ADDIS ABABA UNIVERSITY, SCHOOL OF GRADUATE STUDIES, DEPARTMENT OF COMMUNITY HEALTH

GENERAL PRACTITIONERS' BELIEFS ABOUT THE PROVISION OF BEHAVIORAL HIV RISK ASSESSMENT AND PREVENTION COUNSELING TO PATIENTS: THEORY OF PLANED BEHAVIOR

A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY SCHOOL OF GRADUATE STUDIES, DEPARTMENT OF COMMUNITY HEALTH, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH (MPH)

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ADDIS ABABA

DECLARATION

I, the under signed declare that this thesis is my original research work and that it has never been presented before in this or any other universities.

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Acronyms

HIV Human Immunodeficiency Virus

AIDS Acquired Immunodeficiency Syndrome

VCT Voluntary counseling and testing

ART Antiretroviral therapy

ARV Antiretroviral

MoH Ministry of Health of Ethiopia

FGAE Family guidance association-Ethiopia

NGO Non-governmental organization

ANC Antenatal care

PNC Postnatal care

MCH Maternal and child health

OPD Out-patient department

STI Sexually transmitted infection

STD Sexually transmitted disease

TB Tuberculosis

TPB Theory of planned behavior

GPs General Practitioners

PICT Provider Initiated Counseling and Testing

Abstract

Background: The magnitude of HIV/AIDS is ever increasing in many parts of the world, especially in Sub-Saharan Africa, despite recent improved access to antiretroviral treatment. This calls for timely, coordinated, and intensified interventions including prevention, care, and treatment services. Accordingly, the government of Ethiopia, particularly, Addis Ababa health bureau has planned and been working hard to improve access to HIV prevention and treatment services. One strategy which comes to light is to integrate VCT services in to already available health service packages. To facilitate the integration process, it would be crucial to identify and address those determinant factors that may affect clinicians' provision of HIV risk assessment and prevention advices to their patients.

Objectives: - The objectives of this study are: (1) to explore whether the General Practitioners (GPs) ask patients about their sexual history and assess behavioral risk to HIV and provide HIV prevention advices, (2) to describe circumstances under which the GPs ask patients about their sexual history and assess behavioral risk to HIV and provide prevention advices to patients, and (3) to identify behavioral, normative and control beliefs of the GPs to ask patients about their sexual history and assess behavioral risk to HIV and provide prevention advices to patients

Methodology: - The study employed a qualitative study design with individual in-depth interviews. An open-ended semi-structured interview guide was developed based on the framework of the theory of planned behavior (TPB). This guide was translated into Amharic and used to conduct the in-depth interviews with the GPs in order to get a thorough understanding of the feelings and thoughts of the GPs. The interview guide was used to

elicit from the GPs the factors that may affect their provision of these two clinical services: *(1) Asking patients specific questions about their sexual history and assessing behavioral risk to HIV, and (2) providing HIV prevention advices to their patients.*

An elicitation in-depth interview was conducted with twenty eight GPs, which was the saturation point for this study, to identify those belief factors which may affect their *"Asking of patients specific questions about their sexual history and assess behavioral risk to HIV" and "providing advice to patients about HIV prevention"*. The study was conducted from January to February 2007 in Addis Ababa, Ethiopia.

Audio tape was used to record the responses of the twenty four GPs based on their willingness and for the rest four interviews were dictated as these GPs were not willing on the use of a tape recorder. All audio taped interviews were transcribed verbatim. The dictated interviews were also expanded and organized. The content analysis was conducted employing the thematic qualitative data analysis method to sort out all statements relevant to the components of TPB. For each clinical action, summary analysis was made to put the verbatim statements and the expanded notes related to the behavioral beliefs, normative beliefs and control beliefs of the GPs into the following lists respectively: (1) positive and negative behavioral beliefs about the outcomes or attributes of the action, (2) people or groups that encourage or discourage the action, and (3) factors or situations that make it easier or more difficult to perform the action.

The positive and negative behavioral beliefs about the outcomes or attributes of each clinical action were organized into six major themes or categories. The sources of normative

influences were grouped as approving and disapproving the behavior. The control beliefs were organized as facilitators and barriers/constraints. Actual phrases of the GPs were used to highlight important findings as needed.

Results: - According to the study results, most of the GPs stated that they rarely ask patients specific questions about their sexual history and assess sexual behavioral risk to HIV and provide advice to patients about HIV prevention because of the various beliefs they indicated in relation to providing these services. The GPs indicated that they provide the two clinical services only to patients they think are at risk of acquiring HIV/AIDS based on the patients' history and findings of physical examination. The GPs stated that they ask patients history about sexual behaviors including history of condom use, multiple sexual partners, and sexually transmitted diseases (STD) to assess behavioral risk to HIV. They claimed that these services are provided to patients privately, by being friendly and respectful as much as possible, by letting no one to enter the examination rooms.

The GPs have described various *behavioral, normative and control beliefs* which might have affected their provision of these services to patients. The important *behavioral beliefs* of the GPs identified were categorized into six different, but not mutually exclusive, themes which include *Patient Confidence, Patient Discomfort, Valuable Patient Care, Impact on Time and Money, Professional Protection and Competence themes.*

Pertaining to the *normative beliefs*, the GPs described various sources of normative influences (referents) which either approve or disapprove the provision of HIV prevention services to patients. These identified referents included: *friends, colleagues, patients,*

popular media such as TV and Radio, organizations such as PRO-PRIDE, FHI, WHO, JOHN HOPKINS which participate in HIV related trainings, Hospital administration and Addis Ababa health bureau.

The GPs have also described important *control beliefs* which may facilitate or constrain their provision of the two clinical services to patients. Among the important facilitating factors identified include: presence of *VCT, ART, & Care and Support services for patients, training on Provider Initiated Counseling and Testing (PICT), having the opportunity to see patients without family/friend present, having the opportunity to see young patients who are open to the idea, and patients with complaints related to HIV*.

Some of the important factors identified by the GPs to constrain the provision of the two services to patients include: *lack of private examination rooms, having many patients to examine, low salary and poor incentive schemes, cultural barrier to talk about sexual matters openly, and stigma and discrimination against HIV patients by the society.*

Conclusion and Recommendation: - According to the results of this study the general practitioners rarely provide HIV prevention services to their patients because of their various beliefs identified about the provision of these services. These services are provided only to those symptomatic patients presenting with HIV related problems, excluding the vast majority of those asymptomatic patients who may benefit from early detection and treatment. This study has tried to identify those behavioral, normative and control beliefs which are relevant to the population under study (the general practitioners) and their behavior (the provision of HIV prevention services to patients). The identified belief factors must be measured quantitatively to understand which factor(s) most affected the behavior.

Thus, in order to bring behavioral change in this area, any intervention developed should be designed to target and change the belief factor(s) in such a way that it affects attitude, subjective norm, and perceived behavioral control over the behavior thereby leading to a change in intention and behavior.

