

Perceptions of the HIV counselling and testing programme by patients in a rural regional hospital in South Africa

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Background: Human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) have become a major public health challenge worldwide in the past few decades. The impact is felt in all sectors in South Africa, as in other parts of sub-Saharan Africa. Several health-related approaches have been adopted to facilitate an understanding of and reduction in the risk factors associated with HIV and AIDS. Following the demonstration of underperformance by the new voluntary counselling and testing (VCT) guidelines in South Africa, otherwise referred to as HIV counselling and testing (HCT), in providing practical suggestions on ways to optimally engage clients to ensure that testing for HIV is being performed, an evaluation to ascertain other patient-influencing factors on healthcare worker-initiated HCT was needed. Thus, the aim of this study was to describe patients' perceptions of the benefits of and barriers to HCT, and their willingness to test.

Method: One hundred and seventy-two patients referred for HCT were randomly selected over a three-month period. Data were collected by a research assistant using the modified standardised World Health Organization/ Health Global Access Project (HGAP) questionnaire.

Results: The majority of the participants demonstrated a good perception of the benefits of and barriers to HCT, and most reported good self-efficacy with regard to protecting themselves against HIV infection and preventing the acquisition thereof. However, only 74% were confident enough to test for HIV, while 28% reported being reluctant to notify their partners of their status if they tested positive, and 38% reported fear of healthcare workers showing discrimination as a barrier to HCT.

Conclusion: Despite excellent perceptions of the HCT programme, a significant association between participants' perceptions of HCT and their willingness to test for HIV was not reported ($p > 0.05$).

Keywords: AIDS, barriers, benefits, HCT, HIV, Perceptions

Introduction

Voluntary human immunodeficiency virus (HIV) counselling and testing (VCT) has the potential to bring HIV and acquired immune deficiency syndrome (AIDS) "into the open"; for people to talk about it freely, and for them to obtain information on the prevention of HIV infection and related management on a personal level.¹ This service already offers infected patients a means of detecting HIV, enabling them to seek medical intervention and to modify their lifestyle accordingly, while giving uninfected patients the chance of increasing their knowledge of HIV and antiretroviral therapy (ART).¹ VCT has also been identified as a vital HIV prevention strategy in serodiscordant couples, by affording early detection in one partner when the other partner may not yet have been infected.¹ VCT also acts as an entry point to the prevention of mother-to-child transmission of HIV programme, has the potential to reduce the burden of mother-to-child-transmission of HIV, and could form part of an ongoing support structure through continuing counselling sessions.¹

Following observations of several VCT sessions, and having reviewed the counselling guidelines, it appears that the new guidelines have not successfully offered practical suggestions on ways of engaging clients in more interactive discussions to ensure that widespread testing for HIV is being performed. At best, the VCT appears to have been designed to offer patients the option of deciding whether or not to attend VCT of their own accord. Even when they do resolve to attend, all that appears to be needed is their decision on whether or not to undergo an HIV test.

Therefore, this approach may have jeopardised an empirical evaluation of how VCT influences testing. Models such as a client-centred counselling approach, based on a counsellor and client relationship using "unconditional regard", have been known to create a longitudinal relationship during counsellor and multiple client sessions, as well as being unable to clarify clients' feelings without the imposition of an external assessment or values.² This relationship does not exist within the voluntary nature of the South African model of VCT, otherwise known as HIV counselling and testing (HCT).

Through our observations and a review of the guidelines of this model, it was demonstrated that it had limited success as clients were able to choose for themselves whether or not to undergo an HIV test, irrespective of the severity of their clinical condition. The only observable additional gain from the use of this HCT model in South Africa is that it provides a basis of referral as healthcare workers initiate the request for HIV testing by directing patients to the service point.

