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Primary Care Providers' HIV Prevention Practices Among Older Adults

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Abstract

Purpose—To explore primary care providers' HIV prevention practices for older adults. Primary care providers' perceptions and awareness were explored to understand factors that affect their provision of HIV prevention materials and HIV screening for older adults.

Design and Method—Data were collected through 24 semistructured interviews with primary care providers (i.e., physicians, physician assistants, and nurse practitioners) who see patients older than 50 years.

Results—Results reveal facilitators and barriers of HIV prevention for older adults among primary care providers and understanding of providers' HIV prevention practices and behaviors. Individual, patient, institutional, and societal factors influenced HIV prevention practices among participants, for example, provider training and work experience, lack of time, discomfort in discussing HIV/AIDS with older adults, stigma, and ageism were contributing factors. Furthermore, factors specific to primary and secondary HIV prevention were identified, for instance, the presence of sexually transmitted infections influenced providers' secondary prevention practices.

Implications—HIV disease, while preventable, is increasing among older adults. These findings inform future research and interventions aimed at increasing HIV prevention practices in primary care settings for patients older than 50.

Keywords

HIV; AIDS; older adults; primary care providers

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Introduction

According to the Centers for Disease Control and Prevention (CDC) (CDC, 2013), there is an increasing number of people aged 50 and older living with HIV in the United States. The increasing number of older adults living with HIV is due to a combination of individuals living longer with the disease and individuals being diagnosed after the age of 50. In 2011, people older than the age of 55 accounted for nearly 20% of the approximately 1.1 million people living with HIV in the United States in 2010 (CDC, 2013).

Older adults often have misinformation about HIV and do not engage in appropriate methods of protection. For instance, many women who are no longer concerned with becoming pregnant may be less likely to use condoms and practice safe sex (CDC, 2013), thus increasing their risk for contracting HIV. Diagnosing HIV/AIDS among older adults can be challenging as symptoms of HIV/AIDS can be very similar to other conditions that occur frequently among older adults, such as short-term memory loss, weight loss, or fatigue (Wright, Drost, Caserta, & Lund, 1998), often leading to inaccurate and delayed diagnosis. Because of the potential for rapid transition from HIV to AIDS among older adults due to reduced immune system function, it is extremely important for older adults to receive a timely diagnosis of HIV and to adhere to their HIV medications.

Primary Care Providers (PCPs)

Older adults represent the greatest consumers of health care, accounting for approximately 25% of all primary care visits (CDC, 2009). The implementation of the Affordable Care Act calls for increasing the number of nonphysician providers, including physician assistants (PAs) and nurse practitioners (NPs), to allow more time for preventive care in primary care settings (Kocher, Emanuel, & DeParle, 2010), including HIV prevention. Thus, PCPs may be well positioned to help increase HIV prevention efforts.

In addition to their frequent contact with older adults, PCPs are trained to treat a wide variety of health-related problems (AAFP, 2012). It is commonplace for older adults to come into regular contact with other health care providers, such as NPs and PAs. Although the type and amount of medical training varies among physicians, PAs, and NPs, they all have substantial medical training to provide primary care, obtain complete medical histories, educate patients, and provide preventive health care (American Medical Association, 2012). While PCPs may be well positioned to increase HIV prevention among older adults and have been trained to provide preventive care, studies have shown that providers are infrequently screening older adults for HIV (CDC, 2013; National Institute on Aging, 2009) and may lack specific knowledge about HIV among older adults (Hughes, 2011).

Study purpose—The intent of this research is to understand PCPs' HIV prevention practices among older adults. Because of the acute need for providers to educate and screen older adults for HIV/AIDS, the purpose of this article is to provide qualitative insights into PCPs' HIV prevention practices among older adults, specifically primary (i.e., education) and secondary (i.e., screening) HIV prevention. PCPs' individual perceptions and awareness were examined to understand factors that affect providers' provision of HIV educational materials to older adults and HIV screening practices.