Introduction

Despite the recent improved access to antiretroviral treatment and care in many regions of the world, the magnitude of HIV/AIDS is ever increasing. Globally, the epidemic claimed 3.1 million lives in 2005 and close to 5 million people were newly infected with the virus in the same year. In Sub-Saharan Africa, 25.8 million people were estimated to live with HIV/AIDS in 2005, which is one million more than the figure in 2003. (1)

In Ethiopia, based on reports taken from VCT centers, blood banks, and ART programs, the cumulative number of people living with HIV/AIDS (PLWHA) is about 1.32 million (45% male and 55% female) in 2005. This results in a prevalence rate of 3.5% (3% among males and 4% among females; 10.5% urban and 1.9% rural areas) for the total estimated population of 73 million. (2)

The current state of high burden from the epidemic calls for a timely, coordinated, and intensified intervention to curb the gradual rise in the number of people infected and affected by HIV/AIDS, i.e., prevention, treatment, care and impact mitigation efforts should be intensified simultaneously for vulnerable groups including women, youth and rural communities. (1, 3)

Accordingly, many developing countries affected by HIV/AIDS have developed a strategic plan to coordinate and strengthen their HIV prevention efforts. The government of Ethiopia has been working hard to expand HIV prevention services and

scale-up ART program through integrated and multi-sectoral approach. Addis Ababa health bureau, particularly, continues to show extra leadership in bringing public health centers in the fight against HIV/AIDS. Integrating VCT with the packages of services already available was considered by the bureau as one strategy to combat the spread of HIV/AIDS. (3, 4, 5, 6)

A document prepared by Ministry of Health (MoH) on the specific job descriptions of different health professionals recommends that general practitioners (GPs) provide the following health services to patients, which include among them asking detailed medical history, conducting complete physical examination, and providing health education and health advice services to patients. However, available data indicates that health service providers, though trained in counseling and communication skills, do not fully put these skills into practice. (7, 8)

Most studies conducted in this area were concerned with those physical/environmental factors that may affect health service provision, based on quantitative methodology, which are not effective in predicting a specific behavior. The gap of information in this area, i.e., the limited data to better understand those relevant factors in predicting the provision of HIV prevention services, indicates the need for identifying and addressing all those relevant factors that may affect the provision of HIV prevention services, using an appropriate theory framework. (4, 5, 8, 9, 10)

In recent years, the Theory of Planed Behavior (TPB) has been increasingly applied to explain a variety of health behaviors including clinicians' provision of prevention services. The TPB focuses on theoretical constructs that are concerned with individual motivational factors as determinants of the likelihood of performing a specific behavior. The theory provides a framework for identifying key behavioral, normative and control beliefs affecting attitude, subjective norm, and perceived behavioral control, respectively, thereby leading to a change in intention and behavior. (9)

With the general aim to identify those relevant factors using an appropriate theory framework, thereby narrowing the gap of information in this area, this study has tried to identify the general practitioners' (GPs') belief factors that may affect the provision of HIV prevention services to patients using the theoretical framework of the TPB as a guide. Hence, the findings of this study would help to better understand these factors and focus any intervention in this area in order to bring the desired behavioral intention ultimately leading to behavioral performance.

Literature Review

Acquired Immunodeficiency Syndrome (AIDS) has killed more than 25 million people since it was first recognized in 1981. Despite the recent improved access to antiretroviral treatment in many regions of the world, the epidemic claimed 3.1 million lives in 2005. An estimated 40.3 million people (the highest level) are now living with HIV. Close to 5 million people were newly infected with the virus in 2005. Sub-Sahara Africa remains hardest hit, and is home to 25.8 million people living with HIV, almost one million more than in 2003. (1)

Globally, less than one in five persons get access to proven HIV prevention interventions including voluntary HIV counseling and testing. Of people living with HIV only one in ten has been tested and knows that he/she is infected. In the case of antiretroviral therapy, access in developing countries is even less than 7% of people who need ART in low and middle-income countries. (1, 10, 11)

Results of an assessment of the coverage of key prevention and care services in low and middle-income countries in 2003 suggest that most people in these countries do not have access to many key prevention services. Utilization is very low for voluntary counseling and testing (VCT) with an estimated 6.1 million visits per year of adults 15 – 49 years. Some progress has been made since 2001, but much more remains to bring essential services to a significant portion of the population in need. (10, 11)

In Ethiopia, based on reports taken from VCT centers, blood banks, and ART programs, the cumulative number of people living with HIV/AIDS (PLWHA) is about 1.32 million (45% male and 55% female) in 2005. This results in a prevalence rate of 3.5% (3% among males and 4% among females; 10.5% urban and 1.9% rural areas) for the total estimated population of 73 million. The 2005 estimated number of new adult AIDS cases was 137,499 and the number of new HIV infections was 128,922 (353 per day) including 30,338 HIV-positive births. Females accounted for 53.2% of new infections. Many people in Ethiopia do not know that they are infected. Up until now only a small percentage of those with HIV/AIDS have had access to reliable voluntary counseling and testing services. The number of PLWHAs in need of antiretroviral treatment (ART) was 277,757 including 43,055 (15.5%) children aged 0-14 years. (2, 8)

As HIV/AIDS becomes more prevalent in all parts of the world, it is imperative to explore innovative ways to prevent its further spread and to treat those who are already infected. Additionally, as access to antiretroviral therapy increases in developing countries, millions of people will be drawn in to health care facilities. This will provide new opportunity for health care workers to deliver and reinforce HIV prevention messages and interventions by talking to their patients about their sexual risk to HIV/AIDS and by providing prevention advice to their patients. (3)

To respond to the pandemic and to use the opportunity brought by the increased access to ARV, one strategy that has come to light is the integration of HIV/AIDS and other health services, potentially making all these services more cost effective and more

holistic. Thus, where ART exists, HIV counseling and testing should be universally offered in all health care settings including STD and TB clinics, family planning and reproductive health clinics, prenatal and mother to child transmission settings and other health care settings. (3, 12, 13, 14)

Results from Horizons study in Uganda revealed that it is possible to increase integration of HIV issues into family planning sessions. How ever, the constraints to integration of reproductive health (family planning and STI management) and HIV services (Voluntary counseling and Testing) need to be addressed. Potential challenges identified were human resource capacity, facilities and logistics, and quality of care. In addition, factors related to stigma and gender dynamics were described as potential challenges to integrating family planning and VCT services. (15, 16)

In the MCH setting, voluntary counseling and testing (VCT) has the potential to reach large numbers of women who may already be infected with HIV or at high risk of becoming infected. Where MCH programs have introduced VCT services, for example, in Kenya, Ghana and Zambia, key informants expressed support for integration and recommend strengthening the linkages between the two programs. Integrating STI/HIV services into family planning services does not appear to have negatively affected the quality of family planning services. Rather, the strategy appears to increase family planning client satisfaction and quality of care and may even increase acceptance of contraceptive methods. (15, 16, 17)

Assessment of voluntary counseling in Ethiopia in September 2000 revealed a growing demand for HIV counseling and testing, but service provision by government facilities is limited for shortages of physical facilities, test kits, and trained manpower. (10)

A study on needs assessment for integrated VCT services in Nazareth by Family Guidance Association Ethiopia (FGAE) in 2002 confirmed the need and demand for VCT services and that integrated services at a clinic offered advantage over other available VCT centers. For example, some clients and community members said they would not attend VCT services at the existing, freestanding VCT centers because of stigma associated with the sites, but would use the VCT services if they were offered at the clinics. (18)

The Declaration of commitment on HIV/AIDS (2001), The Millennium Development Goal (2000) and other important documents call for expanded efforts to halt and reverse the spread of HIV/AIDS both at the national and global levels. Progress towards achieving these goals requires significantly expanding HIV/AIDS programs to foster a supportive environment, to prevent new infections and to mitigate the social and the economic consequences of the epidemic. (19, 20)

Achieving universal access will require coordination of different approaches. Prevention, treatment, care, and impact mitigation goals will have to be pursued simultaneously. Accordingly, countries will need to focus on program implementation,

including strengthening of human and institutional resources, and initiate strategies that allow for the greatest possible level of integration of services. (1, 3)

Most countries affected by HIV/AIDS have developed national programs to coordinate their response and achieve the goals of their strategic plans on HIV/AIDS. There is a difference in components and emphasis given to each component from country to country. How ever, there is a general agreement that a comprehensive response includes programs to address prevention, care and treatment, mitigation, human rights, policy, research, monitoring, evaluation and more. (10, 11)

The Ethiopian health policy clearly stipulates prevention based health intervention strategies focused on major communicable diseases and with special attention to vulnerable groups such as women, children, youth, and rural population at large. The health policy and policy on HIV/AIDS encourages implementation of preventive and promotive health care at all levels of health care system. (21, 22, 23)

