

Youth Friendly Services? Using simulated clients to evaluate sexual health services in urban South Africa

Background

In South Africa, HIV prevalence among young women (aged 15-24 years) in 2011 was 12% and among young men was 5%[1]. Half of women in South Africa have given birth by the age of 20 years and two thirds of adolescent (15-19 years) pregnancies are reported as unwanted[2]. A fear of judgmental attitudes of healthcare workers has been reported as a barrier to the use of a range of health services in South Africa[3,4,5,6,7]. A number of international organisations have called for the development of youth-friendly health services worldwide but few such interventions have been scaled-up or evaluated from young people's perspectives[8,9,10,11,12].

The Youth Friendly Services (YFS) programme in South Africa is one of the few to have been scaled up. The Department of Health took over the management of this programme from the loveLife non-governmental organisation in 2006. Between 1999 and 2006 loveLife managed this programme under the name of the National Adolescent Friendly Clinic Initiative (NAFCI) as one component of a national HIV prevention campaign. The Department of Health now manages the clinic-based part of this programme, comprising training healthcare providers and facility accreditation, terming it the YFS programme[13,14]. The Department of Health aims to have 70% of primary healthcare facilities implementing the YFS programme by 2012/13[15].

Earlier work, identified the YFS programme as a successful model of how to implement a youth-friendly clinic programme within a public health system[14]. However, previous evaluations of this programme focussed on the attainment of pre-defined standards that included those relating to the types of services provided, policies supporting adolescents' rights to healthcare and the clinic environment, with just one study conducted in 2005, investigating adolescents' experiences of the services[16,17,18,19]. In addition, no evaluations of this programme have taken place since the Department of Health took over its management. There was a need to investigate young people's experiences of the YFS programme in South Africa, which was the aim of this study. The hypothesis was that if this programme were successful, primary healthcare facilities that provided the YFS programme would deliver a more positive experience to young people than primary healthcare facilities that did not. The first objective therefore was to investigate whether clinics providing the YFS programme delivered a more positive experience to young people than clinics not providing this programme. The second objective was to elucidate the characteristics of more and less positive experiences.

Methods

A mixed methods simulated client method was used to address these objectives. The simulated client method is a method where the healthcare provider is not aware that a given client is participating in a research study. Direct observation of client-provider interactions raises issues of privacy and confidentiality as well as potentially introducing bias; healthcare providers who know their performance is being evaluated may perform better than they would were they not aware that they were being observed[20]. Even where the provider is not aware that an observer is evaluating their performance, the presence of an additional person during a consultation may change aspects of the interaction[21]. Direct questions asked of health workers test whether healthcare workers know what they are meant to do, rather than what they actually do in practice[22]. Patient exit interviews remove observation bias but may be subject to recall bias as well as to reluctance to report poor healthcare provider performance, particularly if exit interviews are conducted at or near the health facility. Exit interviews also raise issues of privacy and confidentiality.

In the simulated client method the healthcare provider is not aware that a given client is participating in a research study. Simulated clients can be trained to visit given health facilities, often with a pre-specified request and standardised symptoms or histories where appropriate. The use of simulated clients removes observation bias and issues of client privacy and confidentiality. In a study comparing three methods for gathering information on client-healthcare provider interactions, more thorough consultations were reported by clinicians or observed by researchers than were reported by simulated clients visiting the same clinicians without the presence of the researchers[23].

Sampling

Young people were recruited from the Birth-to-Twenty cohort and trained to visit publicly funded primary healthcare clinics in urban Soweto to request information on contraceptive methods or condom reliability. Full details of the cohort study design are described elsewhere[24,25]. Briefly, during the cohort enrolment period (23rd April to 8th June 1990) the aim was to enrol all singleton births that occurred during this period to residents of the Greater Johannesburg metropolitan area. 5449 singleton births were registered during the 7-week enrolment period. 3273 of these mother-child pairs met the inclusion criteria of being resident in the Greater Johannesburg metropolitan area for at least 6 months after the birth of the child and were enrolled into the cohort. Sixteen rounds of follow up have taken place between birth and age 20 years and assessments have been made of young people's growth and development, psychological adjustment, physiological functioning, school performance, and sexual and reproductive health, as well as community and school environments[24,25].

Fifteen of a total of twenty-nine primary healthcare facilities in Soweto were randomly sampled and each received three or four simulated client visits. Simulated clients were randomly selected from Birth-to-Twenty cohort participants who had reported sexual intercourse (debut) at <15 years of age or had a positive urinary leukocyte test at 13 years of age. These criteria were used to define eligibility for this study because they are two indicators (of many possible indicators) of a potential need to use health services which were collected by the cohort. Three male and four female simulated clients (all aged 22 years) were recruited. Simulated clients were not asked to visit the clinics located closest to their homes to minimise the chance of them being recognised, both for the integrity of the method and to minimise potential discomfort for simulated clients which might have resulted from visiting the clinics nearest to where they lived. Simulated clients received remuneration of 100 Rand for each clinic visit to cover travel expenses.

