



**ETHIOPIAN NURSES' WORK WITH PRIMARY HIV PREVENTION**  
**- A Minor Field Study in Addis Ababa**

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## **ABSTRACT**

### **Background**

One central task within nursing is health promotion, which can be done at different levels. Primary prevention aims to promote health and protect against illness by preventing problems before they occur. HIV is still a worldwide issue, yet Ethiopia is one country where efforts at preventing the spread of the virus have had positive results.

### **Aim**

This study aimed to describe how nurses in Addis Ababa, Ethiopia, work with primary prevention to minimise the spread of HIV.

### **Method**

The study was conducted as a qualitative field study at a hospital in Addis Ababa. Semi-structured interviews were held with seven nurses at four different units. Content analysis was used to analyse the data.

### **Result**

The nurses mentioned various efforts of preventing HIV, where the main findings describe the different hands-on methods at their unit as well as the nurses' frequent work with health education and information. An additional finding outlines the setting in which the nurses carry out their preventive work.

### **Conclusion**

In conclusion, the nurses worked in a variety of ways to prevent the spread of the virus to themselves and to their patients. Screening was an important effort to minimise the exposure to other non-infected individuals. Health education and information were quoted by the majority of the nurses, but it was impacted by the awareness that the patients already exhibited. The findings show the multitude of efforts attempted at all units, which highlight the significant presence and value of health promotion within nursing.

**Key Words:** Ethiopia, Health Promotion, HIV, Nursing, Primary Prevention

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## **ABBREVIATIONS**

AIDS - Acquired Immune Deficiency Syndrome  
ART - Antiretroviral Therapy or Antiretroviral Treatment  
FMOH - Federal Ministry of Health (Ethiopia)  
HEP - Health Extension Programme  
HIV - Human Immunodeficiency Virus  
MDGs - Millennium Development Goals  
PEP - Post-Exposure Prophylaxis  
PrEP - Pre-Exposure Prophylaxis  
SDGs - Sustainable Development Goals  
SIDA - Swedish International Development Cooperation Agency  
WHO - World Health Organization

## **BACKGROUND**

This chapter will present the definition of health used in this study, followed by a description of health promotion within nursing and its history. The central aspects of health promotion are discussed and then the different levels of prevention are presented. The concept of health promotion is thereafter applied on the global issue of the Human Immunodeficiency Virus (HIV). The efforts of preventing the infection in the case of Ethiopia are described in order to place the study in its context, followed by the study's aim.

### **The Concept of Health**

According to Willman (2014), there is no universally agreed upon definition of health. The meaning of the concept has a long standing and ongoing discussion within the literature, in which all sides have merits and weaknesses. This is a discourse that will only be covered briefly in order to establish the view of health that is underlying this study. There are two main ideas: the biomedical model and the holistic model of health. The former perspective considers health as the absence of disease, known as the biomedical model. This is a view that has been dominant in the world of medicine since the 19<sup>th</sup> century, but was inspired by the mapping of the human anatomy in the 17<sup>th</sup> century (Willman, 2014). One critique against this model is raised by the often cited Lalonde Report from 1947 (Lalonde, 1981). This report outlines the inadequacy of not assessing factors such as the environment or lifestyles when discussing health, exemplified by looking at mortality rates (Lalonde, 1981; Seedhouse, 2004). The latter perspective on health, often called the holistic model, regards health as being more than only the absence of disease. The idea is encompassed in the constitution of the World Health Organization (WHO) from 1946 (World Health Organization [WHO], 2015a). Their definition of health, as used today, raises health as “a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity. Health is a resource for everyday life, not the object of living, and is a positive concept emphasizing social and personal resources as well as physical capabilities” (WHO, 2015a). This perspective on health will permeate this study. This view of health is also a central feature within nursing care, the discipline in which this study takes place. According to the Swedish Society of Nursing, health is considered something that is more than, and different to, the absence of disease (Svensk sjuksköterskeförening, 2008).

### **Nursing and Health Promotion**

The International Council of Nurses (2012, p. 1) state that nurses “...have four fundamental responsibilities: to promote health, to prevent illness, to restore health and to alleviate suffering”. As such, one central task is to work with health promotion (Svensk sjuksköterskeförening, 2008; Wills & Jackson, 2014). Wills and Jackson (2014) state that, for a nurse, promoting health entails preventing that the population gets ill in the first place. They further state that this should be done on all levels of society, from focus on the individual to worldwide perspectives. Jadelhack (2012) writes that due to the cost-effectiveness, more focus should be aimed toward health promotion rather than emphasising a curative approach. Furthermore, health promotion is not only good with adults, but as Whiting and Miller (2009) say, it has potential to enhance both quality and longevity of life and is, therefore, an integral part in the role of the nurses' work with children. Additionally, the holistic view of health, as mentioned earlier, also requires efforts to improve an individual's resources and capabilities.

Nutbeam (1998, p. 351) states that health promotion is "...the process of enabling people to increase control over, and to improve their health." However, Scriven (2005) points out that health promotion is not consensually defined in more detail, which will be discussed in the following section.

## **History of Health Promotion**

The objective and underlying ideas behind the concept of health promotion are not new and have a long standing place in history (Scriven, 2005). It was, however, not coined as a term until the 1970s (Scriven, 2005). In 1986, a major document constituting one of the founding pillars for the modern concept of health promotion, the Ottawa Charter for Health Promotion, was produced by the WHO (Nutbeam, 2008). The Ottawa Charter (WHO, 1986) states that health promotion is about increasing control over individuals' own health as well as enhancing their capabilities to improve it. According to Nutbeam (2008), many central principles of the concept to date are already outlined in this document, all with the aim to enhance health. The Ottawa charter points out the importance of equality, including the individual's everyday life, empowering individuals and communities, as well as providing information and education to encourage self-learning and participation (WHO, 1986). The Ottawa charter further outlines the need to build healthy public policies, create supportive environments for health, strengthen community action, develop personal skills, and reorient health services (WHO, 1986). Yet, Nutbeam (2008) writes that when the charter was written it was largely based on wealthy industrialised countries with functioning governments, which can take an interventionist role in the work. As such, Nutbeam argues that these health promotion strategies are not as applicable in developing countries. He further claims that the upstream orientation that ensued following the charter lessened the focus on education and he states that "[e]ducation, and the enlightenment and empowerment it can produce, remains the cornerstone of health promotion" (Nutbeam, 2008, p. 439). Furthermore, he states that in the Ottawa charter, the focus was providing care for treating acute and chronic illnesses. This missed the much needed focus and funding towards prevention and primary care, especially in contexts where access to primary health care is wanting. Yet, he writes that health promotion theory has improved since the Ottawa charter, and that related concepts and functioning applications are being developed that are more suited to the developing context, for example including efficient health education interventions. Nonetheless, he points out that more research and evaluation of health promotion efforts and its effects must be done, especially in developing countries (Nutbeam, 2008).

Health promotion, being such a broad concept, has over time been applied to many disciplines and given a variety of definitions and dual usages (Scriven, 2005). Seedhouse (2004) similarly claims that health promotion ideas are vague and that the concept is theoretically underdeveloped. Davies (2006) summarises that there is no consensus if the concept of health promotion, with this background, becomes fragmented and confusing or positively complex and diversified. Seedhouse (2004) agrees that the ideal behind the concept is admirable, but argues that health promotion theorists also need to further their discussion with a more unified development of a sound theory. He also states that this is very important as health promotion is political and prejudiced since its aspects are saturated with certain views on human values (Seedhouse, 2004). Whitehead (2006, p. 179) also raises politics in the context of nursing, and states that the role of nurses within health promotion keep being defined by the agendas of other parties due to nurses collective "lack of political activity".

In similarity with Seedhouse, Whitehead (2006) further states that nurses need to engage in a concerted effort to develop a clear definition of health promotion within nursing practice as well as its conceptual criteria. More recent, Whitehead (2011) writes that there are conceptual and theoretical improvements surrounding the meaning of health promotion within nursing, yet many nurses do not understand what health promotion is and therefore the practice is limited. However, he writes that nurses' knowledge about health promotion is also on the increase.

### **The Central Aspects of Health Promotion**

Although no single precise definition of health promotion exists to date, Scriven (2005) writes that some mutual consent of what the concept entails have emerged despite its long and debated background. According to Wills and Jackson (2014), the concept of health promotion can be summarised with three major intertwined approaches: to promote health by working with communities and individuals, to prevent illness by supporting healthy behaviours, environments and development, and to protect against harm by responding to outbreaks and managing threats to health.

More specifically, many authors summarise the key domains of health promotion in various ways and with varying phrasing (Linsley, 2011; Maville, 2013; Scriven, 2005; WHO, 1986; Wills & Jackson, 2014). From all of the categories presented by these authors, nine main points have been identified and comprised by the researchers into the following central aspects: to provide information and health education (in various settings, for example through nurse-patient encounters or giving out health education material); to raise public awareness (for example through programmes or mass media); to enhance individual empowerment (to help an individual to improve and develop personal skills and control over one's health and everyday life, for example deciding to use condoms); to support community development (strengthening communities and encouraging community action, for example setting up support groups); to promote structural adjustment (to encourage environmental, social, political, and fiscal change, for example developing health promotion policies); to create supportive environments (to ensure individuals can apply the skills and information given, for example making sure condoms are readily available at reasonable prices or working against stigmatisation); to adjust the health care system (to improve health care access, reorient or initiate health care efforts to include certain approaches, for example immunisation or screening); to coordinate efforts (to work within and across sectors to improve collaboration between health agencies, as well as with other bodies, like schools, in order to improve health); and to execute protective actions (controlling and managing threats against health, for example in case of an epidemic outbreak). These aspects can be approached and implemented in a variety of ways, with various methods, and with different target groups (Wills & Jackson, 2014). In relation to the latter, Loveday and Linsley (2011) as well as Scriven (2005) state that health promotion efforts can be done with a focus on four different levels: primary prevention, secondary prevention, tertiary prevention, and quaternary prevention.