Conceptual Framework

A need exists for theoretical and substantive insights into the relationship between PCPs and HIV prevention among older adults; consequently, another goal of the current research is to theorize PCPs' HIV prevention practices for older adults. The Ecological Perspective (EP) (Bronfenbrenner, 1979) was used in this study to develop interview questions designed to address the multiple factors associated with HIV prevention practices among PCPs, for example, interviewees were asked questions about individual, patient, institutional, and societal-level factors that potentially influence their HIV prevention practices. In addition, the EP aided in classifying PCPs' HIV prevention practices by taking into consideration multiple factors that can affect primary care. The model was used to aid in the interpretation of the findings by providing a framework for conceptualizing a model for understanding PCPs' HIV prevention practices based on the findings of this study. The model was not being tested but modified to aid in explaining HIV prevention for older adults among PCPs.

The EP “emphasizes the interaction between, and interdependence of, factors within and across all levels of a health problem” (National Cancer Institute, 2005, p. 10). The theory highlights an individual's interactions within his or her physical and sociocultural environments (National Cancer Institute, 2005). In this model, behavior is viewed as being determined by the following factors (McLeroy, Bibeau, Steckler, & Glanz, 1988; National Cancer Institute, 2005):

1. Intrapersonal level—characteristics of the individual that influence behavior, for instance knowledge, attitudes, behavior, self-concept, skills, as well as the development history of the individual.
2. Interpersonal level—interpersonal processes and primary groups, including family, friends, and peers who provide social identity, support, and role definition.
3. Organizational level—rules, regulations, policies, and informal structures, which may constrain or promote recommended behaviors.
4. Community factors—social networks and norms, or standards, which exist as formal or informal among individuals, groups, and organizations.
5. Public policy—local, state, and federal policies and laws that regulate or support health actions and practices for disease prevention, early detection, control, and management.

Method

Qualitative methods, which spanned traditional qualitative approaches, were utilized for this study as it sought to describe PCPs' practices and to generate a framework for understanding their practices. A total of 24 PCPs were recruited using a respective combination of purposive, convenience, and snowball sampling methods to obtain a diverse array of PCPs—providers from rural and urban practices, community and academic settings, and various medical specialties. Participants who met the preselected criteria (i.e., being a PCP, seeing patients older than the age of 50, and speaking English) were selected based on convenience

and availability (Henry, 2009; that is, in the state of Kentucky). At the end of each interview, each participant was asked whether he or she could recommend other PCPs who may be willing and able to participate in the study (i.e., snowball sampling).

The initial sample was selected based on the availability of contact information for potential participants, for instance, business email address. University websites were used to locate contact information for potential participants who were associated with an academic institution, while medical insurance websites were used to obtain information for providers who may not be associated with an academic institution. Once contact information was obtained, participants were recruited through email messages, facsimile, and/or personal telephone calls. A total of 162 potential participants were identified and contacted regarding potential participation. Of the 162 potential participants, 58 responded that they were no longer in primary care, 1 reported not having the time to participate due to a high volume of patients, and the remainder did not respond at all to repeated emails or telephone requests. A semistructured interview guide was developed based on the study research questions and the conceptual framework. In addition to demographic questions, the interview questions were as follows: (a) Can you share your thoughts about HIV/AIDS over the last 10 years? (e.g., new developments and shifts in affected demographics), (b) Does your practice follow any particular guidelines for the provision of educational materials about HIV and screening for HIV? (c) What personal factors do you think influence HIV prevention among older adults? What other factors do you think influence HIV prevention? (d) As a PCP, would you be willing to increase HIV prevention efforts for older adults? If so, what would you be willing to do and what would help you do it? (e) Is there anything you would like to add on the subject of HIV/AIDS and older adults? Each question was asked of each participant, and follow-up questions were asked through the interview, as necessary. Follow-up questions included questions about specific information gained in previous interviews and questions to clarify information reported in the current interview. Follow-up questions both strengthened and deepened the understanding of the information by clarifying information gained in the interviews and gaining additional information not initially included in the interview guidelines. Informed consent and permission to audiotape the interviews were obtained from each participant prior to beginning the interview. Interviews ranged from 12 min to an hour in length, with the average time being 27 min. It is important to note that only one interview was as short as 12 min; four other interviews were less than 20 min in length. The amount of time a participant could devote to the interview was based on his or her schedules, the amount of information he or she had to share, and the speed at which he or she conveyed that information. The interviews were conducted either by telephone ($n = 14$) or face-to-face ($n = 10$). Face-to-face interviews were preferred; however, telephone interviews were conducted as it was more convenient for the participants who had very busy schedules. Data collection occurred between October 2012 and February 2013. All protocols and consent procedures were approved by the University of Kentucky Institutional Review Board (Protocol 12-0686-P4S).

