

HIV NURSING

CARING FOR PEOPLE AFFECTED BY HIV

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Aims and Scope

HIV Nursing has been developed as a forum for those at the forefront of caring for people affected by HIV. The journal is supported by a highly respected Editorial Board drawn from a wide range of nursing specialties. This is further strengthened by an Advisory Panel who will be making regular contributions to the journal.

HIV Nursing is intended to provide a medium for communication on issues relating to HIV care, which will be run by the care professionals for those involved in the day-to-day matters affecting the lives of patients.

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Did the end of AIDS start in 2014?

Ian Hodgson

Independent Consultant, HIV Education and Research

Welcome to this issue of *HIV Nursing*. Writing an editorial at the end of a year allows a self-indulgent look-back over the previous 12 months, noting the progress (and lack of progress) in the fight against HIV, and improvements (or lack of improvements) around the care and support of affected people.

A major event in 2014 was the International AIDS Conference, this year held in Melbourne, Australia, and attended by over 16,000 people. The event was marred of course by the tragic loss of Malaysia Airlines flight MH17 when hundreds of people lost their lives, including a number of prominent HIV activists and scientists such as Joep Lange, Glen Thomas, and Pim de Kuiper.

As always at these events, there were dramatic announcements and calls for strategies to 'end' AIDS by 2030. There was certainly a spirit of optimism, with the newly announced Joint United Nations Programme on HIV/AIDS (UNAIDS) '90-90-90' targets calling for 90% of people living with HIV knowing their status; 90% of those individuals placed on antiretroviral therapy; and of these, 90% achieving undetectable viral load – all by 2020 [1]. Not surprisingly, though, achieving these ambitious targets will require extraordinary efforts by many stakeholders, including nurses. Sadly, we can see evidence in many countries of the criminalisation not just of key populations (men who have sex with men, sex workers, injecting drug users) [2] but also of people alleged to have passed on HIV [3]. Punitive approaches such as these are bound to create immense barriers to effective HIV programming.

There have also been rapid changes in the context of HIV care across the European region. With the science of HIV fast evolving (i.e., antiretroviral therapy, treatment as prevention, hepatitis C virus (HCV) and HIV co-infection), and increasing numbers of adolescents and the 'older' person living with HIV, the care and support of affected people presents a range of challenges and hurdles to overcome.

In the European region, we see continuing stigmatisation of people affected by HIV, complicated by association with marginalised social groups. Many countries in the European region also face continuing structural difficulties, especially in the east where approaches to public health and harm reduction conflict with approaches in the west. Human rights are also in jeopardy – in 2012 Greece, for example, reinstated enforced HIV testing for sex workers, and advocacy

groups in 2014 are still fighting against what seems to be an intransigent, entrenched health policy [4].

This issue of *HIV Nursing*, as always with the last issue of the year, focuses on international matters. In spite of the challenges above, we also see much evidence of progress in a number of interesting articles. There are also a series of abstracts which were presented at an important event held in Barcelona, Spain, in October 2014. The European HIV Nursing Conference brought together nearly 200 nurses from across (and outside) the European region. Since the beginning of the HIV epidemic, nurses have been at the front line of care delivery. The conference was a stark reminder that nurses are still at the front line of HIV care, playing a significant role in the care and support of people affected by HIV. The abstracts confirm nurses are still central to extending knowledge around – and promoting – high quality care.

Debbie Brittain and colleagues report from an innovative approach in Zambia, where nursing students from the UK's University of Central Lancashire worked with local community leaders in Lusaka to promote sexual health and HIV awareness amongst young people – a key vulnerable population in Zambia.

Young people are indeed a vulnerable key population, and Jacqui Stevenson writes of an important and crucial initiative, Link Up. Here, the integration of HIV and sexual reproductive health rights (SRHR) is central to ensuring young people are able to access appropriate prevention and treatment services. Illustrations are provided of interventions in Bangladesh.

Conny Moons and colleagues discuss the role of nurses in HIV care delivery in the Netherlands. We see that many of the approaches are similar to the UK, reminding us that close engagement with patients, and promoting strategies where the patient is central in care planning is paramount.

Neil Rosenberg and colleagues report from a detailed and important study from West Africa, around infant feeding and HIV. In particular, the article focuses on the impact of beliefs and knowledge on a mother's decision to breastfeed, and the role of nurses and community workers in encouraging her to make an appropriate choice.

Finally, Su Yin Yap discusses an intriguing and important topic – ways to identify psychological problems experienced by people living with HIV. A screening tool is critiqued, but what is perhaps most worrying about this article is confirmation that

there is low uptake of psychological support among people living with HIV.

We hope you find this issue interesting and informative. As always, we invite feedback on these articles, and if you would like to comment please send a message to: editorial@mediscript.ltd.uk

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Knowledge, attitudes and beliefs of West African women regarding infant feeding and HIV

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Women make decisions regarding infant feeding based on family values, information presented by healthcare workers, or cultural and social norms. Human immunodeficiency virus (HIV) is a retrovirus that causes acquired immunodeficiency syndrome (AIDS) and a progressive failure of the immune system. Being diagnosed with HIV may play a role in how women make infant feeding decisions. HIV-infected women of childbearing age increasingly face the daunting question of how to protect their newborn infants from acquiring HIV by means of mother-to-child transmission (MTCT).

Globally, 35 million people are infected with HIV. The World Health Organization (WHO) has identified 22 countries with a high HIV burden and, with the exception of India, all the countries are in sub-Saharan Africa [1]. Although sub-Saharan Africa comprises 12% of the global population, it has the highest HIV prevalence and accounts for 69% (22.9 million) of all HIV infections worldwide [2]. South Africa has the highest prevalence of pregnant women living with HIV, estimated at 280,000, followed by Nigeria (200,000) [1]. Cameroon is ranked twelfth with 36,000 [1]. Although South Africa has the highest prevalence of HIV-infected pregnant women, Cameroon has the second highest overall HIV prevalence (4.5%) in West and Central Africa behind Equatorial Guinea (6.2%). Worldwide, 90% of MTCT occurs in sub-Saharan Africa [1,3].

The existing literature is replete regarding the importance of exclusive breastfeeding versus formula feeding if the formula is acceptable, feasible, affordable, sustainable and safe (AFASS) [4]. By 2013, it was estimated that 280,000 Cameroonian women of child-bearing age were HIV-infected [1,5]. Women who are HIV-infected and pregnant must decide how they will feed their newborn. Understanding women's knowledge, attitudes and beliefs about infant feeding will provide a framework to develop educational programs that support women's choices about infant feeding. Attitude is an emotional or intellectual connection to something or someone that is reflected in behaviour, and may or may not be influenced by knowledge and/or beliefs. Beliefs about infant feeding are influenced by cultural norms and traditional practices passed down over generations [6]. In Cameroon, mothers-in-law and fathers are key family members who strongly influence a mother's choice regarding infant feeding practices. Understanding these influences on women's infant feeding practices will help to direct education of mothers, nurses and healthcare workers.

Literature review

Multiple studies on MTCT were reviewed in high-burden countries such as South Africa, Kenya, Ethiopia and Nigeria [7-11]. Generalisation of the research findings should be viewed with caution

given the regional and cultural differences. However, several consistent themes emerged in the literature regarding infant feeding options: (a) whether women disclosed their HIV status to their partner or family; (b) variation in knowledge level of healthcare workers who are educating women on ways to prevent mother-to-child transmission in the communities; and (c) inconsistent dissemination of educational information regarding feeding options for HIV-infected pregnant women depending upon cultural influences [3,6,7,9,12].

Infant feeding options

When considering feeding options in resource-limited countries, women choose to exclusively formula feed, mix feed (breast and formula), or exclusively breast feed. While exclusive formula feeding may be perceived as the most suitable choice for women living with HIV, important considerations need to be taken into account. The nature of the limited resources, and unsafe water, are legitimate concerns for women who are considering exclusive formula feeding for their infant. The practice of mixed feeding poses the greatest danger of MTCT. Studies indicate mixed feeding increases the risk of gastroenteritis. Gut mucosal trauma becomes the portal of entry for HIV when the infant is placed back to the breast [3,8–10,12–14].

Women make infant feeding decisions based on multiple factors. At the centre of the decision may be overlapping reasons including: (a) knowledge about HIV transmission to the infant; (b) available resources such as feeding replacement that is acceptable, feasible, affordable, sustainable and safe; (c) cultural beliefs; (d) family influences (husband, mother, mother-in-law); (e) male involvement in antenatal care; (f) age and education of mother; or (g) socio-economic status [6,8,15,16].

Evidence is scant when addressing the underlying knowledge, attitudes and beliefs that ultimately influence a woman's infant feeding decision. An exploratory survey was administered in the South West Region of Cameroon to gauge knowledge, attitudes and beliefs surrounding infant feeding options and HIV among pregnant women.

Method

Institutional Review Board (IRB) approval was obtained from both the Ministry of Public Health Regional Delegation for the South West Cameroon Region and from Linfield College, Portland, Oregon. The surveys were administered in a private room on site at the antenatal clinics by three researchers using a structured questionnaire. Two of the researchers were nurses who designed the questionnaire; the third researcher was an

epidemiologist from the local area. Two of the three researchers spoke fluent French. Women who verbalised a preference to complete the survey in French were directed to the French-speaking researchers. The survey was established in English, translated into French and reviewed by a local Cameroonian healthcare worker then translated back into English by a second local Cameroonian in an effort to promote consistency of meaning of the survey questions in both English and French.

Determination of which researcher was assigned to a clinic was based on the primary language used at the clinic. No inducement was provided; implied informed consent was achieved by the voluntary participation in the interview, which allowed for anonymity of the subjects. Data were analysed using Statistical Package for the Social Sciences 20 (SPSS).

The researcher-developed questionnaire focused on data relating to infant feeding practices and HIV knowledge among pregnant women in Cameroon gleaned from a previous workshop and several research studies in Cameroon from 2009 to 2011 [17–19]. The conceptual focus for the tool was on mother-to-child transmission of HIV. Three constructs were selected: (a) knowledge of how HIV is transmitted; (b) concern with family, friends and public attitudes; and (c) personal long-held beliefs. The researchers developed 15 construct questions to be tested through a face-to-face interview/survey technique. The original questionnaire, *Infant Feeding and HIV Knowledge, Attitudes, and Beliefs Scale*, had 15 true/false questions using the three constructs of Knowledge (4 questions), Attitude (4 questions) and Beliefs (7 questions) as presented in Appendix A.

Description of the research environment

Cameroonian women of childbearing age attending antenatal clinics in the South West Region of Cameroon formed the study sample. These clinics were selected due to: (a) geographic proximity; (b) one of nine providences with higher percentage of mothers who could speak English; (c) access to pregnant women; (d) the authors' limited time in the country; and (e) research funding.

Sampling

A convenience sample was taken of: (a) second or third trimester pregnant women attending the antenatal clinics, and (b) post-partum women who had delivered a viable infant within the last 6 months. Exclusion criteria for the study included women: (a) past childbearing age, (b) who had documented opportunistic infections within 6 months of the study, or (c) who had malignant breast conditions that would preclude breastfeeding as an option.

The first round of interviews occurred in July 2012. At that time, 92 women were interviewed. During this initial phase of data collection the reliability value testing of the questionnaire was analysed. An additional 86 interviews were conducted in July 2013 utilising the same two US nurse researchers for a total of 179 participants. The researchers determined that a sample size of 300 participants would be needed to conduct factor analysis of the questionnaire [20].