### **Levels of Prevention**

Loveday and Linsley (2011), as well as Wills and Jackson state that the first level, primary prevention, seeks to both promote health and to protect against threats on health by aiming to implement solutions before problems even occur.

For example, this can be done by vaccinating against certain diseases, educating the public to minimise risk behaviour, or to make condoms readily available in the case of preventing the spread of HIV. Primary prevention essentially directs its efforts to the population that is predominantly healthy (Loveday & Linsley, 2011). Secondary prevention focuses on stopping a disease's progression by identifying it and treating it in its early stages (Loveday & Linsley, 2011; Wills & Jackson, 2014). Tertiary prevention aims to improve patients' functions and reduce the disabilities and complications that rise from a certain condition (Wills & Jackson, 2014). The group in focus on this level is people that already experience a disease or injury (Loveday & Linsley, 2011). Continuing the HIV context, this level aims at giving support to infected individuals, helping them to learn how to live a good life with HIV and minimising experienced side-effects. Scriven (2005) also acknowledges a fourth preventive level and calls it quaternary prevention, which focuses on the wellbeing of terminally ill individuals. This could apply to the holistic and palliative care of individuals who have developed Acquired Immune Deficiency Syndrome (AIDS).

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## **Human Immunodeficiency Virus**

Globally, HIV is the leading cause of death among fertile women (United Nations, 2015). According to the World Health Organisation (WHO, 2015b), 39.6 million people were living with HIV at the end of 2014 and 25.8 million of them lived in sub-Saharan Africa. Today, HIV is not considered a terminal condition, but rather a chronic disease due to a greatly improved prognosis with medication (Deeks, Lewin, & Havlir, 2013; Lindkvist, Johansson, & Hylander, 2015). Losina et al. (2009) found that late initiation and discontinuation of antiretroviral medication results in a lower life expectancy in HIV infected individuals in the United States, and highlights the importance of these measures. However, medication in form of antiretroviral therapy (ART) is not accessible to all who need it and HIV continues to be an economic and public health burden in several countries (WHO, 2015b).

Since the launch of the United Nations Millennium Development Goals (MDGs) in 2000, global efforts have made great progress to prevent the spread of the virus: in 2013 new HIV infections were 38 per cent lower than in 2001, but there were still 2.1 million new cases in 2013 (United Nations, 2015). Within the MDGs there was also an aim to eliminate mother-to-child transmission of HIV, where all pregnant women should be tested in order to give proper care and prevention intervention during delivery as well as during the breastfeeding period (Barnabas, Pegurri, Selassie, Naamara, & Zemariam, 2014). The MDGs are now replaced by the newly designed Sustainable Development Goals (SDGs), from September 2015, which will guide the efforts until 2030. SDG number three, ensure healthy lives and promote well-being for all, encompass the battle against HIV and AIDS with the goal to “[b]y 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases” (United Nations, 2015).

### The Virus

HIV is most commonly spread through semen, blood and cervical secretions during unprotected sexual intercourse. That includes anal-, oral- and vaginal sex. Other ways of spreading HIV is through the usage of contaminated needles, mother-to-child transmissions and receiving infected tissue donation (Mulryan, 2010; WHO, 2015b). Douek, Roederer, and Koup (2009) explain that when the virus first enters the body it binds to a receptor called CD4 on certain T-cells. These T-cells are lymphocytes with an important part to play in the immune system, which is activated by the presence of the virus. When the virus binds to the CD4 receptors on the T-cells, the cell starts to replicate the virus and are then destroyed, spreading the replicated virus. When HIV has infected big parts of the immune system cells, the immune system weakens as the T-cell renewal capacity is overwhelmed and the body becomes more and more susceptible to infectious diseases (Douek et al., 2009). If the condition is not treated, it can lead to the final stage of HIV infection known as AIDS, where the immune system is severely impaired (Mulryan, 2010).

### Symptoms

When a person becomes infected with HIV, the so called acute infection stage, they can experience a wave of symptoms such as fever, muscle or joint pain, rashes, night sweats, diarrhoea, fatigue, weight loss, or headache (Daar et al., 2001; Hoenigl et al., 2016; Schacker, Collier, Hughes, Shea, & Corey, 1996). A majority of infected individuals develop these influenza-like symptoms, but not all (Juusola, Brandeau, Long, Owens, & Bendavid, 2011; Hoenigl et al., 2016; Schacker et al., 1996). These primary signs of the illness do not have to appear and a person can be infected and not suffer any initial symptoms (WHO, 2015b). The immediate infection generally passes within one to four weeks from the initial immune system response and the body may be able to control the virus but not remove it, meaning the virus remains and continues a slow replication. At this point, during the chronic stage of the infection which can last for several years, the individual can be asymptomatic or have minimal symptoms (Appay, Almeida, Sauce, Autran, & Papagno, 2006). Some symptoms include weight loss, diarrhoea, nausea, oral infections, or various types of pain (Hirschfeld, 1998; Schneider et al., 1995). Furthermore, the study by Brown, Whiteley, Harper, Nichols, and Nieves (2015) shows that psychological symptoms, such as anxiety or depression, are elements not to be forgotten.

## Diagnosis and Treatment

To diagnose HIV, serological tests are done on the individual's blood or saliva. These tests detect the presence of antibodies to HIV infection or a particular antigen (WHO, 2015b). The test does not recognise the virus itself, but rather the antibodies that are created by the individual's immune system as a response to the infection. Therefore, there is a period during which a person can be negative in antibody testing, but still be infected by the HIV. Iversen and Engen (1986) point out that this period, from the point of infection until antibodies are detectable in the blood, can vary greatly between individuals. This period is also when the individual is the most infectious, but transmission can occur at all stages of infection (WHO, 2015b).

Treating HIV is done through antiretroviral medication and their main task is to interfere with the virus's replication cycle (Douek et al., 2009). Different types of antiretroviral medicine can be used in various individualised combinations to ensure the efficiency of the treatment. ART also reduces the activation of the immune system which otherwise creates a negative cycle increasing the virus' replication process (Douek et al., 2009). In their guidelines, WHO states that treatment should be initiated as soon as the HIV diagnosis is set (WHO, 2015c). Initiation of suppressive ART should be done early, in order to increase the life expectancy of the patient (Losina et al., 2009) as well as to prevent further transmission by lowering the viral load in the infected patient (Govender et al., 2014).

### **HIV in Ethiopia**

Ethiopia, officially Federal Democratic Republic of Ethiopia, is one country in sub-Saharan Africa which has made progress in stopping the spread of HIV. It has been reported that the rate of new HIV cases has decreased from 0.29 percent in 2001 to 0.03 percent in 2011 (Federal HIV/AIDS Prevention and Control Office, 2015). The number of individuals tested for HIV has also increased, from less than half a million in 2004-2005 to 11.2 million in 2011-2012, with an additional 292,000 individuals having access to ART in 2013 compared to 2005 (Federal HIV/AIDS Prevention and Control Office, 2015). Yet, in 2013, only 9.5 percent of the children estimated to live with HIV received ART and the Country Progress Report on the HIV Response states that this need to be given urgent attention in order to develop actions to improve therapy coverage (Federal Democratic Republic of Ethiopia, 2014). The prevalence among the adult population in Ethiopia was estimated at 1.2 percent in 2014 (UNAIDS, 2014).

The driving factors of the HIV infection in Ethiopia are quoted to be gender inequalities, poverty, certain socio-cultural norms, as well as pre-marital and extra-marital sex (Federal HIV/AIDS Prevention and Control Office, 2015). Gender inequalities play a part in the spread of the virus and can be exemplified by looking at the infection rates by gender. In Ethiopia, the adult prevalence was almost twice as high among women compared to men in 2011 (1.9 percent versus 1.0 percent respectively), and women between the age of 15-22 have a two to six times higher prevalence than men in the same age group (Federal Democratic Republic of Ethiopia, 2014).

Additional risk factors include multiple sexual partners, low use of condoms, early sex debut, intergenerational sex, transactional sex, as well as the increased mobility of the people, especially the young (Central Statistical Agency & ICF International, 2012).

The Demographic and Health Survey of Ethiopia in 2011 also report that urban areas show seven times higher prevalence of the virus than in rural areas (4.2 percent and 0.6 percent respectively) (Central Statistical Agency & ICF International, 2012). HIV infection is also more concentrated along major transport corridors, and the prevalence is four times higher among the people who live within 5 kilometres from a main asphalt road than those who live further away. The prevalence may reflect the labour migration occurring to urban centres and large construction projects in the country (Federal Democratic Republic of Ethiopia, 2014).