The need to integrate HIV/AIDS interventions with health sector as one of the priority area is well addressed in the Ethiopian strategic plan for intensifying the multi- sectoral response to HIV/AIDS pandemic. According to the strategic plan a minimum package of services for integrated prevention, care, and support has to be defined at the level health post, health center and hospital and capacity building should occur at all levels. Universal coverage by the health extension program, coupled with capacity building

from primary to tertiary level, can ensure effectiveness and sustainability of the program in the fight against HIV/AIDS. (4, 5, 22, 23, 24)

The Ministry of Health of Ethiopia (MoH) has planned to expand and scale-up its ART treatment strategies with net worked health care system as a foundation. In order to create optimal conditions for a more expanded ART programs, it has planned to invest in accelerating prevention efforts such as BCC/IEC, counseling and testing and prevention of mother to child transmission of HIV. (4, 5)

Addis Ababa health bureau with its various partners continues to show extra leadership in bringing public health centers in the fight against HIV/AIDS. Integrating VCT with the package of services already available was approved as an appropriate and effective means for combating the spread of HIV/AIDS. They also endorsed that VCT must become a routine service one can receive at a health center as it is a major step along the path for a brighter future and healthier Ethiopia.(6)

Accordingly, a number of activities were initiated during 2004 to ensure readiness for ARV scale up in Ethiopia. These activities included development and implementation of guidelines, tools and systems of ARV therapy roll out and extensive training of targeted ART teams (prescribing doctors, counseling nurses, disposing pharmacy personnel and laboratory technicians) from all over the country. (4, 5)

Different studies show that the majority of patients have favorable attitude towards VCT and also perceive health professionals as a reliable source of information with respect to HIV/AIDS. Further more, as access to antiretroviral therapy increases in developing countries, millions of people will be drawn in to health care facilities, providing new opportunity for health care workers to deliver and reinforce HIV prevention messages and interventions by talking to their patients about their sexual risk to HIV/AIDS and by providing prevention advice to their patients. (3, 8, 25, 26, 27, 28)

A document prepared by the Ministry of Health of Ethiopia (MoH) on specific job description of different health professionals recommends that general practitioners provide the following services, among others, including asking detailed medical history, conducting complete physical examination, and providing health education and health advices for patients. (7)

Despite the job description stated and the training they received, studies document that health workers rarely provide these health services to patients. A study on youth friendliness of sexual reproductive health and HIV/AIDS services for young people in eight selected regions of Ethiopia revealed that the needs for reproductive health and HIV/AIDS services are poorly served in much of the existing public health institutions. It is indicated that some health facilities did not have important facilities needed for privacy to provide these services. (7, 8, 25, 26, 27, 28, 29)

On the other hand, a discrepancy was found between intentions of health centers personnel and their actual practice. When asked how STD patients should be treated, health personnel listed such practice as being respectful and friendly, and talking to patients privately. However, when patients were asked about attitudes of health personnel, they sited the lack of these same courtesies. The patients indicated that, the health providers, though trained in counseling and communications skills, they do not fully put these skills into practice during their day-to-day interactions with patients. The health providers reported that, because of the strong stigma attached to HIV/AIDS, they are afraid to attempt and pronounce any clinical or serological diagnosis of HIV/AIDS at all. (8, 27, 29)

Most studies conducted so far in this area were concerned with those physical/environmental factors that may affect the provision of health services, based on quantitative methodology, which are not effective to predict a specific behavior such as provision of HIV prevention services to patients. The gap of information in this area, i.e., the limited data to better understand those relevant factors in predicting the provision of HIV prevention services, clearly indicates that there is a need for a thorough identification of all those relevant factors which may affect the provision of health services including HIV prevention services, using an appropriate theory framework.

In recent years, the Theory of Planed Behavior (TPB) has been increasingly applied to explain a variety of health behaviors, including exercise behavior, smoking and drug

use, HIV\STD prevention behavior, mammography use, clinician provision of preventive services and oral hygiene behaviors. The TPB focuses on theoretical constructs that are concerned with individual motivational factors as determinants of the likelihood of performing a specific behavior. It provides a framework for identifying key behavioral, normative and control beliefs of individuals affecting attitude, subjective norm, and perceived behavioral control, respectively leading to a change in intention and behavior. The theory assumes that demographic and environmental factors act through these three factors, and do not independently determine an individual behavior (7)

According to the TPB the most important determinant of behavior is a person's behavioral intention. The direct and independent determinants of an individual's behavioral intention are their *attitude* towards performing the behavior, their *subjective norm* associated with the behavior and *the perceived behavioral control* of the individual over behavioral performance. Attitude is determined by the individual's beliefs about outcomes/attributes of performing the behavior (*behavioral beliefs*) weighed by evaluations of those outcomes/attributes. The persons' subjective norm is determined by his/her *normative beliefs*, whether important referent individuals approve or disapprove of performing the behavior, weighed by his/her motivation to comply with those referents. Perceived behavioral control is determined by *control beliefs* concerning the presence or absence of facilitators and barriers to behavioral performance, weighed by the perceived power or impact of each factor to facilitate or inhibit the behavior. (7)

Most studies conducted based on this theory have generally found support for behavioral beliefs and perceived control (control beliefs) as a direct predictors of both intention and behavior, and were able to predict behaviors, even when there was limited individual's volitional control over the behavior. Thus, the knowledge of the effects of the behavioral and control beliefs concerning each factor would be useful in development of interventions, even in resource limited situations, like in our case. This can provide a focus in targeting those specific factors in which the beliefs are most strongly associated with intention or behavior. (4, 5, 7, 8, 9, 10, 28, 29)

Significance of the study

Widespread access to HIV treatment brings millions of people into health care settings, providing new opportunities for health care workers to deliver and reinforce HIV prevention messages and interventions by talking to their patients about behavioral risk to HIV and by providing HIV prevention advice. A document by Ministry of Health (MoH) recommends that general practitioners ask patients detailed medical history, conduct complete physical examination, and provide health education and health advices for patients. However, available data indicate that health service providers, though trained in counseling and communication skills, do not fully put these skills into practice during their day to day interaction with patients. On the other hand, a discrepancy was found between the intention of health service providers and their actual practices.

There is a dearth of information on those factors that may affect the clinicians' provision of HIV prevention services. Most studies conducted in this area were concerned with those physical/environmental factors, based on a quantitative methodology, which are not effective in predicting a specific behavior, such as the provision of HIV prevention services.

The gap of information in this area, i.e., the limited data to better understand those relevant factors in predicting the provision of HIV prevention services, indicates that there is a need to identify and address thoroughly all those relevant factors using an appropriate theory framework, especially if one plans to integrate HIV prevention services into the other health care services. Hence, with the aim to narrow the gap of information in this area, this study has tried to identify the belief factors that may affect general practitioners' provision of behavioral HIV risk assessment and prevention counseling to their patients, using the framework of theory of planned behavior as a guide.

Thus, the results of this study could assist policy makers to develop appropriate intervention methods to target those most relevant factors in the move towards integrating HIV prevention efforts in to the general clinical care system. Moreover, the findings of this study could help as baseline information for further studies on the area.

Objectives

General Objective:

To identify and describe behavioral, normative and control beliefs of general practitioners to provide behavioral HIV risk assessment and prevention advice to patients.

Specific Objectives:

1. To explore whether general practitioners ask patients about their sexual history and assess behavioral risk to HIV and provide HIV prevention advices to patients.
2. To describe circumstances under which general practitioners ask patients about their sexual history and assess behavioral risk to HIV and provide HIV prevention advices to patients.
3. To identify behavioral, normative and control beliefs of general practitioners to ask patients about their sexual history and assess behavioral risk to HIV and provide HIV prevention advices to patients.