Analysis

Description of the sample

The average age of the participants was 26.3 years (range 18–41) with a random distribution. Marital status at the time of the interview included 41 (23%) single and 138 (77%) married participants. Fewer than half (47%) of the participants reported any formal education; with an average of 4.9 years (range 1–21 years). Of the women interviewed, 97 (54%) stated that they were planning on breastfeeding their newborns for an average of 6 months. A subset of those women, 12 (12%) planned on breastfeeding their newborns for 12–24 months.

At the time of the interviews, 35 (20%) participants presented with a confirmed HIV-infection status. This is lower than the 30% reported in the 2010 South African Department of Health Survey [21]. However, it is similar to the 11.9% HIV prevalence in the whole population reported in the National HIV Survey [22]. There are limitations of a non-response bias in using prevalence surveys such as local household surveys or convenience sampling through antenatal clinics.

Questionnaire

Factor analysis is considered a 'data reduction' technique used by researchers in the refinement of tests or scales [23]. This technique takes a large set of correlated variables and removes duplications, assisting the researcher to improve a test. Factor analysis was utilised to evaluate the 15-question survey tool. A Kaiser–Meyer–Olkin measure of sampling adequacy (KMO) value of 0.6 or above with significance ($p \leq 0.05$) is needed to verify that the dataset is suitable for factor analysis [23]. The KMO reported a value of 0.559 and Bartlett's tests (used to test if samples are from populations with equal variance) were significant ($p \leq 0.05$). Therefore, at this time the existing dataset was not suitable for factor analysis.

Reliability testing was considered to test the questionnaire's internal consistency, the degree to which the items that make up the questionnaire work together [24]. A frequently used test of internal consistency is Cronbach's alpha coefficient to test reliability of factors extracted from a dichotomous survey. Generally, a value of 0.7–0.8 is considered acceptable for Cronbach's alpha [23,25]. Repeated analysis produced a value of $\alpha = 0.574$ for a total of

six questions (1, 4, 8, 10, 13 and 14). The decision was made to continue the next phase of interviews until a larger sample size was achieved.

Chi square is a statistical test used to investigate whether distributions of categorical variables differ from one another. An example of categorical data 'What is your gender?' (Male or Female) versus numerical data 'What is your current age?' (37 years old). The 15 survey questions were analysed using chi square to explore the relationship between categorical variables and Mann–Whitney U tests to check for differences between two independent groups on a continuous measure [21,26]. The results appear in Table 1.

Of the 15 questions analysed, Questions 3, 6, 12 and 15 were found to have a significant association. Three of the four questions are related to beliefs. At the inception of this study, the prevailing idea was that healthcare workers would need to understand a woman's knowledge, attitudes and beliefs about infant feeding options in order to structure an educational framework to support the woman's decision. Perhaps this work will demonstrate that it is not so much about presenting data and facts to HIV-infected pregnant women as it is about understanding and supporting the crux of the woman's underlying beliefs.

Initial analysis comparing the responses between HIV-infected and non-HIV-infected participants of knowledge, attitudes and beliefs questions was performed. A Mann–Whitney U test revealed no significant difference in the Knowledge ($z = -0.088$, $p = 0.937$) or Attitude ($z = -0.530$, $p = 0.596$) questions between HIV-positive and HIV-negative subjects. However, there was a significant difference for the Belief questions ($z = -3.313$, $p = 0.001$) between HIV-positive and HIV-negative subjects. Further analysis will be completed with a larger sample size.

Limitations

The major limitation of the study was that the total sample size ($n = 179$) was smaller than the planned 300 estimated sample size.

Discussion

The exploratory study examined the knowledge, attitudes and beliefs of pregnant Cameroonian women regarding infant feeding practices. Understanding the influence of cultural beliefs on these practices will provide a context to better understand a mother's infant feeding choice. Many questions were raised in the study and warrant further exploration.

First, demographic comparisons showed similarities between the participants at the six antenatal clinics. Current quantitative data from low- and middle-income countries show that antiretroviral

Table 1: Statistical analysis: Chi square to explore the relationship between categorical variables

Chi square (significant association if $p \leq 0.05$)		
Item	Question	p value
Women reporting to be HIV-infected to Question 3 (Belief)	Q3: Introducing solid foods into the diet of infants exposed to HIV, after 6 months of age, with stopping all breastfeeding, decreases the risk of passing HIV from the mother to the baby (Belief)	0.000
Women reporting to be HIV-infected to Question 6 (Belief)	Q6: It is necessary to give the infant small amounts of water during the first 6 months of life even if I breastfeed exclusively (Belief)	0.002
Women reporting to be HIV-infected to Question 12 (Attitude)	Q12: Any form of breastfeeding should be avoided if my nipples are cracked and I have visible signs of blood (Attitude)	0.049
Women reporting to be HIV-infected to Question 15 (Belief)	Q15: If I do not breastfeed my infant, my family and friends will scold me (Belief)	0.010
Demographic data		
Women reporting to be HIV-infected and planning to breastfeed	No significant association	0.091
Women reporting to be HIV-infected and marital status	No significant association	0.496
Women reporting to be HIV-infected and taking HIV medications	Significant association	0.000
Mann-Whitney U test		
		p value
Women reported to be HIV-infected to age	Mann-Whitney U test revealed no significant difference in age and HIV-infected status.	0.471

treatment programs needs are higher among women versus men [3]. An area that will require closer examination is that only 11 (31%) of 35 women who were HIV-infected reported taking HIV antiretroviral medications. This seems disproportionately low. Additionally, the role and perceptions among the counsellors, physicians and nurses require additional study in order to understand the interplay and beliefs among healthcare workers in the dissemination of educational information regarding PMTCT dynamics.

Second, analysis comparing the responses between HIV-infected and non-HIV-infected participants of knowledge, attitudes and beliefs questions was performed. There was no significant association for women who self-reported to be HIV-infected when compared by age or marital status. No significant difference was found in the Knowledge ($z = -0.088$, $p = 0.937$) or Attitude ($z = -0.530$, $p = 0.596$) questions between HIV-infected and non-HIV-infected subjects. However, there was a significant difference for the Belief questions ($z = -3.313$, $p = 0.001$) between HIV-infected and non-HIV-infected participants.

This initial analysis suggests that beliefs, rather than education or knowledge, play a stronger role in shaping a woman's decision regarding breastfeeding. Applying the traditional Western medicine intervention of knowledge first to sway or

alter a client's healthcare-related decision may not be the most appropriate approach for this population. There is a balance that needs to be attained in developing questionnaires that are not culturally biased [27]. Are the responses from this study germane to a local geographical area? Or is this concept able to be generalised across larger populations? These questions will need additional consideration with the next phases of study and analyses.

Implications for practice

The preliminary findings suggest that nurses/midwives, lay persons and community health workers may serve as pivotal members of the team to enhance the exploration of infant feeding decisions among pregnant women in high-prevalence areas of HIV. During the initial and subsequent antenatal visits, it is imperative to begin an open dialogue with HIV-infected pregnant women, and explore cultural beliefs that may influence infant feeding. Early identification and exploration of beliefs steeped in cultural norms will provide healthcare workers with the opportunity to educate HIV-infected women about the risks of MTCT. Although the study results are preliminary, ignoring cultural beliefs when assessing and planning care service has far-reaching implications for the health and well-being of the mother and child.

Pregnant women make decisions regarding infant feeding anchored in their existing knowledge, attitudes and beliefs. Often, very few options exist for these women. To exclusively breastfeed in order to adequately nourish the infant carries the risk of MTCT. Those decisions may be based on cultural and social norms, family values, or information presented by healthcare workers during pregnancy. Additional data collection is needed before any conclusions are reinforced or the questionnaire modified.

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Appendix A: Infant feeding and HIV knowledge, attitudes and beliefs scale

Construct	Item	True	False
Attitude	1: Formula replacement feeding decreases the chances of infant death before 2 years of age in resource-limited countries.		
Knowledge	2: The World Health Organization (WHO) recommends exclusive breastfeeding for HIV-exposed infants for 2 continuous years by the mother		
Belief	3: Introduction of solid foods into the diet of infants exposed to HIV, after 6 months of age, with stopping all breastfeeding, decreases the risk of passing HIV from the mother to the baby		
Belief	4: Exclusive breastfeeding is more effective than mixed breastfeeding (adding other foods or liquids) for infants exposed to HIV, and thus decreases the chances of the infant becoming infected with HIV from the mother		
Knowledge	5: The mother's continuous use of antiretroviral medications whilst breastfeeding can reduce the risk of HIV transmission to the infant		
Belief	6: It is necessary to give the infant small amounts of water during the first 6 months of life even if I breastfeed exclusively		
Belief	7: If my baby has the hiccups during the first 6 months of life, I must give my baby some water or herbal tea		
Belief	8: For the infant's first 6 months, WHO recommends that exclusive breastfeeding is best for HIV-infected women unless replacement feeding is acceptable, feasible, affordable, sustainable and safe		
Belief	9: Exclusive breastfeeding may cause your family and friends, who do not know that you have HIV, to think that you are HIV-infected		
Attitude	10: Since I have HIV, my infant will be born with HIV, so it does not matter if/how I breastfeed my infant		
Attitude	11: Mixed breastfeeding my infant increases the chances of passing HIV along to my infant within the first 6 months of life		
Attitude	12: Any form of breastfeeding should be avoided if my nipples are cracked and I have visible signs of blood		
Knowledge	13: Exclusive breastfeeding means that I only feed my infant breast milk, without the addition of water, other liquids or other solid foods		
Belief	14: Herbal tea is necessary for the infant within the first 6 months of life. This does not pose a problem if I give my infant herbal tea and breastfeed for the first 6 months of life		
Belief	15: If I do not breastfeed my infant, my family and friends will scold me		

Routine screening for psychological problems in HIV patients: what next?

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Keywords:

HIV, depression, anxiety, psychology, screening

Abstract

Objectives

Recent guidelines from the British Psychological Society, British HIV Association and Medical Foundation for AIDS and Sexual Health (2011) set out standards for psychological care of patients living with HIV, recommending regular screening for both mood and cognitive difficulties. We report a pilot study which set out to apply these standards in a busy clinical setting. A screening tool was compiled and a screening pathway devised and piloted as part of routine care. Outcome measures included the number of HIV patients identified with mood, memory or coping difficulties, and secondly, of the patients identified, how many opted to attend the psychology service.

Methods

One hundred and six patients were screened for symptoms of low mood and anxiety, cognitive difficulties, and difficulties coping. Thirty-two percent of patients reported problems in one or more of these areas.

Results

Results showed prevalence rates of 19% for anxiety and 23% for depression. Despite the reported difficulties, uptake of further psychological support was low at 16%.

Conclusions

The low uptake rate for psychological support raises further questions as to how HIV services can adhere to current standards for psychological care in HIV in a way that is helpful to clients.

cognitive and psychological difficulties is one of the key recommendations. The importance of identifying such difficulties has been highlighted, as rates of both cognitive and mood disorders are higher in HIV populations, and are known to negatively impact HIV outcome [2].

This brief article reports a pilot study which set out to apply these standards in a busy clinical setting. A screening tool was compiled and a screening pathway devised and piloted as part of routine care. Outcome measures included the number of HIV patients identified with mood, memory or coping difficulties, and of the patients identified, how many opted to attend the psychology service.

Method

Due to time and staff pressures within the clinic a self-report tool, which was quick to complete, was essential. A screening tool was compiled which consisted of a cognitive subscale, standardised measures of depression and anxiety, and a scaling question assessing how well the patient is coping with HIV.