All interviews were audio recorded and then transcribed *verbatim*, using Microsoft Word. Data analysis was conducted simultaneously with data collection by reviewing transcripts and making interpretations, notes, and revising questions, as appropriate. Once data collection was completed, the transcripts were read repeatedly to ensure familiarity with the

data. Data from the semistructured interviews with PCPs were organized and analyzed using thematic analysis (Burnard, 1991). The EP conceptual framework aided in the organization of the findings (i.e., the different levels of a health problem) and as a template for thematic identification; however, the names of the themes were changed to best fit the data collected. The resulting themes were compiled into a codebook using Microsoft Excel, which helped organize relevant key phrases and ideas by frequency to identify and explain repeating ideas or themes (Auerbach & Silverstein, 2003). To increase reliability, the researcher checked transcripts to make sure that they did not contain mistakes during transcription. In addition, a subset ($n = 9$) of the interviews was coded by the first author's dissertation chairperson to ensure consistent interpretation of themes (i.e., cross-checks or intercoder agreement).

Findings

Participant Characteristics

A total of 24 PCPs, 6 NPs, 2 PAs, and 16 physicians who practiced in primary care settings in the state of Kentucky consented to participate. All participants indicated that they were PCPs; however, they represented a variety of medical specialties: family medicine (4), internal medicine (11), community clinics (5), women's health (1), regional medical center (1) and infectious disease (2). The providers were mostly female (15 women and 9 men) and White (19) 4, 1 Lebanese, 1 Hispanic, 1 Indian, and 2 African Americans). Participants' years of experience ranged from 1 to 25 years, with an average of 8.5 years. The number of participants who had an HIV+ patient older than 50 years in the current practice varied from 0% to 100%, while some participants reported that they were unaware of the number of HIV + patients older than 50 years in their practice.

Themes

HIV prevention practices are comprised of both primary and secondary prevention; however, specific factors influenced them collectively (i.e., provider, patient, institutional and societal factors) and independently (i.e., primary and secondary prevention). The findings are presented below by overarching themes: individual, patient, institutional, and societal factors, and primary and secondary prevention efforts for HIV prevention in older adults. Individual-level factors concern provider characteristics. Patient-level factors concern patient characteristics that the providers serve. Institutional-level factors include information about the facilities in which the providers work. Societal-level factors include wide-ranging social issues such as stigma, ageism, older adult's sexuality, patient awareness, prevalence, and awareness of resources. Primary and secondary prevention efforts discussed include factors specific to the provision of HIV educational information or HIV screening.

Individual-level factors—Participants' medical education did not include a specific discussion about HIV/AIDS and aging. Although the majority of participants did not learn about HIV/AIDS and aging during their medical education, several gained experience with HIV/AIDS and aging during residency ($n = 5$).

In addition to professional training, seven participants had past experiences with older adults who influenced their HIV prevention practices. A physician working in both infectious

disease and internal medicine mentioned that because of working in infectious disease and seeing patients who are HIV positive regularly, he is vigilant about screening for HIV although not as much as he would like to be:

I saw a man last week who was just diagnosed. He is 60 I believe and diagnosed with AIDS. That really shouldn't happen anymore. We should make the diagnosis of HIV, but not AIDS. We are probably guilty, ah, I guess of not thinking about HIV or AIDS in older persons. I think I have been, too. I diagnosed at least one of my own patients, one of my general medicine patients, who was in his 50s, I believe, I had known him for many years and I diagnosed him, not too late, but later than what I should have.

Patient-level factors—Participants frequently reported that patient literacy and health literacy were impediments to HIV prevention. One community clinic NP stressed, “Literacy is a barrier to everything, yeah, and we deal with that constantly, with everything.”