Methodology

Study Area: Addis Ababa is the capital city of Ethiopia with an estimated population of three to four million. There are more public and private health facilities in Addis Ababa than any part of the country including 32 public and 60 private health facilities which have in-built VCT centers. Currently, 316 general practitioners are working in both public and private health facilities. The 2005 HIV/AIDS prevalence rate for Addis Ababa was estimated to be 11.7% with a stabilizing prevalence since few years back.

Study design and **period**: Different studies have shown that a qualitative study design with in-depth interviews is more preferred to a quantitative type to get a thorough and deeper understanding of individual beliefs, attitude, and knowledge factors. To achieve the objectives of this study an explorative qualitative study design with an individual in-depth interview was employed in this study using the framework of the Theory of Planed behavior (TPB) as a guide.

The TPB focuses on theoretical constructs that are concerned with individual motivational factors as determinants of the likelihood of performing a specific behavior. The theory assumes a causal chain that links *behavioral beliefs, normative beliefs and control beliefs* to behavioral intention and behavior, via *attitude, subjective norm, and perceived behavioral control* over performing the behavior. The TPB is preferred to other theories such as the Theory of Reasoned Action (TRA), in this particular study, as it is capable of explaining behaviors which are not under volitional control, i.e. situations in which individuals can not exercise a large degree of control over the

behavior, especially in resource limited situations, like in our case. Thus, in addition to the behavioral beliefs and normative beliefs, the framework of the TPB was applied to identify the control beliefs, i.e., the facilitators and barriers to the provision HIV prevention services which is one of the specific objectives of this study. This study was conducted from January to February 2007.

Source population: The job description of General practitioners (GPs) recommends that the GPs give general clinical care to patients and would act as leaders in different health facilities. Accordingly, this study involved general practitioners working in different health facilities in Addis Ababa to get a deeper understanding of their belief factors which may affect their provision of HIV prevention services to their patients.

Study subjects: General practitioners working in general OPDs, Internal Medicine, Surgery and Gynecology/Obstetrics departments in a randomly selected public and private health facilities were involved in the interview.

Sampling Technique: Both public and private health facilities in Addis Ababa were randomly selected by lottery method to identify GPs for the purpose of the study. Then, the GPs working in these randomly selected public and private health facilities in different departments were selected purposely to participate in the interview process. An in-depth interview was conducted with the selected general practitioners until the saturation point for this study was reached. Twenty eight in-depth interviews were

conducted to reach the saturation point for this study after which no new information or idea was generated.

Interview instruments: An open-ended semi structured elicitation interview instrument was designed based on the components of Theory of Planned Behavior. The interview instrument was translated to Amharic so that the GPs would use their native language to express their feelings and thoughts without any difficulty. This interview instrument was used as a guide to conduct elicitation in-depth interviews with the GPs in order to elicit from them the factors that may affect their provision of these two clinical services:
(1) Asking patients specific questions about their sexual history and assess behavioral risk to HIV, and
(2) Providing HIV prevention advice to their patients

Follow-up questions and probes were supplemented thorough out the interview to facilitate the discussion. A tape recorder was used to record interviews with additional note taking where the respondents allowed the use of a tape recorder and for those who did not want to be recorded the interviews were dictated.

Interviewers: The principal investigator of this study conducted the in-depth interviews. A second year MPH student who had a good experience in conducting a qualitative in-depth interview was recruited and oriented about the overall objectives of the study to assist in conducting some of the interviews where an overlap of appointment with the respondents occurred. After the preliminary analysis of the first

two in-depth interviews, discussion was made with the assistant and necessary information was exchanged about the use of some important probing and follow-up questions in conducting the rest of the interviews in such a way that the study objectives would be met.

Data Quality: Preliminary analysis of the first two interviews was conducted before conducting the next consecutive interviews. With adequate clarity and understandability of each interview question the rest of the interviews were conducted in accordance with the study objectives. Further improvements were made on probes and follow-up questions based on the result of the preliminary analysis to achieve the specific objectives of the study.

Data Analysis: All the audio taped interviews were transcribed verbatim. Those interviews which were dictated were expanded and organized similarly. The analysis of the GPs in-depth interviews was conducted by employing the thematic approach of qualitative data analysis. The framework of TPB was used as a guide to extract all statements and information that were relevant to each of the components of the TPB. For each of the two clinical actions, i.e., *"Asking patients specific questions about their sexual history and assessing behavioral risk to HIV" and "Providing advice to patients about HIV prevention",* summary analysis was conducted to put the verbatim statements and the expanded notes under the following lists:

(1) Positive and Negative beliefs about outcomes or attributes of each action,

(2) People or groups that encourage or discourage each action, and

(3) Factors or situations that make it easier or more difficult to perform each action

The positive and negative beliefs about the outcomes or attributes of each clinical action were further organized into six different themes or categories based on the verbatim statements and the expanded notes. The people or groups which either encourage or discourage each clinical action and the factors (situation) which either facilitate or constrain the provision of each clinical action were also categorized similarly. In addition actual phrases provided by the GPs were used to highlight relevant findings of the study as needed.

Key words of the study:

Behavioral risk to HIV

Behavioral belief

Normative belief

Control belief

Operational definitions

Behavioral belief- a belief that asking patients specific questions about their sexual history and assessing behavioral risk to HIV and providing HIV prevention advice to patients is associated with certain outcomes or attributes, such as patient confidence, patient discomfort, wasting ones or patient valuable time and professional competence.

Normative belief- a belief that a referent or important others such as colleagues, friends, medical directors, patients, advocacy groups or other officials encourage or discourage actions like asking patients specific questions about their sexual history and assessing behavioral risk to HIV and providing HIV prevention advice to patients.

Control belief- a belief that a certain factor or situation, such as stigma & discrimination, sex of patient, the community culture, religion, opportunity to see a patient without friend or family & clinician patient interaction, etc makes it easy or makes it more difficult to ask patients specific questions about their sexual history and assess behavioral risk to HIV and provide HIV prevention advice to patients.

Behavioral risk to HIV- is a likelihood or probability of acquiring HIV as a result of personal sexual behaviors, such as having multiple sexual partners, having unprotected sex, inconsistent condom use and so on.

Behavioral risk assessment- is asking patients specific questions about their sexual history and assessing /determining their chance or likelihood to acquire or not acquire HIV infection.

HIV prevention counseling- is providing patients advices or information on different ways of HIV prevention, including abstinence, faith-fullness, condom use, and advice on VCT.

Ethical Considerations:

Ethical clearance was first assured from the ethical committee of Addis Ababa University Medical Faculty. Then legal letter from the graduate coordinator was secured and respective health institutions approved it.

A written consent letter describing the purpose of the study was prepared and provided to each respondent to obtain their willingness including use of audiotapes for conducting the interview. They were also informed that they can refuse the interview from the beginning or withdraw at any point from the interview process and that in the planned report and publication no individual identification will be given.

RESULTS

The study included twenty eight general practitioners (GPs). Eighteen of them were working in public health institutions while ten were working in private health institutions in Addis Ababa. The study participants included 22 male and 6 female general practitioners giving clinical service for patients in different departments including general OPDs, Internal medicine, Surgery, and Gynecology\Obstetrics departments.

Most of the respondents have served for more than two years in different health institutions. The interviews were conducted with the GPs, privately in their respective health institution compounds during their break time.

Results of the study pertaining to weather, how and under what circumstances the GPs provide HIV prevention services to patients

To initiate the interview and to explore weather, how and under what circumstances GPs provide HIV prevention services to their patients, each GP was asked to respond to these two questions,

a) Describe weather, how and under what circumstances you "ask patients specific questions about their sexual history and assess behavioral risk to HIV", and

b) Describe weather, how and under what circumstances you "provide HIV prevention advice to patients"

According to the GPs responses to the question whether, how an under what circumstances they "Ask patients specific questions about their sexual history and assess behavioral risk to HIV", the majority of the GPs described that they rarely ask such question and assess the patients behavioral risk to HIV. According to most GPs responses, they only ask this question to assess risk to HIV if the patient presents with history and physical findings related to HIV/AIDS. The GPs have described various belief factors which have limited the provision of these services to specific patients.