Informed consent was obtained from all simulated clients and from the nurse-in-charge at each of the primary healthcare facilities. Ethical approval was obtained from the ethics committees of the London School of Hygiene and Tropical Medicine and The University of the Witwatersrand. Permission to work with the health facilities was granted by the relevant provincial, and district health authorities

Simulated client scenarios

Pregnancy, sexually transmitted infections (STIs) (including HIV) and violence (which is often sexual or gender based) were the key areas targeted by the YFS programme service package, agreed upon by the national Department of Health, the NGO loveLife, and other stakeholders with the aim of improving young people's sexual and reproductive health[26]. For these reasons the scenarios developed for this study focussed on sexual and reproductive health. The simulated client scenarios focussed on requesting information rather than requesting contraceptives or HIV/STI tests. The latter had already been explored in a simulated client study in Cape Town and requesting contraceptive methods (other than condoms) would have limited the study by including only female simulated clients who were currently using or desired contraceptives. Including the experiences of young men, who are often missed from research on young people's sexual and reproductive health, was an important strength of this study design[27].

Female simulated clients were trained to request information on contraceptive methods. If asked which method of pregnancy prevention they were currently using, female simulated clients were trained to say they were using condoms but would like to know about other methods. Female simulated clients were also trained to ask what the next steps would be if they chose to start using a non-barrier method of pregnancy prevention. Male simulated clients were trained to ask how safe condoms were, saying that they had heard that condoms can break. If the healthcare worker did not offer a condom demonstration, male simulated clients were trained to request one, if they felt able to do so. If asked, both male and female simulated clients were trained to give their real age and to say: they couldn't afford to pay, that they had a boyfriend or girlfriend,

that they were having sex and that they did use condoms. Simulated clients were trained to say that they were using condoms to avoid putting the simulated clients and the healthcare workers in a situation where the young person identified themselves as being at risk of HIV or STI transmission, but refused an HIV test. Although healthcare workers providing thorough consultations would be likely to offer an HIV test, it was hypothesised that it might be more difficult for a simulated client who has reported not using condoms to refuse a test even if they did not wish to have one. In practice, few simulated clients were asked about their current contraceptive use, including their condom use.

In conjunction with a clinician and two research nurses, the authors agreed that a thorough response to either of these scenarios by a primary healthcare worker should include a discussion of correct and consistent condom use, including the offer of a demonstration of correct use, assessment of STI exposure, STI/HIV counselling and the offer of STI/HIV testing, or the offer of referral for these services. Demonstrations of correct condom usage should be offered to young women as well as young men. In addition to the discussion and demonstration of condom use, for female simulated clients, a thorough consultation would include discussion of injectable contraceptives, oral contraceptives and intra-uterine devices (IUDs).

Simulated client training comprised explaining the rationale for the study and the role of the simulated clients, an introduction to the scenarios for the clinic visits for discussion with the simulated clients, discussion of the debrief questionnaire to establish if questions were correctly understood, and role-plays with two research nurses.

Debrief questionnaires were administered to simulated clients in English after each clinic visit, on the same day. This questionnaire was adapted from the World Health Organisation's "Quality Assessment Guidebook: A Guide to Assessing Health Services for Adolescent Clients" which has been trialled in a number of studies[28,29]. This tool comprised questions relating to the clinic environment, the simulated client's interactions with staff, including non-clinical staff, and the content of the consultations. Closed questions from this tool, were combined with additional closed questions specific to the simulated client scenarios, and open-ended questions to elicit more information on the simulated clients' experiences in general. The debrief questionnaire was piloted with two research nurses and with all seven recruited simulated clients. The questions were generally well understood by simulated clients but some small changes to the language used to phrase the questions were made based on this piloting.

Data analyses

Descriptive statistics were generated for all variables at the clinic-level and all variables at the clinic visit level. Clinic-level variables were clinic size, clinic management authority and presence of a peer educator. Variables at the clinic visit level included those relating to characteristics of the simulated clients' interactions with the healthcare worker and other staff, the clinic environment, healthcare worker characteristics and simulated clients perceptions. Each of these variables was tabulated against YFS provision and tests of association conducted. Where any cell values were less than five, a Fisher's exact test was conducted, otherwise a Pearson's chi-squared test was conducted.

Because there were a large number of individual questions or potential outcomes, those which between them, were felt to capture information that would define a good experience overall were combined into a single measure of the simulated client's overall experience during each clinic visit. This single composite measure was derived through principal components analysis (PCA) using variables relating to the simulated client's interactions with staff and their consultation with the healthcare worker, the healthcare worker's characteristics and the clinic environment where there was evidence of correlation ($p \leq 0.1$) between these variables. The first component from the PCA showed a skewed distribution so was log transformed to provide a normally distributed variable for use as the outcome of interest. This variable is referred to hereafter as the clinic visit score .

A clinic visit with a larger clinic visit score corresponded to a worse experience than a clinic visit which had a smaller clinic visit score. The clinic visit with the smallest visit score of -4.71 had universally positive responses to the questions inputted into the PCA, whilst the clinic visit with the largest visit score of 2.47 had only three positive responses which related to: the consultation room being clean and affording privacy, and the healthcare worker being respectful.

Multiple visits were conducted by each simulated client conducted and received by each clinic. Multivariable multi-level linear regression models that accounted for clustering at both the simulated client and clinic levels were therefore used to examine the association between the provision of the YFS programme and the clinic visit score. Any simulated client or clinic characteristics which showed a crude association with the outcome at $p < 0.05$ in univariate, multi-level models were included in the multivariable multi-level model. Multivariable models accounting for clustering at either the clinic or the simulated client level were compared using the Akaike information criterion (AIC).

Responses to open-ended questions were transcribed verbatim into transcripts in Microsoft Word. Transcripts were coded into themes and sub-themes which were not predefined and could emerge from the data. A framework analysis matrix was constructed in Microsoft Excel, comprising all data relating to these themes and their sub-themes for each clinic visit[30]. Themes were examined between clinics providing a more and a less positive experience by comparing the themes from the 15 best and worst scoring consultations in terms of their clinic visit score. Themes were also compared between male and female simulated clients and data saturation, where no new themes emerged, was reached.