Assessing cognitive functioning

The Medical Outcome Study-HIV (MOS-HIV) [3] is a comprehensive self-report questionnaire addressing many aspects of HIV patients' health care and includes a cognitive subscale. There is evidence to show that the MOS-HIV cognitive functional status subscale shows significant associations with neuropsychological test performance overall [4]. For this reason, the cognitive subscale, which contains four questions, was chosen from this measure as a brief screen for self-reported cognitive difficulties. Items assess forgetfulness, difficulties concentrating, sustained attention and other problem-solving skills. Sample items include questions such as: How much of the time, during the past 4 weeks: Did you have difficulty reasoning and solving problems, for example, making plans, making decisions, learning new things? Did you have trouble keeping your attention on any activity for long? Answer options: All of the time; Most of the time; A good bit of the time; Some of the time; A little of the time; None of the time.

Assessing mood

The Patient Health Questionnaire-9 (PHQ-9) [5] and the Generalized Anxiety Disorder-7 (GAD-7) [6]

Introduction

Recent guidelines from the British Psychological Society, British HIV Association and Medical Foundation for AIDS and Sexual Health set out standards for the psychological care of patients living with HIV [1]. Screening patients for

were used to screen for mood problems. Both tools are multipurpose instruments for screening, diagnosing, monitoring and measuring the severity of depression and generalised anxiety disorder, respectively. These measures were chosen as they are self-report, can be completed in minutes, and there is no cost for use.

Sample item: PHQ-9

Over the last 2 weeks, how often have you been bothered by any of the following problems?
(1) Little interest or pleasure in doing things;
(2) Feeling down, depressed, or hopeless. Response options are: Not at all; Several days; More than half the days; Nearly every day.

Assessing coping

The screen also included a general question assessing coping: *On a scale of 0–10, where 10 is coping the best, how well do you think you are coping with your diagnosis of HIV?* This question was included as a global way of assessing coping specifically in relation to HIV.

Screening pathway

Screening questionnaires were given to patients at their medical appointments by either the HIV physician or specialist nurses. Patients were asked to complete the questionnaire in clinic and return to a clinician. Screens were identified by patient number only; patients were not required to complete further details in order to facilitate speed of completion. The exclusion criteria were new diagnosis of HIV and insufficient English to understand the questions. Screening took place over a 10-month period in 2013.

Follow-up pathway

All screens were reviewed and scored by the psychologist in the HIV team. Patients who met criteria for mood and/or difficulties coping and/or cognitive difficulties were invited to attend an assessment appointment with the psychologist. A score of 10 or above on the PHQ-9 and/or GAD-7 was chosen as the threshold for follow-up as previous research has shown that scores below 10 indicate no depression or sub-threshold depression [5]. A Score of 5 or lower on the 'coping with HIV' question was chosen as the threshold for follow-up. Patients who indicated that they had

difficulties in any of the four identified areas of cognitive functioning (i.e., problem solving, memory, attention and concentration) 'a good bit of the time', 'most of the time' or 'all of the time' met criteria for follow-up.

Patients were contacted via letter (or telephone if no consent to receive post) and invited to opt in to the service and call the clinic to book an appointment.

Results

Questionnaires were given to 106 patients (F:M 52:54), 32% of patients (34/106, F:M 12:22) met criteria for follow-up, 63% (67/106) did not meet criteria for follow-up, and 5% (5/106) did not complete the questionnaire.

Mood scores

Ninety-two patients completed the PHQ-9, a measure of depression; average score was 5, standard deviation 2.5. Twenty-three percent of patients (21/92) scored 10 or above (moderate range and above).

Ninety-six patients completed the GAD-7, a measure of anxiety; average score was 4.5, standard deviation 5.5. Nineteen percent (18/96) scored 10 or above (moderate range and above). See Table 1.

Coping scores

Sixty-seven percent (71/106) of patients gave numerical responses to this item; the average score was 8, standard deviation 2.3, with a modal score of 10, where 10 is coping best with HIV. Scores on this item showed that the vast majority of patients report themselves to be coping well with their diagnosis of HIV.

Cognitive scores

Of the 101 patients who completed the cognitive subscale, only 7 (7%) patients reported difficulties which met criteria for this study's follow-up.

Outcome

There was a low opt-in rate for psychology. Of 34 patients invited to attend an assessment session, six opted to attend (M:F 3:3), an uptake rate of 18%. Of the six patients invited for psychological

Table 1: Participants' mood scores

Test	Patients (n)	Missing (n)	Minimal range (score 0–4) (n)	Mild range (score 5–9) (n)	Moderate range (score 10–14) (n)	Moderate / severe range* (score 15–19) (n)	Severe range** (n)
PHQ-9	106	14	57	14	12	5	4
GAD-7	106	10	59	19	5	0	13

* PHQ-9 only as GAD-7 scoring criteria differs on this category. ** Score range 20+ on PHQ-9 and 15+ on GAD-7.

assessment, five were Black African in origin, one was White British. These patients met criteria for follow-up for the following reasons: patient identified with both anxiety and depression ($n=2$), cognitive difficulties only ($n=2$), cognitive difficulties and depression ($n=1$), problems in all areas (anxiety and depression, difficulties coping and cognitive difficulties) ($n=1$).

Demographics of group

In order to find out further information about the patient group, patients' electronic clinic records were accessed to gather information on the following variables: age, residency status, ethnicity, occupational status, sexuality.

The average age of patients was 46 (standard deviation 10). Ninety-four percent of patients (100/106) were UK residents, one patient had temporary residency status, and five patients' statuses were missing. Eighty-four percent of patients identified as heterosexual (88/105), 14% patients identified themselves as gay, 2% identified as bisexual, one patient did not complete.

Ethnicity

The two largest ethnic groups were Black African (58%) and White British (25%). See Table 2 for a breakdown of patient ethnicity.

Table 2: Participants' ethnicity

Ethnicity	Number of patients (%)
Black African	62 (58)
White British	27 (25)
Any other White origin	4 (4)
Asian origin	4 (4)
Mixed race	4 (4)
Any other Black origin	3 (3)
Missing	2 (2)
Total:	106 (100)

Of the population sampled, employment status was known for 61 patients, of whom 79% were employed (48/61), 8% were unemployed, and 13% were a mixture of full-time parents, students and retired.

Discussion

The results of this mood and memory screening project show that most patients report that they are coping very well with HIV, and do not report any cognitive difficulties. Depression and/or anxiety were the most common reasons for patients to meet criteria for psychological follow-up. Results showed prevalence rates of 19% for anxiety and 23% for depression. This rate of depression falls at the lower

end of frequently cited prevalence rates (20%–37%) for depression in people living with HIV [7–9]. It is also interesting to note that patients reported levels of anxiety similar to depression, as the HIV and mental health literature has focused largely on depression with a lesser focus on anxiety [10]. Various studies have reported differing ranges of anxiety in HIV populations from 11% to 43% [10,11]. This prevalence of anxiety warrants further investigation as previous research has shown that those meeting diagnostic criteria for generalized anxiety disorder and panic disorder were more than twice as likely to be non-adherent to HAART as those without a psychiatric disorder [12].

Although patients reported symptoms of anxiety and depression, the majority of patients (82%) offered a psychology appointment chose not to attend for further psychological input. It would be interesting to obtain further qualitative information from patients as to the reasons for this. These low uptake rates for psychology raise further questions about what patients who report symptoms of anxiety and depression do want.

A number of hypotheses were considered to account for the low uptake rate. Firstly, it is possible that although some patients are struggling to manage their mood, they may see their mood difficulties as unrelated to HIV, and therefore see no reason to see a psychologist at a GU clinic. Secondly, patients may be receiving psychological input elsewhere, such as a primary care setting. Thirdly, cultural factors regarding psychological distress and help are also likely to influence uptake rate for psychology. Fifty-eight percent of respondents were Black African; previous research carried out with Black and minority ethnic (BME) HIV patients in the UK highlighted the preference for practical support, not talking therapy [13]. Research indicates that the biggest difference between African and White British people with HIV was the extent to which basic practical needs were a problem. For many HIV-positive Black Africans, HIV was only one of many problems they were dealing with, and not necessarily the most important [14]. Psychological support might not be the priority for some of the BME patients in this clinic, and/or psychological therapy may not be culturally acceptable to this group.

These low uptake rates for psychology warrant further investigation, and may be a caveat for other HIV services when thinking about how to apply current standards regarding psychological support to their HIV service in a way that is culturally appropriate and acceptable to patients.

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HIV Nursing 2015

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HIV care in the Netherlands

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Background

In the Netherlands, care for people living with HIV is delivered in 26 hospitals. There are also four more hospitals where care for children is available. Eight are academic centres and the others are large peripheral centres. These are 'assigned' by the Minister of Public Health, and receive funding from central government. Currently, 16,000 adults are known to live with HIV in the Netherlands, but estimates suggest there could be up to 25,000 because many do not yet know their status, or have not yet entered the health system [1].

The number of patients receiving care in medical centres ranges from 56 to 3159 patients [1]. HIV medical care is provided by infectologists in close cooperation with outpatient clinic nurses. In general, the HIV care forms part of the outpatient clinic for internal diseases. In total, 79 HIV nurses work in the Dutch health service, including hospitals for children.

HIV care for adults

It was 1985 when the first HIV nurses, at that time called 'AIDS consultant nurses', started working in the Academic Centre of Amsterdam. This lead was followed by more and more hospitals. In 1990 the



Figure 1: In 2013 the following health institutes were involved as (sub)centres for adult HIV care (1–26), and centres for the treatment and monitoring of paediatric HIV and AIDS (A–D) [1].

Minister of Public Health assigned 11 hospitals for HIV and AIDS care. One of the conditions was that they employ an AIDS consultant nurse. In 1988, these nurses launched the Workgroup of Aids Consulting Nurses. The main purpose of this group was the exchange of information and mutual support, important at the time because the work of a nurse consultant was new. Since then, thanks to huge improvements and changes in the care, support and treatment of people living with HIV, so the work of the HIV nurse has changed. Today, there are many more patients and hospitals involved. The AIDS consultant nurse is now an HIV consultant nurse. The name of the workgroup changed too, and the VCH (as it is now called) has 85 members, and is part of the National Nurses Organisation (V&VN) that has 60,000 members. For the past 6 years, the VCH has organised an HIV master class, open to all people in VCH. This brings the knowledge and level of care delivered by the nurses in different centres to a higher and equal level.

The professional organisation

All HIV nurses in children's and adult HIV care are member of the professional association VCH [2], supplemented with some special members from foreign Dutch-speaking countries. The VCH promotes advocacy of the HIV consultant nurses and positioning of the profession. The VCH is committed to ensuring high standards of nursing care for patients living with HIV.

Objectives of the VCH are:

- Realisation of high-quality care
- To stimulate the professional development of the HIV nurse in the field of knowledge, skills, professional attitude and scientific research
- Positioning of the Dutch HIV nurse consultant as a professional in the field of HIV care – an important link to holistic care for HIV patients
- To stimulate contact between HIV nurses and to exchange knowledge

To this end the VCH organises meetings, courses and has contacts with others partners in the HIV field. Many members are active on the board or committee.

Work of the nurses

HIV nurses work in the outpatient clinics of HIV medical centres. Nurses meet with new patients after referral, when initial counselling and

laboratory work is performed. As soon as the results are available, patients have an appointment with the doctor, following which they meet with a nurse. Once treatment is established, stable patients, with an acceptable CD4 cell count and undetectable viral load, need only be seen once a year by the nurse and once a year by the doctor.

Subjects discussed with nurses include:

- Wellbeing of the patient: health in general, situation at home, work and financial issues
- Processing of HIV, disclosure to others, contact with other patients (peer contact) or referral to a therapist
- Screening for depression
- Use of HIV medication: adherence, side effects, interactions and travelling
- Lifestyle: smoking, use of alcohol and/or drugs, healthy food, losing weight and sports
- Sexual health: practising safe sex, STD (tests), sexual problems, vaccination against hepatitis B
- Reproductive health: issues around pregnancy and contraception, and Pap smear

Other general issues include buying a house and mortgage applications, insurance and medication delivery by the pharmacy. It depends on the patient and what is necessary and urgent at that moment.