One of the statements pertaining to the above findings, which was shared by most of the GPs include,

"I don't raise this question to every patient; I ask such question only if I suspect that the patient could have been exposed to HIV, based on the patients' history and physical findings".

The GPs responses as to the patients with relevant history and physical findings indicated that these patients included *patients with history of illnesses like TB, STDs and chronic diarrhea and patients with herpes zoster scars on physical examination*.

Responding to how and under what circumstances they *"ask patients specific questions about their sexual history and assess behavioral risk to HIV",* most GPs stated that they raise this question to patients privately, friendly and by being respectful so that patients would feel comfortable to discuss about HIV issues.

One of the GPs responses, which was shared by most of them in relation to privacy, was stated saying,

"I ask patients such question privately, as much as possible, by preventing other patients/families not to enter the examination room so that patients can to talk freely".

According to the GPs responses the specific questions asked to assess the patients' sexual behavioral risk to HIV included, *history of condom use, multiple sexual partners, and unprotected sexual intercourse*, which according to the GPs help them to identify those patients with sexual behavioral risk to HIV.

Most GPs responded similarly to the question *"weather, how and under what circumstances they provide advice to patients about HIV prevention"*. Though occasionally provided, the GPs indicated that they advice patients on HIV prevention methods including *abstinences, being faith-full to partner, consistent and correct use of condoms and use of VCT services* so that patients can protect themselves from acquiring HIV by practicing these prevention methods.

Contrary to their rare reported practices discussed above, when asked whether or not all patients should be *"asked specific questions about their sexual history and assessed for behavioral risk to HIV" and should be "provided HIV prevention advice",* the majority of the GPs replied that these two clinical services should be provided to all patients, as most patients are nowadays, presenting with HIV related problems.

One of the GPs statements, which was shared by most of the GPs, in relation to their general beliefs about the provision of these services, was stated as,

"It is very good if a*ll patients are provided with these services as most patients' complaints are, nowadays, related to HIV/AIDS".*

Results of the analysis of the in-depth interviews of the GPs pertaining to their Behavioral Beliefs about the provision of HIV prevention services

To identify the behavioral beliefs of the GPs to *"ask patients specific questions about their sexual history and assess behavioral risk to HIV" And "provide advice to patients about HIV prevention",* each GP was asked respond to the following two questions separately and also to consider each question from their own and the patients' perspectives.

The two questions were stated as follows,

a) *Describe the positive outcomes/attributes that would result from your "asking patients specific questions about their sexual history and assess behavioral risk to HIV" and "providing advice to patients about HIV prevention".*
b) *Describe the negative outcomes/attributes that would result from your "asking patients specific questions about their sexual history and assess behavioral risk to HIV" and "providing advice to patients about HIV prevention".*

The analysis of the general practitioners' in-depth interviews resulted in twenty five *behavioral beliefs* of the GPs to *"Ask patients specific questions about their sexual history and assess behavioral risk to HIV"*. All of these behavioral beliefs were also identified for *"Providing advice to patients about HIV prevention",* while two additional behavioral beliefs were unique to this clinical action. These beliefs cover a wide range of issues which are organized into six different, but not mutually exclusive, themes, because of the overlap of outcomes which are pertinent to two or more themes indicated. The themes were defined by referring to relevant literatures on the area, especially those studies that applied the theory of planed behavior. The six themes include *patient confidence, patient discomfort, valuable patient care, impact on time and resource, professional protection and GPs' competence themes.*

Patient Confidence

Under the theme *"patients' confidence in the GP"*, the majority of the GPs stated that *"Asking patients specific questions about their sexual history and assessing behavioral risk to HIV"* would result in the following list of outcomes/attributes which include,

It encourages patients to undergo VCT

It helps patients to know their HIV status

It helps patients to know more about HIV and its prevention methods

It helps patients to bring behavioral change

It helps patients to address their worries and concerns about their risk to HIV

It would strengthen the GPs and patients relationship

Most GPs have similarly identified the above discussed outcomes/attributes to be related to *"providing advice to patients about HIV prevention"*.

One of the GPs responses with respect to the above theme, which was shared by most of them, was stated as,

"Raising such questions to patients and advising them on HIV prevention methods make patients know more about HIV prevention methods and I think this could enable them to put into practice".

Patient Discomfort

With respect to the *"patient discomfort"* theme, most of the GPs identified that *"Asking patients specific questions about their sexual history and assessing behavioral risk to HIV"* would result in the following outcomes/attributes including,

It would be viewed by patients as intrusive or invasion of their privacy

It makes patients feel anxious and worried

It causes patients to feel singled out or stigmatized

It makes patients feel embarrassed or uncomfortable

It makes patients feel uncomfortable because they think the topic is unrelated to their problem

One of the GPs statements in relation to the cultural barrier to talk about sexual matters, which was shared by most of them, was stated as,

"Patients, especially older ones may feel embarrassed when I start talking with them about sexual issues because of our culture".

One of the GPs statements about the stigma and discrimination against HIV/AIDS patients by the society was stated as,

"Even though it is decreasing nowadays, the stigma and discrimination associated with HIV/AIDS still exists in many places and because of this patients may not feel comfortable to talk about this topic".

The GPs also cited the same outcomes/attributes to result from *"Providing advice to patients about HIV prevention"* which were discussed for *"asking patients specific questions about their sexual history and assessing behavioral risk to HIV".*

Valuable Patient Care

In relation to the theme *"valuable patient care"* most GPs described positive outcomes/attributes of *"Asking patients specific question about their sexual history and assessing behavioral risk to HIV".*

These identified positive outcomes/attributes include,

It would help the GPs to identify those patients who would benefit from HIV testing as early as possible

It should be given to all patients as most patients' complaints are, nowadays, related to HIV

It would help patients to use services like VCT, ART, care and support services on time

It would help patients to know more about HIV prevention methods and encourage them to put in to practice

Protect the health of the public by preventing HIV transmission

It encourages patients to communicate about any problem

One of the GPs statements shared by most of them, in relation to valuable patient care service, was stated as,

"Sometimes it is very difficult to reach diagnosis of HIV/AIDS because patients' complaints may not be related to HIV/AIDS and by raising such question to patients I can reach at the diagnosis earlier and refer the patient".

Despite the majorities' positive beliefs about the outcomes/attributes of *"Asking patients specific questions about their sexual history and assessing behavioral risk to HIV",* one of the GPs identified a negative behavioral belief about the outcomes/attributes of taking such clinical action. The negative outcome/attribute identified by the GP was that asking any patient about sexual history to assess risk to HIV and finally telling about a positive result after test may lead patients to take revenge on others thereby resulting in an increased HIV prevalence.

The GP stated his response saying,

"If the patient tests for HIV and becomes positive, this patient my take revenge by purposely transmitting the virus to others, and I think this has resulted in an increased HIV prevalence".

Similar outcomes/attributes were stated by most of the GPs for *"Providing advice to patients about HIV prevention",* while one outcome/attribute was unique to this clinical action, in that a few of the GPs described *"providing advice to patients about HIV prevention"* would be unnecessary as most patients already know about this topic.

One of the GPs statements that indicated the service to be unnecessary, was stated as,

"Now days every person has heard about HIV prevention methods from different media and therefore it is unnecessary to advice every patient as a routine clinical service, if at all needed it should be given in groups as a morning session for all patients as health education".

