Sexual activity and risk-taking in later life

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Abstract
The primary study objective was to identify the prevalence of sexual activity and sexual risk-taking behaviour among a sample of older community-based adults. Secondary objectives included gathering data about past experiences of consultations regarding sexual health issues with general practitioners (GPs) and at genitourinary medicine (GUM) clinics, and exploring participants’ STI and HIV/AIDS-related information needs. Individuals over the age of 50 were identified from four electoral wards within Sheffield, UK by means of a postal screen based on the electoral register. Respondents self-completed a short postal questionnaire. Three hundred and nineteen individuals aged over 50 years selected at random from the general population responded. Approximately 80% of respondents were currently sexually active and 7% engaged in behaviours that may place them at risk of contracting a sexually transmitted infection (STI). Risk takers were typically male, aged between 50 and 60 years and married. Being male was also related to reporting current or past sexual health concerns. In total, of 75 respondents reporting such concerns, two thirds had discussed these concerns with their GP or attended a GUM clinic. Levels of satisfaction with such consultations were generally high, but declined with increasing age. Overall, most participants felt they had not received very much information about STIs and HIV, and about one quarter reported that they would like to receive more information on these topics. These data have implications for all health and social care professionals who work with older people and indicate a potential need for education to help professionals meet the sexual health needs of their older patients/clients. Further implications for sexual health promotion and the need for additional research in this field are also discussed.

Keywords: ageing, older people, sexual activity, sexual health promotion, sexual risk-taking

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Introduction
Most people have the potential to remain sexually active into very late life with sexual activity often considered central to overall well-being, even among the very elderly (Marsiglio & Donnelly 1991). However, little is known about the sexual behaviours of individuals aged over 50 years, particularly within the UK (Coates 1990, Gott 1999a). This is due to both a lack of research focusing specifically upon this age group, and the exclusion of older people from large-scale UK sexual health studies, notably the National Survey of Sexual Attitudes and Lifestyles (Wellings et al. 1994). Adopting a sample age cut-off of 59 years for this study was justified on the grounds that ‘many of the topics for which data were collected are known not to affect older people greatly’ (Wellings et al. 1994, p. 23). However, how this is known in light of current evidence remains unclear.
Indeed, US data indicate that sexual risk-taking cannot be attributed solely to younger people. The National AIDS Behavioral Study (NABS), for example, identified that between 5.5% and 7.5% of a sample of 3219 adults aged over 50 had at least one sexual risk factor for HIV, but were one-sixth as likely to use condoms during sex, and one-fifth as likely to have been tested for HIV, when compared to risk takers in their twenties (Stall & Catania 1994). These findings are further supported by Leigh et al. (1993), who questioned 2058 individuals aged 18 years and over on key aspects of sexual behaviour and attitudes. They identified that approximately 10% of those aged 50–59, 9% of those aged 60–69 and 8% of participants over 70 reported having more than two partners during the past five years. Only a small minority of these individuals stated that they consistently used condoms and this age group in general was less likely to consider that HIV/AIDS had had an impact on their sexual behaviour. Nevertheless, it remains unclear to what extent these findings can be translated to the UK population given cross-cultural differences between the two countries with regards to many aspects of sexual behaviour (Johnson et al. 1997).

However, there is some evidence to support the hypothesis that older people living within the UK engage in risk-taking behaviours. It has been estimated, for example, that approximately 16 000 individuals over the age of 50 attend genitourinary medicine (GUM) clinics in England and Wales annually (Gott et al. 1998) and that approximately 75% of such attendees are motivated by concerns relating to sexually transmitted infections (STIs) (Gott et al. 1999). Moreover, statistics to the end of March 2000 reveal that 12% of cases of AIDS in men, and 7% of cases of AIDS in women, have been diagnosed in individuals aged over 50 years (PHLS AIDS and STD Centre – Communicable Disease Surveillance Centre, and Scottish Centre for Infection & Environmental Health, unpublished quarterly surveillance tables no. 46, 00/1, Table 8). The primary mode of HIV transmission for these older individuals is sexual contact.

