 (30)	14.9 (11)	44.6 (33)	28.4 (21)	

Table A5: Drug use ever and in the past year, by sociodemographics and ACE count

	Any drug use ever % (n)	<i>p</i>	Any drug use past year % (n)	<i>p</i>
All	42.8 (122)	-	18.6 (53)	-
Gender				
Male	34.7 (26)		18.7 (14)	
Female	44.6 (91)	0.175	17.6 (36)	0.983
Age (years)				
18-21	38.7 (55)		19.0 (27)	
22-25	46.6 (27)		20.7 (12)	
26+	47.1 (40)	0.382	16.5 (14)	0.803
Ethnicity				
White	48.0 (97)		21.3 (43)	
Other ethnicities	32.1 (25)	0.023	12.8 (10)	0.147
Home student status				
Home student	46.4 (108)		20.2 (47)	
International student	26.5 (13)	0.017	12.2 (6)	0.276
ACE count				
None	28.6 (24)		14.3 (12)	
1	37.7 (20)		18.9 (10)	
2-3	46.7 (35)		17.3 (13)	
4+	58.9 (43)	0.001	24.7 (18)	0.410

Table A6: Past year gambling participation and being at risk of gambling harm of students who reported gambling in the past year, by sociodemographics and ACE count

	Past year gambling participation % (n)	<i>p</i>	At risk of past year gambling harm % (n)	<i>p</i>
All	30.4 (87)	-	26.4 (23)	-
Gender				
Male	33.3 (25)		44.0 (11)	
Female	30.2 (62)	0.727	19.4 (12)	0.037
Age (years)				
18-21	26.9 (39)		28.2 (11)	
22-25	29.3 (17)		23.5 (4)	
26+	37.3 (31)	0.251	25.8 (8)	0.931
Ethnicity				
White	36.3 (74)		21.6 (16)	
Other ethnicities	16.9 (13)	0.003	53.8 (7)	0.037
Home student status				
Home student	33.1 (78)		23.1 (18)	
International student	17.0 (8)	0.045	50.0 (4)	0.216
ACE count				
None	19.0 (16)		12.5 (2)	
1	33.3 (18)		16.7 (3)	
2-3	37.3 (28)		39.3 (11)	
4+	34.2 (25)	0.056	28.0 (7)	0.180

Table A7: Past year gambling risk levels of students who reported gambling in the past year, by sociodemographics

	No risk % (n)	Low risk % (n)	Moderate or high risk % (n)
All	73.6 (64)	9.2 (8)	17.2 (15)
Gender			
Male	56.0 (14)	16.0 (4)	28.0 (7)
Female	80.6 (50)	6.5 (4)	12.9 (8)
Age (years)			
18-21	71.8 (28)	15.4 (6)	12.8 (5)
22-25	76.5 (13)	5.9 (1)	17.6 (3)
26+	74.2 (23)	3.2 (1)	22.6 (7)
Ethnicity			
White	78.4 (58)	9.5 (7)	12.2 (9)
Other ethnicities	46.2 (6)	7.7 (1)	46.2 (6)
Home student status			
Home student	76.9 (60)	7.7 (6)	15.4 (12)
International student	50.0 (4)	12.5 (1)	37.5 (3)

Table A8: Violence victimisation since age 18 years, in the past year, and in the night-time economy, by sociodemographics and ACE count

	Violence victimisation since 18 years % (n)	<i>p</i>	Past year violence victimisation % (n)	<i>p</i>	Violence victimisation in the night-time economy since 18 years % (n)	<i>p</i>
All	59.2 (173)	-	27.4 (80)	-	27.4 (80)	-
Gender						
Male	55.8 (43)		27.3 (21)		26.0 (20)	
Female	61.1 (127)	0.509	27.4 (57)	1.000	28.4 (59)	0.801
Age (years)						
18-21	52.4 (77)		30.6 (45)		27.9 (41)	
22-25	59.3 (35)		23.7 (14)		23.7 (14)	
26+	70.9 (61)	0.021	24.4 (21)	0.461	29.1 (25)	0.764
Ethnicity						
White	58.5 (121)		25.1 (52)		29.5 (61)	
Other ethnicities	63.3 (50)	0.541	32.9 (26)	0.240	24.1 (19)	0.444
Home student status						
Home student	60.3 (144)		26.4 (63)		29.7 (71)	
International student	57.1 (28)	0.807	32.7 (16)	0.469	18.4 (9)	0.150
ACE count						
None	36.8 (32)		13.8 (12)		18.4 (16)	
1	44.4 (24)		13.0 (7)		20.4 (11)	
2-3	67.5 (52)		35.1 (27)		32.5 (25)	
4+	87.8 (65)	<0.001	45.9 (34)	<0.001	37.8 (28)	0.019