Results

Fifty-eight clinic visits were conducted, 30 by female simulated clients and 28 by male simulated clients. The study design was that each of the fifteen clinics would receive four simulated client visits and this was achieved for thirteen of the fifteen clinics sampled. Two clinics however only received three simulated client visits; following the dropout of one female simulated client from the study due to illness, and the limited availability of one male simulated client, it was not possible for these clinics to receive four visits whilst adhering to the protocol that each simulated client would only visit a given clinic once and would not be asked to visit the clinics nearest to where they lived.

Of the fifty-eight clinic visits conducted, two were dropped from the analyses because the simulated client did not follow the study protocol; in both of these cases the simulated client in question received refresher training. In one case a female simulated client divulged their participation in the study at the start of the consultation and in the other a male simulated client reported having asked *“to speak to someone in charge”* and having asked the healthcare worker *“how do you handle patients if they are unhappy”* when asked about the consultation, rather than asking how reliable condoms are.

Table 1 presents the clinic and simulated client characteristics of the fifteen clinics and seven simulated clients. Of the fifteen clinics sampled, eight were small (53%) and run by the local health authority (City of Johannesburg Department of Health). Gauteng Provincial Department of Health ran all seven large clinics. There were no medium-sized clinics. Approximately half (46%) of clinics provided the YFS programme (n=7) of which 5 (71%) were small, local authority clinics. Approximately a quarter of clinics had a peer educator working with them and in the community. Of the seven simulated clients recruited, four were female. All simulated clients were black and had mothers with secondary education. Two had mothers who were aged below 25 years, and one whose mother was aged <19 years at the birth of the simulated client. The simulated clients were not purposively sampled based on household socio-economic status (SES) and none of the simulated clients lived in households in the poorest SES quintile. Information on the household SES of one simulated client was missing (Table 1).

Table 1: Clinic and simulated client characteristics

Clinic Characteristics (N=15)	% (N)
<i>YFS Provided</i>	
Yes	46.67 (7)
No	53.33 (8)
<i>Clinic Size</i>	
Small (<6 nurses)	53.33 (8)
Large (>10 nurses)	46.67 (7)
<i>Clinic Authority</i>	
Local	53.33 (8)
Provincial	46.67 (7)
<i>groundBREAKER Peer Educator</i>	
Yes	26.67 (4)
No	73.33 (11)
<i>Simulated Client Characteristics (N=7)</i>	
<i>Simulated Client Gender</i>	
Female	57.00 (4)
Male	42.00 (3)
<i>Population Group</i>	
Black	100.00 (7)
<i>Maternal Education at Birth</i>	
Secondary	100.00 (7)
<i>Maternal Age at Birth</i>	
<19	14.29 (1)
20-24	28.57 (2)
25-29	28.57 (2)
30-34	14.29 (1)
≥35	14.29 (1)
<i>Household SES</i>	
1	0.00 (0)
2	28.57 (2)
3	28.57 (2)
4	0.00 (0)
5	28.57 (2)
Missing	14.29 (1)
<i>SES=Socio-economic status</i>	

More than 70% (n=43) of consultations were with a nurse or sister and more than 85% were with a female healthcare worker (n=49). Approximately equal numbers of the consultations that were with a male healthcare worker (n=7) were with male and female simulated clients. Almost a quarter of consultations were interrupted (23%, n=13), with five of these being interrupted on more than one occasion. In 75% (n=42) of cases there was a separate queue for family planning services. At visits conducted by female simulated clients, injectable contraceptives were the most commonly discussed method (86%), followed by oral contraceptive pills (82%). Condoms were discussed in only 41% of consultations with female simulated clients. Condoms were discussed in all but one consultation with male simulated clients.

More than half of consultations were rated as excellent by simulated clients and in more than 80% of consultations the simulated client felt comfortable talking to the healthcare worker and felt that the healthcare worker treated them with respect. However, at more than 20% of clinic visits simulated clients felt that their consultation would not be confidential and 20% of consultations were interrupted at least once.

Objective one

There was no evidence that clinics that provided the YFS programme delivered a more positive experience to simulated clients, than clinics that did not provide this programme, after adjusting for the effect of simulated client gender and healthcare worker age (which showed evidence for an association with clinic visit score in univariate models), and for the effect of clustering at the simulated client and the clinic level (mean difference in clinic visit score: -0.18, 95% CI: -0.95, 0.60, $p=0.656$) (Table 2). However, it is not surprising that no association was observed here as univariate results were also non-significant and furthermore, only one of the variables from which the clinic visit score was derived showed a statistically significant association with the provision of the YFS programme.

There was strong evidence that male simulated clients were more likely to give responses that resulted in a smaller clinic visit score, with a mean difference of -1.52 in clinic visit score between consultations conducted by male simulated clients and those conducted by female simulated clients. Thus male simulated clients had generally more positive experiences at their clinic visits than female simulated clients, adjusting for the effect of the provision of the YFS programme and healthcare worker age, and for the effect of clustering at the simulated client and clinic level.

There was also some evidence for an association between healthcare worker age and clinic visit score ($p=0.041$). For each one-unit increase in healthcare worker age the mean difference in clinic visit score was -0.59; consultations with older healthcare workers were more positive experiences than those with younger healthcare workers, adjusting for the effect of the provision of the YFS programme and simulated client gender, and for the effect of clustering.

