

Accidental anal intercourse: does it really happen?

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Abstract

A postal survey was conducted of members of the Association of Forensic Physicians (UK) to determine whether accidental anal intercourse occurs in heterosexual relationships and, if so, whether intoxication by alcohol or drugs and sexual inexperience were likely to be causative factors. Of the 512 (47.9%) replies, there were 498 individuals who had had a previous heterosexual relationship and may have experienced accidental anal intercourse. Of these, there were 26 (7.2%) males and 14 (10.4%) females who reported at least one lifetime episode of accidental anal intercourse. Amongst those with a history of accidental anal intercourse, 79% reported that they were sexually experienced at the time and 83% reported that their partners were sexually experienced. Personal intoxication by alcohol or drugs at the time of accidental anal intercourse was reported by 43%, with 41% reporting that their partners were intoxicated.

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1. Introduction

In cases of rape that involve alleged anal intercourse it is not uncommon for the defence to argue that the defendant ‘accidentally’ penetrated the anus because of sexual inexperience, intoxication or a combination of both. To date there is no evidence in the medical literature to determine whether or not such ‘accidents’ occur and, if so, how frequently.

The purpose of this study was to assess the frequency with which accidental anal intercourse occurs.

2. Method

In October 2002, a postal questionnaire was sent to the 1090 members of the Association of Forensic Physicians (AFP) in the United Kingdom. Members of the AFP, the vast majority of whom are registered medical practitioners, were chosen as recipients of the questionnaire because it was envisaged that they:

- Would understand the importance of the work.
- Were less likely to be offended by the sensitive nature of the questionnaire.
- Would appreciate the need for total honesty in their replies so that the courts should not be misled by the results of the survey.

The questionnaire contained 4 questions of a biographical nature followed by three questions regarding the individual’s sexual experience and past history of accidental anal intercourse. Those that reported an episode of accidental anal intercourse within a heterosexual relationship (defined as penile penetration of the female anus without the apparent intent of either partner) were asked to complete two additional sections consisting of 5 further questions about the episodes of accidental anal intercourse.

The questionnaire was kept deliberately brief to ease completion in the expectation that this would help maximise the response rate.

Data from the returned questionnaires were entered onto a personal computer and analysed by Epi Info (version 2002.01).¹

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3. Results

Of the 1090 questionnaires posted, 12 were returned unanswered because the recipient was either too ill to respond or had died. Three further questionnaires were returned because the individuals concerned found the nature of the questions offensive. There were a total of 512 replies from the remaining 1075 members of the AFP who received the questionnaire, representing a response rate of 47.9%.

Of the respondents, 373 (72.9%) were male and 139 (27.1%) were female. There were 10 males (2.7%) and 4 females (2.9%) who reported that they had never had a heterosexual partner (defined as a partner of the opposite sex with whom they had had oral, anal or vaginal sexual intercourse) and who were excluded from further analysis. Thus, there were a total of 498 individuals who had had a heterosexual partner and who may have experienced accidental anal intercourse. The average age of male respondents was 50 years (range 31–84) and of females was 49 years (range 28–94).

The numbers of lifetime sexual partners for male and female respondents are shown in Figs. 1 and 2. Data from a National Survey of Sexual Attitudes and Lifestyles conducted amongst 16–45-year-olds in the United Kingdom during 1999–2001 are included for comparison purposes.²

There were 67 (18.5%) males and 38 (28.9%) females who reported a previous history of intentional heterosexual anal intercourse. This compares to 12.3% of males and 11.3% of females aged between 16 and 45 years who reported anal intercourse in the previous year² and to 20% of women attending a genitourinary medicine clinic³ who reported previous experience of anal intercourse.

Out of 363 male respondents, there were 26 (7.2%) who reported at least one lifetime instance of accidental anal intercourse (AAI) compared to 14 (10.4%) of 135 female respondents to the questionnaire. The frequency

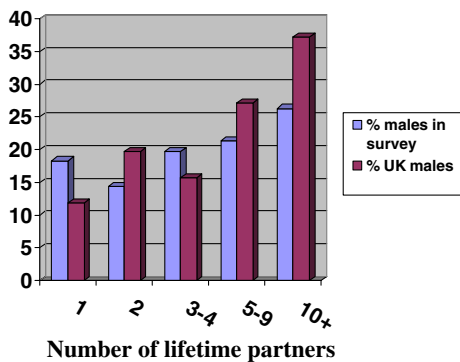


Fig. 1. Number of lifetime heterosexual partners of male respondents with national comparison to a group of adults aged 16–45 years.