Participants reported that patient fears and misconceptions interfered with and influenced their HIV screening practices. An NP explained that one of the reasons her patients did not want to be screened for HIV was fear of the results: “I think one of the things, why they don't want to get tested, is that they are afraid of the answer and what are they going to do if it's positive. So, I think that is huge.”

Ten participants conveyed that patients had misconceptions about their risk for HIV and therefore did not feel that HIV screening was appropriate for them. One PA explained,

Ok, women who are no longer menopausal think that they cannot get pregnant, so there is no reason to use a condom because I can't get pregnant and not understanding that their risk is actually increased due to low lubrication and more risk of tearing.

Institutional-level factors—Twenty-two participants indicated that their institution did not have any guidelines for providing educational information to patients or were unaware of such guidelines. The others indicated that, although there were no specific guidelines, they use their own. Those who had guidelines practiced in infectious disease. One physician, stated, “Um, I don't know—the short answer is no. You know, I, we talk to everybody in general about risk factor reduction, especially teenagers and the like there. I don't know if there are specific guidelines that we are following.”

Participants provided a range of responses regarding HIV screening guidelines. Fourteen participants indicated that their practice does not follow any particular guidelines for HIV screening while others were unsure. Case in point, a physician reported not following any guidelines for HIV screening and suspected that she was the only individual in her practice that pushed for HIV screening. Others reported testing only high-risk individuals. For instance, an NP indicated that her practice did not have any screening guidelines: “I mean we look at individual cases and risk factors. It is something that we should do for every patient that comes in. I can't say that we are excellent at it, I mean we are busy at times.” Alternately, some participants followed the CDC's HIV screening recommendations for

universal HIV screening for all patients in health care settings unless the patient opts out of testing.

Societal-level factors—Seven participants mentioned that the stigma and stereotype that continue to surround HIV/AIDS in Kentucky and throughout the entire United States influence providers' and patients' HIV prevention practices. Two participants indicated that the stigma is greater in rural communities. For example, one physician said, “If there is a stigma, it is much more likely to be in rural areas.”

In addition to reporting that the stigma relating to HIV is greater in rural areas, one provider stressed that there is still some stigma held among providers: “I am afraid there is still some stigma among the physicians out there.”

Seventeen participants reported that they or others forget that older adults can also be at risk for HIV: “I think in general people, people aren't aware that older adults are often very active sexually, and I think sometimes people forget, um.” According to another physician, “Oh, among older adults, um, I think the biggest barrier would be that we just don't think about it with older adults, people don't, it's ah, you are less likely to take a sexual history for older adults.”

Participants stressed that cultural differences can also influence HIV prevention. For example, an NP explained her experience with some Hispanic women,

And so, there is whole other cultural dynamic there as far as stigma. Yeah, I would say certainly in female populations because I feel that um, a lot of times, especially again we have a Hispanic population here, a lot of times they are not as assertive in their sexual relationships, and so I think I, yeah, probably that plays into it.

Several participants reported that the prevalence of HIV/AIDS where they practice is influential to their HIV prevention practices. Three participants indicated that Kentucky is not in a high prevalence area.

Primary HIV prevention—Primary HIV prevention involves educating patients about HIV/AIDS. Participants' responses varied regarding availability of printed information for patients about HIV/AIDS. Thirteen participants were unaware of any HIV/AIDS information available for patients.

Other participants indicated that they had pamphlets but were unsure if there was any information in the pamphlet specifically for older adults. For example, one NP mentioned, “We have some that are culturally sensitive, but not anything that is specific to an older adult.”

Eleven participants obtained information about patients' risk factors for HIV when obtaining a sexual history, typically conducted when patients come in for an initial visit or annual wellness visit. For example, one NP said that obtaining a sexual history is a part of the information that she collects when patients come in for their initial visit,

Yes, it is a part. Well, it depends on the provider. I will say that, so I guess I'm just speaking for me personally. But for a new patient visit, those are questions that I usually ask um, and then for wellness visits, those are questions that I usually ask.