Many patients are currently seeing more than one specialist and taking medication in addition to HIV treatment. The nurse is central to ensuring the patient is effectively connected, encouraging self-management and supporting him or her in receiving all appropriate care. Patients do appreciate this – and recently one commented: 'For me, it's nice to visit the nurse. I talk with her in a different way. She's easily accessible and has got more time to explain it all further [after I've spoken with a doctor]. I can also always call her from home when I have a question.'

Although HIV has been around for 30 years, and is currently a chronic disease, every day we experience ignorance and taboos in health care and society in general. Besides working with patients we are also busy giving the right information about HIV to others. We teach colleagues in hospitals, other health care institutions, and family doctors and dentists; we consider our advocacy role to be significant. But we are not always successful:

Patient B is 35-year-old man and a former asylum seeker. He was keen to start as a student nurse but his local authority was convinced he would not be able or allowed to perform his job because of his HIV status. At his request we contacted the authority and informed them several times this was inappropriate advice, but with no success. As a result, he stopped his training and is now doing voluntary work.

Many nurses in the Netherlands are involved in scientific research, for example research about new drugs or research into cost effectiveness. Some nurses undertake their own research, such as in adherence or in managing cardiovascular risks.

Finally, the HIV nurse has a role in keeping people linked to care, minimising the numbers of patients lost to follow-up. As elsewhere, nurses are close to their patients and take action when someone doesn't show up for an appointment. We call them, we mail, we talk about difficulties attending hospital, and about fear and stigma. Together with the patient we seek creative solutions, and work closely with family doctors, mental health care providers, social workers and other specialists. Recently we worked with a patient tested by the family doctor, and who didn't want to come to the hospital. In the end a doctor and nurse cycled to the family doctor and talked together with the patient. Afterwards, her anxiety was reduced and she now visits us regularly, adhering fully to her medication.

HIV and pregnancy

Pregnant women living with HIV are a special group of patients. Since 2004 in the Netherlands, all pregnant women are tested for HIV in the 12th week of gestation unless they choose to opt out. Up to June 2012, 268 women have been found to be HIV positive during pregnancy [1]. They were all referred immediately to a clinic where they received support, information and treatment. With this intensive approach 74% of the pregnant women have undetectable viral load (<50 copies/mL) at delivery [1]. Women give birth in the hospital, and the baby receives medication for 4 weeks. Again, the nurse is often the one connecting the mother with all the other disciplines, making sure appropriate information is available. Very few babies are born with HIV in the Netherlands, unless the mother is infected after 12 weeks of gestation, when routine testing is carried out. (She is not tested again until shortly before term, and so if she is infected during this period there is a very large risk to the baby.) In one such case a mother was lost to follow-up despite the efforts of HIV nurses.

Women who wish to have children are supported by a gynaecologist, an infectologist and an HIV nurse. The woman's partner is always encouraged to attend as well. At their first appointment with the gynaecologist they talk about the menstruation cycle, the fertile period, and baseline laboratory work is done. The different options (including the Swiss statement) for becoming safely pregnant are explained and discussed. If necessary, HIV medication is changed and viral load will be monitored as required. During the whole pregnancy, the couple will be supported by doctors and the HIV nurse.

Hepatitis co-infections

Recently, we have seen more patients with hepatitis B and/or C co-infection. In 2013, about 5% of the Dutch HIV patients linked to care had chronic hepatitis C, and about 1% acute hepatitis C infection. Hepatitis b infection is seen in about 8% of patients [1]. The nurse here has a key part to play in giving information about treatment, lifestyle, safe sex, and, in case of treatment, encourages adherence.

Stichting HIV Monitoring (SHM)

In this article we use facts and a figure (with permission) of the Dutch Stichting HIV Monitoring foundation, which was founded in 2001. Since then it has registered and monitored all HIV patients in follow-up in the Dutch treatment centres [1].

Expectations for the future

For the future, a key challenge in the Netherlands is HIV testing. We have to find those people unaware of their status. Testing for HIV should be something 'normalised', and undertaken by the family doctor, and where appropriate all medical specialties. To stop the epidemic we need to find and support all people living with HIV. This requires a major change in the thoughts and behaviour of the health system. Another challenge is to keep the people living with HIV linked to care; only then can they access treatment and achieve undetectable viral

load. Continuous attention to adherence has been important in the past, and will be very important in the future. Nurses are in a prime position to achieve this in their interactions with patients.

The organisation of HIV care in the Netherlands is changing. There is less government funding available, and decisions on which hospitals offer HIV care are no longer made by the Ministry of Health. To guarantee high quality of care, HIV nurses, doctors and patient organisations – in conversation with medical insurance companies – should agree on the criteria of good HIV care. All hospitals offering HIV care must satisfy these criteria and will be inspected for that. In the future we will see how this new system works. Currently, nurses, patients and doctors are cooperating strongly for the delivery of high quality care – long may this continue.

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Integrating HIV and reproductive health services: a priority for meeting the needs of adolescents

Jacqui Stevenson

ATHENA

Adolescents and HIV

Adolescents and young people living with, and most affected by, HIV have a range of needs around HIV prevention, treatment, care and support, as well as sexual and reproductive health needs. Globally, there are an estimated five million young people (aged 15–24), and two million adolescents (aged 10–19) living with HIV [1]. Accessing services that meet these needs holistically and without stigma and discrimination can be extremely challenging, especially for young people, and people belonging to marginalised or stigmatised communities living with and most affected by HIV: people living with HIV, people who do sex work, men who have sex with men, people who use drugs and transgender people. In many settings, young people's sexuality and sexual autonomy is regulated and proscribed by law, policy and cultural belief, and young people who also belong to a population most affected by HIV face a compounded set of barriers.

Reducing HIV transmission, upholding sexual and reproductive health and rights, and meeting young people's needs requires an approach that recognises the challenges faced by young people, whether through punitive laws regulating sexuality, sex work or drug use, or cultural approbation. In many settings, HIV services have made progress in addressing the barriers and discrimination faced by people from key affected populations. Access to these services may be a challenge for young people, however. Further, while HIV-related needs may be met, broader sexual and reproductive health needs may not.

Integrating services

Integrating HIV and sexual and reproductive health services is a growing international imperative to meet this challenge. Integrated services reduce the burden and barriers faced by young people, by providing a broader range of services in one setting, including HIV prevention, care, treatment and support alongside STI testing and treatment, family planning and other sexual and reproductive health services. It maximises the impact of limited resources, by reducing duplication. Integrated services also provide an opportunity to address stigma and discrimination through staff sensitisation and training. Further, integrated services are promoted alongside a human rights framework that emphasises

comprehensive sexuality education, informed consent and decision-making, confidentiality, and provides services free from stigma and discrimination.

As the international community progresses towards a post-2015 development framework, developing new global development goals to replace the Millennium Development Goals, which expire in 2015, increasing attention has been paid to integration, in particular as the Millennium Development Goals are now considered to have unintentionally generated disparate and parallel approaches. In particular, calls have been made for a unified health goal, with cross-cutting targets on gender equality, ending gender-based violence and promoting human rights, including sexual and reproductive rights [2].

The Link Up project

Link Up, a five-country partnership project, has been leading these calls [3]. The project works in Bangladesh, Burundi, Ethiopia, Uganda and Myanmar to advance the sexual and reproductive health and rights of young people living with and affected by HIV, aged 24 years and under [4]. The project is led by the International HIV/AIDS Alliance and a partnership including the ATHENA Network, the Global Youth Coalition on HIV/AIDS (GYCA), Stop AIDS Now! and national partners. The project promotes integration through service delivery, policy, advocacy and youth engagement.

As a policy partner in the Link Up project, ATHENA works to ensure gender is a central theme of the project, and the specific needs of girls and young women are recognised. ATHENA is an international network committed to promoting gender equality and women's rights in the global HIV response [5]. ATHENA is a global network of individual and institutional members that has been at the forefront of ensuring the centrality of gender equality and human rights in the HIV response since 2006. ATHENA's regular partners include more than 31 global, regional and national networks and organisations of women living with HIV, and 16 networks and organisations of women from key populations, including women who use drugs, sex workers, caregivers and women from LGBTI communities, as well as many other women's rights and sexual and reproductive health and rights organisations.

Adolescent girls and young women are disproportionately affected by HIV, yet lack voice and visibility in advocacy and decision-making on issues that affect their lives, and face multiple barriers to accessing information and services. UNAIDS recognises adolescent girls and young women as one of the 12 populations being left behind in the international AIDS response, as demonstrated by the data:

- Globally, there are about 380,000 new HIV infections among adolescent girls and young women (aged 10–24) every year.
- Globally, 15% of women living with HIV are aged 15–24, of whom 80% live in sub-Saharan Africa.
- In sub-Saharan Africa, women acquire HIV 5 to 7 years earlier on average than men.
- In 2013, almost 60% of all new HIV infections among young people aged 15–24 occurred among adolescent girls and young women [6].

The particular needs of girls and young women generally, and of girls and young women who are living with HIV, use drugs, or do sex work, are addressed throughout the Link Up project.

Focus: Bangladesh

As part of the Link Up project, ATHENA and GYCA led national-level consultations in each project country. In Bangladesh, community dialogues were held with young women living with HIV, young men who have sex with men (MSM), young transgender persons, and young people who engage in sex work [7]. Young women living with HIV and MSM described fear of a lack of confidentiality and discrimination in government clinics and services, and their preference instead to access services provided by community-based organisations. Young people from all key populations described their fears around accessing services and the lack of tailored, youth-friendly services meeting their specific needs. This is compounded by the prevalence of gender-based violence, and other forms of stigma and discrimination in wider society.

Responding to these needs, Link Up is working in Bangladesh to provide high quality, youth-friendly integrated HIV and sexual and reproductive health services. Led by HASAB in Bangladesh, in partnership with 21 national-level implementing partners as well as international Link Up partners, the project has ambitious targets to reach 76,500 young people with facility-based integrated SRHR/HIV services and to create 270 service provision points offering integrated HIV and SRHR services, along with many other targets, by the end of the project. A range of activities are being carried out to achieve these targets. Mobile and satellite services offering integrated services are being provided by Marie Stopes Bangladesh in settings

such as railway and bus stations, and garment factories. Young people from key populations are being recruited and trained as peer educators to promote services, create demand for services, and provide voucher-based referrals into services for other young people in their communities. Service providers are being trained and sensitised, with the support of the peer educators, to deliver non-discriminatory, quality, youth-friendly integrated services.

Further, young people from key populations are actively engaged throughout the Link Up project, including in shaping and leading national advocacy strategies and activities in each country. This meaningful participation is a core aspect of the Link Up ethos and reflects the calls made through a global consultation of young people.

In order to establish the needs, experiences and priorities of young women, men and transgender people, to inform the policy aspect of Link Up, ATHENA and GYCA collaborated to conduct a consultation on the visions, voices and priorities of young people living with and affected by HIV. Nearly 800 people from every region of the world responded to a global online survey that collected quantitative and qualitative data in five languages, and over 400 young people participated in a series of community dialogues and focus groups with national partners in Ethiopia, Uganda, Burundi, Bangladesh and Myanmar [4].

The future

Through this process, five clear visions for positive change and targeted recommendations emerged, which speak to young peoples' shared perspectives on what is needed to achieve real progress:

- 1) Provide quality sexual and reproductive health services from ethical and well-trained health service providers tailored to the needs, rights, and desires of young people – especially those living with and most affected by HIV;
- 2) Protect, respect, and promote young people's sexual and reproductive rights, including their right to love and be loved safely and freely;
- 3) Ensure full access to age-appropriate information and education on HIV and sexual and reproductive health and rights, including on sexuality and gender identity;
- 4) Promote gender equality and address gender-based violence, including sexual violence, in all its forms, including on the basis of sexual orientation and gender identity;
- 5) Meaningfully engage young people, in all their diversity, in the decision-making that affects their lives.