Time and resource

Under the *"time and resource"* theme, the majority of the GPs discussed negative outcomes/attributes to result from their *"Asking patients specific questions about their sexual history and assessing behavioral risk to HIV",* which include:

It would add work load on the GPs

It would take time and resource away from other patients

One of the GPs statement which was shared by most of them, was stated as,

"I am expected to see many patients per day and raising this question to all patients will make me busy and leads to my spending more time on discussing only about HIV".

On the other side, one of the GPs described that providing this service to a patient would save time and money of the patient, by avoiding unnecessary delay in diagnosis and prescription of drugs which may not help the patient.

The GP's response was stated as,

"Asking patients specific questions about their sexual history and assessing behavioral risk to HIV would save the time and money of the patient by avoiding delay in diagnosis and unnecessary prescription of drugs".

Similar outcomes/attributes were also discussed for *"providing advice for patients about HIV prevention",* while one outcome/attribute is again specific for this clinical action. In relation to this clinical action, a few of the GPs indicated that it would be wastage of time and resource to *"provide advice to patients about HIV prevention".*

One of the GPs statements which was shared by this group was stated as,

"It would be wastage of time and resource to provide HIV prevention services to every patient as a routine clinical service because most patients have already heard and know about HIV prevention methods from different media".

Professional Protection

Pertaining to the theme *"professional protection"*, which indicates the importance of providing these services as protecting the GPs from being blamed and being infected by HIV through accidental contact with the patients' blood or other secretions, most of the

GPs described the following outcomes/attributes of *"Asking patients specific questions about their sexual history and behavioral risk to HIV"* including,

It protects me from liability

It would help me to take care and avoid exposure and infection

One of the GPs statements shared by most of them, was stated saying,

"Families of patients blame us especially if the patient dies without any clear diagnosis, and asking patients such questions to assess risk to HIV and telling them about the case before hand would help me not to be blamed".

The above statement was discussed with respect to those patients who die of clearly diagnosed HIV/AIDS while on treatment, as it is a known fact that HIV does not have a cure and so the death of the patient is acceptable by the family.

The same outcomes/attributes which were discussed for *"asking patients specific questions about their sexual history and assessing behavioral risk to HIV"* were also discussed by the GPs for *"Providing advice for patients about HIV prevention".*

Competence

Concerning *"Competence"* theme, most GPs indicated that they are competent and knowledgeable enough to provide the two clinical services to patients. However, few of the GPs stated that they feel deficient in properly providing these services, especially in

initiating such discussion with any patient presenting to them, and they indicated that they need some training on the area.

One of the GPs responses which was shred by most of them, was stated as,

"I don't think there is a problem about how to ask patients about their sexual history to assess HIV risk and on how to advice patients about HIV prevention methods".

Results of the analysis of the in-depth interviews of the GPs pertaining to their Normative Beliefs about the provision of HIV prevention services

To identify the *normative beliefs* of the GPs to provide HIV prevention services to patients, each GP was asked respond to two related questions.

The two questions were stated as follows,

a) *Describe those people or groups (to whom you listen) who support (encourage) your "Asking patient specific questions about their sexual history and assessing behavioral risk to HIV" and "Providing advice to patients about HIV prevention"*
b) *Describe those people or groups (to whom you listen) who oppose (discourage) your "Asking patients specific questions about their sexual history and assessing behavioral risk to HIV" and "Providing advice to patients about HIV prevention"*

The analysis of the GPs' in-depth interviews identified that those important people or groups who support (encourage) most of the GPs' to *"Ask patients specific questions about their sexual history and assess behavioral risk to HIV"* included the following

referents such as *Professional Ethics (Standards), Friends, Colleagues, Patients, Popular media like TV and Radio, International and National organizations like WHO, FHI, PRO-PRIDE, JOHN HOPKINS, and Addis Ababa Health Bureau.*

According to the study results, most of the GPs hold a normative belief that the identified referents, to whom they may listen, think and expect that the GPs should provide the two clinical services to their patients. The professional ethics (standards) of the GPs with respect to provision of these services was stated by the GPs as an important source of influence which leads them to provide these services to their patients, irrespective of the presence/absence of those who may support or encourage them to provide these clinical services to patients. The organizations identified as important supporting (approving) referents were described as those which were usually involved in advocacy and trainings related to HIV/AIDS including the recent provider initiated counseling and testing training being conducted for health professionals.

One of the GPs statement with respect to their professional ethics (standards), was stated saying,

"Nobody encourages or supports me to do these things; I provide this service to patients, only because my professional ethics obliges me to do so".

The same sources of normative influences were also identified by the GPs to *"provide HIV prevention advice to patients".*

Pertaining to the responses of the GPs in relation to those people or groups who would oppose or discourage their *"asking patients specific questions about their sexual history and assessing behavioral risk to HIV",* most GPs indicated that no person or group opposes or discourages the provision of this service to patients, while one of the GPs working in one of the public health facilities described the hospital administrations in her practice organization as one source of influence that opposes (discourages) the provision of this clinical service to patients, because of the focus given by the hospital administration to number of patients seen per day by a physician, rather than the quality of health service provided to each patient.

The GP stated saying,

"The hospital administration in my work area doesn't want the provision of these services, they only focuses on the number of patients seen per day by a physician rather than the quality of health services provided to patients".

Results of the analysis of the in-depth interviews of the GPs pertaining to their Control Beliefs about the provision of HIV prevention services

To identify those *control beliefs* of the GPs to provide HIV prevention services to patients, each GP was asked two related questions.

The two questions were stated as,

a) *Describe those factors (situations) which make it easier (facilitate) for you to "Ask patients specific questions about their sexual history and assess behavioral risk to HIV" and "Provide advice to patients about HIV prevention"*
b) *Describe those factors (situations) which make more difficult for you to "Ask patients specific questions about their sexual history and assess behavioral risk to HIV" and "Provide advice to patients about HIV prevention"*

With respect to those factors (situations) which make it easier (facilitators) for them to *"Ask patients specific questions about their sexual history and assess behavioral risk to HIV"* and *"provide advice to patients about HIV prevention"*, Most GPs were initially reluctant or else did not want to describe those factors which facilitate the provision of these service to patients, however, after multiple probes and follow-up questions they were able to identify the following factors (situations) that may facilitate the provision of the two clinical services to patients.

The important facilitating factors (facilitators) identified include,

Having the opportunity to see patients without family/friend present

Seeing patients with a problem related to HIV

Having an established relationship with the patient, such as knowing the patient before and/or patients with repeated visits

Patients being young and open to the idea

Presence of HIV services like VCT, ART, and Care & Support to patients

Most of the GPs identified the above factors/situations to ease the provision of the two clinical services to their patients, particularly, in initiating HIV prevention discussion with their patients.

Indicating the importance of the availability of VCT, ART, Care, and Support services as facilitators, one of the GPs statements was stated as follows,

"Before the presence of VCT, ART, Care and Support services, assessing and telling a patient about HIV result was like giving a death sentence for the patient".

Some of the GPs have also described the training they received on "*Provider Initiated Counseling and Testing (PICT)"* as one facilitating factor to provide the two clinical services to patients.

One of the GPs responses about the training was stated as,

"The training I received on Provider Initiated Counseling and Testing has helped me to initiate HIV prevention discussions with any patient easily, and I would say it is good to train all physicians on this area".

According to the results of the GPs responses, the factors (situations) which make it more difficult (barriers) for them to provide the two clinical services to patients include,

Lack of private examination rooms

Having many patients to examine

Shortage of human resource

Low salaries and poor incentive schemes

Cultural barrier to talk about sexual matters openly

The stigma and discrimination against HIV patients by the society

Lack of breast milk substitutes for HIV positive mothers

Patients' condition such as patients being very sick and/or patients presenting with acute problems

Some of the GPs statements concerning the constraining factors (barriers) include,

"It is very difficult for me to raise such question to a patient because most of the time other patients or the patients family get into the examination rooms".