### **Ethiopian Health Policies**

In order to combat the spreading of HIV, Ethiopia has implemented multi-sectoral responses across governmental structures, non-governmental organisations (both local and international), the private sector, the media, and the communities with observable results (Federal Democratic Republic of Ethiopia, 2014). The Ethiopian Federal Ministry of Health (FMOH) endorses a policy which outlines that information, education and communication about health shall be given to increase awareness and encourage important practices of self-responsibility with special emphasis on the “control of communicable diseases, epidemics and diseases related to malnutrition and poor living conditions” (Government of Ethiopia, 2012a). A Health Promotion and Disease Prevention General Directorate was established to engage communities and individuals to develop, implement, and evaluate health programmes as well as to equip communities with new skills in order to enable them to improve their own health (Government of Ethiopia, 2012b).

In 2015, Ethiopia was on track to meet nearly all the MDGs that cover health issues (Abraham, Linnander, Mohammed, Fetene, & Bradley, 2015). The FMOH has worked towards reaching these goals by prioritising certain improvements. For example, by encouraging behavioural change through information and social mobilisation, through distribution of condoms, implementing interventions in high-risk groups, as well as addressing stigma and social exclusion (Government of Ethiopia, 2012c). Goffman (1963), one of the fundamental writers on the subject, states that the word stigma originally referred to bodily signs designed to expose something unusual and bad about the moral character of the marked person so that he can be avoided. Today however, the term is used in relation to the shame of the status and not necessarily bodily evidence. People without the stigmatised attribute will define those who possess it as not quite human and inferior, in turn rationalising discriminatory responses and hostile behaviours towards the person (Goffman, 1963). Although people living with HIV has had problems with stigma for a long time, Bekalu, Eggermont, Ramanadhan, and Viswanath (2014) found that Ethiopia currently appears to have a low magnitude of HIV-related stigma.

FMOH also prioritises efforts to upgrade and increase the access to health services and health posts. For example, significant improvements have been identified with HIV testing and antenatal care coverage through their primary health care reforms (Abraham et al., 2015). Improving the referral services is also aimed for, in order to, for example, follow up HIV patients who are receiving Highly Active Antiretroviral Therapy (Government of Ethiopia, 2012c). In light of these efforts, a recent study positively remarks on the great expansion of health posts and health centres in the country, yet found that the majority of people still access hospitals without having consulted prior health care units or without formal referral (Abraham et al., 2015). They also work with the Health Extension Programme (HEP), a community based initiative started in 2003.

The goal of the HEP is to “create health environment and healthful living” by enabling equitable access to health services with focus on preventive services and increased awareness about health (Government of Ethiopia, 2012b). The HEP includes key activities such as the training of health extension workers, the construction and equipment of health posts, to promote community advocates to provide support to household, and improving the quality of and demand for health care, for example to support existing health centres with HIV testing and counselling as well as Mother-to-Child transmission prevention (Government of Ethiopia, 2012c).

## **Relevance**

HIV is a global health burden and a condition that has amassed in several efforts in a variety of sectors in Ethiopia (Federal Democratic Republic of Ethiopia, 2014). This sub-Saharan African country has made great progress to thwart the spread of the virus, yet a lot of work remains to be done (Federal HIV/AIDS Prevention and Control Office, 2015). Health promotion plays a great part, yet more research is needed on the subject (Seedhouse, 2004). Whitehead (2006) raises the importance of additional research on health promotion specifically within nursing practice. Health promotion and prevention is central to the responsibilities of nurses, as outlined above. Therefore, depicting how nurses in Ethiopia work and how their competence is used in regards to further the prevention of HIV may give important insights into their role in health promotion efforts. Adding to the knowledge about nursing and health promotion surrounding HIV would be valuable for the individual, the society and the nursing profession in the future (Henricson, 2012).

## **AIM**

This study aimed to describe how nurses in Addis Ababa, Ethiopia, work with primary prevention to minimise the spread of HIV infection.

## **METHOD**

This chapter describes the methodology adopted for the study. First, the chosen qualitative design is presented. Second, the sample selection and the inclusion criteria are outlined, followed by a thorough description of the processes of data collection and data analysis. Last, the section ends with a presentation of the study’s ethical considerations.

### **Methodological Design**

The study aimed to describe nurses’ work with primary prevention of HIV in Ethiopia and followed the holistic definition of health as well as a focus on health promotion: a concept which requires a holistic outlook on the individual and his or her surroundings, as described previously. This underlined the importance to look at the nurses in their natural setting and, therefore, this type of study lent itself nicely to a qualitative design because, as Polit and Beck (2012) write, it generally takes this into account. The research was conducted as a cross-sectional, descriptive field study. Polit and Beck (2012, p. 505) write that descriptive studies aim to “...present comprehensive summaries of a phenomenon or of events” and as such corresponded well with the aim of this study: to describe how nurses work with primary prevention to minimise the spread of HIV infection.

In order to do this, by talking to the nurses on site, an interview-based field study was deemed the most appropriate method in order to gain a deeper understanding and holistic outlook on the situation (Polit & Beck, 2012). Brinkmann and Kvale (2015) point out that interviews are suitable when the subject matter concerns conversational reality, like in this study, and are in general relevant when looking at how something for example is experienced or done. The field study was conducted through semi-structured interviews with open-ended questions, with nurses in Addis Ababa.

### **Sample Selection**

To get a deeper understanding of the nurses' work in primary prevention of HIV in Ethiopia, the focus was to ask nurses working with these issues in Ethiopian society. As the study was restricted, both in time and scale, the aim was to interview six to eight nurses of varied gender and experience, as well as working at different units in the health care system in order to attempt maximum variation which Polit and Beck (2012) endorse. Brinkmann and Kvale (2015) state that the number of informants needed in qualitative studies depend on the purpose of the study, and that the aim is to come to the point of diminishing returns, meaning that after a certain point further interviews will gather little new information and knowledge. Polit and Beck (2012) say that at this point the data is saturated.

Being a field study in a foreign country, the sample selection was not entirely pre-specified from the beginning, allowing for adjustments once on site. Subsequently, it also gave a more organised selection following a better understanding of the situation at hand. In general, the sampling process followed a snowball method (Polit & Beck, 2012), where contact with some nurses occurred through referrals of the initial contact person: a physician employed at a hospital in Addis Ababa. This suited the study, considering that health care staff in Ethiopia has a better understanding of key informants and health professionals in the field of primary prevention surrounding HIV than the researchers. This eventually turned into purposive sampling. According to Polit and Beck (2014), selecting interviewees beneficial to the study through this method is preferable when you want to ensure that the information recovered from few interviews is purposeful and contains depth.

In order to qualify as an interviewee in the study certain inclusion criteria were decided in order to collect relevant data based on the aim of the study. The researchers elected to include nurses who had at least one year of experience. It was also decided to only include nurses who had basic nursing education and no specialisation since the focus of the study is the role of general nurses within health promotion. It was also required that the participants in some way worked with HIV prevention, since this was the subject matter of the study. The last requirement was that the nurse spoke a basic level of English in order to enhance the communication between the researchers and the interviewed nurse and minimise the limitations of a translator. No exclusion criteria were used in addition to the above.

## Sample

Seven interviews were included in the study, where two of the nurses were male and five female. Many who participated had worked between one to two years as a nurse, yet some had longer nursing experience with maximum of seven years. The nurses worked at four different units at a major hospital in Addis Ababa, Ethiopia.

## **Data Collection**

### Interview Guide

Before data could be collected, an interview guide (see appendix A) was developed to ensure all major topics were covered and that the interview stayed on track, as recommended by Polit and Beck (2012). The interview guide was developed in several steps. First the researchers wrote down questions separately and then convened to discuss and categorise the questions under different themes. The researchers discussed if the questions were open enough, not too leading, relevant, and that they may help in answering the aim of the study. Questions were then removed, added, or reformulated. The questions were then left for a while, and re-discussed, and thus reformulated once in the field. This gave the researchers some time to reflect and to adapt the questions to the setting. The questions were also looked at by the tutor, in order to get input from an outside source with fresh eyes, as well as by the contact person in the field. Following this, the questions were reformulated and adjusted again in a suitable fashion. After this, a colleague also looked at the questions one final time. Before the interviews were set up, however, approval to conduct the study was required.

Prior to arrival, the director of clinical services at the hospital approved the researchers' presence at the hospital in a written letter in Amharic. This was later translated into English to further the researchers' understanding of the consent given. The letter of approval required from the university (see appendix B) was signed by the director after the interviews had taken place. The interviews were held despite this as the study already had written approval from the hospital (the Amharic letter) as well as oral consent from the involved units to be conducted at their department. Since it was difficult to get hold of the director for the signature and keep the study on schedule, the contact person deemed that the initial approval and oral consent was more than adequate to proceed with the interviews, and that a signature from the director was preferable to the signature of the involved units. This was discussed with the tutor and the contact person during the proceedings.

### The Interview Setting

Once on site, further discussions with our contact person were held in relation to suitable units. The researchers and the study were introduced in person, by the contact person, to the discussed units' head or nurse matron. They were at the time also showed the Amharic approval letter from the director. These efforts resulted in oral approval and eight interviews held at four different units in a major hospital in Addis Ababa: an outpatients' central triage, a paediatric ward, a surgery ward, and an antenatal clinic.

