NURSING PRACTICE

Success of a nurse led community based genitourinary medicine clinic for young people in Liverpool: review of the first year

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Sex Transm Infect 2006;**82**:318–320. doi: 10.1136/sti.2005.017947

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Accepted for publication 22 January 2006

Objectives: To assess the outcome and workload of a community based, nurse led comprehensive sexual health and contraceptive service for clients aged less than 25.

Methods: Review of appointment diaries and clinic records of clients who attended the Brook genitourinary medicine (GUM) clinic. The workload, case mix, and achievement of national targets in the first year of the service were compared with those for the same age group of clients attending the nearby hospital based GUM clinic. A limited client satisfaction questionnaire was carried out 8 months after the clinic opened.

Results: 1061/1700 (62.4%) clients (185, 17.4% male) attended booked appointments. *Chlamydia trachomatis* was detected in 16.1% of women and 20.5% of men at Brook ($p < 0.05$), where 22.6% of women and 50% of men had at least one sexually transmitted infection ($p < 0.001$). HIV testing was offered to 98.5% of clients. 60.7% of all identified contacts attended a clinic for testing and/or treatment. Client responses to a questionnaire about the service were very favourable. Only 2.3% of Brook GUM clients needed referral to a physician.

Conclusions: Nurse led community based GUM services, such as the one provided at the Merseyside Brook Centre, appeal to young people and our success should encourage others to consider similar ventures.

The incidence of sexually transmitted infections (STI) and attendances at genitourinary medicine (GUM) clinics have doubled in the United Kingdom in the past decade,¹ with highest rates in young people in London followed by the north west of England.² The National Strategy for Sexual Health and HIV emphasises the need for a variety of approaches to encourage safer sexual behaviour and increased access to comprehensive sexual health services.^{3–4}

The Merseyside Brook Centre has been providing advice on contraception and sexual health to women and men aged less than 25 in community settings in Liverpool since 1974.⁵ Audits of this service⁶ and others⁷ show that young women rarely attend hospital based GUM clinics for STI screening after referral from community based family planning clinics. To overcome this problem, a combined clinic approach or "one stop shop" has been advocated,^{8–12} and pilot studies of community based clinics for young people have been encouraging.^{13–14}

In 2003, the Merseyside Brook Centre was relocated and comprehensive community based GUM services were established alongside the existing sexual health services. We describe the success of the first year of this nurse led service. The aims and objectives were to compare service use and clinical outcomes with those in the adjacent hospital based GUM clinic.

METHODS

The centre⁵ is situated on the edge of the central shopping district of Liverpool, 5 minutes' walk from the main GUM clinic. In late 2003, two nurse led clinics a week were established with about 14 client visits per clinic, running alongside, but independent of, the family planning clinics. The clinic was established according to national guidelines and standards¹²; staff received extra training,¹⁵ a level 2 containment laboratory¹⁶ was established in the centre, and clinical and governance protocols follow national reporting standards.^{17–20} A full range of STI testing is available and routine contraception can be issued at the same visit. A GUM

based consultant physician provides overall medical supervision and is available for immediate consultation by telephone. (More detail about setting up the clinic is available online at www.stijournal.com/supplemental, appendix A.)

A client satisfaction questionnaire was administered 8 months after the clinic opened, using a single sheet of paper with eight closed questions and three open ended questions (www.stijournal.com/supplemental, appendix B). All clients attending in a 3 week period were invited to fill in the questionnaire anonymously while waiting for their laboratory results, and to leave it in a box at reception when leaving clinic. Results of routine case note audit¹² were not specifically recorded for this paper.

The workload of the clinic was compared with clients under the age of 25 attending the hospital GUM clinic. Outcome measures were the number, age, and gender of clients attending or failing to attend first and follow up appointments, the proportion offered and accepting HIV tests, and the proportions with diagnoses of different STIs. Univariate comparisons of data were performed by χ^2 (with Yates's correction if necessary) or Fisher exact tests, using the freeware epidemiological software package Epi-Info v 6.04d. A qualitative summary of outcomes of regular unit review meetings was combined with the client satisfaction survey to identify local changes that were needed and to highlight lessons for others who might wish to provide such services.

