A sexual health programme implemented in a psychiatric inpatient unit

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Abstract
Research has shown that people with a mental illness are an at-risk group for sexually transmitted infections. A programme for preventing risk behaviours for sexually transmitted infections among people with psychiatric disorder was designed and implemented by mental health occupational therapists. This programme used an interactive didactic approach to provide education and awareness of sexual health issues to acute psychiatric inpatients. Twenty-four participants completed a sexual health questionnaire, which was designed for this study, both before and after attending the programme. They had a higher than expected knowledge of sexually transmitted infections and safe sex practices at pre-test. The education programme resulted in a statistically significant but modest increase in sexual health knowledge. These findings indicate that there are benefits in providing sexual health education to clients with a mental illness. Further programme development should be directed towards sexual health decision-making and behaviour change.

Keywords
Mental illness, sexually transmitted infections


Introduction
Promotion, prevention and early intervention in mental health have been gaining increased attention over the last few years (Commonwealth Department of Health and Aged Care, 2000). Prevention relies on reducing risk factors as well as enhancing protective factors. The literature highlights that people with a mental illness are often at a higher risk of contracting sexually transmitted infections (STIs) than the general population (Thompson et al., 1997). The nature of mental illness can affect people's sexual behaviour. The sequelae of severe psychopathology such as poor social problem solving and impulse control skills, difficulty establishing stable social and sexual relationships, lack of assertiveness, and cognitive disturbance may lead people to enter risk producing situations or hinder their ability to resist coercion (Kelly et al., 1995). Inappropriate treatment of an STI can lead to significant health issues such as sterility. This has the potential to impede a person's ability to fulfill life roles and goals as well as a general decrease in a person's well-being (Coverdale & Turbott, 1997; Coverdale, Turbott, & Roberts, 1997).

The current emphasis on prevention to address risks to health creates opportunities for occupational therapists to become increasingly involved in the development of risk reduction programmes. Occupational therapy has a focus on maximising individuals' occupational performance in the roles and occupations required in the course of daily life (Hagedorn, 2001). This article describes the development and evaluation of a sexual health programme for acute psychiatric inpatients. The study aimed to identify sexual health knowledge and identify whether attending the programme increased the participants' knowledge of safe sex practices and sexual health.

Literature review
Risk
Risk has been defined by the World Health Organisation (WHO, 2002) as a probability of an adverse outcome, or a factor that raises this probability. Human perceptions of and reactions to risk are shaped by past experiences and by information and values received from such sources as family, society and government (WHO, 2002). Unsafe sex is one of the 10 leading risk factors globally (WHO, 2002). Risk factors in the area of sexual and reproductive health can affect well-being in a number of ways. The largest risk is that posed by unsafe sex leading to infection with HIV/AIDS (WHO, 2002). Other adverse outcomes may include other STIs, unwanted pregnancy or the psychological consequences of sexual violence (WHO, 2002). Aspects of high-risk sex include the number of sexual partners, the rate of change of sexual partners, who the sexual partners are, and the types of sex acts involved (WHO, 2002).
Factors associated with risk among people with a mental illness

Individuals with serious mental illnesses constitute an important risk group for STIs. Thompson et al. (1997) provided evidence that those with serious mental illness have higher rates of participation in risk behaviour than those in the general community. Coverdale and Turbott (2000) postulated that some of the factors that contribute to service users’ vulnerability to engage in these risk behaviours include deficits in the knowledge about how infections are transmitted and prevented and a susceptibility to be coerced into unwanted sexual activity. Other factors may include limited impulse control related to having a mental disorder, difficulties establishing stable social and sexual relationships, and comorbid drug and alcohol use, as well as impaired autonomy during the course of the illness (Coverdale & Turbott, 2000).

Kalichman, Kelly, Johnson and Bulto (1994) conducted structured interviews with 95 people with enduring mental illness to investigate the prevalence of HIV risk behaviours. The results found that 27% of all service users had had two or more sex partners in the previous year and 18% had received money or drugs for sex. In addition, the participants were unlikely to use condoms, frequently reported a history of STIs, and frequently used alcohol and drugs in conjunction with sex. Half of the participants indicated that their most recent sexual encounter had been with persons unfamiliar with them. The results suggested that a substantial number of psychiatric service users engage in high-risk sexual behaviours in the context of unstable and often transient relationships. Similar findings have been reported in a number of studies (e.g., Cournos, McKinnon, Meyer-Bahlburg, Guido, & Meyer, 1993; Kelly et al., 1995; Thompson et al., 1997).