It is contended in this paper that the more people who perceive there to be few barriers to HCT and who understand its benefits, the more likely they will agree to an HIV test. Users' perceptions would be positively enhanced if they believed the programme to be an all-encompassing service, where any perceived myths are eliminated through presentation of the facts and knowledge, and the latter reinforced, if necessary. Therefore, their knowledge of the benefits of the programme would be further increased in

such a scenario or setting. There are still limited data on variable factors which influence patients' perceptions of the HCT programme, which would ultimately allow them to develop self-efficacy with respect to their behaviour, and which would be a positive cue for action with regard to participating in the HCT programme and having the intention of testing for HIV.³

Initiation of the HCT service by healthcare workers is one of the objectives of the South African HCT model. This is achieved by engaging with and requesting patients to participate in it, based on knowledge of their health information. This is performed in the hope that an increasing number of people will seek to determine their HIV status, and in so doing, obtain valuable information which will ultimately result in less people engaging in related risky behaviour. In turn, this would lead to decreased transmission of HIV infections. As people are tested for HIV, they realise that they are vulnerable to it, while simultaneously gaining knowledge of their HIV status. It was assumed that this knowledge would have a positive influence on clients' behaviour, and would lead to a reduced risk of infection, re-infection and/or infecting others.¹ The realisation of personal vulnerability to HIV infection assists patients to regard HIV in the same way they would other chronic infections, thereby decreasing the stigma associated with HIV and AIDS.⁴

Healthcare worker initiated HCT programmes may not have been very successful because despite the debilitating effects of HIV/AIDS, HIV testing of patients was only performed on a voluntary basis, irrespective of their clinical condition, or their likelihood of infecting others, particularly their partners. This voluntary component of HCT could be why many patients do not consent to being tested. There is considerable fear and discrimination against people who are HIV positive in many countries, and this is associated with resentment and anger.⁵ Faced with persistent discrimination, it is unlikely that people will choose to attend HCT, whether voluntary or healthcare worker initiated. Thus, they are also likely to infect others without knowing that they are doing so.⁵ There is tacit reluctance by the South African government, in particular, to openly discuss HIV/AIDS. This is evidenced by the support given by the government to HCT, which involved the initiation of VCT by healthcare workers. This will continue to prevent many people from speaking out about the illness.⁶ The availability of treatment and the fact that HIV testing is a gateway to access treatment makes it pertinent for the policy-makers to adopt "routine testing" without the voluntary component of the HCT.⁶

Engaging in high-risk behaviour leads to negative consequences. Correcting such behaviour through the provision of sufficient and satisfactory information is vital to achieve a good outcome. In April 2008, the International Labour Organization (ILO) reported on workplace HIV/AIDS stigma and discrimination, and concluded that through greater tolerance and improved attitudes towards affected co-workers, the benefits of HCT were readily accepted because the barriers to HCT diminished significantly in workplaces.⁷ One of the lowest HIV prevalence rates in the world (0.1%) was reported in the Middle East and North Africa region.⁸ This has largely been attributed to cultural and religious practices, whereby premarital sex, extramarital sex and the abuse of drugs are regarded as taboo, and engagement therein results in unfavourable consequences. Thus, the low rate of HIV prevalence is not due to a high regard held by the population for HIV testing.⁸ It was indicated in a study carried out on people living with HIV in Iran 2010 that nearly all of the participants reported having experienced stigma and discrimination by healthcare workers in a

variety of contexts.⁹ The largest AIDS-related death toll outside of sub-Saharan Africa⁸ was recorded in Asia. 2.39 million people are infected with HIV in India. It was reported in a study that was performed there that 58% of the participants reported that spousal or family violence was the reason behind their refusal to test for HIV.¹⁰ It was indicated in statistics released in 2014 in South Africa that attitudes towards people living with HIV have improved since 2008, and the availability of ART and increased awareness of HIV status in communities are considered to be the probable reasons for this.¹¹

An individual's perceptions of the benefits of and barriers to HCT impact upon his or her willingness to test for HIV. They also affect his or her ability to develop self-efficacy and to act responsibly and positively in this regard, and this has implications for society. Therefore, it is understandable that a patient's belief in the reliability of HCT practices, and possible benefits to the self as a result of testing for HIV, are likely to enforce self-efficacy and the cue for action to be taken with respect to avoiding HIV infection. Unfortunately, the recent survey reported in 2014 by Statistics South Africa indicated that most respondents in the study age group of 15 years and older (77%) believed that they were at low risk of being infected with HIV, even though one in 10 of these respondents were already infected without knowing it.¹¹ This might have contributed to the observed finding in the same survey that condom use declined significantly from 2008 in men and women of all age groups, except in women aged 50 years and older.