Before the start of the interview, the researchers, the study, and the methodology were introduced to the nurse. The purpose was briefly covered, the use of audio recorders explained, and the nurse was informed about confidentiality and his or her voluntary participation and right to withdraw or interrupt at any time without any repercussions. Informed consent was asked for before continuing. These were important steps in order to establish a good contact with the interviewees, and to enable him or her to grasp the interviewers and feel able to talk freely during the interview (Brinkmann & Kvale, 2015). The same information was given to the nurse in writing (see appendix C), together with a code to be used to identify the specific data if withdrawal was requested. The de-coding list was kept separated from the recordings to ensure confidentiality. In order for the codes to be randomised, letters were drawn by the researchers from notes with the letters of the alphabet (A-Z) prior to the interviews. Two audio recorders were used for every interview in order to minimise potential technical problems and, in the aftermath, increase the quality of the transcription. Both before and after the interview, the nurse was allowed to ask questions or raise any concerns in order to make the nurse feel at ease and secure with the process. The nurses were also given the option to receive the study once finalised via e-mail.

During the interviews, the researchers held either a passive or active role, in order to make the interviews run smoothly. The active researcher focused on leading the interview and following the interview guide. The passive researcher focused their efforts on follow-up questions and the recording. The researchers divided these roles equally in order to learn both roles and to enhance the variety of personal chemistry between the researchers and the interviewed nurses. Both researchers attempted to engage in attentive listening, showing interest, understanding and respect for what the nurse said, both out of genuine interest as well as to establish a good contact and setting for the interview in accordance with Brinkmann and Kvale (2015). Notes were also taken during as well as after the interviews, to keep track of thought processes, feelings, impressions, or follow-up questions that the researchers wished to pick up on. Polit and Beck (2012, p. 327) states that researchers should take notes in regards to the interviewees demeanours and behaviours during the interview in order "...to develop confidence in the data".

In total, eight interviews were held at four different units, out of which one was a pilot-interview. The data from the pilot-interview was not included in the study since the interviewee was a midwife and had just below one year of experience. Therefore, the interviewee did not fit the inclusion criteria on two accounts. As this was discovered at the time of the scheduled interview, it was then decided to have the interview anyway as a pilot-interview in order to test the questions. This did not result in any changes in the interview guide. The interviews lasted between 15-40 minutes each and the data was collected only at one point in time, between the 18<sup>th</sup> and 27<sup>th</sup> of April 2016. Data from seven interviews was included in the findings.

## **Data Analysis**

As Brinkmann and Kvale (2015) point out, one part of the analysis occurred during the interview where the researchers reduced and interpreted the nurse's response and gave her or him a chance to confirm or adjust the deduced meaning. Afterwards, the interviews were transcribed by the two researchers, who did half each. These were then proof-checked by the other researcher in accordance with the description by Polit and Beck (2012). This was done to enhance the reliability of the transcription, which ideally is done by two people transcribing the same data independently (Brinkman & Kvale, 2015).

The transcription was done within 72 hours of the conducted interview, in order to keep the information and setting of the interview as fresh as possible. Brinkman and Kvale (2015) state that there is no correct way of selecting what should be transcribed in addition to the actual words, for example pauses, emotional expressions and sounds. How one does depends on the use of the transcript. Due to the aim of this study, the researchers were only required to report the nurses' descriptions. Therefore, the researchers chose to only include pauses and the transcribers' inability to hear what was said.

### The Coding Process

Brinkmann and Kvale (2015, p. 219) state that “[t]o analyze means to separate something into parts or elements”, something that was done by coding the interviews, following the transcriptions. In this study, the coding was data-driven, meaning that the categories were jointly developed by the researchers when reading through the material, rather than in advance (Brinkmann & Kvale, 2015). This was decided due to the explorative nature of the study. As the study was conducted by two researchers, the use of independent coding was a preferable strategy which takes advantage of the researchers' differing experience and perspectives (Polit & Beck, 2012). The researchers independently coded the data by manually colour-coding the transcriptions in accordance to the categories. During the coding process, new categories were found and the old were revised following the data, after which the material was reread and, if needed, recoded. This was done to ensure that the categories and the coding matched the data collected (Polit & Beck, 2012). As such, the process was not a linear one. The independent coding was then compared and discussed until a consensus was reached.

The coding was then identified into different natural meaning units relevant to the aim of the study, each hinting at a particular theme (Brinkmann & Kvale, 2015). Every coded passage can include multiple meanings and themes which may fit under multiple categories. Therefore, one coding can translate into several natural meaning units (Polit & Beck, 2012). Following this, the natural meaning units were condensed into themes, where the researchers restated the dominating meaning of the unit, as understood by the researchers, as simply as possible. These themes were then divided into subcategories to capture the wider meaning of similar themes (Brinkmann & Kvale, 2015). No further analysis or interpretation was done after this step based on latent meanings as only a manifest analysis was intended. In the end, three categories emerged. Subsequently, one to two subcategories for each category were identified during the analysis process, where the subcategories outline specific features or approaches within the nurses' primary prevention work. One example of the analysis process is provided in Table 1 below, only the coding omitted.

**Table 1:** Data Analysis Process

Category	Natural Meaning Unit	Theme	Subcategory
Hands-on methods at the unit	“As a health professional we are thinking that all patients are infected. When you think all the patients are infected, at that time you have to take care for yourself.”	Preventive thinking	Preventive Approaches among the Nurses
	“I keep myself from contact with blood. Personal commitment to only use gloves, either double or single glove.”	Protective materials	
Health Education and Information	“We should, if we can, give health education to the mass in the morning. In the waiting area... for everyone at the same time.”	Health education for the mass	Routines and Targets

### **Ethical Considerations**

This study intended to add to the knowledge about nursing and health promotion surrounding HIV, which would be useful for the individual, the society and the nursing profession. As such, this study is ethically motivated according to Henricson (2012). However, some further ethical considerations have been important during the execution of the study, and are presented below.

During the planning stages of this study, considering the ethical implications of the selection was crucial. No patients were to be interviewed as it is difficult to ensure patients aren't placed in a disadvantaged position, agreeing to participate despite being unwilling. Using the snowball sampling, it was also important to take this into account and ensure that the nurses participated consensually and that they are fully informed about the study and their right to abort. These both aspects are crucial and fall under the principle of respecting another's right to autonomy and the need for informed consent (Helgesson, 2015). In a similar fashion, acquiring consent was of great importance during the execution of the study (Helgesson, 2015). The nurses were also given information about the option to cancel their participation after the conclusion of the interview and to then have their input removed from the study if they wished. The names and identity of all nurses were kept confidential, and presented in the study through coded identification only known to the researchers.

Furthermore, considering the potentially sensitive nature of the subject in focus and its surrounding discourse, it is important to be aware of the effect this could have on the nurses and their lives. As such, the researchers need to be intuitive and flexible. Should such feelings arise, the researchers need to adapt the situation to avoid discomfort or suffering on behalf of the nurse (Helgesson, 2015). Due to the nature of the subject and the cultural differences between the researchers and the receiving country, flexibility and sensitivity were key aspects in setting up interviews and keeping in contact with all of the involved parties during the initial phases of the study.

For example, the researchers had to be open about the type of questions that were to be asked as some of the units wanted to know, but no particular discomfort surrounding HIV was noticed during the execution of the interviews.

## **FINDINGS**

The main findings that describe the key features of the nurses' efforts are presented within three categories. The first category is hands-on methods at the unit with the two subcategories preventive approaches among the nurses and screening. The second category is health education and information with the subcategory routines and targets. The final finding depicts some aspects of the setting in which the nurses' methods are applied. These are presented under the third category the setting outlining the nurses' work, including the two subcategories levels of collaboration plus routines and guidelines. Hereafter, the three categories and their subcategories are more thoroughly described and supported with quotes from the nurses. The quotes are changed from oral to written language, with some grammatical corrections, in order to increase the readability and apply a layer of confidentiality on behalf of the nurse. Where multiple quotes are used to support the same paragraph, no nurse is quoted more than once.

### **Hands-on Methods at the Unit**

The nurses mentioned several ways in which they work at their unit with immediate hands-on efforts to prevent exposure and the risk of new infections. These were both preventive approaches in the nurses' daily routines as well as actively screening the patients to a varied degree, depending on the unit.

#### Preventive Approaches among the Nurses

The nurses cultivated different preventive approaches or attitudes towards the tasks in their daily work, in order to prevent the potential spread of the infection. The researchers compiled these into four separate, but closely related, approaches which occur in the nurses' daily work: being informed, using protective materials, developing a preventive way of thinking, and using equipment competently. These are hands-on approaches developed in order to prevent HIV from spreading while executing their daily nursing tasks, for example taking a blood sample, rather than a specific effort with the only objective being HIV prevention.

The first approach was mentioned by many of the nurses who explained that, in order to prevent spreading HIV, every staff member is informed of the patient's HIV status. This is often done by listing the result of the HIV test, so that accurate protective measures can be taken for the sake of oneself as well as others. The nurses mentioned different ways that this information was given, either through updating the patient's chart or logbook, looking at their previous health history, or by informing each other.

*“We put their result... in the chart... and every individual staff can know.”*

*“We’ll list the result. We have a logbook in which we will inform all the physicians and all the nurses, all the staff members in order to prevent ourselves... and in order to prevent our relatives, or staff members.”*

The second approach concerned nurses need to always be diligent in the use of protective materials in their daily tasks at the units, such as wearing gloves and a work uniform. This was raised by several of the nurses, in order to protect non-infected individuals from the virus.