Realising these visions and priorities of young people living with and most affected by HIV is essential to realising the rights of young people. Link Up plays a key role in achieving this, through

providing integrated and youth-friendly services, which uphold and promote the sexual and reproductive health and rights of young people, with the meaningful leadership and participation of young people themselves.

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From Preston to Zambia: a new sexual health project and an interview with an HIV counsellor

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This article provides an overview of a new sexual health project in Lusaka, Zambia. It discusses the development of the project and an interview with an HIV Counsellor who kindly offered her time. Finally, a student experience of the project concludes the article.

The BSc (Hons) Sexual Health Studies (SHS) [1] is a unique non-clinical, undergraduate specialised degree programme delivered at the University of Central Lancashire (UCLan), Preston. It provides a significant contribution to the education of those who want a graduate career in adult and young people's sexual health services, and is available on the Universities and Colleges Admissions Service (UCAS) [2]. UCLan's Internationalisation Agenda is committed to providing students with opportunities to spend part of their course overseas on study programmes to enable them to enhance and develop their global and cultural awareness [3]. The opportunity for second- and third-year BSc SHS students to visit Zambia, and experience the significant challenges of HIV and sexual health in the country, was seen as an important aspect of students' learning on this degree programme.

Zambia, in southern Africa, has one of the world's most devastating HIV and AIDS epidemics [4]. Approximately 1.1 million people aged between 15 and 49 live with HIV, which equates to an adult HIV



Figure 1: The team that travelled out to Zambia.

prevalence of 12.5% [5]. Life expectancy has fallen to just 49.4 years as it is estimated that approximately one in every eight adults in Zambia are living with HIV [4]. Furthermore an estimated 27,000 people die each year in Zambia from AIDS-related illnesses [5]. Although antiretroviral therapy (ART) is free and accessible for those who require treatment, current statistics show variations in coverage, with approximately 90% of adults on treatment and 28.1% of children under 15 years of age [5]. This is supported further by Carter [6] who reports findings from the Bulletin of the World Health



Figure 2: Condom demonstration to young men in Lusaka.

Organization that the 'scale-up' of antiretroviral therapy (ART) programmes in Lusaka, Zambia, has shown no significant reduction in the mortality rate and that a continued multi-faceted approach is required.

It is well established that the use of condoms is highly effective in the prevention of sexual HIV transmission if they are used consistently and correctly [7,8]. However, the role of condoms in reducing the transmission of HIV in Zambia is a continued challenge in this mainly Christian nation, particularly in more rural areas. The main barriers which prevent people from using condoms appear to be associated with lack of knowledge, stigma and gender inequalities [4].

Members of the sexual health academic teaching team were keen to build on the success of an established UCLan Sport for Development Project which had run annually for 2 weeks in Zambia. This project provided opportunities for undergraduates from the School of Sport to work with Sport for Development agencies in Zambia and deliver key health messages through sport to promote health. In April 2013, two second year BSc (Hons) SHS students had the opportunity to join this project and spent 2 weeks working in Kabwe alongside the sport students. The sexual health students delivered a variety of interactive games, quizzes and information sessions around sexual health and HIV to a range of children and young people. The last few days of the trip were spent on safari, rafting and visiting the Victoria Falls in Livingstone. The sexual health students reported this opportunity had been 'a fantastic experience'. The 2013 project was well evaluated and the feedback from the project leaders in Kabwe was very positive. This project highlighted the need to develop a further project which focused on 'training the trainer' around HIV and sexual health promotion in Zambia. The teams involved decided that training local Sport in Action community peer leaders to deliver sexual health promotion would be seen as a positive step which could provide long-term HIV education within Zambian communities.



Figure 3: Playing games.

Preparation commenced and two members from the sexual health academic team spent 6 to 9 months planning the project, and liaised closely with the co-ordinator of the Sport for Development project and senior project leaders for Sport in Action (SIA) in Zambia. The academic team believed that students should be exposed where possible to 'real life experiences' to fully embrace and reflect upon the challenges of HIV and sexual health in Zambia. Lessons from 'lived experiences' are difficult to replicate in the classroom environment. Early in 2014 the Senior Project Leader for SIA signed an agreement with Save the Children in Lusaka to implement comprehensive sexual health education and was keen for the BSc SHS students to be involved with this project in Lusaka. The aim of the project was to promote sexual health and to provide community peer leaders with specific knowledge and skills around HIV and sexual health promotion which they could then deliver within their own communities. The BSc SHS students would participate and facilitate the delivery of these through a range of interactive activities. Approximately 70% of the project fee was funded from a UCLan international travel bursary scheme and the students contributed the remainder.

A 13-day project was planned, and following successful interview six undergraduate BSc SHS students from UCLan travelled to Lusaka between 6 and 20 May 2014. The students worked in a variety of settings delivering HIV and sexual health promotion, condom education, visiting local schools and colleges, visiting HIV services, and working alongside the SIA community peer leaders. The students commented on the varied levels of knowledge of HIV in Lusaka among young people. Misconception and myths were common, including that sexual intercourse with a virgin can cure HIV, and toothbrushes can transmit HIV. In addition young men wanted advice about whether they should be circumcised and the health benefits this may bring. A 3-day sightseeing tour in Livingstone was included at the end of the project before they returned home to the UK. The students again

reported it had been a 'fantastic life-changing experience'. The students recognised their own personal and professional achievements and the skills and resources required to deliver specific key messages around HIV and sexual health promotion. This was a successful project which highlighted the potential for delivering sexual health promotion to provide long-term HIV education within Zambian communities. The team are currently working on the 2015 Lusaka project.

Interview with an HIV counsellor in Lusaka, Zambia

Betty is an HIV counsellor in Lusaka, Zambia who has worked for many years directly with people and their families who have experienced difficulties with their diagnosis. To protect her confidentiality her name has been changed [9] and she has consented to her work being shared. Betty was met away from her clinic and she shared her knowledge and experiences of working in HIV care.

[Students] Can you tell us a little about yourself?

[Betty] I'm married and both myself and my husband are HIV positive and currently taking ART; I was diagnosed 12 years ago. I've got three children, two younger and one who is in her twenties. None of my children are HIV positive. My husband is really supportive of my role as an HIV Counsellor.

[Students] When you were diagnosed with HIV 12 years ago, did you receive good HIV counselling and care?

[Betty] Yes I did, I received very good HIV counselling. When I was first diagnosed with HIV I was in a state of denial and constantly asked why me? Receiving HIV counselling really helped me to understand my status and to come to terms with my diagnosis. Since being confirmed as HIV positive I

have had two children who both have negative statuses.

[Students] Do people come and see you in clinic for advice about HIV testing?

[Betty] Yes, they often come and see me. I find that people like to travel to a community where they are not known. I get involved with contact tracing and often get in touch with people to come and see me regarding HIV testing.

[Students] In the UK there are significant differences in HIV service provision. How are HIV services provided in Zambia?

[Betty] In Zambia, the clinics are a one-stop service with pre- and post-test counselling, nurses, doctors and pharmacists all under one roof. The patients don't leave until they have seen everyone they need to on the day they attend. Some patients don't use all our services; they don't have to receive their medication from the in-house pharmacy. They can, if they wish, take the medication request to their local hospital if that is more convenient for them.

[Students] How many patients does your clinic see on average per day?

[Betty] My clinic's busiest days are Monday, Thursday and Friday, and we average approximately 250 patients per day. The clinic today (Wednesday) was unusually busy, we saw 250 patients before I came here to meet you all. The clinic is usually quieter on a Tuesday and a Wednesday.

[Students] In England our services are confidential for all patients; is that the same in Zambia?

[Betty] In training, staff are taught three main things: have big ears in order to listen well; have big eyes so you can observe different situations; and have a small mouth which teaches you not to talk about the

(a) The student experience: Sara Atkin

What initially interested you in the Zambia project?

The chance to see the attitudes towards HIV in Africa in person was the main draw, and the chance to dispel some myths around HIV was another factor

What did you personally get out of the Zambia project?

I got a much greater understanding of culture and attitudes toward sexual health and sexuality on a global scale. I also have reassessed my own attitudes towards young people accessing the sexual health services that I work for.

What was the most rewarding part?

Without a doubt, working with the young people, whether playing games or just sitting and talking to them, and knowing that you were giving them the information to keep themselves safe was very rewarding.



Did you experience challenges?

There were challenges – I went out expecting to solely do HIV work, but the issues of substance misuse, consent, early sexual debut and where to access services came up, and I felt under-prepared for that.

(b) The student experience: Hayley Bavin

What initially interested you in the Zambia project?

I initially wanted to be a part of the Zambia 2014 project as it was an opportunity to develop my leadership skills. Having been a part of the Zambia Project with the sports students in 2013, I was keen to return and contribute further and help develop a new project for future sexual health students.

What did you personally get out of the Zambia project?

I learnt to appreciate the lifestyle we have in the UK. Going to Zambia was an eye-opening experience and I personally gained satisfaction in knowing my work contributed to a better future for young people. I have gained confidence and better communication skills through this project. I now work within sexual health promotion and believe this experience increased my employability.

What was the most rewarding part?

By going to Zambia in 2013 and 2014 I achieved an ambition to work abroad to improve the future of

others. The most rewarding part of the project was meeting people who I otherwise wouldn't have engaged with, and developing relationships to empower and encourage young people through sport.



Did you experience challenges?

There are always daily challenges when visiting another country, such as language and cultural barriers. This was noticed when delivering sexual health sessions to the young people where sometimes topics were difficult to interpret. This was overcome through sport and games, which clearly explained the messages being taught. These challenges were all part of the experience and made the project interesting, exciting and fulfilling.

patients you see. We are only allowed to disclose information about patients if the Court has ordered us to do so. Through confidentiality, it will allow patients to have confidence in HIV services and encourage others to be tested in confidence; however, through our culture, confidentiality is broken regularly and patients will walk many miles in order to find an HIV clinic out of their area in fear of being seen by someone they know – which has no effect on tackling the stigma within Zambia.

[Students] Do you share your experiences of living with HIV with your patients?

[Betty] Yes, I do now, but I didn't in the first 2 years of diagnosis. I was in denial and I didn't want to disclose to anyone, not even my closest friends and family.

Acknowledgements

We would like to thank the University of Central Lancashire for their continued financial support of this project. Also, Sport in Action in Lusaka for their assistance in hosting the sexual health students and staff. Finally, Cliff Olsson, for sharing his valuable knowledge in setting up a project in Zambia.

All honoraria received for the production of this article will be used to fund equipment for the 2015 project.

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Book review

Practice development in nursing and healthcare

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In the second edition of their book, McCormack, Manley and Titchen methodically outline practice development in nursing and healthcare. They acknowledge this book is aimed at a diverse audience including undergraduates, registered practitioners, academic staff and researchers, managers and finally those in more formal practice development roles. Whether you are experienced in practice development or are a novice learning for the first time this book will give you the foundations of knowledge required to assist you in your quest to advance, develop and change practice. In HIV nursing care, our practice has developed and transformed; look at all the roles you undertake on a daily basis. Who would have thought 5, 10 or 15 years ago that nurses would undertake such advanced practice?

The book commences with an introduction from the authors on what practice development actually is. They discuss the confusing historical term of practice development, discoursing whether it was educational, research or audit activity. They discuss how the term is interpreted today and the benefit of the International Practice Development Collaborative (IPDC) across Europe, North America and Australia. This has assisted with a deeper understanding of practice development as a methodology, using a systematic approach to developing practice. They discuss 'person-centred practice' remembering who is at the focus of the development.