It was demonstrated in a study on gold mine workers in South Africa in 2003 that fear of testing positive for HIV and the potential consequences, particularly stigmatisation, and disease and death, were major barriers to VCT.¹² It was also shown in this study that 14% of the participants indicated that access to ART would encourage them to test for HIV.¹² It was noted in a study of high school learners by Taylor et al. in South Africa in 2002, that male learners' notions of masculinity generated by the media, teachers, historians, parents, and public figures had not helped self-efficacy and the positive cue for action to be taken with respect to preventing, and testing for, HIV.¹³ It was indicated in the study by Karim et al. in South Africa in 1995 that because some participants had successfully recovered from sexually transmitted infection in the past and had known people who had multiple unprotected sexual encounters without being infected with HIV, there was a belief that they were not at risk of being HIV-positive.¹⁴

The observations made by Karim et al. were corroborated in another study performed by Taylor et al. in South Africa in 2007, where younger students did not view themselves as being vulnerable, despite engaging in risky sexual practices.¹⁵ However, in the same study, during and after the counselling sessions, a significant number of participants held positive attitudes towards HCT, and changed their opinion about their vulnerability.¹⁵ It was also noted in the study that knowing someone who had tested, or who wanted to test, for HIV, encouraged self-efficacy and was a positive cue to test for HIV.¹⁵ The perception of benefiting from increased opportunities in life after testing, as well as an increase in the likelihood of condom usage to protect their partners if the test result was positive, was a significant finding in the same study.¹⁵

Therefore, in our study it was critical to understand or identify factors influencing or affecting patients' perceptions of and barriers to the benefits of the HCT programme at Ngwelezana Hospital. This hospital is a 554-bed regional and developing tertiary hospital complex,

situated in a semi-urban township area 180 km north of Durban. The hospital serves an estimated population of 2.5–3.0 million people, most of whom are unemployed black Africans who reside in adjacent rural and semi-urban areas.¹⁶ It is the referral hospital for 22 peripheral hospitals and 26 clinics. Sixty to seventy per cent of the admissions in this hospital directly or indirectly relate to HIV-associated conditions, with significant mortality occurring owing to late presentations.¹⁶ Prior to the introduction of the HCT programme, approximately 400 patients were referred for VCT each month. Since the advent of the HCT programme, this figure increased to roughly 900.¹⁶ However, reports from the counsellors suggest that only 81% of patients referred for HCT consent to undergoing testing.¹⁶

Study objectives

In view of increasing HIV infection in South Africa, especially the incidence for females aged 15–24 years,¹¹ there is a need for an effective HCT programme that is positively perceived by patients. There are still limited data on factors which influence a patient's decision to present at an HCT site with the intention of undergoing HIV testing.³

One of the aims of this study was to describe patients' perceptions of the benefits of and barriers to HCT at Ngwelezana Hospital, and to correlate their perceptions with their willingness to undergo testing for HIV. It also aimed to describe patients' self-efficacy and positive cue for action with respect to attending HCT and taking measures to prevent HIV infection, as well as to correlate these variables with their willingness to test for HIV. Feedback was provided to the HCT counsellors and clinical healthcare workers to enhance their knowledge of patients' views, with the aim of strengthening the HCT and ART programme.