Furthermore, these figures are probably an under-estimation of true rates of infection both of HIV and AIDS, as well as other STIs. El-Sadr & Gettler (1993), for example, provide evidence of under-diagnosis of HIV and AIDS within this age group, and Ship et al. (1991) note that diagnosis of AIDS within the same month of death rises sharply among older age groups. This is likely to be a product of the fact that sexual histories are less likely to be taken from older people as they are not perceived to be sexual risk takers (DeHertogh 1994), as well as the reluctance of individuals of this age to disclose sexual health concerns. Indeed, significant barriers to GUM clinic attendance, including fear and embarrassment, have been identified among samples of older clinic attendees (Gott et al. 1998b, Pitts et al. 2000).

Therefore, it seems likely that older people living in the community may have a significant unmet need for sexual health services. However, as previously noted, little is known about the prevalence of sexual activity, including risk-taking behaviours, among individuals of this age who do not present to health care services. Barriers to collecting such data appear to include: (1) the assumption that older people do not engage in sexual risk-taking behaviours; (2) an ageist conception of which age groups are worth studying (i.e. the young); and (3) the perceived difficulties of researching sexual health issues with older people, including the risk of causing offence.

This paper aims to clarify issues detailed above by identifying, within a randomly selected sample of older community-based-older people:

- the prevalence of sexual activity in later life;
- the proportion and characteristics of older individuals engaged in ‘risky’ sexual behaviours;
- the proportion of older people reporting sexual health concerns who have attended health care services and their perceived satisfaction with services if relevant; and
- the amount of information older people have received about STIs and HIV and whether they would like more information on these topics.

**Study design**

The study design employed and related issues of methodological interest are discussed extensively elsewhere (Gott 1999b). To summarise, a two-phase study design was adopted utilising the electoral register. This involved identifying older individuals from the Sheffield electoral register by means of a postal screen, and then sending questionnaires to those who were identified as being aged over 50 years. This methodology has been developed and recommended for use with older populations (Cartwright & Smith 1987), but is infrequently used within health services research.

**Phase 1**

One thousand eight hundred households were selected at random from four electoral wards within Sheffield. Sample size was determined using a tracer variable of risk-taking of 5.5%, derived from the study reported previously by Stall & Catania (1994). Assuming alpha at 5% and beta at 80%, a sample size of 320 was calculated as necessary to generate a valid population estimate of risk-taking, with the estimated prevalence falling...
between 3% and 8%. Six hundred individuals over the age of 50 were therefore contacted in the postal screen, as it was estimated that this would yield between 300 and 350 completed questionnaires (although target response rates were not available). As approximately 35% of the population of England and Wales is over 50 years of age, approximately 1800 individuals would have to be contacted in order to identify 600 individuals of this age.

Wards were selected for inclusion in the study on the basis of their similarity to the demography of England and Wales on certain key variables, namely: (1) age/sex distribution; (2) marital status of residents over the age of 50; (3) proportion of pensioners living alone; (4) ethnicity; and (5) socio-economic status (OPCS 1991). Each household was then sent a letter introducing the study and a stamped addressed postcard which they were asked to return to the research centre. They were asked to complete the postcard to indicate the number of household members aged 50 years or older.

Phase 2
All residents identified as eligible to participate in the study were sent a short questionnaire to complete covering the following areas:

- demographic information, including age, sex, marital status and ethnicity;
- issues relating to use of sexual health services, focusing specifically upon consultations with health care professionals concerning sexual health issues. The information needs of participants concerning STIs and HIV were also examined; and
- sexual behaviour issues, including number of sexual partners during the past 5 years and ever, prevalence of condom use and history of STI diagnosis and HIV testing.

The questionnaire was developed following extensive preliminary work and a pilot of the methodology and instrument with 400 older people. Regarding data quality, although it is difficult to establish validity in studies of this nature, certain procedures identified as increasing the likelihood the reliability and validity of the study were adopted. First, the anonymity achieved through using self-administered questionnaires is known to increase the validity of data generated (Bradburn & Sudman 1979). Second, internal consistency was checked by comparing responses to certain questions; for example, data reliability was questioned if a subject answered both that he/she was not currently in a sexual relationship, and that a condom was always used with his/her current partner. Finally, multivariate statistical testing was used to establish the relationship between variables of interest. As this generated a series of ‘logical’ relationships this lends support to the hypothesis that the data generated were valid.