The chapters are written by a variety of different authors, all of whom have approached their chapter in a different way. The authors are all experts in their own field and provided patchwork-type chapters which fit nicely into the book. Chapter 11 'Practice development as radical gardening: enabling creativity and innovation' is especially imaginative. It uses the metaphor of planting and nurturing a garden in areas where you might not normally do so, like an urban area city centre. The radical garden is the innovative part, such as a development of a nurse-led clinic and the creativity is the growth part, which in turn allows innovation to happen.

Finally, practice needs to continue to develop, improve, progress, innovate and enhance. As nurses in HIV care, we are the ones who can do it. This book gives practitioners examples, case studies and scenarios throughout, which in turn helps the process of understanding practice development more easily. The book is supported with a strong evidence base which strengthens its use in practice. We recommend this book and hope that you enjoying reading it too.

McCormack, B, Manley, K and Titchen, A.
Practice Development in Nursing and Healthcare
(2nd Edition), 2014 is available from Wiley
Blackwell, priced £29.99 (Available at:
[http://eu.wiley.com/WileyCDA/
WileyTitle/productCd-0470673117.html](http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0470673117.html)).
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HIV care and prevention: nurses still at the forefront

Ian Hodgson

Co-Chair, European HIV Nursing Conference, 19–20 October, 2014, Barcelona, Spain

In October this year, an important conference was held in Barcelona for nurses working in HIV care. The majority of the 200 or so attendees work in the European region, though some came from as far away as the US, South Africa, and Israel. The conference was hosted by the International Association of Providers of AIDS Care (IAPAC), in association with the European HIV Nursing Network (EHNN).

The care and support of people living with HIV across the European region differs markedly. For example, the so-called 'treatment cascade' tracks a sequence of statistics from the number of people thought to be infected in a country, through the number reached and actually diagnosed, through linkage to care and, finally, to how many have an 'undetectable' viral load. Clearly, the gap between the number of people diagnosed, and people on treatment with undetectable viral load, is directly related to the strength and effectiveness of a health system. In the UK, for example, this gap is relatively small – 77,000 and 60,000, respectively (a shortfall of 22%) [1]. In European and Central Asian countries, however, it is immense – with an estimated shortfall reported in 2012 of 75% [2].

It is crucial for nurses to be fully engaged with all aspects of HIV care and prevention, and during the conference in Barcelona we heard from a range of speakers affirming the vital role nurses play. For David Benton, Chief Executive of the International Council of Nurses (ICN), speaking during a keynote address: 'Nursing care is the cornerstone of care and support for those living with HIV.' Evidence from Uganda, presented by Dr Ben Young (IAPAC), suggested: 'Nurse-led HIV clinics have the same treatment success rates as physician-led.'

Specific topics discussed were highly relevant to the current status of HIV. For example, Margarita Robau, a senior nurse in Barcelona's Hospital Clinic (and Co-Chair of the conference), spoke of the need to address issues around 'healthy aging' and HIV.

At the other end of the age continuum, the role of nurses in supporting adolescents living with HIV was discussed. Here, we heard excellent examples of specific interventions to ensure this group engage with care and are supported when they are told of their HIV status; deal with disclosure to others; manage their treatment adherence; and make the transition into adult care. According to Evelyne Van Der Kelen, a nurse working in the Netherlands, we must 'adapt to their life,' provide peer support groups, and support the parents too if we are to make sure affected young people remain healthy and empowered.

Many other topics were included, such as sexual health, liver disease, mental health, health literacy and stigma, and treatment adherence. A number of abstracts were submitted and presented, and these are included in the following pages. What can be seen is that nurses in many countries are undertaking important research to improve the care of those affected by HIV, seeking clarity around its complexities, and searching for ways to ensure the focus of care is clearly on putting the patient first.

This event confirms nurses are still at the forefront, and not just in the context of HIV. Emerging news during the conference of increasing numbers of health care workers infected with the Ebola virus was a sobering reminder of our profession's dedication and willingness to care – just as in the early days of HIV during the 1980s.

I hope you find the abstracts interesting, and we look forward to seeing you at the next conference in 2015!

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Abstract O1

Effect of Different Intervention Programs on Treatment Adherence of HIV-Infected Children, A Retrospective StudyAtie Plas¹ (presenting), Henriette Scherpbier², Taco Kuijpers², Dasja Pajkrt²1. Academic Medical Center, Netherlands
2. AMCEKZ, Netherlands

Introduction: In HIV-infected children, long-term adherence to combination antiretroviral therapy (cART) is difficult. In this retrospective study, we evaluated the effect of two different treatment adherence programs on treatment adherence (as indicated by cART failures) and the need for additional supportive care measures in a cohort of 31 HIV-infected children between the ages of 3 and 18 years. In a follow-up period of six years we evaluated treatment adherence at baseline (before introduction of any treatment adherence program in 2004) and compared this to cART failures during two treatment adherence programs (in 2006 and 2009, respectively). The need for additional supportive care measures (the frequency of hospitalizations, daily-observed treatment, use of child protection service, attendance of special schools and placement in foster homes) were also evaluated at these three time points.

Description: The first treatment adherence program focused on increasing patient's compliance by imposing negative measures in case of treatment failure, whereas the second program aimed to increase treatment adherence by rewarding optimal medication intake.

Lessons Learned: Prior to start of any treatment adherence intervention program, cART failures were observed in 29% of the pediatric patients. After introduction of the first treatment adherence program cART failures decreased to 6%. During the second treatment adherence program the cART failures remained equally low (10%), but the need for some specific additional supportive care measures (the frequency of hospitalizations and placement in foster homes) were importantly reduced.

Recommendations: Treatment adherence programs are effective in increasing treatment adherence to cART in HIV-infected children. A novel reward treatment interventional program as an addition to social supportive care programs is a promising new positive enforcement program and can reduce the need for additional supportive care programs. Further prospective studies are needed to evaluate the long-term effect of this new treatment intervention program.

Abstract O2

HIV-Infected Adolescents: Adherence to Medication and Transition to Adult Health Care Services

Annouschka Weijnsfeld (presenting), Atie Plas

Academic Medical Centre, Netherlands

Introduction: The life expectancy and future perspectives of HIV-infected children have improved drastically over the last 10 years due to combination antiretroviral therapy (cART) and advanced supportive care. HIV-infected children grow up into adulthood and face various age- and HIV-specific challenges on their way throughout adolescence into adulthood.

Description: At our pediatric HIV clinic in Amsterdam, we provide care for a group of perinatally HIV-infected adolescents (usually defined as aged between 12 and 24 years). It is a period in which an adolescent develops independence, self-consciousness and identity. Like any other adolescent with a chronic disease, HIV-infected adolescents have to learn to manage their own illness, but on top of that, HIV-specific issues such as treatment adherence, coping with HIV stigma and sexuality play an important role in the lives of HIV-infected teenagers. Challenges in treatment of and care for these HIV-infected adolescents are adherence, communicating about HIV status, and transitioning into adult health care services.

Lessons Learned: The care for this group of patients not only takes special attention from the health care providers at the pediatric departments, but also at the internal medicine departments. At 18 years of age, most patients leave the pediatric department, and are supposed to be fully competent to manage their own health care at the internal medicine department. Health care providers should be aware of the special needs of this group.

Recommendations: We will share supportive care strategies and methods to support and communicate with HIV-infected adolescents. Furthermore, we will present ongoing research on adherence to medication and transition of HIV-infected adolescents to adult health care services.

Abstract O3

Preparing Women with HIV for Menopausal Transition

Christina Joosten (presenting)

University Clinic Ghent, Belgium

Introduction: Historically, the HIV epidemics in Europe and the United States started in a very atypical way – a fatal disease mainly affecting young men who have sex with men (yMSM). Counselling focused on young, terminally ill people, trying to avoid infection and contain symptoms. Growing knowledge about the virus and effective medication slowly transformed HIV into a chronic disease. Patients live longer and dealing with aging and co-morbidities grew important. In this context, menopause came only very recently to the counsellors attention, as an additional complication to an already complex syndrome.

Description: Women living with HIV approaching midlife have specific symptoms and needs. They experience more frequent and more serious vasomotor symptoms, compared to HIV-negative women. Comorbidities like cardiovascular disease, diabetes mellitus type 2 and bone loss become more prominent and ask for special attention in food management and physical exercise. Mental issues, problems with self-esteem due to a changing body shape, and genital atrophy can cause a change in relational and sexual functioning. In addition, problems with memory and more frequent sleep disturbances can hamper activities in daily life and therapy compliance.

Lessons Learned: Being able to inform women (and their partners) about symptoms that announce a natural aging phase instead of yet another unexpected HIV symptom is an effective way to comfort these women. Since adequate information leads to acceptance and health-seeking behavior; being prepared for the possible turbulence of menopause makes it easier to work towards a healthy transition.

Recommendations: Menopause is a difficult passage in life, more so in women with HIV who experience HIV-specific health problems. Targeted counseling can possibly prevent co-morbidities and alleviate a great deal of stress among these women. The time has come to prepare and educate counsellors to provide appropriate care to women living with HIV.

Abstract O4

Improving Knowledge and Attitudes of Bachelor Nursing Students Regarding HIV Transmission Risk and Nursing Care for People Living with HIVAnn Deschamps¹ (presenting), Sandra Van den Eynde², Greet Kayaert¹1. Leuven University College, Belgium
2. Sensoa, Belgium

Introduction: Previous research in a bachelor school in Leuven (a middle-sized Belgian town) indicated that nursing students overestimate the risks of HIV transmission, often worry about contracting HIV, and hold discriminatory attitudes which might hamper equal treatment of people living with HIV in regular care facilities.

Description: We implemented an intervention to decrease fear of HIV-transmission in nursing students, consisting of a two-hour interactive and educational training session that included 1) general information on HIV and HIV transmission during nursing interventions; 2) universal precaution guidelines for dealing with (potentially infectious) bodily substances; and 3) using testimonies of people living with HIV. Knowledge about HIV and attitudes towards people with HIV were assessed using a standardized self-developed questionnaire at three points in time: just before the intervention (T1) (n=109), right after the intervention (T2) (n=92) and 4 weeks after the intervention (T3) (n=55).

Lessons Learned: After the intervention, students were significantly ($p < 0.05$) 1) less worried about contracting HIV by working alongside someone with HIV; and 2) more sensitive towards the rights of people living with HIV. For example, students claimed less that 1) they should know the HIV status of their nursing colleagues even when these are not willing to disclose their status (27% at T1 versus 16% at T3); and 2) HIV positive nurses should be banned from nursing (17% at T1 versus 2% at T3).

Recommendations: This study shows that even a relatively simple two-hour interactive educational intervention 1) results in a more realistic view of the risk of HIV transmission and 2) decreases discriminating attitudes in nursing students towards people living with HIV. We therefore recommend implementing a similar interactive education intervention in nursing curricula in order to optimize nursing care for HIV patients.

Abstract O6

Discussing Sexual Risk Behavior in HIV-Positive MSM: Psychosocial Determinants as a Guide for the HIV Nurse

Suzanne Munnik (presenting)

Catharina Ziekenhuis, Netherlands

Background: Nearly two thirds of the annual patient population in the Netherlands having a new HIV diagnosis is made up of men who have sex with men (MSM). One or more sexually transmitted diseases (STD) are frequently diagnosed in 30% of HIV-infected MSM. The HIV nurse plays a crucial role regarding information on sexually risky behavior. This study describes the extent to which HIV nurses actually discuss sexually risky behavior and which determinants influence this discussion.