Study significance

Despite resounding campaigns on HCT and HIV, and significant funding which has been invested in the ART programme, difficulties still exist with respect to achieving a 100% HIV testing rate in patients presenting at Ngwelezana Hospital. New infections and late testing are still challenging, resulting in morbidities and mortalities which affect productive age groups in the communities. Insight into patients' perceptions of the benefits of and barriers to HCT, their self-efficacy and cue for action in this regard, is crucial if communication with them is to be improved. This study was contextualised on the social cognitive theory belief that the more that a service provider knows about his or her client, the better the service rendered.¹⁷

Method

Materials, setting and design

The study was a cross-sectional, observational descriptive study. A sample size of 172 patients was selected, in consultation with the biostatistician, on the assumption that 75% of the study participants would consent to HIV testing in order for an 80% power of study to be achieved so that a difference could be detected. The null hypothesis was that the mean of both groups (tested and those that refused to test) was 80%. The patients were referred by the healthcare workers for HCT, and while queueing, sequential probability random selection was performed for patients aged 18 years and older. Only those who consented were selected over a period of three months, i.e. from October 2010 to December 2010. Permission to conduct this study was obtained from the Postgraduate Higher Degrees and Research Committee and Biomedical Research Ethics Committee (BREC) of the University of KwaZulu-Natal, the Department of Health and the hospital authority. Written consent was obtained from, and participant information sheets provided to, the participants, before the commencement of this study.

Procedure and analysing

Data were collected using a structured questionnaire adapted from a modified, standardised World Health Organization (WHO/Health Global Access Project (HGAP) questionnaire.¹⁸ The questionnaire was administered in two parts. The first covered pre-HCT counselling, in which patient demographics, their perceptions of the benefits of and barriers to HCT, as well as their behaviour pertaining to their self-efficacy were obtained. The second covered post-HCT counselling questions on what constituted a cue for positive action to be taken in the future by the study participants if they tested for HIV. Data were entered into SPSS[®]. Further analysis involved descriptive statistics, pairwise comparisons, cross-tabulations and analysis of variance statistics. *P*-value columns within the tables represented the statistical correlation between the tested variables (benefits of HCT, barriers to HCT, self-efficacy and cue for action), and participants' willingness to undergo HIV testing. A *p*-value of < 0.05 was considered significant.

Ethical consideration

Exclusion criteria were applied during the participant selection process, and included those who were mentally challenged, critically ill, underage, or those who refused to participate or had already been tested for HIV. University of KwaZulu-Natal BREC approval (Certificate Number BE 151/09) was obtained before commencement of this study.

Results

The demographic characteristics of the study participants

Six age categories were explored (Figure 1). The majority of participants (54, 31%) were grouped in the category of 40 years of age and older, followed by those aged 20–24 years (36, 20%). The oldest was 74 years' old. More males (87, 51%) than females (85, 49%) participated.

An assessment of the mean difference between the age categories is indicated in Figure 1. The results of pairwise multiple comparison tests for the differences between each pair of means were determined. The results indicated a significantly different group means at an alpha level of 0.05. Overall, statistical significance was observed between the age groups, i.e. ≤ 20 years (*p* 0.043), 20–24 years (*p* 0.043), 35–39 years (*p* 0.034), and ≥ 40 years (*p* 0.003).

The majority of the participants were of African race (158, 92%), with a small proportion of other race groups, such as Caucasian (6, 4%), Indian (6, 4%) and coloured (2, 1%). The racial representation and distribution was expected as the study sites are predominantly in an African settlement, in both the rural and township areas of KwaZulu-Natal province (Table 1). The majority (113, 65.7%) of the participants did not have any form of employment, and there was equal gender distribution. Ten participants did not respond to the question on race (Table 1). The majority 128 (74%) of the participants were either single men or women. Only 34 (20%) indicated that they were married (Table 1). Those who were widowed or cohabiting comprised the lowest proportion of participants in this study.

Of the 172 participants, the majority (98, 57%) had obtained a secondary education qualification, followed by 32 (19%) participants who had achieved a tertiary education qualification. Eleven (6%) of the participants had no education (Table 1).