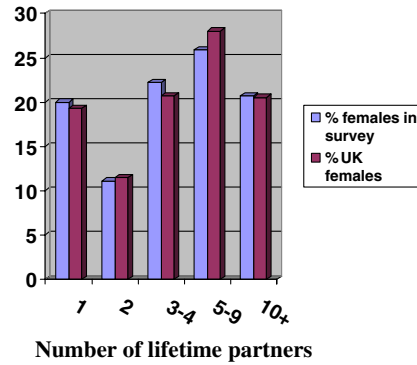


Fig. 2. Number of lifetime heterosexual partners of female respondents with national comparison to a group of adults aged 16–45 years.

with which males and females reported different numbers of lifetime episodes of AAI is shown in Fig. 3.

The likelihood of experiencing AAI increased significantly with the number of sexual partners an individual had had (see Fig. 4). Similarly, there was a significant association between AAI and a history of intentional anal intercourse, with those who had reported previous intended anal intercourse being 3.4 times more likely to have experienced AAI (95% CI 1.7–6.7) than those who had never intentionally had anal intercourse.

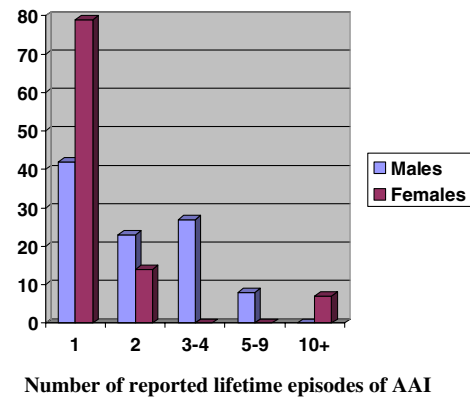


Fig. 3. Frequency (%) of reported lifetime episodes of AAI by gender of respondent.

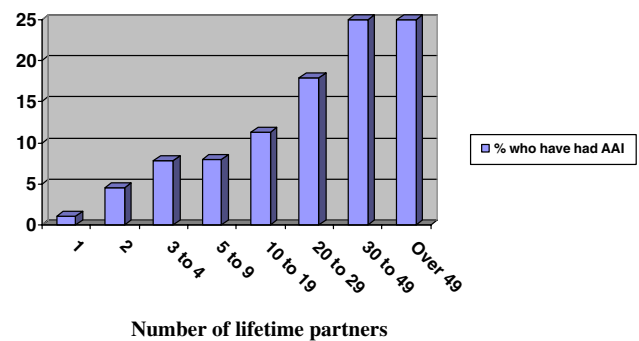


Fig. 4. Frequency of reported accidental anal intercourse by number of lifetime sexual partners.

Of those individuals with a history of AAI, 43% reported that they were personally intoxicated with alcohol or drugs at the time and 41% reported that their partners were intoxicated.

Sexual naivety was a relatively uncommon factor both amongst those who had experienced AAI (21% of who said they were sexually naïve compared to 79% who said they were sexually experienced) and their partners (17% naïve v. 83% experienced).

There were 13 respondents who provided additional comments on their questionnaires, of whom 4 reported episodes where their penis had accidentally slipped out of the vagina and hit their partner's anus without penetration.

4. Discussion

4.1. The sample population

Members of the Association of Forensic Physicians are a highly selected group and may not be representative of the general population in terms of their sexual practices. However, comparative figures show that numbers of lifetime sexual partners are broadly similar and the practice of heterosexual anal intercourse is at least as common amongst respondents to the questionnaire and other groups within the UK. This suggests that the survey has not introduced major selection bias in terms of the heterosexual practices of the study population.

The vast majority of respondents are medical practitioners and it is reasonable to suppose that they have a greater understanding of the comparative anatomy of the anogenital region than the general population. Arguably, this knowledge may reduce the likelihood that they would experience accidental anal penetration when compared to less anatomically aware individuals. If that were the case, the reported incidence of accidental anal intercourse amongst the study population may underestimate the incidence in the general population.