Other providers indicated that they do not revisit a patient's sexual history after the initial intake unless the patient comes in with a sexually transmitted infection (STI) or other symptoms that would warrant obtaining a sexual history.

One facilitator of primary prevention efforts among PCPs is the provider–patient relationship. Several participants reported that if they have a good rapport with their patient, then they are more likely to feel comfortable discussing HIV prevention with them or asking questions about sexual history:

Ah, you know sometimes it becomes this, what I will do well, is say “Are you married? Are you monogamous in your marriage?” And then you know, if there is a little bit of hesitancy, you know it depends on my relationship with the patients I'll say, but if there is some hesitancy, then I will say you know you're a little hesitant.

Two providers reported that female patients were more receptive to HIV prevention efforts than men; one NP said, “The difference is that I see more females for prevention; with men they just don't come in unless they have problems, but females are coming in for more prevention services, you know.” A physician reported having more women who were interested in prevention, for instance one of her patients said, “I want you to do a whole STD panel, and I want you to make sure that you check HIV.”

Ten providers indicated that when a patient inquires about medications for sexual dysfunction, the question may prompt him or her to have discussions about safe sexual practices. For example, one physician mentioned that the patient's marital status triggers asking probing questions:

If they are saying, well, I am having trouble, my wife and I are having difficulty, then sometimes it doesn't lead me down the path to do that. But if someone says they are not married, and they are asking for pills, then they are obviously having sex frequently with one person or with a lot of people. And then I will ask, you know, “How often are you having sex, and how often are you having to use these pills, and is it with the same person, and do you use condoms?” Sometimes it does do that, I do a worse job, I think, if someone says, “It's just my wife, and I am having trouble, we are having trouble.” I don't go down that path, maybe as much as I should, now after this conversation.

Fourteen participants indicated that time constraints limit their primary prevention efforts among older adults; for instance, one provider stated,

So, the number one barrier for um, in a clinical setting to prevention is time, um, a practitioner actually having time to discuss prevention methods with a patient because they are so focused on the active complaints that there is not much time to focus on prevention.

Other providers reported having new patients complete a health inventory, which they then use to prompt discussions about preventive health, depending on information provided, like one provider said:

Yeah, and I think a lot of times we use like those patient inventories when they are new just to kind of cut down on time, and if they don't say that they are at risk, then we may not address it as much as if they thought they were. Yeah, time is an issue. The health care system here is not driven on quality; it is driven on how many patients you can see in a day.

Twelve participants indicated that they were uncomfortable talking to older adults about their sexual practices. Several reported that their own age and that of the patient contributed to a patient's comfort level:

Yeah, that is, I would agree that is a barrier. That is even uncomfortable for me to address these issues with people over 50 because it is a part of our culture; you know, we are taught to respect our elders.

Others acknowledged a similar concern but also mentioned concerns about being able to answer patients' questions about HIV; for instance, one physician stated,

And I guess, I would say, that it is not the most comfortable discussion that I have during the day, so there is still a little bit of discomfort there. And I would have to say that I am sometimes a little fearful that the patient will ask a question that I don't know the answer to, obviously, not being the HIV expert. And, so yeah, if I am absolutely honest again, I probably have a little bit of discomfort, um, and probably I hesitate a little bit um, yeah.

Secondary HIV prevention—Secondary HIV prevention refers to early detection and prompt treatment of the illness. Three participants indicated that the CDC's HIV screening guidelines helped them to broach discussions about HIV testing. One physician stated,

That has helped me, actually, because then I can say to people, I'm like, I am not accusing you of anything. I don't think your risk factors are any different than anybody else, but the CDC says I should offer an HIV test to everyone at least once if, not every year or two.

Two participants reported using the U.S. Preventive Task Force (USPSTF) for recommendations for prevention; for example, one physician said, "Yeah we try. The CDC said in 2006 everybody between the ages of 13 and 64, and the USPSTF said that a year ago and pretty much agreed with. ..."

Responses from participants varied regarding how they went about counseling patients about HIV when conducting an HIV test. For instance, several preferred to do counseling after the test. One physician stated, "Um, I think because we are so quick to do it, we don't want anybody to change their mind." Others preferred to do the counseling before the test.