Perceptions of the benefits of HIV counselling and testing

The majority of participants demonstrated a high level of awareness of the benefits of HCT, which included knowing their

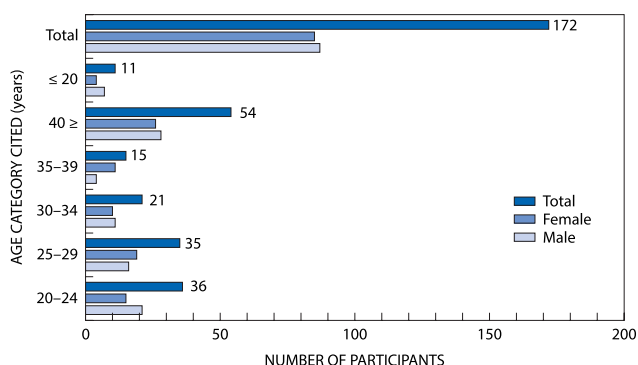


Figure 1: The demographic characteristics of the participants ($n = 172$)

Table 1a: Other demographic distribution ($n = 172$)

Characteristics	Men	Women	Total (n, %)
Race			
African	84	74	158 (92.0)
Caucasian	1	5	6 (3.5)
Indian	2	4	6 (3.5)
Coloured	0	2	2 (1.0)
Total	87	85	171 (100)
Employment			
Yes	18	15	33 (19.2)
No	59	54	113 (65.7)
Self-employed	6	10	16 (9.3)
Unemployed	4	6	10 (5.8)
Total	87	85	172 (100)
Marital status			
Married	14	20	34 (20.0)
Single	67	61	128 (74.0)
Widow or widower	5	4	9 (5.0)
Cohabiting	1	0	1 (1.0)
Total	87	85	172 (100)

Table 1b: Other demographic distribution ($n = 172$)

Level of education	Both genders (n, %)
Primary	15 (9.0)
Secondary	98 (57.0)
Tertiary	32 (19.0)
Informal	16 (9.0)
None	11 (6.0)
Total	172 (100)

HIV status (95%), seeking medical help early (95%) and learning about HIV and AIDS (94%). The results indicated that participants were aware of the support structure available to them during HIV testing. This was demonstrated by both the high mean (2.2) and a low standard deviation (SD) of 10.5 of those who reported that they wanted to know their status, as well as those seeking early help (a mean of 3.3, and a SD of 4.8) (Table 2).

The p -values represent the correlation between participants' perceptions of the benefits of HCT and their willingness to test for HIV. Participants' perceptions of the benefits of HCT were not

positively associated with their willingness to test for HIV, as reflected by the overall reported p -values (Table 2).

Perceptions of the barriers to HIV counselling and testing

Our results suggest that participants viewed barriers to HIV testing to be limited. Some of the barriers cited included discrimination by family members (59, 34%), healthcare workers (66, 38%), friends (65, 38%) and employers (61, 36%). Issues around reluctance to discuss condom use (19%), taking drugs (17%) and not sharing needles (15%) were a barrier to participation in HCT (Table 3).

The p -values represent a correlation between participants' perception of barriers to HCT and their willingness to test for HIV. The overall reported p -values (Table 3), did not demonstrate positive association between the participants' responses and their willingness to test for HIV.

Self-efficacy and cue for action with respect to HIV counselling and testing

The results indicated significant self-efficacy with respect to the study participants. This was demonstrated in terms of the confidence reported with regard to protecting themselves against HIV, for which the highest mean was scored (a mean of 1.1, and a SD of 0.5). Twenty-eight per cent were not confident enough to notify their partners if they tested positive, while 22 (1%) were unsure about whether or not they would take antiretroviral drugs (Table 4).

Participants' perceived cue for action reflected a highly positive moral stance. Over 90% indicated that they did not wish to infect any of their sexual partners or their unborn child, or minors. Similarly, 155 (90%) of the participants said they wished to remain HIV negative if found to be HIV negative, while 144 (84%) said they would take action to remain HIV negative if they tested that way, (Table 4). However, regrettably 4% said that they would want to infect their sexual partners.

The p -values represent the correlation between participants' self-efficacy, cue for action with respect to HIV counselling and testing and their willingness to test for HIV. The overall reported p -values demonstrated that the participants' reported self-efficacy and cue for action had no positive association with their willingness to test for HIV (Table 4).