4.2. How does accidental anal intercourse occur?

Anal continence is maintained by an anal sphincter complex that, intuitively at least, is as likely to act as an effective guard against accidental ingress, as well as egression. The sphincter complex consists of two overlapping muscular tubes that surround the anal canal. The external anal sphincter, which forms the outer layer, is voluntary and striated in nature. The internal anal sphincter is the inner, involuntary, smooth-muscle component of the anal sphincter complex and is essentially the thickened downward continuation of the circular muscle of the rectum.

Whilst the internal anal sphincter has an ambiguous role in maintaining anal continence,⁴ the importance of the external anal sphincter is much clearer.⁵ It is known to have a tonic activity at rest, even during sleep. Maximal contractions of the external sphincter can generate pressures of about 190 cm H₂O that can be maintained consciously for about 1 min. Distension of the rectum or a spontaneous pressure increase evokes a contraction of the sphincter that lasts 20–30 s. This guarding reflex is maintained through a neural arc at the low spinal level and it seems probable that similar reflex contractions will occur when a penis attempts to accidentally penetrate the anus. Certainly, stimulation of the anal lining by moving a probe in and out of the anal canal increases the activity of the external anal sphincter, raising anal pressures.⁶

One possible explanation for the occurrence of accidental anal intercourse is that sexual arousal somehow affects the reflex contraction of the external anal sphincter. Although it is known that rhythmic contraction of the anal sphincter occurs during female orgasm⁷ and that penile erection is associated with contraction of both the bulbocavernosus muscle and the external anal sphincter in men,⁸ the author is unaware of any research suggesting an increase or decrease in tonic contraction of the external anal sphincter in females during sexual arousal. Therefore, whether or not accidental anal intercourse can be explained, at least partially, by a decrease in tonic contraction of the female external anal sphincter that occurs during sexual arousal is entirely speculative.

An alternative explanation is that the sexual position adopted increases the likelihood of AAI. For example, separation of the buttocks of normal subjects has been found to reduce the pressure in the anal canal from an average of 102 to 14 cm H₂O⁶ and, thus, may facilitate AAI. There were 5 respondents to the questionnaire who had experienced accidental anal intercourse who also provided additional comments, and two of these said that position played an important role – one said AAI had occurred during penetration from behind, whereas the other said it occurred in the supine position, with hips abducted, fully flexed and with pelvic tilt. In both these positions the anus could be said to have been 'presented' to the penis, thus facilitating accidental penetration.

Lubrication is also likely to increase the likelihood of AAI. Amongst homosexual males the use of lubricants to facilitate anal intercourse is well established with, in one study, 93% of men using lubricants (59% always and 74% in at least 80% of sexual encounters) regardless of condom use.⁹ Three of the five respondents who had had AAI in this survey and provided additional comments reported that there was a liberal amount of lubricant involved when it occurred.

The study suggests that, although intoxication is a factor in about 40% of cases of AAI, it is certainly not a prerequisite to it.

Sexual naivety appears to be a relatively unimportant factor amongst those experiencing AAI and might even protect against it. Indeed, the fact that AAI was significantly more likely amongst those with a greater number of lifetime sexual partners and in those who have experienced intentional heterosexual anal intercourse, tends to suggest that AAI is more likely in those who have more 'adventurous' sexual lifestyles.

4.3. Conclusion

This survey found a lifetime incidence of at least one episode of AAI in 7.2% of males and 10.4% of females. Comparison data between the sexual practices of the study group and the general population, together with theoretical considerations of possible selection bias, suggest that these figures are likely either to be representative or, perhaps, an underestimate of the incidence of AAI amongst adults in the UK.

Although this study did not set out to examine how accidental anal intercourse occurs, it does provide anecdotal evidence that sexual position and the use of lubricants both predispose to it. Further research would be needed to establish how important these factors are in AAI.

Intoxication appears to be a factor in less than 50% of cases of AAI and sexual naivety is relatively uncommon, the evidence suggesting that AAI is more common amongst those with more 'adventurous' sexual lifestyles.

Acknowledgements

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