The AIC values indicated that there was little difference in the amount of information lost when adjusting for clustering at the clinic level compared to adjusting for clustering at the simulated client level, and that both of these models explained similar amounts of clustering.

Table 2: Crude and adjusted multi-level models of the association between the provision of the YFS programme and clinic visit score

	Clinic Visit Score			
	Mean (SD)	Regression Coefficient	95% CI	P-value
<i>Univariate Multi-Level Model</i>				
<i>YFS Provided</i>				
No	0.06 (1.47)	Reference		
Yes	-0.13 (1.82)	-0.12	-0.86, 0.62	0.748
<i>Multivariable Multi-Level Model</i>				
<i>YFS Provided</i>				
No	0.06 (1.47)	Reference		
Yes	-0.13 (1.82)	-0.18	-0.95, 0.60	0.656
<i>Simulated Client Gender</i>				
Female	0.81 (1.06)	Reference		
Male	-0.93 (1.68)	-1.52	-2.65, -0.38	0.009
<i>Healthcare Worker Age</i>				
20-29	1.38 (0.67)			
30-39	0.02 (1.37)	-0.59	-1.15, -0.02	0.041
40+	-0.72 (2.01)			

Objective two

Five overarching themes emerged that related to: staff characteristics; institutional factors; thoroughness of the consultation; staff behaviour and simulated clients' reactions. The themes can be grouped into two categories; those relating to issues reported directly by simulated client and those related to how thorough the content of a consultation was, from a medical perspective.

Comprehensive information and counselling, including STI counselling and the offer of testing for those at risk or desiring it were not provided at any consultations. Adequate information on the full range of contraceptive methods (including condoms) provided by publicly-funded primary healthcare facilities was provided at less than a third of clinic visits conducted by female simulated clients (28%, n=8). Some information was given to male and female simulated clients in more than two thirds of consultations (68%, n=38); however, in three cases incorrect information was given. In 15 cases, information on some of the contraceptive methods that the Department of Health states should be available at public primary healthcare facilities was not provided. In one of these cases the information given was both medically incorrect and not provided on all methods.

To examine the characteristics that categorised more and less positive experiences for simulated clients, the themes from the 15 best and 15 worst scoring consultations in terms of the clinic visit score were compared. In the less positive consultations compared to the more positive consultations, more simulated clients experienced unnecessary questions or protocols, had consultations where the healthcare worker expressed negative opinions about the simulated client seeking information, were not given adequate information and experienced lack of privacy.

A common example of a medically unnecessary protocol was healthcare workers telling female simulated clients that they would have to wait to start using a hormonal contraceptive method until they were menstruating. The majority of female simulated clients were told that they would be required to return to the clinic and show their soiled sanitary products to 'prove' that they were menstruating and therefore unlikely to be pregnant. One female simulated client said: *"She said I must come immediately I have my period and that I will have to show them the pad as many girls are coming when they are not on their period and are lying."* Simulated Client 5 (female), Clinic 12. Another female simulated client reported that the healthcare worker told her that she would have to *"take off the pad to show you are bleeding"* in order to obtain contraceptives. Simulated Client 7 (female), Clinic 2. This is in spite of the South African National Contraception and Fertility Planning Policy and Service Delivery Guidelines making it clear that the timing of initiation of hormonal contraceptives should not be restricted to menstruation, and that doing so could act as a barrier to contraceptive use and would not terminate an existing pregnancy[31]. One female simulated client described how a clinic protocol made it obvious to other people that you had come to the clinic for family planning saying, *"when you come in you have to put your card in the family planning box and it even says 'Family Planning' on it so everyone can see."* Simulated Client 5, (female), Clinic 9.

Simulated clients perceived the healthcare worker to value them seeking information at the majority of the more positive consultations. Seeking information did not appear to be valued at the majority of the less positive consultations. A female simulated client described an interaction with a healthcare worker whose behaviour was positive and who appeared to value young people seeking information at the clinic. *"The nurse was friendly and seemed excited I'd come to the clinic rather than asking my friends and maybe getting wrong information. She had a smile and was asking 'do you understand?' so I felt comfortable."* Simulated Client 4 (female), Clinic 6. A male simulated client reported that *"She told me how to use them (condoms), what to do if they blast (break) and said that other young people should come to the clinic for information about condoms"* Simulated Client 2 (male), Clinic 6.

Negative attitudes towards seeking information were commonly experienced in the less positive consultations; simulated clients commonly perceived that healthcare workers felt they were *"wasting time"* by requesting information. Some female simulated clients were told to look at pamphlets rather than take up the time of the healthcare worker; *"When I told her I wanted information she said I should go outside and look at pamphlets."* Simulated Client 7 (female), Clinic 15. Another said *"she seemed like I was wasting her time asking questions when there were people waiting to be injected. I felt that I had to leave"* Simulated Client 4 (female), Clinic 10.

One male simulated client reported being turned away because giving contraceptive injections was prioritised over providing information. He said: *"When I said I wanted to ask about condoms she said that she doesn't have time because she has to see those young girls for injection. Then she just called to the other lady (patient) to come in so she can do pills and injections."* Simulated Client 2 (male), Clinic 12. In another case a female simulated client said that when she asked the healthcare worker for information regarding different methods of contraception *"she just watched me... then told me to wait until after others who needed pregnancy tests"*. Simulated Client 5, Clinic 4.