*“We use protective equipment to protect us and the patient. We use gloves, goggles, and also we wear uniforms to prevent HIV.”*

*“Wearing gloves... to any patient whether negative or positive, because at first we don’t know...”*

The third approach, already hinted in the previous quote, was that the nurses cultivated a protective thinking in their daily work. The fact that they do not always know, whether the patient is HIV-negative or positive, means that they should always take precautions which was mentioned by some of the nurses. One nurse specifically raised that they had altered their way of thinking in order to prevent themselves from contracting HIV.

*“As a health professional we are thinking that all patients are infected. When you think all the patients are infected, at that time you have to take care for yourself.”*

The fourth and final approach was to handle the medical equipment in a competent and careful manner and to maintain a cautionary attitude in these risky situations. Due to the way HIV is spread, some nurses raised that they have to take care in handling sharp instruments, such as needles, to protect themselves and the non-infected patients.

*“Also prevent use of needles, from one to another. Stick injury is a real problem...”*

*“Taking care of myself when I touch sharp things...”*

### Screening

Another method of preventing HIV that the nurses sometimes performed in their daily work was to screen for the virus in the patients’ blood. Some of the nurses expressed that screening was one of the best ways to prevent new cases of HIV infection. This process was done in a variety of ways in the different units. The knowledge of whether or not the patient has HIV helps the nurse in how to proceed in caring for the patient. This is important in order to prevent the patient or others from getting infected later on, as well as to initiate treatment with ART for the HIV-positive patients.

Some of the nurses specifically spoke about screening through the procedure called PICT (Provider-Initiated Counselling and Testing). They explained that this is a testing method which first includes pre-test counselling, where the health staff go through the procedure with the patient and why it needs to be done. Depending on the unit, the test is either voluntary or non-voluntary. The latter was mentioned only at the surgery ward.

After this, the blood is tested and the result presented to the patient. Counselling is then done again, in accordance with the test result. A few of the nurses stated that they encourage the patient to redo the test after three months due to the time it takes for antibodies and the viral count to be noticeable in the test.

*“Sometimes, immediately when a patient enters into this ward, we usually do PICT, a HIV testing method.”*

*“We do PICT. We counsel the family, then we take the blood and test it for HIV. We convince the family... If they don't want, we don't enforce them.”*

*“We are going to advise him... to check his PICT result again... after three months... because, sometimes, in our blood sample the virus count depends on the virus load.”*

The majority of the nurses mentioned that there are screening routines at the hospital, yet there were differing screening routines and criteria at the units. As such, the screening process concerning who and when they screen differed between the units often depending on what kind of patients the unit had. Because of the variety of patient-types and the contrasting care at the units, the routines and criteria for HIV screening was widely differing. For example, a few of the nurses stated that they never screened their patients themselves at the central triage, but instead they referred them to another unit to do the test. Some nurses stated that they only screen if they suspect the patient may have the infection, either based on physical examination, symptoms, on the diagnosis, or upon the physician's request. In comparison, a few nurses stated that the antenatal clinic screen all their patients, and their partners, if they are willing. There, the screening is done to all patients in order to prevent HIV from spreading from the mother to the child.

*“The doctors see the diagnosis ... or... if they suspect that the patient has it, they will ask them... They tell us and they tell them to test.”*

*“... mother-to-child transmission, to prevent that, all patients will be screened. All pregnant women will be screened.”*

Although the screening is often voluntary, one nurse working in a surgery ward stated that to be admitted to the ward, the patient had to be screened for HIV. This highlights the varied range of criteria and routines of screening, if even possible, depending on the care given at the unit.

*“Before any assessment of the patient, we are going to consult him to do the PICT, whether the patient is... comfortable or not. If he is not voluntary, he may not even be admitted to the ward.”*

## **Health Education and Information**

The method that most commonly quoted by the nurses, specifically when the aim was HIV prevention interventions, was health education; also raised to be one of the most effective ways to prevent new cases of HIV infection in the first place.

This will be presented below, followed by one subcategory that emerged summarising the different routines and targets for health education depending on the unit.

Health education was something that the majority of nurses said to be a common element in their work with HIV prevention. Health education was a prioritised element in the preventive efforts done at the units. When asked, several nurses stated that health education is the most important method within primary prevention of HIV.

*“When we work we give health education every day. Giving health education is the best thing.”*

When talking about health education and HIV prevention, one nurse stated that developing awareness about the virus is one goal with the health education. Yet, almost all of the nurses raised that awareness about the virus and its transmission is already widely exhibited. One nurse even mentioned that this is one of the reasons that the HIV incidence has declined in the country, because all the people know about HIV and how to protect themselves accordingly.

*“Teaching, explaining, education, it is a big deal. Develop awareness of HIV. Develop awareness, we are going to do that, in a way so that they are not getting HIV/AIDS.”*

*“Already, by the way, all people have awareness... about prevention and complications of HIV. Not only from here, but they learn from TV or others, from the community. From extension workers.”*

*“That’s why it’s been... a decline in the transmission rate... Everybody knows about HIV.”*

That everybody already knows about HIV was raised as a positive feature. One nurse raised that it lessens the efforts needed by the nurse. The majority of the nurses also raised that there is no stigma surrounding HIV, because of the widespread awareness on the topic. Yet, it can also have a negative impact on the preventive work attempted by the nurse. Because of the increased discourse about the virus, one nurse raised that some patients are unwilling to listen to them as they hear about it everywhere.

*“Nowadays, the media is doing a lot of things... they do not need to ask us a lot here.”*

*“There is no stigma around. The behaviour of people is changing now... ten years back there was stigma, because people ... didn’t know the transmission methods... There’s not as much stigma nowadays I think.”*

*“We grew up learning about HIV... so people are fed up with the idea... They’re reluctant or push you away whenever you want to teach them. It’s a major, major obstacle.”*

### Routines and Targets

Health education was, as previously mentioned, the single most commonly quoted effort by almost all of the nurses, in relation to HIV prevention in the nurses’ daily work.

However, depending on the unit, the nurses focused on different targets and different types of information in their efforts. In the antenatal clinic, the focus was much on pregnant and lactating mothers, and to some extent on partners, where a major focus was giving information about ways to protect the HIV-negative infant from being exposed to the virus. One nurse mentioned that they, for example, present the advantages and disadvantages of breastfeeding versus replacement formula so that the mother can make an informed decision in relation to their context. Many nurses raised as an example, that they inform and advise about how HIV spreads and ways to protect oneself, where the use of condoms, minimising the number of sexual partners, or abstaining from sex was commonly given advise. One also mentioned that they explain to the patients and their families about safe behaviour while in the hospital, for example where to dispose sharp materials and to not touch body fluids. A few nurses also gave the example that they advise the patients to do the HIV test again because one may not stay HIV-negative in the future without continued caution just because the test says so now.

*“We teach and educate the adults, the mothers and the partners, to minimise exposure to the infant... Minimise exposure during breastfeeding... or labour and delivery”*

*“We give the information not to touch any blood, without using gloves. And to not touch needles. And... we show them where to dispose the sharp materials... We give this kind of information to the family.”*

*“We are going to check his PICT result again after... 3 months. After all, we are going to advise him. Once an individual is negative, in that certain moment, it doesn't mean that he is also negative in the future. He may be infected at a certain point in his life. In order to prevent this accident, we are going to advise him.”*

Several nurses focused their health education on individuals and often also on family members. Yet, some nurses focused on health education to the masses, which was held in the waiting area. One of these nurses expressed that it is done in combination with the individual teaching, whereas another one said it was the only thing they did and this only when they have a lot of staff. One nurse stated that they sometimes, in addition to oral information about HIV prevention, show family members what might happen if they do not take care of themselves and their children by pointing out HIV-positive patients at the unit. Another nurse, working at the outpatients' central triage with a high influx of patients daily, explained that they simply do not have the time for preventive work.

*“We focus on the individual... we give them health education every day... and for the members of the family.”*

*“Sometimes we give health education for the patients... We don't do individual teaching... but in the waiting room outside”*

*“Here, there is no time to talk with the patients...”*

## **The Setting Outlining the Nurses' Work**

When it comes to describing how the nurses carry out their preventive efforts, the findings were related to the setting in which the nurses work and two subcategories emerged. This concerned the different levels of collaboration inside and outside of the hospital as well as the routines and guidelines that the work surrounding HIV prevention is supported by.

### Levels of Collaboration

While working preventively against new cases of HIV, the nurses described that in some of their tasks, they are supported through the inter-professional team. Many nurses identified that they, in their preventive efforts, in some ways work together with the physicians or the midwives. In the former case, they help each other by attempting to identify individuals that may need to be screened for HIV, or in the latter case, taking turns when giving health education in the waiting area.

*“When the physician orders, we select them and counsel them...”*

There was also collaboration at the hospital between different units. Several nurses pointed out that they cooperate with the ART clinic at the hospital, to which they link the patients that are HIV-positive. Some nurses said that they refer patients to other clinics in order to be tested and counselled for HIV, if they do not do it at the unit themselves. One nurse also raised that they report the patient's status to the next care unit, to keep them informed.