Methods: Qualitative exploratory research was carried out using the theory of planned behavior as a theoretical framework. Data acquisition consisted of semi-structured focus group interviews using an interview guide in which determinants from the theory of planned behavior were included. The interview guide was adapted on the basis of the analysis, which was carried out alternately with the data collection. These focus groups were held with eight, eight and six participants, respectively. All interviews started with the same opening question: 'Can you tell us what you do now in the way of information on the sexually risky behavior of HIV-infected MSM?'

Results: The research has clearly demonstrated that, in spite of focused schooling and the importance which they attach to discussing sexuality, a large proportion of HIV nurses find it awkward to discuss sexual risk behavior. The majority of those who responded do not always discuss sexuality, while at the same time they feel that it should be done at that moment. Determinants for this were: 1) not wanting to be pedantic, and 2) embarrassment and the age, gender and sexual orientation of the HIV nurse.

Conclusions: The research shows that HIV nurses think discussing sexuality is important, but sometimes they are reluctant due to embarrassment or because they do not wish to appear pedantic. Further research is necessary in order to establish how the determinants influence each other, which are most important and which are the simplest to influence. This will enable interventions to be set up specifically focused on the HIV nurses group. The goal is to prevent the spread of HIV-infected persons by improving the discussion on sexually risky behavior.

Abstract O7

Tracking Linkage to Care and Support of HIV-Positive Clients Tested on Mobile Testing Units in South Africa

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Foundation for Professional Development, United States

Background: Tuberculosis (TB) and HIV burden of disease in South Africa is known to be amongst the highest in the world. In response, the Foundation for Professional Development (FPD) provides mobile HIV counseling and testing (HCT) in various settings as an entry point into care and support. HIV-positive clients are referred to public health facilities post testing. Lack of national patient management system in public health environment makes tracking of linkage to care impossible. FPD monitors self-reported linkage to care through a call centre model in its US President's Emergency Plan for AIDS Relief (PEPFAR)-funded mobile HCT program.

Methods: The aim of this descriptive study was to determine whether clients who tested HIV positive accessed health care services (HCS: ART/Wellness) post HIV test. Data were collected via telephone over a three-year period. The primary purpose of the calls was to support mobile unit HIV-positive clients to access care, and the secondary purpose was to collect data. A retrospective review was conducted of the self-reported data.

Results: 60,439 people underwent HCT services with 6,281 (10.4%) identified as HIV positive. Of the HIV-positive individuals, 4,552 were successfully contacted and interviewed. 1,239 (27.2%) of respondents reportedly accessed HCS post-test with 3,313 (72.8%) indicating a failure to access HCS during the study period. Reasons for loss to initiation of HCS included time constraints and discordant retesting as the main factors accounting for 89.2% of all responses.

Conclusions: Structured call center follow up of HIV-positive clients is a reliable way to track loss to initiation in the South African public health environment. It provides insight on reasons why patients do not access healthcare, despite pre- and post-test counseling. Lessons learned from this service have been used to create a mobile phone application, which further improves tracking of patient loss to initiation.

Abstract O8

How to Communicate the First Results from the PARTNER Study in a Clinical Setting – From Nurse to Sero-Different Couples

Tina Bruun (presenting) on behalf of the PARTNER study group

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Introduction: The PARTNER study evaluates HIV transmission risk in heterosexual and homosexual couples when condoms are not used and the HIV-positive partner is on suppressive antiretroviral therapy (ART).

Description: PARTNER is the first study to estimate transmission risk in couples having condomless sex, including men who have sex with men (MSM) couples. The first results presented at CROI 2014 showed that the 767 couples followed across Europe overall had condomless sex more than 44,000 times with no linked transmissions observed when the HIV-positive partner had undetectable viral load.

Lessons Learned: The PARTNER results are important for health care staff, MSM couples and the community and need to be discussed among the relevant groups. We do not know how nurses relate to the risk found in the PARTNER results and how these results are being communicated. Feedback from sero-different couples in Denmark has been that data from the PARTNER study have not been discussed with them at clinics and it has been difficult to find lay articles/debates on the topic in the Danish language. Danish MSM counsellors found it very difficult to decide how they should counsel other MSM and expressed the need for more debate in the HIV/MSM organization community and more data.

Recommendations: In a clinical setting it should not only be the nurse's personal view on transmission risk, but should be a discussion among all staff members that are involved in the treatment and care for HIV-positive people. The discussion is likewise important on national and global level to ensure that data is uniformly interpreted and communicated. The PARTNER study continues to enroll only MSM couples to strengthen data on transmission risk through anal sex. If treatment is used 'as prevention' in sero-different couples it could be emphasized that the PARTNER study is still studying the transmission risk in anal sex where evidence is still not strong.

Abstract O10

Club Drugs and STIs: Is our Nurse-Led Annual Review Service Offering Sexual Health Screening to High-Risk Patients?

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Background: Use of recreational drugs is higher in the HIV-infected population, particularly in HIV-infected men who have sex with men (MSM). Recent research has focused on the use of club drugs such as methamphetamine (crystal meth), gammabutyrolactone (GBL) and mephedrone among MSM and associated behavioral risks. Methamphetamine use among MSM is associated with high rates of sexually transmitted infections (STIs). Nurse-led annual screening was introduced in our clinic in 2012, to identify opportunities for health and social interventions, including disclosed drug use and diagnosed STIs. This service evaluation aimed to evaluate whether high risk patients were offered sexual health screening as appropriate.

Methods: 511 patients were seen for annual review across our service between July 2012 and December 2013. A notes review was conducted, focusing on patient disclosure of drug use and STIs.

Results: The average patient age was 46. Of the 467 (91%) male patients, 420 (90%) were MSM. 132 (26%) patients used recreational drugs, 54 (41%) of these were using club drugs (all of whom were MSM). 23 (43%) of those using club drugs had been diagnosed with an STI in the past year, whereas 14 patients (18%) using other recreational drugs had been diagnosed with an STI in the past year. Of the 54 patients using club drugs with an STI in the last year, 40 (75%) were offered a sexual health screen during the consultation.

Conclusions: STI rates are higher amongst club drug users. Club drug use is common in HIV-infected MSMs and requires identification to facilitate onward referral, support and risk reduction advice as necessary. Annual review is identifying high risk patients needing further intervention or referral, but there is room for improvement to ensure all patients are offered STI screening.

Abstract O11

Predictors and Correlates of Adherence to Combination Antiretroviral Therapy (cART) for Chronic HIV Infection: A Meta-Analysis

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2. Academic Medical Center, Netherlands
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Background: Adherence to combination antiretroviral therapy (ART) is a key predictor of HIV treatment success and potentially amenable to intervention. Insight into predictors or correlates of non-adherence to ART may help to guide targets for the development of adherence-enhancing interventions. Our objective was to review evidence on predictors/correlates of adherence to ART and to aggregate findings into quantitative estimates of their impact on adherence.

Methods: We searched PubMed for original English-language papers, published between 1996 and June 2014 and the reference lists of relevant articles. Studies reporting on predictors/correlates of adherence among adults prescribed ART for chronic HIV-infection were included without restriction to adherence assessment method, study design or geographical location. Two researchers extracted data in duplicate. Random-effect models with inverse variance weights were used to aggregate findings into pooled effect estimates with 95% confidence limits. The standardized mean difference (SMD) was used as common effect size. The impact of study design features (adherence assessment method, study design, countries' United Nations Human Development Index [HDI]) was investigated using categorical mixed-effect meta-regression.

Results: A total of 207 studies were included. The following predictors/correlates were most strongly associated with adherence: adherence self-efficacy (SMD=0.603, $p=0.001$), current substance use (SMD=-0.395, $p=0.001$) concerns about ART (SMD=-0.388, $p=0.001$), beliefs about the necessity/utility of ART (SMD=0.357, $p=0.001$), trust/satisfaction with the HIV care provider (SMD=0.377, $p=0.001$), depressive symptoms (SMD=-0.305, $p=0.001$), HIV stigma (SMD=-0.282, $p=0.001$), and social support (SMD=0.237, $p=0.001$). Smaller but significant associations were observed for: being prescribed a protease inhibitor-containing regimen (SMD=-0.196, $p=0.001$), daily dosing frequency (SMD=-0.193, $p=0.001$), financial constraints (SMD=-0.187, $p=0.001$) and pill burden (SMD=-0.124, $p=0.001$). Higher trust/satisfaction with the HIV care provider, a lower daily dosing frequency, and less depressive symptoms were more strongly related with higher adherence in low- and medium-HDI than in high-HDI countries.

Conclusions: These findings suggest that adherence enhancing interventions should particularly target psychological factors such as self-efficacy, and concerns/beliefs about efficacy and safety of ART. Moreover, these findings suggest that simplification of regimens may have smaller, albeit significant effects.

Abstract O14

HIV Contact Tracing: Nursing Intervention

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Background: HIV contact tracing is a challenge for the health system. Our objective was to trace risk contacts of HIV-infected patients recently diagnosed and promote follow up.

Methods: A prospective, descriptive study. In 2012, all persons newly diagnosed with HIV who first visited in the nursing service at the Infections Hospital Clinic of Barcelona were included. We analyzed demographics and sexual behavior characteristics. We searched for risk contacts through a dual referral method and did an HIV serology to all reached contacts. Quantitative variables were described by mean, median and range.

Results: There were 215 new HIV diagnoses. We found at least one risk contact for 82% patients and did follow-up. 49% came to the nursing service accompanied by at least one sexual partner. Of 117 risk contacts identified, 45 already knew their HIV-positive serostatus and 72 (61.5%) indicated they were unaware of their serostatus, 19 (26%) of these patients were diagnosed with HIV infection. This represents an infectivity rate of 26.4%.

Conclusions: Our study demonstrated that dual referral method applied by a specialized HIV nurse for contact tracing is a feasible strategy (applicable and acceptable) given the high number of localized contacts and HIV diagnoses in the context of the study. We recommend applying new strategies in nurse consulting specialized HIV units, as described in our study, involving methods that effectively guaranteed confidentiality.

Abstract O12

Technical Assistance for Rapid Implementation of Nurse-Initiated Management of Antiretroviral Therapy in the Foundation for Professional Development's Supported Districts in South Africa; Mentoring Matters!

Hanlie Kapp¹ (presenting), Martin Jones²

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2. Independent Consultant, United States

Description: The Foundation for Professional Development (FPD) structured a NIMART training and mentoring program for implementation in four supported districts. Department of Health (DoH) nurses were trained on antiretroviral therapy (ART) initiation in children and adults. Previously employed ART clinic nurses were trained and qualified as mentors. Mentors visit facilities on regular scheduled intervals. Schedules are dependent on NIMART-trained DOH staff and newly diagnosed HIV-positive clients. Mentors use the DoH NIMART mentor guidelines and logbook when mentoring facility based nurses. Proficiency is logged in logbook and NIMART certificate is awarded to nurses who have proved proficiency.

Lessons Learned: Scale up of NIMART is possible, can yield increased number of ART initiations. In 2009, 37 facilities initiated ART with reported 26,652 patients on treatment. In January 2014, 378 facilities were initiating ART with reported 238,366 patients on treatment. Nurses feel confident enough to initiate newly diagnosed HIV-positive patients on ART. Nurses appreciate being mentored to become confident, especially with pediatric patients. Nurses could become dependent on mentor support. Mentoring has a positive influence on attitudes of nurses.

Recommendations: Registered nurses can become proficient in initiating ART. The process should be regulated, supported by policy, mentoring programs and a portfolio of evidence proving efficiency. Similar process can be adopted for multidrug resistant tuberculosis management in South Africa and other resource-constrained countries with high tuberculosis (TB)/HIV burden of disease.