Approaches to risk reduction

Focusing on risks to health is the key to prevention. Kalichman et al. (1994) recommended that risk-producing characteristics of service user relationships and social networks should be addressed in the development of prevention interventions. Coverdale and Turbott (2000) considered it a priority to develop programmes for preventing risk behaviours for STIs among people with a psychiatric disorder. Steiner, Lussier and Rosenblatt (1992) believed that the first step in addressing the problem of high-risk behaviours of psychiatric service users is education where the information provided needs to be direct and concrete. Identification of high-risk activities is essential in designing targeted intervention strategies (McKinnon et al., 1993; Steiner et al., 1992).

Methods of eliciting information about high-risk situations have included taking a risk behaviour history (McKinnon et al., 1993), focus groups (Robinson, 1999), groups using written self-report (Kalichman et al., 1995) and interview administered survey questionnaires (Thompson et al., 1997; Steiner et al., 1992). Previous research has mostly focused on assessment of risk behaviours for HIV/AIDS infection amongst people with psychiatric disability (Carmen & Brady, 1990; Kelly et al., 1995; Sacks, Dermatis, Looser-Ott, & Perry, 1992; Volvaka et al., 1992). Carmen and Brady (1990) considered that clinicians should include risk assessment as part of the standard assessment procedures. They suggested that questions should include details of sexual behaviours, frequency of contact, gender of partners, condom use, STIs, and drug and alcohol use. By gathering this data, clinicians can actively engage the service users in changing risk behaviours (Carmen & Brady, 1990). Thompson et al. (1997) commented that attention to sexual health education and prevention has been inappropriately scant and that strategies to encourage safer behaviour are urgently needed.

Occupational therapy

According to Couldrick (1998a), enabling people to engage in activity that has value, meaning or purpose to them is intrinsic to occupational therapy. She suggested that sexual expression may be seen not only as an activity in its own right but also as an activity closely allied to social roles. A fundamental tenet of occupational therapy is holism. Holism unifies all aspects of an individual including his or her sexuality. The role of occupational therapy is to enable and empower people to achieve a personally acceptable lifestyle, with the goal of maximising health, well-being, and function (Couldrick, 1998a). A qualitative research project conducted by Couldrick (1998b) found that, although practitioners said that sexual expression should be included in the professional roles, there was a disparity between ideology and practice. A limited number of programmes for sexual health education have been described in the occupational therapy literature.

Sladyk (1990) developed a 45-minute programme entitled ‘Aids Education and Safe Sex’ for women in a state psychiatric facility. This programme consisted of a lecture and time spent discussing the myths that surround AIDS and the techniques of safe sex. She conducted an evaluation of each session using a pre-test post-test design to identify whether people attending the group showed improvement in their level of understanding. The results of the pre and post-tests showed that the test scores increased for all sessions and for every participant within each session.

Thompson (1991) designed, developed and implemented a sex education programme for people with a learning difficulty. The sessions were interactive and made use of role play, video and slide material. He considered that the success of the programme was due to the participants being encouraged to maintain confidentiality outside the sessions. They were encouraged to be open, and ample time was given to questions and topic discussions, and that staff participated fully in each session. We were unable to locate any examples of programmes developed by occupational therapists for use in an acute psychiatric inpatient unit.

Aims of the study

This study focused on individuals staying in a psychiatric inpatient unit and aimed to:

1. To identify level of safe sex practices and sexual health knowledge;
2. To identify whether attending the group increases participants’ level of knowledge on safe sex practices and sexual health; and
3. To identify whether attending the group improves intended behaviour change and sexual decision-making.

Method
Steps in setting up the programme
It has been acknowledged that probing for details concerning sexual risk behaviours can often make clinicians feel uncomfortable (Carmen & Brady, 1990). For this reason, it is important to determine which clinicians in the team feel comfortable with working in this area. It was felt that it would be best if two therapists, one male and one female, conducted the programme. Prior to establishing the programme, a number of steps were undertaken. These included:
1. Conducting a literature review;
2. Staff training in sexual health;
3. Ordering of resource material;
4. Consultation with a university research advisor;
5. Developing the group format; and
6. Developing a sexual health questionnaire.