*“If ... something has happened regarding HIV in our ward, we are going to inform all those responsible bodies... The ART clinic, mainly.”*

*“All positive mothers are linked to the ART clinic.”*

*“There is a special unit, HIV unit in the hospital. If we need the patient to be screened... he will be sent there...”*

However, no nurses identified any external collaboration outside of the hospital or the care sector in relation to their own tasks of HIV prevention. One nurse raised that they hoped to do such cooperation in the future, whereas another pointed out that the possibility exists, but only as an individual initiative rather than something that exists in their daily work tasks.

*“Since I came here, we haven't done that, but maybe in the future. We hope to do this kind of thing.”*

*“Everyone can do it, it's whether or not you want to do it... most organisations and most schools are willing to help you...”*

### Routines and Guidelines

To outline their work with preventing HIV, several nurses recognised that they had some types of routines and/or guidelines to follow and be supported by.

These nurses all identified different kinds of frameworks and no one mentioned the same thing. For example, one outlined an algorithm that they follow when it comes to HIV testing, whereas another identified an information leaflet which guides the nurse on what information one can give or how, regarding the topic. Another outlined that there was an oral rule at the unit, where every patient will be screened at the time of admission, in addition to the existence of an intranet for health staff to maintain updated regarding HIV.

*“Starting during the time of admission... it’s a rule, an orally posted rule. All patients should have to accept that rule. The first rule should be: every patient should accept... PICT.”*

*“The guidelines... it’s kind of a small book...a really tiny thing... it’s information for me, at the same time information that I could give... It guides me on how to teach them.”*

On the other hand, many nurses also said that there were no particular routines or guidelines at their unit regarding primary prevention of HIV.

*“No, I have not observed guidelines here. We do not have it here, I think.”*

## **DISCUSSION**

Nurses in Addis Ababa, at four separate units, highlighted various attempts in their work to minimise the occurrence of new cases of HIV infection. These have been highlighted and depicted in the findings and are discussed below. These discussions cover screening as primary prevention, the emphasis of health education and the perceived widespread awareness of HIV among the patients, and the aspects of collaboration mentioned all the while presenting some health promotion aspects that became visible in the findings. Following this, a discussion about the chosen methodology and the execution of the study is held, presenting potential weaknesses in the study as well as the efforts attempted to increase the quality.

### **Discussion of the Findings**

The nurses highlighted various efforts at their respective unit of ways that they prevent the potential spread of HIV infection to non-infected individuals inside and outside the hospital. For example, due to the ways of transmission this is very important in the nurses’ daily work at the unit, in order to prevent the spread of HIV through stick injuries or improper use of protective materials at the hospital. Primary prevention was visible through several of the mentioned efforts, and the multitude highlighted the presence of health promotion in the nurses’ daily work, regardless of the unit of employment.

In general terms, as described earlier, health promotion aims to promote health, to prevent illness, and to protect against harm (Wills & Jackson, 2014). The nurses raised several efforts in their work which fall under many different health promotion aspects. Together they maintain a wide-ranging approach which covers many angles where the efforts may be of use. Screening is one example of attempting to adjust the health care system as many authors mention (Linsley, 2011; Maville, 2013; Scriven, 2005; WHO, 1986; Wills & Jackson, 2014). This was often said by the nurses in this study as a common duty performed in their daily work.

Although screening is a way to find infected individuals in order to give proper care, preferably in an early stage in line with secondary prevention as Loveday and Linsley (2011) describe, the researchers of this study find that it can also lend great support to the primary prevention efforts. It can give nurses a chance to counsel and advise the patients on the matter, for example according to the PICT procedure, even if they are found HIV-negative. It may otherwise be a difficult topic to raise without reason, or without the attention of the patient, especially if stigma is still present. Similarly, Govender et al. (2014) found that screening the population is important for preventing the transmission by initiating suppressive antiretroviral medication early in order to lower the virus count in infected individuals. A recent study from 2015 also lends weight to this approach, saying that a lot of the HIV prevention efforts focus on non-infected individuals and that the behaviour among HIV-positive individuals is largely forgotten (Demissie, Asfaw, Abebe, & Kiros, 2015). They found that that 30.4 percent of the respondents, who were HIV-positive individuals in Addis Ababa using ART, had had an inconsistent condom use during sexual activities within the three months immediately prior to the study's execution (Demissie et al., 2015). They recommend that all health staff need to be trained to give adequate counselling and support to this target group, as well as encourage them to use condoms in an effective manner in order to help the primary prevention efforts to decrease new cases of HIV infection (Demissie et al., 2015). Therefore, the finding that screening is a routine at the hospital, including counselling regardless of the result, is very positive according to the researchers. Although not all the nurses carried out screening, all possessed knowledge about screening and instead referred patients to appropriate units. The nurses also raised that screening is done to all pregnant women in order to prevent mother-to-child-transmission of HIV. As Barnabas et al. (2014) state, this is something that should be done in order to be able give adequate care and the correct interventions during the pregnancy and post-partum as well as to reach the global development goals within the health sector. Targeting HIV-positive mothers and to start ART as quickly as possible are important steps to improve the health status on behalf of the mother through secondary prevention, yet also targets and lessens the risk of exposure to the non-infected infant with the additional end of primary prevention (Govender et al., 2014). This study finds that this highlights the difficulties within this subject to separate the levels of prevention, yet also emphasises the importance to do both primary and secondary prevention efforts to stop new cases of infection. Due to the mechanisms of the virus, to routinely rescreen the patients and to advise them to do so is a valuable approach also when it comes to primary prevention.

Another example of the nurses' prevention methods was that they actively work with providing information and health education. The majority of nurses raised that health education is the most effective and frequent HIV prevention effort in their daily work. This is a commonly mentioned aspect of health promotion in the literature and can be executed in a variety of ways (Linsley, 2011; Maville, 2013; Scriven, 2005; WHO, 1986; Wills & Jackson, 2014). Many nurses mentioned that they focus their health education on the individual, and that counselling is held between the nurse and the patient only. Some included the patient's family members, whereas others raised that they only, or in addition, focus on giving information to a larger group. Wills and Jackson (2014) claim that health promotion needs to be done at all levels of society. Although the nurses in this study do not work with a worldwide audience, they implement health promotion efforts on an individual as well as a societal level and this variety of focus is a positive feature.

Some nurses hinted at further efforts than simply the act of giving information, for example to allow pregnant women to make informed decisions about their lives; which in itself is partly attempting to enhance individual empowerment and, thereby, gain control over their health and their lives. These are central parts in health promotion as outlined in the Ottawa Charter (WHO, 1986). Some nurses also mentioned that they gave advice to the individual, for example to abstain from sexual activity, as well as to discuss other methods or alternatives, such as condom use or minimising sexual partners. As such, the provision of information and health education were both visible aspects, yet the extent to which they were used, either combined or separately, was according to the researchers difficult to judge following the data collected.

Based on the nurses' answers and explanations, it is also hard to decipher if they use the terms synonymously or not. Because the aim of the study was not to evaluate the interventions but only to describe what the nurses say they do, this is not of great import, yet this could be an arena for further research or an aspect for other studies to take into account.

The fact that most nurses mentioned that the patients are already well aware and informed about HIV and its related factors brings to mind the issue of stigma. UNAIDS (2007) states that HIV prevention efforts have long been obstructed by stigma and discrimination as people with HIV cannot adopt safe behaviours or seek treatment or care. This has prevented policymakers from ensuring that individuals are able to make informed decisions about their lives (UNAIDS, 2007; United Nations General Assembly, 2006). In its health policies, the Government of Ethiopia (2012c) says that it is implementing efforts to combat stigma and social issues regarding HIV. The recent study by Bekalu et al. (2014) states that Ethiopia appeared to have a low magnitude of HIV-related stigma. However, Demissie et al. (2015) found that among their HIV-positive respondents in Addis Ababa, 32.4 percent had experienced enacted stigma (avoidance, social rejection, and shame encountered since testing positive), and 45.5 percent currently felt perceived stigma (related to avoidance, social rejection, and shame). The findings from these studies are in contrast with each other. Furthermore, the majority of nurses in this study mentioned in a positive way that most of the individuals that come to the units are widely aware of HIV and many nurses said there is no stigma. This is an area that may still be difficult to research and discuss due to the workings surrounding HIV-related stigma. Yet, the researchers find that further studies may be required in order to improve care by looking at potential discrepancies in perceptions between health personnel and patients.

In addition, to coordinate efforts between and within sectors and groups is also an important part to make health promotion efforts successful (Linsley, 2011; Maville, 2013; Scriven, 2005; WHO, 1986; Wills & Jackson, 2014). Intra-hospital collaboration was something that the nurses mentioned as common elements in their work regarding HIV prevention, but not external cooperation. The nurses neither saw, nor played, an active part in wider collaborations and the researchers consider this to be a potential place for further developments in the future.

Nonetheless, the nurses raised that awareness of HIV is widely spread which could potentially be a sign of such larger collaboration, for example within media and schools. Also the health policies attempted by the FMOH depict such efforts (Federal Democratic Republic of Ethiopia, 2014; Government of Ethiopia, 2012c). Developing such health policies falls under an important aspect of health promotion, that of promoting structural adjustment (Linsley, 2011; Maville, 2013; Scriven, 2005; WHO, 1986; Wills & Jackson, 2014). Another sign of cooperation at a wider scale are the routines and guidelines surrounding the nurses' HIV preventive work that some of the nurses referred to.