"I have many patients to see every day and because of work load and shortage of time I can not raise this question to every patient"

"In our culture it is difficult to talk about sexual matters openly especially with old people; even in families it is not common to talk about sexual matters".

"There is shortage of physicians in every health institution; even though they are hired most of them leave immediately because of low salary and lack of other incentives".

The important *behavioral beliefs* of the GPs identified in relation to the provision of HIV prevention services to patients are summarized in the ***Table 1*** below which are categorized into the six different themes described under the results of the study pertaining to the behavioral beliefs of the GPs. The *normative beliefs* and *control beliefs* of the GPs are also similarly summarized in the following ***Tables 2 and 3*** respectively.

Table 1: Summary of the Results of Elicitation Interviews Pertaining to General practitioners' behavioral Belief

My asking patients specific questions HIV about their sexual history	**My providing advice to patients about HIV prevention**
Patient Confidence	**Patient confidence**
Encourages patients to undergo VCT know their HIV status	Encourages patients to undergo VCT & know their HIV status
Help patients know more about HIV prevention methods	Help patients know more about HIV prevention methods
Help patients to address their worries concerns about their risk of HIV infection	Help patients to address their worries and concerns about their risk of HIV infection
Help patients to bring behavioral change	Help patients to bring behavioral change
Strengthens physician-patient relationships	Strengthens physician-patient relationships
Patient Discomfort	**Patient Discomfort**
Is viewed by patients as intrusive or invasion of privacy	Is viewed by patients as intrusive or invasion of privacy
Makes patients feel anxious and worried	Makes patients feel anxious and worried
Causes patients to feel singled out or stigmatized	It is a topic which patients don't want to discuss hear about
Causes patients to feel embarrassed or uncomfortable because of the cultural barrier to talk about sexual maaters openly	Causes patients feel embarrassed or uncomfortable because the cultural barrier to talk about sexual matters openly
It is a discussion topic which patients do not want to discuss	Causes patients feel singled out or stigmatized

Summary of the Results of elicitation interviews continued…

My asking patients…	My providing advice….
Patient Discomfort	**Patient Discomfort**
Makes patients feel uncomfortable because they think that it is unrelated to their complaints	Makes patients feel uncomfort-able because they think that it is unrelated to their compliant
Valuable Patient Care	**Valuable Patient Care**
Helps me to identify patients who would benefit from HIV testing as early as possible	Helps me to identify patient who would benefit from HIV testing as early as possible
Is an important service that should be provided to all patients	It is an important service which should be provided to all patients
Helps patients to know more about HIV prevention methods & encourages them to practice	Helps patients to know more about HIV prevention methods & encourage them to practice
Encourages patients to communicate about any problem	Encourage patients to use VCT, ART and Care &Support service on time
Protects the health of the public by preventing HIV transmission	Protects the health of the public by preventing HIV transmission
Encourages patients to use services like VCT, ART, Care and Support services on time	It is unnecessary to provide this service to all patients as most patients already know
Forces patients to take revenge on others and there by increase HIV prevalence	Forces patients to take revenge & there by increase HIV prevalence
	Encourages patients to communicate about any problem

Summary of the Results of Elicitation interviews continued…

My Asking patients….	My providing advice…
Time and Money	**Time and money**
It takes time and resources away from other patients	It takes time and resources away from other patients
It adds work load on me as it leads to my spending more time on discussing about HIV	It adds work load on me as it leads to my spending more time on discussing about HIV
It saves time and money of the patients by avoiding delay in diagnosis and unnecessary prescription of drugs	It saves time and money of the patient by avoiding delay in diagnosis and unnecessary prescription of drugs
	It is wastage of time & resource because most patients have already heard about the topic from different sources
Professional Protection	**Professional Protection**
Protects me from liability	Protects me from liability
Helps me to take care to avoid exposure and infection	Helps me to take care to avoid exposure and infection
Competence	**Competence**
It is something that I feel competent and knowledgeable to do	It is something that I feel competent and knowledgeable to do
It is an where I feel deficient or uncomfortable	It is an area where I feel deficient or uncomfortable

Table 2: summary of the results of the General practitioners' Sources of Normative Influences (Normative Beliefs)

Friends

Colleagues

Patients

Popular media such as TV and radio

International and National organizations such as PRO-PRIDE, WHO, FHI,

JOHN HOPKINS, and Addis Ababa health bureau

Hospital administration

Professional ethics (standards)

Table 3: summary of the results of the General practitioners' Control Beliefs

Having the opportunity to see patients without family or friend present

Having established relationship with the patient

Patients with HIV related complaints

Patients being young

Presence of VCT, ART, Care, and Support services to patients

Lack of private examination rooms

Cultural barrier to talk about sexual matters openly

Having many patients to examine

Shortage of man power

Stigma and discrimination against HIV patients

Lack of breast milk substitutes for HIV positive mothers

Patients' condition like patient very sick and/or in acute condition

Trainings on HIV related issues like PICT

Patients being open to the idea

Discussion

According to the results of this study the general practitioners seldom *"Ask patients about their sexual history and assess behavioral risk to HIV" and "provide advice to patients about HIV prevention",* despite the majorities' beliefs that these two clinical services should be provided to all patients and the training they received on the area. Analysis of the reasons indicates that the GPs hold multiple behavioral, normative and control beliefs which might have limited the provision of these services to patients. The results of this study are consistent with the findings of the study on *"Youth friendliness of sexual reproductive health and HIV/AIDS services for young people"* in eight selected regions of Ethiopia in that these cervices are poorly provided in much of the public health facilities and that the health service providers, though trained in counseling and communication skills, rarely put these skills into practice, and that the intention and actual practice of health workers differed on providing health services to patients. (8, 27)

The results of this study revealed that the GPs have multiple behavioral beliefs about the outcomes/attributes of providing HIV prevention services to patients, which may favor or constrain the provision of these services. According to the study findings, the GPs hold various positive outcomes/attributes of providing the two clinical services to patients, which favor the provision of these services, including issues related to *increasing patient confidence in their physician, valuable patient care, and aspects of professional protection*. The study results also indicate that the GPs believe multiple negative outcomes/attributes would result from providing the two clinical services to

patients, which constrain the provision of these services, which might have resulted in the low reported provision by the GPs of the two clinical services to patients. These negative outcomes/attributes were described in relation to *creating discomfort to patients, adding work load, and its impact on time and resource.* The findings of this study are consistent with that of the study conducted in America on the factors affecting the clinicians' provision of HIV prevention services. (9)

According to the results of this study, the GPs also hold different sources of normative influences which either encourage or discourage the provision of the two HIV prevention services to patients. The most important sources of control beliefs identified by the GPs which encourage (support) the provision of the two services include *professional ethics (standards), colleagues, friends, patients, popular media like TV and Radio and different organizations which are involved in trainings related to HIV/AIDS.* In this study one of the GPs had identified *the hospital administration* in her work area as one source of normative influence which discourages the provision of the two HIV prevention services to patients. According to her the administration in her work area only focuses on the number of patients examined by each physician rather than the quality of health care provided to each patient.

The results of this study pertaining to the normative beliefs of the GPs are consistent with the findings of a similar study conducted in America on the factors affecting clinicians' provision of HIV prevention services, except the fact that a hospital administration being identified as a negative source of normative influence in this study,

as a result of the focus given, by the referent identified, to the number rather than the quality of health services provided to each patient (9).

In this study the GPs described various facilitating and constraining factors to the provision of HIV prevention services to patients. According to the GPs responses the important facilitating conditions include *the presence of VCT, ART and care &support services to patients, being trained on Provider initiated counseling and training (PICT) and having the opportunity to see young patients with HIV related problem.* The findings of this study are consistent with those facilitating factors identified in different studies conducted in the move towards integrating HIV prevention efforts into the other clinical care services (15, 16, 18, 29).