Discussion

Representation of the participants' age categories in this study attest to the extent of vulnerable groups (age groups 20–24 years, and those < 45 years), who were vulnerable to HIV infection, and in the greatest need of the HCT programme. There is no doubt that the age category 20–24 (36, 20%) exhibited a sexually active and experimental lifestyle, and hence a higher risk of HIV infection. Similar characteristics were observed in participants in aged ≥ 40 years (54, 31%). Participants in the latter age category were considered to be "docile, but at permanent risk" as they are mature and most likely married or in a monogamous relationship, cohabiting or living separately; and are, thus, reliant on the uncontrolled sexual practices of their partner to prevent HIV infection. Participants in this group expressed a reluctance to undergo an HIV test, and contributed significantly to questions surrounding the success of the HCT programme.

It was demonstrated in this study that the majority of the participants displayed a high level of awareness of the benefits of

Table 2: Perceptions of the benefits of HIV counselling and testing (*n* = 172)

Benefits	Yes n (%)	No n (%)	Unsure n (%)	Mean (%)	SD (%)	<i>p</i> -value
Acquiring information on HIV, AIDS and HCT	161 (93.6)	1 (0.6)	10 (5.8)	5.0	19.4	0.547
Self-knowledge of HIV status	163 (94.8)	2 (1.0)	7 (4.0)	2.2	10.5	0.140
Seeking medical help early	163 (94.8)	1 (0.6)	8 (4.6)	3.3	4.8	0.380
Protecting your partner	158 (91.8)	2 (1.2)	12 (7.0)	3.9	16.5	0.242
Preventing infection of an unborn baby	158 (91.8.0)	3 (1.7)	11 (6.0)	3.9	16.5	0.240
By testing you will indirectly know the HIV status of your partner	104 (60.8)	12 (7.0)	56 (32.2)	5.8	19.4	0.785
HCT is only of benefit to yourself	145 (84.3)	2 (1.2)	25 (14.5)	3.1	12.9	0.035
HCT is only of benefit to your partner	143 (83.1)	8 (4.6)	21 (12.2)	6.9	22.9	0.711
HCT is only of benefit to your family	145 (84.3)	7 (4.0)	20 (11.7)	5.2	19.4	0.537
HCT is only of benefit to your baby	132 (76.7)	9 (5.2)	31 (18.0)	8.1	24.9	0.794
HCT is of only of benefit to your sexual partner	119 (69.2)	9 (5.2)	44 (25.6)	9.9	27.6	0.978
Feel confident to invite partner to support during testing	146 (84.9)	10 (5.8)	16 (9.3)	2.9	12.9	0.041
Participating in HCT eases the burden of notifying your partner of your status	78 (45.3)	23 (13.4)	71 (41.3)	7.5	22.9	0.739
Counselling allays anxiety with respect the HIV test outcome	139 (80.8)	5 (2.9)	28 (16.3)	7.5	7.5	0.543
Your knowledge of HIV information increases	156 (90.7)	3 (1.7)	13 (7.6)	4.0	16.6	0.869
Your knowledge of more information on HIV testing increases	151 (87.8)	9 (5.2)	12 (7.0)	4.5	18.1	0.566
A course of action can be determined once the test result is known	125 (72.7)	12 (7.0)	35 (20.3)	7.1	22	0.288
It is satisfying for your partner to know your HIV status	82 (47.7)	38 (22.1)	52 (30.2)	11.9	29.9	0.100

Note: AIDS: acquired immune deficiency syndrome, HCT: HIV counselling and testing, HIV: human immunodeficiency virus, SD: standard deviation.

Table 3: Perception of the barriers to HIV counselling and testing (*n* = 172)