When it comes to health promotion within a developing country, Nutbeam (2008) points out that the health promotion discourse may not be applicable, especially not following the foundation in the Ottawa charter. Health promotion theory was primarily mapped out for developed countries, and as such may not be appropriate to a developing context. Yet, he states that new and adaptive strategies are being developed but emphasises the need for research on health promotion from this context (Nutbeam, 2008). This is an important thing to think about when trying to implement and evaluate health promotion efforts and developing the health promotion discipline. As this study aims to describe the nurses' work and not assess it, this potential shortcoming within health promotion theory arguably does not have an effect on the result. It could, however, have impacted the lenses through which the researchers understood health promotion and reflected upon the findings. Nonetheless, this study helps to increase the research done within the discipline, yet the researchers find that this area and discourse still hold major potential for future studies.

### **Methodological Discussion**

In the following section, the methodology of the study is discussed. This includes how the study may have been impacted by the methodological design, the sample selection, as well as the interviews. The section ends with a discussion of the quality of the study, and what measures have been taken to improve the study's trustworthiness.

The method used, a qualitative field study, was deemed suitable both because of the descriptive aim as well as the need to look at the natural setting in which the nurses work with health promotion, which qualitative studies tend to consider (Polit & Beck, 2012). Quantitative studies also have value and could add to the knowledge regarding this subject. However, the researchers felt like both depth and richness would have been missed with such a design. Therefore, a qualitative interview-based study was an appropriate option and could in the future be advantageously complemented by quantitative research. Brinkmann and Kvale (2015) write that interviews are suitable when looking at how something is done. Following the conclusion of the study, the method felt sound and the data relevant to the aim, allowing the nurses to raise things of importance that the researchers otherwise felt would have been missed. The interviews were conducted with open-ended questions to ensure the nurses could talk freely surrounding the related topics, which was especially important as the researchers could not foresee the answers that would be given (Polit & Beck, 2012). Structured questions would have risked central topics or information to be missed during the interviews, partly due to the researchers' pre-understandings and prior experiences while formulating the questions.

By choosing to look at how nurses work with HIV prevention, looking to primary health care centres or similar facilities would usually be ideal, since this is commonly the entity working closely with such efforts. However, following the recent findings by Abraham et al. (2015) that many patients still initially seek hospital care without first consulting other care services, conducting this study in a hospital setting was considered legitimate and valuable. At the hospital, the interviews were held at four different units. This could potentially limit the data collected at the individual units as having more interviews at one unit could have ensured a more complete collection of the available data. Yet, the researchers still felt like they reached a point of diminishing returns and that the data was becoming saturated at the end of the interviews.

According to Rubin and Rubin (2005) a more flexible approach is sometimes required during a project in the field, where the researchers have to continually adapt to new circumstances and, for example, change both questions and inclusion criteria as they go. This became prevalent in this study, as adjustments had to be made. Initially, the researchers decided to include nurses who had at least two years of experience as a nurse. Benner (2001) writes that this is required for a nurse to become competent or be able to see the long term scheme in which their interventions fit and to analyse a situation in order to make adequate prioritisations.

However, once in the field this was adjusted to one year of experience. This was due to the fact that the nurses who were more willing to participate, and felt they could express themselves in English, tended to be part of the younger generation and fairly newly graduated since much of the education is in English. Benner (2001) states that a nurse, who has worked for at least a year, but have yet not developed a competent level of performance, can still demonstrate an acceptable level of performance and identify meaningful aspects in reoccurring situations. Furthermore, the researchers also believe that how quickly an individual move between these levels of performance, must also be a product of the individual's personality and learning process. Therefore, a minimum of one year also seemed adequate experience, considering the circumstances. This may have impacted the result, yet the researchers felt like the nurses could talk about their work freely and no loss of information was noticeable.

The language may also have impacted the final composition of nurses. However, as English is a common language in Ethiopia, the criteria concerning speaking a basic level of English did not seem an unreasonable criterion at the start. With the intention of ensuring that the interviews were possible to conduct in English, the contact person participated in the pilot-interview in order to act as a translator if needed between English and Amharic. Translation proved not be required, and as such the rest of the interviews were held in English without the presence of a translator. Even so, English was not the nurses' mother tongue and this could have impacted their answers as that they might not have been able to express themselves as they wished. The answers can also have been affected by misunderstandings, for example of the questions or particular words, which may have impacted the result of the study. However, the researchers felt like most nurses spoke their minds and were able to express themselves sufficiently, resulting in fruitful and valuable interviews.

The nurses did not get informed in advance about the study nor given time to consider their participation at length. It was the researchers' intention to give out the information in advance (in accordance with appendix C), but once on site, the contact person explained that it was better to ask for participation and give information in conjunction with the time of the interview. This was because there was a supposed risk that the study would be perceived as a major event and might have given rise to reluctance and nervousness. Therefore, the researchers were at the time of the interview diligent in ensuring that the nurses were all willing to participate and aware of their right to withdraw or abort the interview if they did not feel at ease. However, this could have impacted the data since the nurses did not have time to prepare or think about the subject at hand. The researchers sometimes felt like it prevented the nurses from talking about their preventive work at a greater depth.

During the appointed time for interviewing, some units had meetings or nurses away on training and, as such, could not provide as many nurses as initially planned and the time had to be rescheduled. Therefore, one interview was conducted ad hoc at a surgery ward in its stead, following approval from the unit's coordinator. This was done due to the availability at the time, in order to use the time efficiently and it was considered beneficial for the study in line with the intention to maximise variation of included units. The interviews were held at the nurses' workplace during work hours, which was considered positive due to the intention to look at nurses in their natural setting. Although the nurses may have felt distracted or stressed due to this, the researchers did not feel this was noticeable in their demeanour. The space available for having the interviews in was not always ideal in terms of giving the nurse privacy, yet for the majority of the interviews a private office was provided. This could have impacted the data and the confidentiality on behalf of the nurse. Yet, due to the circumstances the researchers had to be flexible and it was deemed better to have the interview as long as the nurse was willing, which all still were. The ones affected seemed used to the idea, and privacy may not always be possible due to the logistical circumstances at the hospital.

The nurses and the researchers came from differing cultural settings, which could have impacted the communication. Kvale and Brinkmann (2015) state that cross-cultural interviews can involve different norms of interaction, for example about initiative, directness, and modes of questioning. Furthermore, it may be difficult for the researchers to gain an awareness of all cultural factors. Some nurses seemed puzzled by open-ended questions, and the culture may be different, although this is unclear. The nurses may be more used to direct questions and giving clear answers rather than to speak generally. This may also be a preference based on personality, where some were more talkative than others. The use of an audio recorder could also have impacted the nurses, yet this was not felt by the researchers as the nurses talked similarly before and after the recording started. As mentioned in the background, the treatment of illnesses has been emphasised in the developing health care systems (Nutbeam, 2008). This could be an explanation of why some of the nurses did not always understand what the researchers meant with targeting non-infected individuals, as they may be used to targeting and treating the ones that already have or is suspected of having the disease. Therefore, the researchers often had to explain what was meant and rephrase the wording. This could also be due to the language barrier, as previously mentioned.

The analysis was done through a coding process. Brinkmann and Kvale (2015) raise that because coding cannot take into account polyphonic meanings and only place them into what a single category can portray, it has received some criticism. However, they argue that coding can still be a useful tool in research projects and can encourage creativity on part of the researcher, which is why this method was deemed adequate (Brinkmann & Kvale, 2015). During the coding, the researchers found the subject matter to be fairly straightforward and did not consist of data that could be interpreted in multiple ways. The coding process was perceived as helpful in structuring the data.

Trustworthiness is an aim for qualitative studies and a way to increase the quality. Four criteria are outlined to be important in the study to achieve trustworthiness, and several methods applied to increase the quality. Credibility is the first criterion for qualitative studies, where it is important to strive for confidence in the data collected and the interpretations by the researchers (Polit & Beck, 2012).

During the data collection, the researchers used audio recorders and the same interview guide for all interviews. This ensured that the data was collected in a consistent way. Both the interviews and the transcriptions were done by the researchers, without any external influence, which also enhances the credibility of the data. In addition, with the intention of maximum variation, the study included nurses of both genders and who had differing length of experience in order to improve the quality of the data. Moreover, the study was conducted by two researchers, with different experiences and skills, in order to minimise bias and one-sided interpretations through discussions and collaboration throughout the process. By using this method, which Polit and Beck calls investigator triangulation, it enhances the reliability of the data collection and analysis based on the concerted decisions. This attempt is also relevant and applicable to the second criterion, confirmability, in order to make the study objective where needed. Confirmability means to have objectivity in the data, where consensus between two or more researchers about the data's accuracy, relevance or meaning increases the quality. This is because it lessens the presence of bias, motivation, or perspectives on behalf of the researchers when presenting the findings, which must reflect the data provided by the interviewees (Polit & Beck, 2012). A qualitative study is by nature subjective, which is one of its strengths, yet by using investigator triangulation some objectivity may be strived for in the collection of data. The third criterion is dependability, which outlines the need to ensure the data is reliable. The study must be deployed in a way so that it can be replicated with similar results, if conducted in comparable circumstances (Polit & Beck, 2012). As such, every step of the study has been thoroughly documented and described as clearly as possible throughout the chapters, as well as adopting some measures of triangulation. The validity of the data may be questioned due to the language barrier, both on part of the nurses as well as the researchers and may make the data difficult to replicate. Both the nurses and the researchers spoke a language that were not their mother tongue, and the potential misunderstanding of the questions and/or the answers, may have led to misrepresenting the data sought as well as collected. In order to minimise this risk, the questions were reviewed by the contact person in the field, a pilot-interview with a language check was held, and elaboration of the answers was requested by the researchers during the interviews. These steps are also relevant for increasing the study's credibility as well as its confirmability. Qualitative studies cannot generalise their findings to be applied to other settings (Polit & Beck, 2012). As the study only included seven nurses working at a major hospital in Addis Ababa, the findings and the result is not representative for the rest of Addis Ababa or Ethiopia in general. However, the fourth criterion, transferability, is developed specifically for qualitative studies and intends to assess the way qualitative findings may be transferred and how the knowledge generated from the study can be used in similar settings. As Polit and Beck write, transferability is not always possible but by providing detailed descriptions about the study's context, the content can be pondered and discussed in relation to other situations (Polit & Beck, 2012). In order to increase the transferability of the findings in this study, interviews were conducted at different units to enhance the quality of the data by controlling for cross-site consistency on the subject, so called space triangulation (Polit & Beck, 2012). With this intention, four different units were included in this study. This approach provided a wider description of the general HIV prevention at the hospital and, therefore, could potentially increase the transferability of the data. By providing a detailed general description on how they work, it may still give a hint on what it could look like in other units elsewhere. Moreover, having few interviews can increase the quality of those descriptions as it can give the researchers more time to prepare and analyse (Brinkmann & Kvale, 2015).