Both female and male simulated clients reported that healthcare workers expressed surprise at a young person of their age seeking information on contraceptives or condom reliability and the lack of knowledge that implied. One female simulated client reported that the healthcare worker *"looked at me in a weird way when I said I was 21 and wanted information."* Simulated Client 5 (female), Clinic 5. A male simulated client reported that when he asked for a condom demonstration the healthcare worker was surprised and asked *"you don't know how to use a condom?"* before giving a demonstration. Simulated Client 1, Clinic 2. Female simulated clients who had a child also reported that healthcare workers thought they should already know about prevention. One female simulated client described the healthcare worker's reaction to her request for information on methods of contraception: *"She said that I have a baby now, I should know better than getting information on prevention from here."* Simulated Client 5, Clinic 3.

In addition to seeking information not appearing to be valued, in the less positive consultations, information was sometimes not given at all, or the information given was incorrect. In several cases simulated clients left the clinic without being given information by a healthcare worker, either being told instead to look at the pamphlets outside the consultation room, or being told that the healthcare worker had no time to deal with people only seeking information.

Tests for HIV or other STIs were not offered in any of the consultations (100%, n=56) and HIV or other STIs were mentioned in just ten consultations. The simulated client scenarios were designed to include simulated clients reporting condom use if asked in order to avoid putting the healthcare worker and the simulated client in a situation where the simulated client identified themselves as at risk but then refused an HIV test. However, the offer of an STI test was still regarded as forming part of a thorough consultation as condom use may not be consistent.

Judgmental attitudes were often linked to healthcare workers not providing information. A common theme was that healthcare workers would not recommend pills, or provide information on this method, for young women. The majority of healthcare workers who emphasised injectable contraceptives did not provide young women with information or choice relating to other methods. One female simulated client described the following interaction with a healthcare worker. *"She asked if I had a child and when I said yes said I should use Petogen as it stays long (in*

the body). When I said I would like to use the pill she said she doesn't recommend tablets for me because 'you young people are careless and do sleepovers at boyfriends' houses and then it will be too late.'" *Simulated Client 5 (female), Clinic 4.* At another clinic this simulated client had the following experience: "When I came in she just stared at me. I said I wanted to ask about the different methods of prevention and before she answered she asked how old my baby is. When I was surprised and asked how she could know I had a child she said she could see it in my body. She said I should take Petogen and that we shouldn't go into the other methods. When I asked why she recommends Petogen injection she asked how old I am and said that they don't recommend pills for young people because they are careless. I said I am not a party person." *Simulated Client 5 (female), Clinic 3.* Despite this simulated client's assurance that she was responsible this healthcare worker refused to give any information on this method.

Lack of privacy was a common experience in the less positive consultations. Some simulated clients reported that other staff entering the consultation room interrupted their consultation with the healthcare worker. One male simulated client reported that "One of those guys from reception was busy coming in and out". *Simulated Client 2 (male), Clinic 12.* A female simulated client described what happened when another healthcare worker entered the room during her consultation: "The other person didn't even say hello to me, she just asked the sister 'what does this little girl want here?'" *Simulated Client 7 (female), Clinic 15.* Another female simulated client described how, during her consultation with one healthcare worker, another was "just there, leaning on the table, watching you." *Simulated Client 5 (female), Clinic 11.* In other cases multiple consultations took place concurrently, in a single room. "A girl came back with her urine for a pregnancy test so the nurse called a male nurse to help that girl and they sat in the same room as us." *Simulated Client 5 (female), Clinic 3.* Other consultations took place with only a curtain separating them from other consultations or the waiting area. One female simulated client described how there were three healthcare workers in the room during her consultation, one of whom "brought the next girl in because I was 'just asking questions' and attended to her with a sheet (curtain) separating us". *Simulated Client 5 (female), Clinic 4.* At another clinic this simulated client reported: "They said there was a shortage of rooms – there was just a curtain around where you see the person. Because of the curtain people can hear everything that is happening." *Simulated Client 5, Clinic 6.*

One simulated client reported that a healthcare worker interrupted another consultation to express judgmental attitudes "The girl in the other cubicle said she was 28 had four children and all five nurses exclaimed 'four!' The nurse I was talking to pulled back the curtain and said 'Four? You should have started with prevention not babies!' The girl was just looking down." *Simulated Client 5, Clinic 11.* A male simulated client reported being ridiculed when having to state the reason for his visit at reception. "There were two guys (at reception) and they treated me like a joke when I said I wanted to see someone for family planning. They said 'you must be joking? When I said 'No, I am serious' they said again, 'No, you must be joking!'" *Simulated Client 2, Clinic 12.*

More simulated clients at the more positive consultations (compared to the consultations that scored most poorly) reported positive healthcare worker behaviour in terms of the healthcare worker being friendly and knowing how to talk to young people, treating them with respect and appearing to value the simulated client seeking information. One male simulated client reported that he felt comfortable with the way the healthcare worker treated him because of *“the way she talks, she is so open and talked to me like I am a friend.”* Simulated Client 2 (male), Clinic 6. In another consultation this male simulated client reported that the healthcare workers *“respect you even if you are young and talk to you with a smile.”* Simulated Client 2 (male), Clinic 7. Another male simulated client would recommend one of the clinics he visited because he *“got the full attention of the nurse I went to see”* and felt that the staff at that clinic had been trained in how to provide youth-friendly health services *“because of the way they spoke to me”*. Simulated Client 1, Clinic 7. A female simulated client reported feeling comfortable with the way the healthcare worker had treated her *“because, when I went in she had a smile and greeted me very nicely. She knew how to talk to people and was very friendly.”* Simulated Client 4 (female), Clinic 7.