Barriers	Yes	No	Unsure	<i>p</i> -value
Fear of neglect	35 (20.3)	107 (62.2)	30 (17.4)	0.268
Discrimination by healthcare workers	66 (38.4)	81 (47.1)	25 (14.5)	0.156
Discrimination by friends	65 (37.8)	77 (44.8)	30 (17.4)	0.363
Discrimination by colleagues	59 (34.3)	79 (45.9)	34 (19.8)	0.007
Discrimination by employers	61 (35.5)	59 (34.3)	52 (30.29)	0.005
Discrimination by family	59 (34.3)	73 (42.4)	40 (23.3)	0.018
Discrimination by insurance companies	70 (40.7)	42 (24.4)	60 (34.9)	0.014
The unavailability of a test site	48 (27.9)	60 (34.9)	64 (37.2)	0.678
Discrimination with respect to the level of CD4 count required for initiation of ART	70 (40.7)	46 (27.1)	56 (32.2)	0.660
Reluctance to discuss condom use	33 (19.3)	132 (76.7)	7 (4.0)	0.271
Reluctance to discuss not sharing needles	26 (15.2)	138 (80.2)	8 (4.6)	0.024
Reluctance to discuss not taking drugs	29 (17.0)	136 (79.0)	7 (4.0)	0.147
Reluctance to undergo an HIV test	27 (15.8)	127 (73.8)	18 (10.4)	0.217

Note: ART: antiretroviral therapy.

HCT and testing for HIV. They were also aware of positive benefits pertaining to the structures available to them before, during and after testing for HIV. A high mean of 2.2, with a low SD of 10.5, was reported for those who affirmed that they wanted to know their HIV status (95%). This was one of the most common perceived benefits of HCT, followed by the perceived advantages of seeking medical help early (95%), and learning about HIV and AIDS (94%). It strengthened our assumption that the provision of information on HCT and ART significantly empowered patients to embrace the benefits of HCT. This was consistent with the findings of the ILO, which reported that the benefits of HCT were readily accepted in the workplace once barriers to HCT had significantly diminished.⁷ However, in this study, 61% reported that a key benefit of HCT was that it facilitated obtaining a diagnosis of their

partner's status through knowing their own, while 48% reported that the key benefit was being able to satisfy their partner's request for them to take an HIV test. This indicates the extent to which relationships impact upon our most private health lives.

The participants in this study reported that fear of discrimination by friends (38%), healthcare workers (38%) and family members (34%) was a barrier to the HCT programme. This information is not new. However, as the sampled population was mainly rural dwellers, it was a concerning finding, and emphasises the negative attitudes held by healthcare workers towards patients who test positive for HIV. These findings concur with those of a study in Iran in 2010, where significant negative (intolerant) attitudes by healthcare workers towards HIV-positive and AIDS

Table 4: Self-efficacy and cue for action to attend HIV counselling and to undergo testing (n = 172)

Self-efficacy	Yes n (%)	No n (%)	Unsure n (%)	Mean	SD	p-value
Are you confident enough to how to protect yourself?	151 (87.8)	13 (7.6)	8 (4.6)	1.1	0.5	0.000
Are you confident enough to take a tuberculosis test?	144 (83.7)	13 (7.6)	15 (8.7)	1.9	7.6	0.610
Are you confident enough to take an HIV test?	127 (73.8)	36 (21.1)	9 (5.2)	1.3	0.5	0.000
Are you confident enough to commence ART treatment?	93 (54.1)	38 (22.1)	41 (23.8)	3.4	12.8	0.397
Would you notify your partner if you were HIV positive?	81 (47.1)	48 (27.9)	43 (25.0)	5.2	17.9	0.550
Cue for action						
Wish to infect your girl- or boyfriend	7 (4.0)	162 (94.3)	3 (1.7)	2.5	7.4	0.348
Wish to infect your partner	6 (3.5)	156 (90.7)	10 (5.8)	5.5	17.9	0.175
Wish to infect your wife or husband	4 (2.3)	157 (91.3)	11 (6.0)	5.1	16.5	0.064
Wish to infect your unborn baby	4 (2.3)	159 (92.5)	9 (5.2)	5.4	17.9	0.149
Wish to infect your neighbour	5 (2.9)	155 (90.1)	12 (7.0)	5.6	17.9	0.214
If negative, do you wish to remain so?	155 (90.1)	8 (4.6)	9 (5.2)	3.9	16.6	0.242
If negative, will you take action to remain so?	144 (83.7)	5 (2.9)	23 (13.4)	8.5	26.01	0.627