Participants
The study used a convenience sample of people attending the acute psychiatric inpatient unit who willingly attended the programme. The participant sample consisted of 16 (66.7%) males and eight (33.3%) females. Ages of the participants ranged from 18 to 56 years with a mean age of 37. Twelve (50.0%) were single and 10 (41.7%) were either married or living with a partner. Thirteen (54.2%) were in receipt of a disability pension and 10 (41.7%) were receiving no benefits. Diagnoses included schizophrenia (7, 29.2%), bipolar affective disorder (6, 25.0%), depression (7, 29.2%), drug-induced psychosis (1, 4.2%), situational crisis (1, 4.2%), and other (1, 4.2%). The number of admissions ranged from one to 35 with a mean of 5.7.

All participants attending the programme were invited to participate in the study. Those not wishing to participate in the programme evaluation were not excluded from the group session. Participants were excluded from the project if:
a) They did not give informed consent; and
b) They failed to complete the programme, i.e. they left prior to the end of the session.

Design and instrumentation
A repeated design was used in this study. The survey questionnaire was administered by one of the group facilitators after obtaining the service user’s informed consent. This was completed prior to commencement of the session. The researcher read the questions to service users who required assistance. The survey questionnaire was re-administered one-day post end of the group session.

The questionnaire was designed by the group facilitators in consultation with a research supervisor from the University of Queensland, following a review of the literature (for example, Coverdale & Turbott, 2000; Thompson et al., 1997). The first part of the questionnaire asks 26 questions that are a series of true/false statements that relate to the person’s knowledge of sexual health and safe sex (for example, condoms are very important for safe sex especially with a new partner). Participants respond dichotomously (Appendix 1). The second part of the questionnaire consists of seven brief scenarios about situations where a person might have sex. Five options are provided, ranging from high risk to low risk behaviours. Participants circle one response that is closest to what they would do in a similar situation. The following is an example of one of the scenarios:

Your partner has had an affair with another person. Your partner tells you, and you decide to remain in the relationship because you believe your partner will not do this again. Your partner wants sex now to make sure the relationship with you is really on again. What do you do?
1. Have unprotected sex now
2. Insist on HIV/STI testing prior to sex
3. Have protected sex now
4. Insist that because you still feel hurt that you do not want anything more than kissing and cuddling for now
5. Insist on further discussion to talk about feelings

The questionnaire was piloted to assist in determining how well it met the study objectives and to give feedback on the clarity of instructions and questions and the possible response options. Following feedback, some amendments were made to both parts of the questionnaire, in particular the response options for part two.

Questionnaire implementation
All inpatients attending the programme were asked to fill in the questionnaire surveying their attitudes and basic knowledge about sexual health topics prior to the commencement of the group. A follow-up administration of the questionnaire was carried out one day after the group.

Sexual health programme description
The sexual education programme, *Risky Business*, was designed for implementation in an acute psychiatric inpatient setting. Using a cognitive behavioural theoretical frame of reference, an education approach was chosen with the presumption that a greater understanding of knowledge will produce a behavioural change (Kalichman et al., 1995). A study conducted by Kalichman et al. (1995) found that participants in a brief group intervention based on risk education and skills instruction, demonstrated significant gains in knowledge and intentions to change risk behaviours.

The *Risky Business* programme utilises an interactive didactic, consisting of education and discussion, approach aimed at providing education whilst engaging service users. Information is provided in four progressive stages:
1. What is an STI?
2. How do you get an STI?
3. How do you prevent an STI?
4. Where to go for help regarding STIs?
Participants in the group are encouraged to be active members and ask questions through the use of discussion provoking questions relating to common myths regarding STIs. Some examples of these may be ‘Is thrush a sexually transmitted infection?’, ‘Can genital warts be contracted when using condoms?’ or ‘Is herpes a curable infection?’