Being treated with respect was another characteristic more common at the more positive than the less positive consultations. One male simulated client reported that he felt the healthcare worker had treated him with respect because *“she wasn’t undermining anything I was saying.”* Simulated Client 2 (male), Clinic 5. A female simulated client said she would recommend one of the clinics she visited (which represented one of the more positive experiences) because *“they aren’t judgmental and you get what you need.”* Simulated Client 4 (female), Clinic 7.

The quantitative results indicated that on average, young men had more positive experiences than young women. In addition, male simulated clients conducted four fifths of the 15 clinic visits that scored most positively in terms of the clinic visit score and just a tenth of the 15 clinic visits that scored most poorly. Themes were examined by simulated client gender to explore whether male and female simulated clients had different experiences, or different priorities, in relation to seeking information from primary healthcare facilities. More male than female simulated clients reported that the healthcare worker they consulted knew how to talk to young people and treated them respectfully. This may reflect different experiences by male and female simulated clients, different expectations or both.

The use of visual aids was popular with both male and female simulated clients. One male simulated client reported being shown visual aids relating to STI symptoms saying: *“first she gave me a demonstration of how to take it out and how to put it on and so, how to avoid tearing it. Then she showed me some pictures of symptoms of STIs. Those pictures of STIs shocked me.”* Simulated Client 2 (male), Clinic 2. The use of visual aids was popular because *“she wasn’t telling me about something I couldn’t see, she took each one and showed it to me”*. Simulated Client 4 (female), Clinic 14.

Judgmental comments or attitudes relating to healthcare workers' opinions about young people and their behaviour were more commonly exhibited towards female than male simulated clients. One healthcare worker *"gave herself as an example; she said she uses pills as she is older than me but that I can't."* Simulated Client 6 (female), Clinic 9. Simulated clients were happy when healthcare workers did not express judgmental attitudes relating to their age. One simulated client reported that *"everything I asked she was giving to me. She didn't say 'oh, you are young, what do you want with that?'"* Simulated Client 6 (female), Clinic 1.

More female than male simulated clients complained that family planning services were combined with child-related services. One female simulated client described how the waiting situation made her uncomfortable: *"I had to sit with the pregnant women which made me uncomfortable when I had come for prevention. They should have a separate queue for family planning."* Simulated Client 5 (female), Clinic 10.

When female simulated clients were given choice, or offered oral contraceptive pills where previously they had only been offered injectable contraceptives, they reported being satisfied with the consultation, even when they had reported negative factors. One female simulated client reported that *"when I said I wanted to know about prevention she sighed and said 'oh, now I have to become a teacher' and she and the other woman (another nurse) laughed. After than she explained three types of pills and two injections and showed them to me. She explained how I should take the pills and gave me four packets. After she said 'ok, now I have to become a teacher' I felt down but then she explained everything and gave me the pills and said I didn't have to wait to take them so then I felt comfortable."* Simulated Client 5 (female), Clinic 7. In this case, lack of privacy and an initially negative attitude from the healthcare worker were offset in terms of the simulated client's satisfaction by the thorough information provided and the oral contraceptive pills given. This simulated client reported that she would go back to this clinic in the future because they had given her pills rather than the injection.

Discussion

Health facilities that provided the YFS programme did not deliver a more positive experience to young people than those that did not (mean difference in clinic visit score: -0.18, 95% CI: -0.95, 0.60, $p=0.656$). More positive experiences were categorised by healthcare workers being friendly, knowing how to talk to young people, treating them with respect and appearing to value them seeking information. Less positive experiences were categorised by unnecessary protocols, healthcare workers who expressed negative opinions about young people seeking information, lack of privacy and inadequate information.

The findings did not support the hypothesis; health facilities that provided the YFS programme did not deliver a more positive experience to young people than primary healthcare facilities that did not provide this programme. However, at six of the seven clinics classed as providing the YFS programme by the Department of Health, the nurse-in-charge reported that the clinic had not been involved with either the NAFCI or YFS programmes. This discrepancy may explain the lack of evidence for an association between the provision of the YFS programme and these outcomes.

The behaviour and attitudes of healthcare workers were the most important characteristics in terms of whether young people experienced a consultation as more or less positive. These results are in line with the findings of the World Health Organisation's Global Consultation on Adolescent Friendly Health Services and other studies about young people's ideas about how to make health services more youth-friendly. Young people put more emphasis on the ethos of the health service and the friendliness of the staff than on technical competence or the age of healthcare workers, and the two most valued characteristics are attitudes of staff and confidentiality[32,33].

That improving services for young people should focus on changing attitudes rather than addressing more structural issues has been reported in other studies in sub-Saharan Africa[33,34]. However, these findings represent an important addition to knowledge because the YFS programme is one of the few youth-friendly health services interventions worldwide to have been scaled-up. Although this programme does focus on training healthcare workers to provide youth-friendly health services, the results presented here indicate that there remains a need for improvements in healthcare workers' capacity to deliver positive healthcare seeking experiences to young people.