Table A9: Physical violence, psychological abuse, and stalking and harassment victimisation since age 18 years, by sociodemographics and ACE count

	Physical violence victimisation since 18 years % (n) <i>p</i>	Psychological abuse victimisation since 18 years % (n) <i>p</i>	Stalking and harassment victimisation since 18 years % (n) <i>P</i>
All	31.2 (91) -	23.3 (68) -	18.8 (55) -
Gender			
Male	37.7 (29)	19.5 (15)	11.7 (9)
Female	28.8 (60) 0.200	24.0 (50) 0.512	21.2 (44) 0.098
Age (years)			
18-21	21.1 (31)	15.6 (23)	16.3 (24)
22-25	30.5 (18)	15.3 (9)	13.6 (8)
26+	48.8 (42) <0.001	41.9 (36) <0.001	26.7 (23) 0.074
Ethnicity			
White	29.5 (61)	19.8 (41)	18.4 (38)
Other ethnicities	36.7 (29) 0.300	31.6 (25) 0.049	21.5 (17) 0.661
Home student status			
Home student	31.4 (75)	21.3 (51)	19.7 (47)
International student	32.7 (16) 0.995	34.7 (17) 0.069	16.3 (8) 0.732
ACE count			
None	16.1 (14)	6.9 (6)	9.2 (8)
1	24.1 (13)	11.1 (6)	7.4 (4)
2-3	33.8 (26)	27.3 (21)	26.0 (20)
4+	51.4 (38) <0.001	47.3 (35) <0.001	31.1 (23) <0.001

Table A10: Indecent exposure and sexual violence victimisation since age 18 years, by sociodemographics and ACE count

	Indecent exposure victimisation since 18 years % (n) <i>p</i>	Sexual violence victimisation since 18 years % (n) <i>p</i>
All	18.2 (53) -	33.2 (97) -
Gender		
Male	9.1 (7)	14.3 (11)
Female	20.7 (43) 0.035	39.9 (83) <0.001
Age (years)		
18-21	16.3 (24)	25.2 (37)
22-25	13.6 (8)	40.7 (24)
26+	24.4 (21) 0.179	41.9 (36) 0.013
Ethnicity		
White	16.4 (34)	31.9 (66)
Other ethnicities	24.1 (19) 0.189	38.0 (30) 0.404
Home student status		
Home student	18.8 (45)	34.3 (82)
International student	16.3 (8) 0.834	28.6 (14) 0.542
ACE count		
None	8.0 (7)	13.8 (12)
1	14.8 (8)	20.4 (11)
2-3	13.0 (10)	37.7 (29)
4+	37.8 (28) <0.001	60.8 (45) <0.001

Table A11: Current financial difficulties and violence perpetration since age 18 years, by sociodemographics and ACE count

	Current financial difficulties % (n) <i>p</i>	Violence perpetration since age 18 years % (n) <i>p</i>
All	47.2 (143) -	12.4 (36) -
Gender		
Male	41.3 (31)	15.6 (12)
Female	49.3 (100) 0.298	11.1 (23) 0.414
Age (years)		
18-21	39.2 (56)	8.2 (12)
22-25	53.4 (31)	13.8 (8)
26+	56.6 (47) 0.023	18.8 (16) 0.056
Ethnicity		
White	44.1 (90)	12.1 (25)
Other ethnicities	56.0 (42) 0.104	13.9 (11) 0.825
Home student status		
Home student	45.7 (107)	12.6 (30)
International student	55.3 (26) 0.297	12.2 (6) 1.000
ACE count		
None	31.3 (26)	5.8 (5)
1	35.8 (19)	11.1 (6)
2-3	56.0 (42)	7.8 (6)
4+	64.4 (47) <0.001	26.0 (19) <0.001

Table A12: Students reporting feeling unsafe in their accommodation and at university, by sociodemographics