Note: ART: antiretroviral therapy, HIV: human immunodeficiency virus, SD: standard deviation.

patients were reported to be a considerable barrier to participation in HCT.⁹ This study's finding on fear of discrimination by family members was also in agreement with the finding of an Indian study, in which it was reported that 58% of the participants refused to test for HIV owing to fear of violence by spousal or family members.¹⁰

Other barriers to the HCT programme included a reluctance to discuss condom use (19%) not sharing needles (15%), and not taking drugs (17%), as well as a reluctance to undergo testing for HIV (27, 16%). Even though these are low percentages, the reported barriers are discouraging because they suggest that patients' fear of HIV extends beyond testing, and is likely to encompass other issues, including addictive or lifestyle behaviour, which are contributory to HIV infection. Such behaviour might have contributed to the observed findings in the 2014 South Africa survey report, where condom use declined significantly from 2008 in men and women of all age groups, except in women aged ≥ 50 years.¹¹ These findings also indicate that members of society and the health profession need to find a novel way of presenting HIV testing as being similar to testing for an STI. For example, testing for an STI was stigmatic to patients, partners and friends in the past, but is perhaps no longer such a major issue between partners today as it once was.

It was encouraging that the majority of the participants reported that they were confident of their self-efficacy, especially with regard to how to protect themselves against HIV acquisition (88%). However, fewer participants were confident enough to test for tuberculosis (84%) and HIV (74%), and to commence ART (54%). It was also concerning that 28% were not confident enough to notify their partners of their status if they tested HIV positive. These findings greatly underscore existing challenges to the achievement of a future 100% HIV testing rate and attendant consequences. The majority of the participants (94%) indicated that they didn't want to infect their sexual partner should they test positive for the HIV virus, nor their unborn child (159, 93%). The effect of gender on positive cue for action was not examined in our study, but it was indicated in a study by Taylor et al. in South Africa in 2002 on male learners that their self-efficacy and cue for action were negatively affected by the notion of masculinity generated by the media, historians, parents

and public figures.¹³ However, it was disappointing that while the finding that 94% of the study participants reported unwillingness to infect their sexual partners, according to Statistics South Africa, 400 000 new HIV infections were recorded in 2012. Shockingly, South Africa ranks first in terms of HIV incidence in the world.¹¹

Study limitations

This study did not provide a synoptic view of participants' demographics in relation to their perceptions. Participants were examined as a group of patients attending an HCT clinic, and their perceptions and willingness to undergo HIV testing were assessed. Traditional, cultural beliefs and practices, and the patriarchal nature of the communities from which the study sample was drawn might have narrowed its findings and conclusion. Also, the participants were mainly black African rural dwellers, most with a primary education only, which may have limited the study findings.

Recommendations

Counselling sessions need to be approached as a scientific process, whereby counsellors or healthcare workers give and obtain information based on current insightful knowledge of their patients. The perceptions of an individual or community are often more relevant than the facts, because perceptions are created through individual or community life subjective events. Perceptions and myths about HCT or any other health programme must be eliminated as they are a barrier to the achievement of health.

Didactic patterns should not be strictly followed, as taught through the usual provision of information, without first accessing and applying information or knowledge based on research findings.

Conclusion

Generally, the study participants held a good perception of the benefits of, and what constituted barriers to, HCT. They also reported good self-efficacy and positive cue for action with respect to participation in the HCT programme. However, it was discouraging that 19% of the participants reported barriers to HCT being a reluctance to discuss condom use and sharing

needles when taking drugs (15%) as reasons. Also, only 74% were confident enough to undergo an HIV test (74%), while 47% were not confident enough to notify their partners of their status, if found to be HIV positive, while 39% reported discrimination by healthcare workers as being a barrier to HCT. These results are discouraging. Future research should focus on patients' factors which impact negatively upon HIV testing.

It was also indicated in this study that there was not a significant association between participants' perceptions and their willingness to test for HIV ($p > 0.05$).

Conflict of interest – The authors declare that they have no financial or personal relationships which may have inappropriately influenced them when writing this article.

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Received: 31-03-2015 Accepted: 07-07-2015