Approval for the study was obtained from the local ethics committee. Results were analysed using SPSS for Windows. As the data were primarily categorical, \( \chi^2 \) tests of association were used to establish bivariate relationships. Logistic regression was then used to model more complex relationships between the independent variables and the outcome variables of interest.

Participants
Response rates
Based on census information it was anticipated that about 592 of the 1800 households mailed would contain a member aged 50 or over. The response rate to the postal screen from this target population (individuals over the age of 50) was therefore estimated to be 73.6% \((n = 436)\). However, as the majority of households contacted had more than one resident over 50 years of age, a total of 668 individuals were identified as eligible to participate in the study and sent a questionnaire to complete. Although 65.1% of individuals returned their questionnaire to the research centre \((n = 435)\), only 335 were completed, representing a completion rate of 50.1%. Sixteen questionnaires had to be excluded from subsequent analyses because of inconsistent or incomplete answering. In total 47.7% \((n = 319)\) of questionnaires returned were completed to a standard suitable for analysis.

Socio-demographic characteristics of respondents
Respondents ranged in age from 50 to 90 years, with a median age of 59 years. Approximately half were female \((n = 158)\). Over three quarters of respondents were married \((82.1\%; n = 262)\), 10.0% were widowed \((n = 32)\), 3.8% were divorced or separated \((n = 12)\), 2.2% \((n = 7)\) were single and 1.9% were cohabiting \((n = 6)\).

The socio-demographic characteristics of respondents were compared with census data for the four wards to evaluate possible participation bias. Men were over-represented within the study group when compared to the general population from which they were drawn (male general population = 43.8\%; \(n = 11,704\); study = 50.5\%; \(n = 161\); \(\chi^2 = 5.4; \text{d.f.} = 1; P < 0.05\)). Female respondents were more likely to be younger than the general population aged > 50 years \((\chi^2 = 64.2; \text{d.f.} = 4; P < 0.001)\), although there was no difference for men. Both male and female respondents were more likely to be married than nonrespondents (men: \(\chi^2 = 6.5; \text{d.f.} = 1; P < 0.05\); women: \(\chi^2 = 30.1; \text{d.f.} = 1; P < 0.001\)).
Results

Prevalence of sexual activity

Two hundred and sixty individuals, representing 81.5% of respondents, were currently involved in one or more sexual relationships. Of the 59 individuals (16.9%) not currently involved in a sexual relationship, two had never been involved in a sexual relationship, and 18 (5.6%) had not been involved in a sexual relationship for the last five years.

From logistic regression analyses, two factors were identified as being significantly and independently related to being currently sexually active, namely being married (OR = 0.04, 95% CI = 0.02 – 0.10) and having had more than one lifetime partner (OR = 3.22, 95% CI = 1.30 – 7.98).

Lifetime number of sexual partners

The majority of participants (n = 184; 57.7%) had only had one sexual partner during their lifetime. However, 0.6% (n = 2) reported no sexual partners, 27.9% between two and five partners (n = 89), 3.8% between six and nine partners (n = 12), and 5.6% over 10 partners (n = 18). For 4.4% of the respondents (n = 14), lifetime number of partners was unknown. Only 3% of individuals (n = 10) stated that some or all of these partners had been of the same gender.

From logistic regression analyses, four factors were found to be significantly and independently related to having had more than one lifetime partner. These comprised being male (OR = 1.44, 95% CI = 1.17 – 3.69), not being married (OR = 43.98, 95% CI = 6.77 – 285.90) and having used condoms (OR = 2.87, 95% CI = 1.33 – 5.78). The final predictive variable, length of current relationship, indicated that for every yearly increase in length of current relationship (relationship length ranged from 0 to 61 years), there was a 6% decrease in the likelihood of having had more than one lifetime partner (OR = 0.94, 95% CI = 0.92 – 0.97, P < 0.001).