Strengths and limitations

A strength of this study was the use of the simulated client method which allowed the realities of young people's experiences of seeking information at clinics that provided and did not provide the YFS programme to be captured. Using simulated clients also reduces social desirability bias that may occur when providers know they are being evaluated, and avoids issues of privacy and confidentiality that would arise when interviewing real clients. Covert audio recording of consultations by simulated clients has been shown to be feasible in Tanzania[35]. This would allow triangulation of results and would facilitate evaluation of the simulated client method. However, it would also raise further ethical issues around the privacy and confidentiality of healthcare workers and was beyond the financial means of this work. In addition, whilst the validity of results from the simulated client method may be enhanced by triangulating self-reported measures with data from covert audio recordings of consultations, what young people remember about consultations with healthcare workers is arguably more important than what actually happened, as it is this that will influence whether they are willing to use these services again in the future[22,36]. Including the experiences of young men, who are often missed from research on young people's sexual and reproductive health, was another strength[27].

The Birth-to-Twenty cohort database provided a practical sampling frame for the identification of potential simulated clients. However, there were several limitations relating to the selection of the simulated clients. One limitation was that, due to their recruitment through the Birth-to-Twenty cohort, simulated clients were all the same age (22 years) and towards the older end of the target age group of the YFS programme (age 10-24 years). Ethical approval was not granted to recruit adolescents below 18 years of age to act as simulated clients. However, the experiences of younger adolescents, and the relative importance of the characteristics that categorise a more or less positive experience, may differ from those of older youth. Simulated clients were also not selected based on their household's SES and no simulated clients lived in households in the poorest household SES quintile. These results therefore may not be generalisable to the experiences of younger adolescents or young people living in the poorest households who may experience more negative attitudes from healthcare workers.

In addition, given their long-standing involvement with the Birth-to-Twenty cohort, which has involved repeated interactions with research nurses, simulated clients may represent a more confident sub-group of young people in terms of interacting with healthcare workers. This may have introduced bias; simulated clients may potentially have had more positive experiences than young people who had not been involved with a birth cohort would have had. However, a wide range of experiences were described by the simulated clients, the characteristics of more and less positive experiences are in line with other studies, and data saturation, where no new themes emerged, was reached, lending confidence in these results. Finally, given the small number of simulated clients (n=7) they may, just by chance, not have been representative of the population from which they were drawn.

Recommendations

The factors identified as categorising more or less positive experiences for young people could help inform the development of the YFS programme. In this study, more positive experiences were categorised by positive healthcare worker behaviour. Less positive experiences were characterised by unnecessary protocols, lack of privacy, inadequate information and healthcare workers not appearing to value young people seeking information. The need to promote integrated STI and contraceptive services can be seen from the finding that tests for HIV or other STIs were not offered in any consultations and that HIV or other STIs were mentioned in just ten consultations.

Improving interactions between healthcare workers and young people, removing barriers to obtaining complete information and choice in relation to contraceptive methods, and ensuring STI services are integrated into contraceptive consultations will be important areas to focus on in the future to improve health services for young people. Where healthcare workers were friendly, respectful, knew how to talk to young people and appeared to value them seeking information, young peoples' experiences were more positive, suggesting that where training results in positive changes to healthcare workers' attitudes and behaviours, young people's experiences of health services could be improved.

A key issue will be providing effective training to all healthcare workers given resource constraints. In estimating the resource needs for scaling up youth-friendly health services in 74 low- and middle-income countries, including South Africa, Deogan et al. estimated that training alone would account for more than 13% of the total costs of scaling up youth-friendly health services[37].

Studies from high- and low-income countries have identified some health services as being less friendly to young men than young women, including those designated as adolescent or youth-friendly[38]. However, in these results young men were more likely to experience more positive consultations than young women. It may be that young men had lower expectations than young women in relation to their consultations, or that, given the small sample size (n=7), the young men sampled were generally more positive than the young women sampled, but this finding warrants further investigation.

The commitment to the provision of health services to young people that the YFS programme policy reflects is positive. However, further research in the form of process evaluations will be required to help to establish whether a lack of observed impact represents the YFS programme as an ineffective intervention, or an intervention that has not been well implemented[39]. Based on the high proportion of facilities classed as providing the YFS programme by the Department of Health but where the nurse-in-charge reported that this programme was not provided, a lack of implementation of the YFS programme seems to be a likely explanation in this setting, although

this does not preclude the possibility that even with adequate implementation, this programme may prove to be ineffective.

Conclusion

The opportunities presented by the progressive Youth Friendly Services policy are not being capitalised upon; the impact of this programme on young people's experiences of using health services is limited. Approaches to increase the provision and impact of this programme should be considered.