Abstract O15

Anal Cancer Prevention Program in HIV-infected Population

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Background: In the HIV-infected population, men who have sex with men (MSM) are at a higher risk of anal cancer than the non-infected. The anal cancer prevention program includes an anal cytology (AC) and a high-resolution anoscopy (HRA), both initially performed by the physician. To improve the operation of our program we decide that AC would be performed by the nurse specialist, in order to increase the number of HRA performed by the physician. The aim of this study was to assess the benefits of the "new role" of the nurse's intervention.

Methods: This is a retrospective study of the prospective cohort. Nurse specialist began to perform AC in January 2014. A nursing intervention protocol – information, health education and solving doubts – was established by the time of the appointment, in order to create a climate of trust at the time of citation, and before and after sample collection. AC (sample quality) from January 2014 to April 2014 were compared with our previous historical data.

Results: During the study period 153 patients were referred to the program. Baseline characteristics were comparable to historical. 96% men, age (mean) of 42 years. 148 out of 153 (97%) were HIV positive, all of them had viral load 3. 131 (88%) were MSM with median previous sexual partners of 172. 100% of the patients were in good preparation for performing AC, which represented an improvement of 15% over the historical data. 153 out of 165 (93%) samples were considered "good quality for analysis," compared with 90% in the historical data.

Conclusions: Establishing a nursing protocol improves the guarantees a personal attention, helps to create a climate of confidence, gives information about the technique, counseling about high-risk sexual practices and improves the efficacy of anal cytology.

Abstract O16

The Role of HIV Testing and Counselling in Client Care Retention

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2. University of Ghana, Ghana

Background: Testing and counseling have been viewed as an entry point to HIV treatment, care and support and an important step in HIV prevention. Programmatic data shows that the number of people counseled, tested and retained in care in 2009 alone was 865,058 and this number is expected to rise to 1,740,000 by 2015. The highest number of people ever tested and counseled per year in the country was achieved in 2011 (1,151,034). This figure represents an 8% increase over the number of people who tested in the previous year. The HIV prevalence among the HIV testing and counselling (HTC) client was 4.9% in 2011 as against 4.7% in 2010. Improving the outcomes of HIV treatment programs in resource-limited settings requires successful linkage of patients testing positive for HIV to pre-antiretroviral therapy (ART) care and retention in pre-ART care until ART initiation. Our objective was to determine whether the existing data would allow us to approximate the proportion of adult patients who tested positive for HIV, were counseling, enrolled, and had been retained in active comprehensive care (pre-ART and or ART care).

Methods: A systematic data review of HTC records for two conservative years (2011 and 2012) at the Fevers unit of Korle-Bu Teaching Hospital was extracted on all those who had both pre and post-test counseling and those who received only post-test counseling. Using Excel software, we calculated the proportion of patients who are still in care and whether they received pre- and post-test counseling or only post-test counseling.

Results: The data represents numbers of clients enrolled after HIV pre- and post-test counseling and currently retained in care at the ART clinic. Out of 1,155 clients registered, 875 clients have been retained in care currently after pre- and post-test counseling indicating 87% in 2011 while the 2012 data equally reveals 78% retention (784) out of 1,050 number of clients in 2012. The number of patients who received only post-test counseling was negligible.

Conclusions: A considerable number of patients were retained in care after counseling and testing at the Fevers unit and this does not take into account those who may have died or lost to follow up within the period, thus the percentages of retention could even have been higher. It is likely that in addition to counseling and testing, the close proximity of the treatment site to the HTC site may have contributed to engagement and retention. However, a much more elaborate longitudinal studies as well as qualitative studies are needed to determine the role of counseling and testing in engagement and retention in care.

Abstract O18

Knowledge and Perceptions Related to HIV/AIDS Research with Adolescents in Vespasiano, Minas Gerais

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Objectives: To assess the knowledge and perceptions related to HIV/AIDS among adolescents in the city of Vespasiano, Minas Gerais, Brazil.

Methods: The sample consisted of 1,158 high school adolescents aged 14-19 years of public education system. The subjects completed a structured and self-applicable questionnaire. Data analysis involved descriptive statistics, hypothesis tests (Chi-square, Mann-Whitney, Kruskal-Wallis).

Results: The mean overall knowledge of HIV/AIDS on a scale of nine questions, was 5.1 points. The highest rates of knowledge were related to HIV transmission through oral sex and condom use. Among adolescents, 61.6% were misinformed about the risk of contamination between heterosexual couples and 59.9% misinformed about coitus interruptus. The girls had better general knowledge about issues related to HIV/AIDS (58.7%). The school grade showed a direct relationship with the level of knowledge among adolescents. Friends and parents were among the main sources of information for issues involving sexuality.

Conclusion: There are gaps in relation to knowledge of adolescents with regard to the ways of HIV transmission, especially for the risk situations. The group approach method is fundamental and parallel to it is essential to consider the uniqueness of the subject, the individuality of each case and gender specifications. Include family and friends, as well as improve participation of the teacher, school and health professionals are ways closer to adolescent issues involving HIV prevention.

Abstract O17

Gap between Knowledge on HIV/AIDS and Sexual Behavior: A Study of Teenagers in Vespasiano, Minas Gerais State, Brazil

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Universidade Federal de Minas Gerais, Brazil

Background: The aim of this study was to investigate gaps between knowledge on HIV/AIDS and sexual behavior among teenagers. The study used a cross-sectional design with a representative random sample of 1,158 teenagers (14 to 19 years of age) enrolled in nine public secondary schools and who answered validated questionnaires.

Methods: Data analysis included descriptive statistics and tests of hypotheses (chi-square, Mann-Whitney and Kruskal-Wallis, Kendall, and Fisher's exact test).

Results: The vast majority of the teenagers (98.7%) expressed doubt on at least one question. Condom use during first sexual intercourse was significantly associated with condom use in sexual relations in the previous six months. There was no statistical association between knowledge on HIV/AIDS and frequency of condom use or number of sexual partners.

Conclusions: Health actions are needed that link schools to health services, in addition to not only elaborating appropriate information but also valorizing teenagers' individuality in the development of proposals

Abstract O19

Disclosure of HIV Status and Retention in Care in HIV-Infected Adolescents on Antiretroviral Therapy at Korle-Bu Teaching Hospital

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2. University of Ghana, Ghana

Introduction: In Ghana it is estimated that 1.7% of adolescents have been infected with HIV. Disclosure of HIV status has been shown to confer benefits such as better adherence to therapy, good clinical outcomes, psychological adjustment and reduction in the risk of HIV transmission. Yet, the representation of young infected people in most clinics in Ghana is trifling which remains a major challenge. An adolescent club was established with the aim of engaging with young HIV-infected people to solve their peculiar challenges and provide better tailored care and support. A study was conducted to assess the effect of HIV status disclosure on retention in care from initiation of antiretroviral therapy (ART) among HIV-infected adolescents aged between 14 to 24 years at the Fevers unit of Korle-Bu Teaching Hospital.

Methods: A cross-sectional study was conducted among infected HIV adolescents aged 14 to 24 years, on ART and attending an adolescent club meeting. Informed consent and assent were obtained from willing participants. Routine follow-up data were merged with those collected through a standardized ad hoc questionnaire on awareness of HIV status. Probability of retention (no death or loss-to-follow-up) was estimated with Kaplan-Meier method.

Results: A sample of 34 adolescents were available for this analysis. The mean age was 16.9 ± SD 2.5 and all were in school. Most, 91%, had heard of HIV, however, 45 % thought that adolescents were not at risk of HIV infection. On modes of HIV transmission, 66.7% knew HIV could be transmitted through sex while 63.6% knew about mother-to-child transmission. Slightly more than half, 18 (52.9%), knew their HIV status, 17 (50%) were on ART and 32% of these admitted to missing ART doses. Characteristics at ART initiation was a median age of 10.4 years. The median follow-up on ART after the age of 14 was 23.3 months. The overall probability of retention at 36 months after ART initiation was 74.6% (95% confidence interval (CI): 70.5–79.0) and was higher for those disclosed compared to those not: adjusted hazard ratio for the risk of being death or loss-to-follow-up = 0.23 (95% CI: 0.13–0.39).

Conclusions: About two-thirds of HIV-infected adolescents on ART were not aware of their HIV status due to poor disclosure even though the retention rate was over 70% in the adolescent ART clinic at Korle-Bu Teaching Hospital. The HIV disclosure process should therefore be systematically encouraged and organized in HIV adolescent populations since it improves retention in care.

Abstract O20

Clinical Leadership: Can Nurses Do a Doctor's Job? A 5-Year Survey to Reveal Consequences

Jolanda Schippers (presenting)

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Background: To lower percentages of transmission of blood transmissible diseases after occupational exposure in health care workers is an on-going subject. In our clinic many adverse patient occurrences have been reported before 2008. A narrow analysis of these reports has been done. Following this analysis it has been decided that nurse would performed these medical task on treatment after (occupational) exposure.

Aims: Has quality of care after occupational exposure improved by nurse lead medical interventions Long-time follow up of occupational accidents could reveal trends. These trends can submit to targets for improvement.

Methods: A retrospective, observational study has been performed. Trends in numbers and characteristics of accidents have been analyzed. From April 1, 2008, through April 1, 2012, all accidents in the Maastricht University Centre (MUMC) with a risk for transmission of blood transmissible diseases have been registered and analyzed.

Results: Adverse patient occurrences have decreased from 15 to 1 during study period. There is an increase in the absolute numbers of accidents, from 122 to 210 (+72%). This trend is significant ($B=22.3$; 95%CI 15–29; $p=0.002$). The increase is mainly due to the number of internal accidents ($p=0.005$). The number of external accidents remained equal. There is a shift to more low-risk accidents from 26% to 43% of all accidents ($p=0.003$). No trends were seen in relation to the type of accident or occupation of the victim.

Conclusions: Nurses can take over medical treatment with the same level quality of care as a doctor. There is a clear increase of absolute number of accidents. These accidents are mainly reports from MUMC-affiliated health care workers and accidents with a low risk of transmission. Investigators assume that the increase is caused by better reporting behavior after an accident. The better reporting behavior seems to be a result of a quick and uniform treatment at the emergency room and an increased perceived efficacy of reporting.

Abstract O21

From Preston, England, to Lusaka, Zambia: Experiences from a New Sexual Health Project

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Introduction: Zambia has a HIV prevalence rate of 13% with approximately 1.1 million people aged between 15 and 49 living with HIV. Each year an estimated 30,000 people die from AIDS-related illnesses. Although ARV's are free and accessible for those who require treatment, current statistics show variations in coverage, with approximately 90% of adults on treatment and 28.1% of children aged under 15 years of age. Age of first penetrative sex for males is 19.5 and 17.5 for females, with nearly half of all females married by 18 years of age. Condoms are freely available in health clinics; however they are inconsistently used within relationships.

Description: A new sexual health volunteering project was set up in May 2014 working alongside Sport in Action. Six undergraduate sexual health students from the University of Central Lancashire, Preston travelled to Lusaka. The project rationale provided community peer leaders with specific knowledge and skills around HIV and sexual health promotion, which they could then deliver within their own communities. The students also worked one to one with vulnerable groups utilising sport and games to deliver sexual health key messages.

Lessons Learned: Young people had varied levels of knowledge of HIV in Lusaka. Common myths included, sexual intercourse with a virgin can cure HIV and toothbrushes can transmit HIV. Young men wanted advice about whether they should be circumcised and the health benefits this may bring.

Recommendations: Valuable project which should be continued annually. Student volunteers require a variety of skills and resources to deliver specific key messages around HIV and sexual health promotion. Training local Sport in Action community peer leaders to deliver sexual health promotion is a positive step in providing long term HIV education within Zambian communities.