Prevalence and characteristics of ‘risk takers’

Of the 319 respondents, 7% (n = 21) were considered to engage in sexual behaviours that placed them at risk of contracting a sexually transmitted infection. Risk-taking behaviour was defined as having had more than one partner in the last 5 years, but not consistently using condoms. Of these, 72.6% (n = 16) were male, and 80.9% (n = 17) were below the age of 60. Approximately two-thirds of ‘risk takers’ (n = 16) were married, and all were currently involved in a long-term relationship.

Approximately one third of these individuals had sexual health concerns (n = 7), although only 9.5% (n = 2) had attended a GUM clinic. Interestingly, 90.5% (n = 19) felt that they had not received very much information about STIs, including HIV, although only 38.1% (n = 8) reported that they would like to receive additional information.

Prevalence of sexual health concerns

Seventy-five participants (23.5%) reported current sexual health concerns. An additional 16.9% of participants (n = 54) had a history of sexual health concerns.

From logistic regression analyses two factors were found to be significantly and independently related to current or past reporting of sexual health concerns, namely being male (OR = 2.21; CI = 1.08 – 4.52) and knowing the location of the nearest GUM clinic (OR = 4.21; CI = 1.20 – 4.84).

Extent of contact with health care services

Of the 25.4% of the sample (n = 75) reporting current sexual health concerns, 60% (n = 40) had made contact with health care professionals. Of these, 75% (n = 30) had consulted their GP, and 25% (n = 10) had attended a GUM clinic. A further 12% (n = 9) had not discussed their problem/concern with their GP, but would have liked to.

Logistic regression analyses indicated a trend for declining contact with health care professionals with increasing age (OR = 0.91, 95% CI = 0.82 – 1.00, P = 0.058). Although P > 0.05 is the normal cut-off used as a measure of significance, the advice of Altman (1991) was followed, who advocates including key variables if the level of significance is only marginally greater than the 5% level.

Satisfaction with health service contact

Satisfaction with GP treatment was generally high, with the majority of respondents being either ‘very satisfied’ (n = 9), or ‘quite satisfied’ (n = 14) with the way their GP had dealt with their problems and/or concerns. Of the remainder, six were ‘not very satisfied’ and three were very dissatisfied. Regarding GUM attendance, again the majority of respondents were ‘very satisfied’ (n = 8) or ‘satisfied’ with their consultation.

Information needs

The majority of individuals felt they had received ‘not very much’ or ‘hardly any’ information about either STDs or HIV (Table 1), with media sources (magazines and television) being by far the most popular information source. Of the total participants who completed...
from US studies that sexual risk-taking can be a feature of older individuals, supporting the conclusions drawn. Patterns of sexual behaviour may be adopted by a minority during this time period suggests that alternative patterns of ‘adulterous husbands’ and ‘faithful wives’, which he concluded remains a feature of some marriages.

The data presented here have implications for sexual health promotion, as overall identified need for information about STIs and HIV/AIDS was relatively high. Indeed, this may reflect the fact that past promotion drives aimed at reducing levels of risk-taking behaviour, and concomitantly the prevalence of STIs and HIV, have tended to be very youth-orientated and have marginalised the needs of older people (Kaufmann 1995). Thus, research is needed to provide an evidence base for sexual health promotion in later life, identifying information formats and modes of delivery appropriate to the needs of older people. Indeed, that many participants requesting more information about STIs and HIV/AIDS were not identified as engaging in high risk behaviours indicates that information may be required for reasons other than those related to personal sexual lifestyles. This hypothesis is supported by Gerbert & Maguire (1989) who gauged the responses of elderly people to a booklet about HIV; 69% of their sample read ‘all or most’ of the booklet, 87% did not find it offensive and 76% were glad to receive it. One determinant of these high levels of sexual health information need may relate to older people assuming the role of educators themselves; both parents and grandparents may wish to collect such information so they can disseminate it to their children/grandchildren (Marr 1994).