	Feels unsafe in their accommodation % (n) <i>p</i>	Feels unsafe at university % (n) <i>p</i>
All	5.4 (14) -	3.1 (9) -
Gender		
Male	7.0 (5)	4.0 (3)
Female	5.0 (9) 0.742	2.9 (6) 0.940
Age (years)		
18-21	3.1 (4)	3.4 (5)
22-25	11.8 (6)	5.2 (3)
26+	5.1 (4) 0.072	1.2 (1) 0.403
Ethnicity		
White	4.9 (9)	2.4 (5)
Other ethnicities	7.1 (5) 0.686	3.9 (3) 0.781
Home student status		
Home student	5.8 (12)	3.0 (7)
International student	4.3 (2) 0.980	4.3 (2) 0.992

Table A13: Students reporting feeling unsafe in pubs, bars and clubs and in transport settings, by sociodemographics

	Feels unsafe in pubs, bars and clubs % (n) <i>p</i>	Feels unsafe on public transport or at public transport stations % (n) <i>p</i>
All	21.4 (58) -	21.8 (62) -
Gender		
Male	13.4 (9)	13.7 (10)
Female	23.2 (46) 0.125	24.9 (51) 0.069
Age (years)		
18-21	21.3 (29)	17.1 (25)
22-25	23.2 (13)	24.1 (14)
26+	20.3 (16) 0.918	28.7 (23) 0.115
Ethnicity		
White	22.3 (45)	24.0 (49)
Other ethnicities	18.8 (12) 0.671	17.3 (13) 0.781
Home student status		
Home student	21.2 (48)	23.7 (56)
International student	20.9 (9) 1.000	13.3 (6) 0.179

Table A14: Students reporting feeling unsafe in their neighbourhood, Liverpool City Centre, and Merseyside generally, by sociodemographics and ACE count

	Feels unsafe in their neighbourhood % (n)	<i>p</i>	Feels unsafe in Liverpool City Centre % (n)	<i>p</i>	Feels unsafe in Merseyside generally % (n)	<i>p</i>
All	14.9 (43)	-	12.5 (36)	-	11.1 (32)	-
Gender						
Male	13.3 (10)		11.8 (9)		14.5 (11)	
Female	15.0 (31)	0.877	12.6 (26)	1.000	9.8 (20)	0.364
Age (years)						
18-21	17.9 (26)		11.7 (17)		11.6 (17)	
22-25	15.3 (9)		10.2 (6)		6.8 (4)	
26+	9.5 (8)	0.227	15.5 (13)	0.591	13.4 (11)	0.450
Ethnicity						
White	17.6 (36)		14.6 (30)		11.2 (23)	
Other ethnicities	9.0 (7)	0.107	7.8 (6)	0.187	10.4 (8)	1.000
Home student status						
Home student	16.5 (39)		14.3 (34)		11.4 (27)	
International student	8.3 (4)	0.225	4.2 (2)	0.090	10.6 (5)	1.000
ACE count						
None	9.5 (8)		9.4 (8)		7.2 (6)	
1	7.5 (4)		11.3 (6)		7.4 (4)	
2-3	23.4 (18)		13.2 (10)		13.2 (10)	
4+	17.6 (13)	0.030	16.2 (12)	0.621	16.2 (12)	0.233

Table A15: Prevalence of receiving any support ever, support in childhood, and support in adulthood related to ACEs, of those who experienced any ACEs

	Any ACEs support ever % (n) <i>p</i>	Any ACEs support in childhood % (n) <i>p</i>	Any ACEs support in adulthood % (n) <i>p</i>
All	29.4 (62) -	25.6 (54) -	16.6 (35) -
Gender			
Male	23.5 (12)	17.6 (9)	9.8 (5)
Female	31.4 (49) 0.371	28.2 (44) 0.189	18.6 (29) 0.210
Age (years)			
18-21	34.5 (38)	32.7 (36)	17.3 (19)
22-25	31.7 (13)	24.4 (10)	17.1 (7)
26+	18.3 (11) 0.080	13.3 (8) 0.021	15.0 (9) 0.926
Ethnicity			
White	32.3 (51)	28.5 (45)	17.7 (28)
Other ethnicities	20.4 (10) 0.158	16.3 (8) 0.130	14.3 (7) 0.732
Home student status			
Home student	31.7 (57)	27.2 (49)	17.2 (31)
International student	13.3 (4) 0.067	13.3 (4) 0.163	13.3 (4) 0.791