## **Conclusion**

This study aimed to describe how nurses work with primary prevention of HIV. In conclusion, nurses at a major hospital in Addis Ababa worked in a variety of ways. They worked actively with hands-on methods at their workplace in order to prevent the spread of the virus to themselves or to patients, for example by protecting themselves using appropriate materials or developing a way of thinking. It was also an important effort to screen patients so that they can be counselled if they are HIV-negative, or to get them on medication as early as possible if they are HIV-positive.

This, in order to also to lessen the exposure to infants and other non-infected individuals. The majorly quoted prevention effort was health education and the provision of information, which was also impacted by the widespread awareness that the patients already demonstrate about the issue. The nurses work closely with other units and professions at the hospital to provide good care, protect each other from the infection, and prevent further spread of the virus among patients and individuals in the society.

## Clinical Relevance

Within the nursing profession, health promotion is an important task and, moreover, on the increase. Whitehead (2006) has raised the importance of continued research within the discipline of nursing and health promotion and also Nutbeam (2008) points out the importance of continued health promotion research within the developing context and the increased need for preventive focus within the health sector. With the aim of describing the nurses' primary prevention work against the global burden of the Human Immunodeficiency Virus, this study gives further insight into the workings of the nurses' potential and current role in health promotion efforts in a developing context, particularly in Addis Ababa, Ethiopia. In Ethiopia, the national efforts have had positive results in the incidence rate of HIV. This study has depicted the preventive work done by nurses at a major hospital and the findings show the multitude of efforts attempted by the nurses at all units in order to promote health and prevent new cases of virus infection.

Following the conclusion of this study, the researchers felt that the result emphasises the need for both nursing students as well as nurses to regularly be educated about health promotion. This includes health promotion theory, its content, to practice its application, and to continue more research within the field because health promotion and preventive work are key features of the nursing profession and potentially an increasingly important topic on the agenda in the future. Both Jadelhack (2012) and Nutbeam (2008) underline the need for a shift in focus from curative to preventive within health care, in which future nurses will have a big role to play.

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## APPENDIX A: INTERVIEW GUIDE

### *Interviewee Background*

- How long have you worked at this ward/clinic?
- What kind of experience do you have working with HIV prevention?

### *Interventions*

- Could you tell us briefly how you work with HIV prevention at this clinic/ward?
- What groups/individuals are considered at risk of contracting HIV here in Addis?
- How do you target individuals who are not infected? (which/certain risk groups?)\*
- In what way do you work with non-infected individuals, specifically, to prevent new cases of HIV infection? (what interventions/efforts?/how do you do it?)
- Do you also focus your interventions on groups/societies? If so, which and how?

### *Routines & Coordination*

- What routines or guidelines do you follow regarding HIV prevention? (where/who from?)
- How do you coordinate/combine your preventive work with others?  
(other professions, arenas, politicians, organisations, etc.)

### *Progress/Limitations*

- Is there anything you feel limits your efforts with non-infected in your preventive work?
- Is stigma surrounding HIV present? If so, how does it impact your work?
- When targeting non-infected individuals, what do you feel are the most effective efforts in your daily work in stopping the spread of the infection?
  
- Is there anything you wish to add or you feel we haven't discussed, in relation to the subject at hand?

\* Parentheses indicate examples and main points for the researchers to remember rather than formally formulated questions

## APPENDIX B: LETTER OF APPROVAL

Stockholm 2016-04-06

To the Head of Department,

\*

Our names are Maja Lingerhed and Julia Ansved and we are nursing students at Sophiahemmet University in Stockholm, Sweden. We are currently in the final phase of our programme and we are meant to carry out an independent study covering 15 university credits. The area that will be studied concerns the prevention and health promotion regarding HIV (please see next page for a summary of the content and structure of the study). We are therefore very interested in coming to carry out the study at your clinic.

If you approve that the study is carried out at your clinic, we would be very grateful for your signature in the attached document, a scanned copy of which is thereafter returned via email or we can come by in person, at your convenience. If you feel hesitant of the study's implementation at the clinic, we would be very grateful if you could inform us of this. If You have any additional questions regarding the study, please feel free to contact us or our tutor.

Yours sincerely,

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**Maja Lingerhed**

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**Julia Ansved**

Phone number: \*

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Email: \*

\*

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Tutor's signature

Name: Marie-Jeanne Hendrikx

Phone number: \*

Email: \*

\* Personal details not disclosed in the published version

## **Summary of the study's structure and content**

*Working Title:* “Ethiopian Nurses' Work with Primary HIV Prevention”

Globally, HIV is a leading cause of death and suffering which is why major efforts have been made to thwart the illness. Stopping the spread of HIV has been one aim in the Millennium Development Goals, now followed by the updated Sustainable Development Goals. Ethiopia is one country which has shown a declining HIV incidence rate in recent years after major efforts in the health sector. Within prevention and health promotion, nurses have a big role and the aim of the study is to describe the work and methods of the nurses in Ethiopia in relation to stopping the spread of HIV. In order to limit the scope of the study, it will focus on the work only targeting non-infected individuals. The purpose of this is to gain an enhanced understanding and knowledge concerning the role and methods of the Ethiopian nurse in health promotion efforts.

This study will be carried out through interviews with nurses in Addis Ababa, roughly between the 18<sup>th</sup> of April and the 1<sup>st</sup> of May 2016. The interviews will be confidential and participation is completely voluntary. The interviews will be recorded (voice only), but after the data has been processed the recordings will be deleted. No names will be included in the final essay, due to ethical considerations and in order to keep confidentiality.

The work will be finalised in the form of an essay in the middle of June, 2016.

I hereby approve that Maja Lingerhed and Julia Ansved can carry out the study "Ethiopian Nurses' Work with Primary HIV Prevention" (working title) during April and May 2016.

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City, Date

---

Signature, Head of Department

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Clarification of signature

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Name of Clinic

## APPENDIX C: PARTICIPANT LETTER

### To whom it may concern,

Our names are Maja Lingerhed and Julia Ansved and we are nursing students at Sophiahemmet University in Stockholm, Sweden. We are currently in the final phases of our programme and we are to carry out an independent study. We are conducting this study in Addis Ababa, Ethiopia. The area that will be studied concerns nurses' work with HIV prevention, targeting non-infected individuals. We are therefore interested in carrying out interviews with a total of 6-8 nurses who fit the following criteria:

- ...who have at least 2 years of nursing experience*
- ...who have basic nursing education, and no continued formal nursing specialisation*
- ...who in some way work with prevention or health promotion regarding HIV*
- ...who speak a basic level of English*

Globally, HIV is a leading cause of death and suffering which is why major efforts have been made to thwart the illness. Stopping the spread of HIV has been one aim in the Millennium Development Goals, now followed by the updated Sustainable Development Goals. Ethiopia is one country which has shown a declining HIV incidence rate in recent years after major efforts in the health sector. Within prevention and health promotion, nurses have a big role and the aim of the study is to describe the work and methods of the nurses in Ethiopia in relation to stopping the spread of HIV. In order to limit the scope of the study, it will focus on the work only targeting non-infected individuals. The purpose of this is to gain an enhanced understanding and knowledge concerning the role of the Ethiopian nurse in health promotion efforts.

This study will be carried out through interviews with nurses in Addis Ababa, roughly between the **18<sup>th</sup> of April and the 1<sup>st</sup> of May 2016**. The interviews will be confidential and participation is completely voluntary. The interviews will be recorded (voice only), but after the data has been processed the recordings will be deleted. No names will be included in the final essay, due to ethical considerations and in order to keep confidentiality.

If you fit the criteria and are interested in participating, or if you have any questions or concerns, please feel free to contact us (details below).

Yours faithfully,

**Maja Lingerhed**

Email: \*

Sophiahemmet University

**Julia Ansved**

Email: \*

Sophiahemmet University

Tutor: Marie-Jeanne Hendrikx

Email: \*

\* Personal details not disclosed in the published version