### Table 1 Amount of information received about STIs and HIV

<table>
<thead>
<tr>
<th>Amount of information</th>
<th>STIs</th>
<th>(%)</th>
<th>HIV</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘A lot’</td>
<td>40</td>
<td>(13.6)</td>
<td>41</td>
<td>(14.0)</td>
</tr>
<tr>
<td>‘Quite a lot’</td>
<td>61</td>
<td>(20.7)</td>
<td>63</td>
<td>(21.5)</td>
</tr>
<tr>
<td>‘Not very much’</td>
<td>79</td>
<td>(26.9)</td>
<td>76</td>
<td>(26.0)</td>
</tr>
<tr>
<td>‘Hardly anything’</td>
<td>114</td>
<td>(38.8)</td>
<td>113</td>
<td>(38.6)</td>
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</tbody>
</table>

this item, 26.3% (n = 84) reported wanting additional information about STDs, and 27.3% (n = 87) additional information about HIV. Preferred sources of additional information included magazines/TV (n = 36; 43.4%) and the GP (n = 30; 33.0%).

### Conclusions

The majority of study participants (81.5%) were identified as being currently sexually active, counteracting the dominant stereotype of the ‘asexual older person’ (George & Weiler 1981, p. 919) and lending unequivocal support to the conclusion that sexual activity is a feature of later life. Indeed, similar rates of sexual activity have been reported in the US by Starr & Weiner (1981) who questioned 800 individuals over 60 years of age on key aspects of their sexual behaviour and identified that 92.7% of men and 70.4% of women were currently sexually active. Moreover, the finding that marital status predicted being currently sexually active supports the conclusions of the National Survey of Sexual Attitudes and Lifestyles that:

It is not age per se that is the dominant influence on frequency of partner change, but that the influence of a stable relationship is strong, regardless of the individual’s age (Wellings et al. 1994, pp. 104–5).

The finding that most participants (81.2%) reported having had only one sexual partner during the last five years would be expected given that the majority recorded being in a long-term married relationship. However, the widespread social perception that this represents the norm for all older people, except those who are unmarried and therefore would not be considered to engage in any form of sexual relationship, is not supported by these data. That 3.8% of women and 11.1% of men reported having had more than one sexual partner during this period suggests that alternative patterns of sexual behaviour may be adopted by a minority of older individuals, supporting the conclusions drawn from US studies that sexual risk-taking can be a feature of later life (Stall & Catania 1994, Leigh et al. 1993). Moreover, 3% of respondents reported same-gender sexual relationships which, for men, has been identified as a risk-factor for STI acquisition. However, it is difficult to draw conclusions about this subset of the sample due to their low numbers, and further work is needed to explore issues specific to the sexual health of this often neglected group (Slusher et al. 1996).

The gender difference observed in the proportion of multiple partnerships reported during the last five years probably reflects the demography of this age group, as well as prevailing societal attitudes. Indeed, the propensity for men to be more likely to report multiple sexual partnerships than women, irrespective of marital status, was also observed by the authors of the National Survey of Sexual Attitudes and Lifestyles for all age groups (Wellings et al. 1994). They attribute this to a gendered ‘double standard’ in sexual behaviour. This conclusion is also supported by Brecher (1984) who, based on the findings of a US survey of 4246 men and women, again talks of a ‘double standard’, this time in relation to a pattern of ‘adulterous husbands’ and ‘faithful wives’, which he concluded remains a feature of some marriages.

Indeed, within the small sample of risk-takers identified in this study, the majority were in a long-term, typically married, relationship. However, research is needed to explore such gender differences in more detail, and it would be particularly interesting to see whether they still persist to the same extent in future ageing generations of women with more liberal sexual attitudes and behaviours.