RESULTS

From 20 January 2004 to 19 January 2005 inclusive, 1061/1700 (62.4%) clients attended booked appointments in the Brook GUM clinic. Of 877 new client episodes, 731 (83.3%) were female, and this proportion decreased from 194/208 (93.3%) in the first 3 months to 154/213 (74.4%) in the last 3 months ($\chi^2 = 30.84$, $p < 0.001$). Of the 877 new

Abbreviations: DNA, did not attend; GUM, genitourinary medicine; STI, sexually transmitted infections

Table 1 Client attendance, uptake of testing, and main diagnosis in all clients aged under 25 between 20 January 2004 and 19 January 2005 at community based (Brook) and hospital based (RLUH) GUM clinics

	Brook GUM n/N (%)	RLUH GUM n/N (%)	χ^2	OR (95% CI)	p Value
Number attending	1061/1700 (62.4%)	13849/19071 (72.6%)	80.27	0.63 (0.56 to 0.7)	<0.001
First appointment					
New clients	849/1061 (80.0%)	4798/13849 (34.7%)			
Old clients	28/1061 (2.7%)	4527/13849 (32.7%)			
Total new episodes	877/1061 (82.7%)	9325/13849 (67.3%)	107.12	2.31 (1.96 to 2.73)	<0.001
Proportion female	731/877 (83.4%)	5554/9325 (59.6%)	34.76	1.5 (1.31 to 1.73)	<0.001
Proportion new clients	849/877 (96.8%)	4798/9325 (51.5%)	332.52	3.9 (3.33 to 4.57)	<0.001
Accept STI screen	823/877 (93.8%)	6805/9325 (72.9%)	185.02	5.64 (4.24 to 7.54)	<0.001
Offered HIV test	864/877 (98.5%)	6336/9325 (67.9%)	360.76	31.35 (17.7 to 56.73)	<0.001
No abnormality	259/877 (29.5%)	3211/9325 (34.4%)	8.58	0.8 (0.68 to 0.93)	0.0034
No STI	639/877 (72.9%)	4883/9325 (52.4%)	135.64	2.44 (2.09 to 2.86)	<0.001
Females					
No abnormality	205/731 (28.0%)	1862/5554 (33.5%)	8.79	0.77 (0.65 to 0.92)	0.003
No STI	566/731 (77.4%)	3534/5554 (63.6%)	54.23	1.96 (1.63 to 2.36)	<0.001
Bacterial vaginosis	172/731 (23.5%)	687/5554 (12.4%)	68.18	2.18 (1.8 to 2.64)	<0.001
Candidiasis	225/731 (30.8%)	985/5554 (17.7%)	70.71	2.06 (1.73 to 2.46)	<0.001
Chlamydia	118/731 (16.1%)	753/5554 (13.5%)	3.61	1.23 (0.99 to 1.52)	0.057
NSU	–	–			
Gonorrhoea	31/731 (4.2%)	132/5554 (2.4%)	8.89	1.82 (1.2 to 2.75)	0.0029
Warts	53/731 (7.3%)	438/5554 (7.9%)	0.31	0.92 (0.68 to 1.25)	0.58
Herpes	1/731 (0.1%)	76/5554 (1.4%)	7.11	0.10 (0.01 to 0.66)	0.0077
Syphilis	0	3/5554 (0.05%)	NA		
Males					
No abnormality	54/146 (37%)	1349/3771 (35.8%)	0.22	1.09 (0.76 to 1.55)	0.64
No STI	73/146 (50%)	1349/3771 (35.8%)	12.3	1.8 (1.27 to 2.53)	<0.001
Chlamydia	34/146 (23.3%)	569/3771 (15.1%)	7.25	1.71 (1.13 to 2.57)	0.007
NSU	27/146 (18.5%)	670/3771 (17.8%)	0.05	1.05 (0.67 to 1.64)	0.82
Chlamydia plus NSU	61/146 (41.7%)	1239/3771 (32.8%)	5.05	1.47 (1.03 to 2.08)	0.025
Gonorrhoea	8/146 (5.5%)	123/3771 (3.3%)	–	1.72 (NA)	0.11*
Warts	9/146 (6.2%)	422/3771 (11.2%)	3.63	0.52 (0.25 to 1.06)	0.057
Herpes	2/146 (1.4%)	18/3771 (0.5%)	–	2.90 (NA)	0.17*
Syphilis	0	7/3771 (0.2%)	NA		

RLUH, Royal Liverpool University Hospital; NSU, or non-specific urethritis; OR, odds ratio; 95% CI, 95% confidence interval; p, probability. *Fisher exact tests.

client episodes, 47 (5.36%) were aged under 16 (two male, 45 female), 452 (51.5%) were 16–19 (74 male, 378 female), and 378 (43.1%) were 20–24 years old (70 male, 308 female).

STI testing was accepted in 823/877 (93.8%) new client episodes. The 54 (6.2%) clients who deferred testing had either urine testing for chlamydia or were treated for obvious genital warts. In all, 259 (29.5%) had normal STI tests, rising to 639 (72.9%) if clients with non-sexually transmitted conditions such as bacterial vaginosis and candidiasis are excluded (table 1). Overall, 238 (27.1%) had at least one STI, including 37 (4.2%) who had two or more concurrent STIs. Males at Brook were more likely than females to have any STI (OR 3.43, 95% CI 2.34 to 5.04, $p < 0.001$), especially *C. trachomatis* and/or non-specific urethritis (table 1).