In this type of group, it is essential that the group facilitators are well-informed about the subject material and are confident and assertive in their delivery style. As the programme is conducted within an acute psychiatric setting, the material presented in a session is flexible depending on the participants’ level of functioning. The programme is designed as a stand-alone session to run over a one-hour period in any closed environment. Table 1 gives an overview of the information presented.

The sensitive nature of the material covered required strong guidelines regarding appropriate comments to be set at the commencement of the group. This included reinforcing that the group was for educational purposes only and the sharing of information regarding personal issues was not encouraged. In addition, it was stressed that confidentiality should be maintained outside of the group session.

**Data analysis**

The data entered was entered progressively in Excel spreadsheet. This data was transported and analysed using SPSS for windows. The descriptive statistics reported include percentages, range and means. Tests of significance included an independent *t* test, a paired samples *t* test and a correlational analysis to test the association between variables.

**Ethical considerations**

Initially, this project was submitted to the mental health services’ research committee for approval of the project and feedback on the research design. Following minor amendments to design, the research committee approved the project and recommended that it be presented to the ethics committee. Ethical approval was then obtained from the hospital ethics committee.

**Results**

The analyses that were conducted to identify level of safe sex practices and sexual health knowledge pre and post attendance at the programme will be presented. For 24 participants, the mean test scores for the total correct answers pre-test group were 20.3 (*SD* = 3.7) and for the post-test group were 21.9 (*SD* = 3.2). The increase in total correct answers using the paired *t* test is statistically significant *p* = .015. There is a medium effect size of .535 for the significant paired *t* test.

Incorrect answers pre-test ranged from 0-17 and post-test 0-16. In examining the responses to the questions, there were 10 questions in which more than 25% of participants gave incorrect answers at pre-test, with six of these questions having more than 40% of participants giving an incorrect answer. Table 2 illustrates the questions, which at pre-test, 25% or more of the participants gave wrong answers.

Table 1 | Outline of the ‘Risky Business’ programme
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**WHAT IS AN STI** | **HOW DO YOU GET AN STI** | **HOW DO YOU PREVENT AN STI** | **WHERE TO GO FOR HELP**
**Viral:** | Unprotected sex | Protected sex (condoms only protect what they cover) | GP/Hospital
- HIV – Aids | Sharing: | Knowing your partner | Miami Sexual Health
- Genital Herpes | - Needles | Regular sex checks | Family Planning
- Genital Warts | - Towels/linen/clothing | Single partners/abstinence | Women’s Health
- Hepatitis: A,B,C,D,E | - Sex gadgets | Being assertive | Men’s Health (Brisbane)
**Bacterial:** | - Razors | Education/information | SQWISI
- Candidiasis (Thrush) | Lack of information/education | Being in control | 
- Epididymitis | Being intoxicated (non-assertive, lowered inhibitions) | Not sharing sex gadgets, needles, razors | 
- Gonorrhoea | Multiple partners | Observation | 
- Syphilis | One night stands | | 
- Chlamydia | Incorrect use of condoms, dams (oral sex) | | 
- Crabs/Scabies | | | |

SQWISI = South Queensland Workers in the Sex Industry
The total correct answers pre and post-group for males and females were examined to determine differences between the two groups. The mean total score for 16 males pre-group was 20.6 (SD = 3.4) and for 8 females was 19.8 (SD = 3.4). When these means were compared using independent samples t test, they were not found to be significant (t = .4, df = 22, p = .654). The mean total score for males post-group was 22.7 (SD = 1.8) and for females was 20.3 (SD = 4.8) was not statistically significant (t =1.7, df = 22, p = .09). It was found that males consistently scored higher in both the pre and post-test groups. Interestingly males showed greater increase in knowledge, however, this increase is not statistically significant.

Pearson’s correlations were then conducted to determine whether age had an influence on level of knowledge of safe sex practices pre and post group. The total number of correct scores was positively associated (r = .250) with age in the pre-test group, indicating that older participants had greater sexual health knowledge. In the post-test group total number of correct scores was negatively associated (r = -.297) with age, with younger participants gaining an increased amount of sexual health knowledge from the group.

Results for the scenario questions outlined above have not been reported here due to inconsistencies in the scoring method which were found upon analysis of the questions. Therefore, no information was gained concerning the third aim of the study, which sought to determine whether attending the group improved intended behaviour change and sexual decision-making. This will be discussed further in the discussion and limitation sections.