The data presented here have implications for sexual health promotion, as overall identified need for information about STIs and HIV/AIDS was relatively high. Indeed, this may reflect the fact that past promotion drives aimed at reducing levels of risk-taking behaviour, and concomitantly the prevalence of STIs and HIV, have tended to be very youth-orientated and have marginalised the needs of older people (Kaufmann 1995). Thus, research is needed to provide an evidence base for sexual health promotion in later life, identifying information formats and modes of delivery appropriate to the needs of older people. Indeed, that many participants requesting more information about STIs and HIV/AIDS were not identified as engaging in high risk behaviours indicates that information may be required for reasons other than those related to personal sexual lifestyles. This hypothesis is supported by Gerbert & Maguire (1989) who gauged the responses of elderly people to a booklet about HIV; 69% of their sample read ‘all or most’ of the booklet, 87% did not find it offensive and 76% were glad to receive it. One determinant of these high levels of sexual health information need may relate to older people assuming the role of educators themselves; both parents and grandparents may wish to collect such information so they can disseminate it to their children/grandchildren (Marr 1994).
Of individuals with sexual health concerns, 60% had contacted health care professionals, of whom the majority rated their experiences highly (although rates of dissatisfaction increased with age). However, that 40% of individuals with sexual health concerns did not contact health care professionals is rather worrying. Some barriers inhibiting older individuals from seeking health advice and/or treatment at GUM clinics have already been identified (including embarrassment and fear (Gott & Thin 1998), but little is known of the illness behaviours of older people with sexual health concerns presenting at primary care settings.

However, one factor that may deter older people from discussing sexual health concerns with health and social care professionals in all settings may be the attitude of professionals themselves. Indeed, Kligman (1991) writes that doctors often avoid mentioning sexuality with older patients because of the widespread belief that it is not important in later life and thus sexual histories are not routinely included in patient assessments of this age group. Furthermore, evidence exists that social workers experience similar barriers to discussing sexual health issues during their client assessments (Promoting Sexual Health and Well-Being Conference, Sheffield, October 1999). Therefore, education may be needed for professionals working with older people to encourage them to acknowledge the sexual health needs of their older patients and clients, and perhaps to overcome their own prejudices and stereotypes about later-life sexuality. Indeed, Kellett (1989) stresses that the inclusion of a discussion of sexual health issues into routine consultations can enable older people to discuss concerns they may not have raised themselves.

To conclude, a note of caution must be offered regarding the extent to which it is possible to generalise from the current study to the population as a whole. Firstly, it must be recognised that the participation bias in this study limits its generalisability. Indeed, given that those most under-represented within the sample (older, unmarried women) have been identified as the least likely subgroup of the elderly to be sexually active, it is likely that levels of current sexual activity, sexual risk-taking and GUM clinic attendance have been overestimated. Moreover, given the fact that only small numbers of participants were identified in subsets of risk-takers and individuals with sexual health concerns, the current data and tentative conclusions drawn regarding these groups, cannot be regarded as definitive. Instead, it is hoped that future research will build upon studies such as this one, as they provide evidence that sexual activity, sexual risk-taking and related sexual health issues, are features of later life.

Indeed, three significant factors can be identified that may increase interest in this area in coming years.

First, a greater priority is being given to the sexual health needs of older people at a policy level, through a specific mention of the needs of this group in the latest version of the government’s sexual health strategy. Indeed, this is one of the first mentions of older people within UK sexual health policy and, hopefully, signifies a change in attitudes towards later-life sexual health needs at this level. Given that one factor hindering the development of the current strategy for older people was the lack of evidence on which to base it (Adler, 2000, personal communication), it is to be hoped that further research will follow.

Second, the visibility of the sexual health needs of older people has been increased by the introduction of Viagra, the new clinically effective oral medication for erectile dysfunction. This dramatic rise in the potential to significantly increase levels of sexual activity within the older population, is likely to result in larger numbers of older people discussing sexual health issues with health and social care professionals. Within such discussions, it will be important for professionals to keep in mind the implications of increased levels of sexual activity within this population, one of which has been identified as the increased likelihood of contracting STIs (Paniagua 1999).

Finally, the expectations and behaviours of older people themselves are likely to change over time as successive cohorts age. Indeed, the opinion that ‘the older generation may have grown up with a belief that sex was something improper or unmentionable’ (Cranston & Thin 1998) has increasingly less validity when it is acknowledged that young adults from the 1960s (hardly an era of sexual prudery) are now in their sixties. Therefore, this growing older population will increasingly not conform to the stereotype of the ‘sexless older person’, nor allow themselves to be cast in this role.

References


PHLS AIDS and STD Centre (2000) and the Scottish Centre for Infection and Environmental Health *AIDS/HIV Quarterly Surveillance Tables* **46**, 00/1.