References

1. UNAIDS (2012) Global Report: UNAIDS report on the global AIDS epidemic 2012. UNAIDS.
2. Panday S, Makiwane M, Ranchod C, Letsoalo T (2009) Teenage pregnancy in South Africa: with a specific focus on school-going learners.
3. Jewkes R, Gumede T, Westaway MS, Dickson K, Brown H, et al. (2005) Why are women still aborting outside designated facilities in metropolitan South Africa. *BJOG: An International Journal of Obstetrics & Gynaecology* 112: 1236-1242.
4. Jewkes R, Abrahams N, Mvo Z (1998) Why do nurses abuse patients? Reflections from South African obstetric services. *Social Science and Medicine* 47: 1781-1795.
5. Wood K, Maepa J, Jewkes R (1997) Adolescent sex and contraceptive experiences: Perspectives of teenagers and clinic nurses in the Northern Province. Durban, South Africa: Health Systems Trust.
6. Alli F, Maharaj P, Vawda MY (2013) Interpersonal relations between health care workers and young clients: Barriers to accessing sexual and reproductive health care. *Journal of Community Health* 38: 150-155.
7. Ndhlovu L, Searle C, Miller R, Fisher A, Snyman E, et al. (2003) Reproductive health services in KwaZulu-Natal, South Africa: A situation analysis study focusing on HIV/AIDS services. New York: Population Council.
8. World Health Organisation (2002) Adolescent friendly health services: an agenda for change. Geneva: World Health Organisation.
9. UNFPA (1995) International Conference on Population and Development (ICPD) (Cairo 1994) - Programme of Action. New York.
10. The African Union Commission (2006) Plan of Action on Sexual and Reproductive Health and Rights (Maputo Plan of Action). Maputo.
11. Resnick MD, Catalano RF, Sawyer SM, Viner R, Patton GC (2012) Seizing the opportunities of adolescent health. *The Lancet* 379: 1564-1567.
12. UNAIDS (2002) Summary of the Declaration of Commitment on HIV/AIDS. Geneva: UNAIDS.
13. loveLife (2008) Annual Monitoring Report. Sandton: loveLife.
14. Ashton J, Dickson K, Pleaner M (2009) The evolution of the National Adolescent Friendly Clinic Initiative in South Africa. Geneva: World Health Organisation.
15. Department of Health Republic of South Africa (2010) National Department of Health Strategic Plan 2010/11 - 2012/13. Pretoria: Department of Health Republic of South Africa.
16. Dickson KE, Ashton J, Smith J-M (2007) Does setting adolescent-friendly standards improve the quality of care in clinics? Evidence from South Africa. *International Journal for Quality in Health Care* 19: 80-89.
17. loveLife (2004) 2004 Report on activities and progress. Cape Town: loveLife.
18. loveLife (2007) HIV prevention in the Melmoth area, KwaZulu-Natal: an assessment of effects associated with loveLife's intervention. loveLife.

19. Matthews C, Guttmacher S, Fisher A, Mtshizana Y, Nelson T, et al. (2009) The quality of HIV testing services for adolescents in Cape Town, South Africa: do adolescent-friendly services make a difference? *Journal of Adolescent Health* 44: 188-190.
20. Lee RM (2000) *Unobtrusive methods in social research*. Buckingham: Open University Press.
21. Huntington D, Schuler SR (1993) The simulated client method: evaluating client-provider interactions in family planning clinics. *Studies in Family Planning* 24: 187-193.
22. Madden JM, Quick JD, Ross-Degnan D, Kalfe KK (1997) Undercover careseekers: simulated clients in the study of health provider behaviour in developing countries. *Social Science and Medicine* 45: 1465-1482.
23. Davey-Smith G, Mertens T (2004) What's said and what's done: the reality of sexually transmitted disease consultations. *Public Health* 118: 96-103.
24. Richter L, Norris S, de Wet T (2004) Transition from birth to ten to twenty: The South African cohort reaches 13 years of age. *Paediatric and Perinatal Epidemiology* 18: 290-301.
25. Richter L, Norris S, Pettifor J, Yach D, Cameron N (2007) Cohort Profile: Mandela's Children: The 1990 birth to twenty study in South Africa. *International Journal of Epidemiology* 36: 504-511.
26. Department of Health Republic of South Africa (2012) *National Adolescent and Youth Friendly Health Services Strategy 2012*.
27. Saewyc EM (2012) What about the boys? The importance of including boys and young men in sexual and reproductive health research. *Journal of Adolescent Health* 51: 1-2.
28. World Health Organisation (2009) *Quality assessment guidebook: a guide to assessing health services for adolescent clients*. Geneva: World Health Organisation.
29. Haller D, M, Meynard A, Pejic D, Sredic A, Huseinagic S, et al. (2012) YFHS-WHO+ questionnaire: validation of a measure of youth-friendly primary care services. *Journal of Adolescent Health* 51: 422-430.
30. Online QDA (2011) *Methodologies: Framework analysis*.
31. Department of Health Republic of South Africa (2012) *National Contraception and Fertility Planning Policy and Service Delivery Guidelines*
32. World Health Organisation (2001) *Global consultation on adolescent friendly health services. A consensus statement*. Geneva: World Health Organisation.
33. Erulkar AS, Onoka CJ, Phiri A (2005) What is youth-friendly? Adolescents' preferences for reproductive health services in Kenya and Zimbabwe. *African Journal of Reproductive Health* 9: 51-58.
34. Langhaug LF, Cowan FM, Nyamurera T, Power RM, The Regai Dzive Shiri Study Group (2003) Improving young people's access to reproductive health care in rural Zimbabwe. *AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV* 15: 147-157.
35. Larke N, Cleophas-Mazige B, Plummer ML, Obasi AIN, Rwakatare M, et al. (2010) Impact of the MEMA kwa Vijana adolescent sexual and reproductive health interventions on use of health services by young people in rural Tanzania: results of a cluster randomized trial. *Journal of Adolescent Health* 47: 512-522.

36. Schuler SR, McIntosh EN, Goldstein MC, Pande BR (1985) Barriers to effective family planning in Nepal. *Studies in Family Planning* 16: 260-270.
37. Deogan C, Ferguson J, Stenberg K (2012) Resource needs for adolescent friendly health services: estimates for 74 low- and middle-income countries. *PLoS One* 7: e51420.
38. Dehne KL, Riedner G (2005) Sexually transmitted infections among adolescents: The need for adequate health services. Geneva: Department of Child and Adolescent Health and Development World Health Organisation.
39. Rychetnik L, Frommer M, Hawe P, Shiell A (2002) Criteria for evaluating evidence on public health interventions. *Journal of Epidemiology and Community Health* 56: 119-127.