Discussion

Overall, the level of knowledge of sexual health and safe sex practices was higher than expected. Prior to the sexual education session, participants on average gave correct answers to 20 of the 26 knowledge questions. There were two items, (“you can get STIs from kissing, thrust is an STI”), for which a majority gave an incorrect answer in the pre-test. There were four additional items for which a substantial minority (over 40%) gave incorrect answers (STIs are easily treated, condoms are the only form of contraception that provide STI protection, herpes is easily cured, gonorrhoea is easy to catch).

At post-test, one item showed an increase in rate of incorrect answer (impact of STIs on fertility) but most other items for which there was a substantial incorrect response rate showed markedly higher correct response rate. It is likely that the increased tendency to identify thrust as an STI was an effect of the general sensitisation of the group to STIs. Although the increase in total knowledge scores was modest, this was partly the result of the high pre-test scores and the increase in rate of incorrect responses on the second item. The effect size is therefore probably an underestimate of the real impact of the session.

The findings from this study indicate that participation in a sexual health programme increased participants’ knowledge of safe sex practices and sexual health knowledge. Coverdale and Turbott (2000) postulated that some of the factors that contribute to service users’ vulnerability to engage in these risk behaviours include deficits in the knowledge about how diseases are transmitted and prevented. The interactive didactic approach utilised by Risky Business has been demonstrated to be an effective tool in increasing the knowledge relating to STIs of participants. The belief that this translates to an effective tool for decreasing risk taking behaviours of a sexual nature is supported by Steiner et al. (1992). They believed that the first step in addressing the problem of high-risk behaviours of psychiatric service users is education, and that the information provided needs to be direct and concrete.

Interestingly, males scored higher in knowledge of sexual health practices in both the pre-test and post-test groups than females. No explanation can be found in the literature for this finding. There was a positive correlation between age and total correct answers in the pre-test group but a negative correlation in the post test group. It is hypothesised that the younger age participants had a lower level of knowledge upon the commencement of the group but retained a greater amount of information from the group. There are a number of reasons this could be so. Due to a greater amount of life experience older participants may have more concrete ideas regarding sexual health matters and be less likely to change their beliefs based on one meeting. Similarly, they are more likely to question the facilitators’ knowledge base and will seek another opinion prior to changing. They may no longer feel that sexual health matters apply to them as they feel no desire to participate in sexual activity. The literature reviewed for this project was unable to shed any light on this finding. The authors of this paper believe that this area warrants further research.

Sladyk (1990) who ran a similar style program whereby information was given in a didactic form followed by discussions of the myths surrounding sexual health and techniques for safe sex also found that knowledge increased for each participant over each session. Further weight therefore is given to the hypothesis that an interactive didactic approach is an effective tool in increasing participants’ knowledge regarding sexual health matters in an acute inpatient setting.

As Coverdale and Turbott (2000) discussed, decreasing the deficit in knowledge regarding sexual health was just one part of the issue. Other aspects such as poor social problem solving and impulse control skills, difficulty establishing stable social and sexual relationships, lack of assertiveness, and cognitive disturbance also need to be considered. Observations of participants’ behaviour after the group and qualitative data collected utilising the scenarios on the questionnaire, suggest that the increase in knowledge may have limited effect in a real life situation where many variables influence a person’s decision making. Further evaluation and development is warranted to evaluate these other variables in effective education on safe sex practices.

Limitations

There were a number of limitations that must be noted. Primarily, there were difficulties with collecting data in an inpatient setting using a self-report questionnaire. The sample size was small which may limit the generalisability of the re-
sults. The inpatient population had high levels of acuity, which affected their concentration, frustration tolerance, and motivation to participate. Difficulties were also experienced with obtaining follow up data. This was mostly due to time factors, lack of willingness to complete the survey a second time, and client movement.

The design of the questionnaire was an issue. Even though the instrument had been piloted, it appeared as if some items in the second part of the questionnaire still remained ambiguous. The non-standardised method of scoring of the second part meant that it was difficult to interpret the responses. In addition, the instrument appeared not to be sensitive enough in the different degrees of risk in the response options. The knowledge items were more satisfactory, but the small sample size did not permit a reliability analysis. Furthermore, higher than expected pre-test scores made the instrument less sensitive to change than desirable. The item on impact of STIs on fertility changed in an unexpected direction suggesting that the wording may be too complex. Further development of the instrument is recommended prior to its wider research application.