In this study factors including *lack of private examination rooms, shortage of man power, low salaries and poor incentive schemes, work load, stigma and discrimination against HIV/AIDS patients and cultural barrier to talk about sexual matters openly* were raised by the GPs to be important constraining factors (barriers) to the provision of HIV prevention services to patients. These constraining factors are similar to those constraining factors (challenges) identified by different studies conducted in different African countries including Ethiopia in the move towards integrating HIV prevention services into the other clinical services (10, 15, 16, 18, 29).

The results of this study indicate that the GPs hold variety behavioral, normative and control beliefs which might favor or disfavor the provision of HIV prevention services

to patients. According to the TPB the three belief factors independently determine intention and behavior and the relative weights of these three factors in determining intention and behavior are expected to vary for different behaviors and populations. Many studies which applied the TPB have found support for behavioral beliefs and perceived control as direct predictor of both intention and behavior. In this particular study the finding that the GPs rarely provide HIV prevention services to patients despite the various stated favorable behavioral, normative and control beliefs may indicate the importance one or more belief factor(s) to provide HIV prevention services to patients, which should be determined by a quantitative study based on the identified belief factors (9).

Conclusion

According to the findings of this study, despite most GPs' beliefs that HIV prevention services should be provided to all patients and that they are trained on the area, these services are rarely put it into practice. The study results indicate that the GPs seldom ask patients specific questions to assess risk for HIV and that prevention advices are even given in fewer patient visits. The GPs identified different behavioral, normative and control beliefs in relation to providing these services, which might have limited the provision of these services to specific patients.

According to the results, these services are provided only to those patients presenting with HIV related problems based on the patients' symptoms and signs, which only comprise those symptomatic (clinical) patients including those with TB, STD, chronic diarrhea & herpes zoster scar. This excludes the vast majority of those asymptomatic patients who may not consider themselves at risk of HIV/AIDS, yet may benefit from early detection and treatment services.

This study identified the important behavioral beliefs of the GPs about the positive and negative outcomes/attributes of providing HIV prevention services to patients. The identified positive outcomes/attributes of providing HIV prevention services are related to *issues like increasing patient confidence in their physician, valuable patient care, and aspects of professional protection.* These positive behavioral outcomes need to be strengthened in order to result in a strong positive attitude towards the provision of HIV

prevention services, thereby leading to a smooth integration of HIV prevention efforts into the routine clinical care services.

The negative outcomes/attributes of providing HIV prevention services identified in this study were described in relation to *creating discomfort to patients, adding work load on the GP, and its impact on time and resources.* These negative behavioral outcomes need to be, at least, minimized so that the GPs would develop a positive attitude towards providing of HIV prevention services and ultimately put into practice, thereby facilitating the integration of HIV prevention efforts into the routine clinical services.

The study came up with the GPs' important sources of normative influences concerning the approval or disapproval of the provision HIV prevention services to patients. *Professional ethics (standards),* C*olleagues, friends, patients, popular media like TV and Radio and different organizations which are involved in trainings related to HIV* were among the sources of normative influences which approve the provision of HIV prevention services to patients. These referents need to further strengthen their encouragements/supports to the GPs so that they would be influenced positively to provide HIV prevention services to all patients.

This study identified at least one *hospital administration* as a source of normative influence that disapproves/discourages the provision of HIV prevention services to patients, because of the focus on the number of patients seen rather than the quality of health services provided. This referent need to consider the quality of health service

provided to patients and be friendly and supportive to the GPs so that the GPs would develop a strong positive subjective norm about this referent and be motivated to provide these services to all patients.

This study also identified those important control beliefs of the GPs' which may facilitate or constrain the provision of HIV prevention services to patients. According to the results, the availability of *VCT, ART, Care and Support services for patients and the training on Provider Initiated Counseling and Testing for the GPs* have made the provision of HIV prevention services more easier. Hence, these facilitators need to be further expanded and intensified so that the GPs would develop a strong perceived control over the behavior, thereby making the provision of HIV prevention services to all patients a reality.

The study results indicate that *lack of private examination rooms, shortage of man power, low salary, poor incentive schemes, work load, stigma and discrimination against HIV/AIDS patients and cultural barrier to talk about sexual matters openly* have limited provision of HIV prevention services to patients. These constraining factors (barriers) need to be minimized so that the GPs would develop a strong perceived power over the behavior, and finally, intend and provide HIV prevention services to all patients.

In an attempt to improve provision of HIV prevention services, improving the physical environment and conducting trainings, though very important, are not the only factors

which need to be considered; i.e., other related factors also need to be comprehensively identified and addressed. Therefore, the GPs' belief factors identified in this study, based on the framework of the TPB, would give us a better understanding of these factors in relation to their effects on the provision of HIV prevention services to patients. These factors need to be measured quantitatively in order to determine which of these belief factor(s) are most associated with the behavior and then focus our intervention.

Recommendations

The GPs should be encouraged and sensitized about providing HIV prevention services by emphasizing and clearly stating their job descriptions in order to have a strong belief about those positively valued outcomes/attributes through trainings and workshops so that they would develop a positive attitude and be motivated to provide HIV prevention services to patients.

The relationships among the GPs and the referents identified, including the administrative staffs in the work areas should be made friendly and supportive through close relationships, mass media and advocacy means so that the GPs would feel that the important referents identified would think he or she should provide HIV prevention services to patients and thereby motivated to meet the expectations of these referents.

The important facilitating factors identified by the GPs including the availability of VCT, ART, Care &Support services to patients should be further expanded and intensified so that the GPs would feel easier and be motivated to provide HIV prevention services to patients.

Trainings like Provider Initiated Counseling and Testing (PICT) which was described by the GPs as an important facilitating factor should be given to all GPs so that they can easily initiate discussions about HIV risk and provide counseling services to all patients irrespective of the patients' complaints.

The key constraining factors (barriers) identified by the GPs to provide HIV prevention services to patients including lack of private examination rooms, increased work load, shortage of trained man power, and the low salary and poor incentive schemes should be considered by responsible government bodies. Measures should be targeted towards alleviating these constraints by assuring the privacy of patients, improving salaries and other incentives and training of enough man power in order to facilitate and further expand the provision HIV prevention services to patients.

As an elicitation phase, this study identified those important GPs' belief factors that may affect the provision of HIV prevention services to patients; and therefore, it should be complemented by a quantitative study to measure these identified factors in relation to the provision of these services. It is only after this step that a good prediction of behavior could be obtained in order to develop appropriate intervention.

Limitations of the study

The busy practicing respondent s might have been over worked and have limited their responses to each question. To minimize this limitation an appointment was arranged with the respondents so that they have enough time to respond better. In addition, multiple probes and follow-ups were supplemented to facilitate the discussion.

Some GPs resisted being tape recorded. In this case, the interview was conducted with note taking (dictation). This might have resulted in missing or omission of some important points.

Strengths of the study

The in-depth interview was conducted using an open-ended, semi-structured interview guide which was designed based on the frame work of Theory of Planned Behavior (TPB). The interview guide was then translated into Amharic enabling the respondents express their feelings and thoughts effectively to get complete and consistent answers, leading to a comprehensive identification of the GPs belief factors.

To my knowledge, this study is the first of its kind to identify those factors that may affect the GPs' provision of HIV prevention services to patients, a bit comprehensively using a theory framework in Addis Ababa, or event in Ethiopia. Therefore the results of this study would serve as base line information to develop related intervention and also to conduct further studies in the area.

Dissemination of the study findings

The soft and hard copy of the study finding will be distributed to Addis Ababa University, Community Health Department, EPHA/CDC office, and Addis Ababa health bureau for documentation and reference.

The findings of the study will be presented on annual conferences like EPHA annual conference and workshops.

The findings of the study will be published in a peer reviewed journal.

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