Three hundred and twenty five (37%) of 864 Brook clients accepted HIV testing and a further 89 (10.1%) clients would have had one, except that it was too early for the test to be performed. Only eight (9%) of these clients returned after the “window period” had elapsed. Syphilis serology testing was accepted by 361 (41.8%) of 864.

Partner notification was discussed with all clients diagnosed with a sexually acquired infection. Routine audit 9 months after the Brook GUM clinic opened showed that 48 (60.7%) identified contacts had attended a clinic in Merseyside for testing and/or treatment in the first 6 months of the clinic's operation.

Nurse practitioners contacted medical staff for advice about 38 (3.6%) clients: 18 (2.1%) were managed on site after telephone advice and 20 (2.3%) were referred to the hospital based GUM clinic for medical review.

The main problem discussed at governance review meetings was the increasing waiting time for new appointments, which was an average of 5 weeks after the first 6 months, associated with a “did not attend” (DNA) rate of 200/484 (41.3%) in the

second 3 month period. The patient satisfaction questionnaire was returned by 61/65 (93.8%) clients. In general, comments about staff, the clinic, and the overall service were very favourable (data not shown), but 3/65 were dissatisfied with the long waiting times for a first appointment. Subsequently, appointments could only be booked 1 week in advance. There was a corresponding fall in DNA rates to 89/368 (24.2%) in the final quarter ($\chi^2 = 27.4$, $p < 0.001$).

DISCUSSION

In the first year of this clinic, the uptake of STI testing by a young and often chaotic client group was over 62%. The service exceeded national targets, with less than 7% of clients declining STI tests, 98.5% being offered HIV testing (target >39%),³ and over 60% partner attendance (target >49%).²⁰ These targets have been achieved in a community based setting by non-medical staff, with only 2.3% of clients needing onward medical referral.

The overall pattern of STI diagnoses made is similar to that seen in the same age group of clients attending the hospital GUM clinic. Word of mouth advertising alone may have been a factor in the gradual increase in male attendances from 7% of attendances in the first quarter to almost 28% in the last quarter.²¹ As more males attended the Brook GUM clinic, presumably the young women who could not receive appointments had to go elsewhere. It is unclear from our retrospective review whether any of these clients would have attended the hospital GUM clinic, and this aspect of service use will be included in future service user questionnaires, together with attitudes to provision of separate sex clinics.

The client satisfaction questionnaire was brief and was designed without user involvement. However, it was returned by 94% of a small but sequential sample. In future we hope to

Key messages

- Nurse led community based GUM services appeal to young people
- Case mix is similar to that seen in a hospital based GUM service
- This model can be combined with existing community reproductive health services
- Almost all clients can be managed by a specialist nurse without medical staff on site

use more rigorous methods of assessment of clients and staff satisfaction.^{22–23}

The clinic was able to respond to the backlog of appointments that had developed, resulting in increasing non-attendance, and which improved with stricter control of new appointment bookings. This is clearly recognised in national strategy, which emphasises the need for clinic access within 48 hours.⁸

Others have recently published their experiences of running combined community based sexual health clinics in a Brook Centre in Withington,²⁴ a family planning centre in Lewisham,²⁵ and a service for young men within a Brook Centre in Brixton.²⁶ In common with these and with preliminary reports from centres in Birmingham and Morecambe,^{13–14} our clinic has been particularly successful in attracting and treating clients with at least as high a prevalence of STIs as in the local GUM clinic, including those aged less than 16, and an increasing proportion of males.

Routine GUM consultations can be carried out by nurses as effectively as by doctors,^{27–29} and clients are just as likely (or unlikely) to attend for STI testing after referral from a family planning clinic by doctors or by nurses.¹³ Our experience confirms that a combined sexual health clinic can be run by nurses for a young healthy group with uncomplicated STIs, with minimal need for medical intervention, and perhaps treating clients who would not have attended another service. Partnership is essential between such clinics and adjacent NHS services, as each is part of a wider network for partner notification and follow up.

Our conclusion is that nurse led community based GUM services, such as the one provided at the Merseyside Brook Centre, appeal to young men and women who need testing and treatment. Nurse led clinics have been successful elsewhere³⁰ and we encourage others to consider similar ventures.

ACKNOWLEDGEMENTS

All staff of Merseyside Brook Clinic and the GUM clinic of the Royal Liverpool University Hospital for assistance and support.

CONTRIBUTORS

The study was planned by all authors as part of service development. All authors contributed to patient management and data collection. The manuscript was drafted by KJ and BAB, and all authors contributed to subsequent revisions and agreed the final version; KJ is the guarantor for the paper.

There are appendices on the STI website at www.stijournal.com/supplemental

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Funding for this study: nil.

Conflicts of interest: none.

Ethics approval not required.

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