Future research
As sexual prevalence increases in our society it is essential that we as occupational therapists are able to holistically address the needs of people with a mental illness. As Couldrick (1998a) stated, the role of occupational therapy is to enable and empower people to achieve a personally acceptable lifestyle, with the goal of maximising health, well-being, and function. Further research is needed to evaluate the change in behaviour associated with an increase in knowledge and awareness relating to sexual health matters. Research and development is needed in how to address negative symptoms that increase the prevalence of people with a mental illness to entering risky situations. There is also a need for a greater understanding of the sexual health issues of specific groups, in particular, gender specific groups and age specific groups.

Conclusion
The present study of a sexual health group for psychiatric inpatients has shown that there are benefits in providing sexual health education to this at risk group. The level of safe sex practices and sexual health knowledge of participants increased through participation in the group programme. Males showed a greater increase in their knowledge than females. Older participants had a greater knowledge of sexual health knowledge prior to the group but younger participants gained greater knowledge through attending the programme. Occupational therapists have a role to play in designing programmes aimed at risk reduction for vulnerable client groups who are at risk for STIs. It is essential that occupational therapists are holistic when working with people with a mental illness. This approach will assist clients maximise their health and well-being. It is our recommendation that further programme development take place in this area so that greater emphasis is placed on behaviour change and effective sexual health decision-making.

Appendix 1 Pre and post-test questionnaire
Below are a series of true/false questions that relate to your knowledge of sexual health and safe sex.

Please circle the answer you believe is to be the most correct.

1. Not all STIs (Sexually Transmitted Infections) have symptoms. You might have a STI and pass it on without knowing it.
   True  False

2. If an STI isn’t treated, it doesn’t really matter and you should still be able to have the same chance of having a child.
   True  False

3. It is not the end of the world if you get an STI. Most STIs are easily treated.
   True  False

4. A good definition of safe sex is protecting both your emotional and physical health
   True  False

5. Safe sex means just using condoms
   True  False

6. STIs will usually go away without treatment
   True  False

7. You can get STIs from vaginal, anal and oral sex
   True  False

8. Do you get STIs from kissing
   True  False

9. Only condoms offer protection from both unintended pregnancy and STIs even if you are using another method of contraception.
   True  False

10. Drinking alcohol or using other drugs may affect your ability to make safe sex decisions
    True  False

11. Thrush is an STI
    True  False

12. Condoms are very important for safe sex, especially with a new partner
    True  False

13. A person can contract HIV and other STIs from toilet seats and hand basins
    True  False
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14. A person can get an STI after having sex one time with a person who has a STI
   True False

15. Showering after sex can prevent you from getting a STI
   True False

16. A person must have many sex partners to get a STI
   True False

17. Oral sex is a totally safe method of sex
   True False

18. Herpes is easily cured
   True False

19. Gonorrhoea is very easy to catch
   True False

20. You can’t get a STI if you or your partner pulls out in time
   True False

21. Injecting drugs is one way you can contract a STI
   True False

22. It is OK to share sex toys
   True False

23. The more sexual partners you have the higher the risk of getting a STI
   True False

24. It is important to have a sexual health check, before and after each new sex partner
   True False

25. You can tell by looking at a person if they have a STI
   True False

26. Sharing towels is one way of contracting scabies
   True False

Key points
- People with a mental illness are an at risk group for sexually transmitted infections.
- Knowledge of sexual behaviours enables clinicians to implement strategies to change risk behaviours.
- Attendance at a sexual health education programme increased participants’ sexual health knowledge.
- Occupational therapists have a role in the further development of prevention intervention strategies that emphasise effective sexual health decision-making.

Acknowledgements
Thank you to the participants who took part in the study. Thanks are also due to the staff members who assisted in data collection, Scott Plumbridge, Nicole Lucas, and Philippa Critchley, and to Chris Foley for his administrative assistance.

This article is based on a presentation at the Occupational Therapy Australia Mental Health Conference, Brisbane, 2003.

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