Eighteen participants reported that the cost of HIV testing did not influence their HIV screening practices. For instance, an NP stated that she has not had any experiences for which the cost of the HIV test was a problem for patients: "Not that I am aware of, you

know we have access to the health department; we have them in our clinic. I have never had somebody not get tested because of cost.” One physician pointed out that he was unaware of the cost of the test and thus was reluctant to offer HIV testing to his patients.

Fifteen participants suggested that HIV screening among older adults is low on their list of priorities. One NP compared younger and older adults and the prioritization on HIV screening:

But I mean it just seems so low, much lower on the list of priorities. Maybe lower than it should be, but you get someone who is 25 in here and has some risk factors. It is right up there on the list; they don't have 10 other things going on.

Nine participants stated that if a patient has or is concerned about a STI, it prompts him or her to screen for HIV. Said one physician,

I do recommend for any, it doesn't matter how old they are, especially if they are coming for any kind of sexually transmitted disease (STD), like they have any kind of genital issues that they are HIV tested, doesn't matter how old they are and ah, I see a lot of that. So, we don't have a mandate. I think we should, but we don't.

Two participants indicated that there are certain medical conditions or symptoms that prompt them to screen patients for HIV, for instance, low white blood cell count. One physician recalled diagnosing two patients with HIV after noticing lowered white blood cells: “Actually, both of them were just lower white cell count, and I was like, ah, something is not right here.”

Five participants reported that the sexual orientation of the patient influenced their secondary prevention practices. Specifically, the providers indicated that if patients were gay men, they were more likely to think about HIV and offer screening.

Four participants mentioned that the process of ordering an HIV test is complicated and could potentially influence their HIV screening behaviors. Case in point, a physician stated,

It is not part of the physical, and I don't think I can even charge. I can't even do it unless I put STD exposure um, or neutropenia or something. You know, those are the only two that I think will cover it. Um, I think it is more of an issue of how long it takes the test to come back.

Other participants indicated that the location of the testing makes HIV screening complex. For example, an NP indicated that her practice does not conduct HIV testing on site, and so it complicates the HIV screening process because she has to send patients who are in need of HIV screening to the health department.

Similar to primary prevention, time was repeatedly mentioned as a barrier to screening efforts. Almost all participants acknowledged that time negatively influences their HIV screening practices. Most reported that they do not have enough time to include HIV screening into their usual practices.

Ecological HIV PCP Prevention Model

Based on the study findings, the model incorporates aspects from the EP. Three components of the EP are incorporated into this model: intrapersonal, organizational, and community factors, (McLeroy et al., 1988; National Cancer Institute, 2005). The names of the levels are changed in this model to more accurately reflect themes developed from the current research.

The findings suggest that multiple factors influence PCPs' HIV prevention practices among older adults. For example, a provider's individual training and work experiences interact with institutional factors, such as lack of guidelines. Study findings also suggest that there are promotive and restrictive factors that make HIV prevention among older adults easier or harder. Lack of time with patients made both primary and secondary prevention efforts more challenging for providers, while a diagnosis of other STIs facilitated HIV screening.

In the model, patient, individual, institutional, and societal factors are considered interdependent and interactive factors that can influence PCPs' HIV prevention practices for older adults. For example, societal factors such as ageism can interact with institutional factors. The idea that our society holds that older adults are not sexual beings has led to a lack of guidelines to help prevent STIs among older adults. Another example is that while Kentucky requires HIV/AIDS training for practitioners to become licensed and to maintain licensure, the training does not incorporate any information about older adults and HIV/AIDS, which affects intrapersonal factors because practitioners miss an important aspect of training.

In the model, patient, individual, institutional, and society factors all converge to influence a provider's HIV prevention practices. They can serve as barriers or facilitators of both primary and secondary HIV prevention. For instance, discomfort in discussing issues surrounding HIV with older adults was a barrier to primary HIV prevention. Sexual dysfunction promoted primary HIV prevention among the PCPs in this study, while STIs promoted secondary HIV prevention. The model can inform strategies to improve PCPs' HIV prevention practices among older adults. Each level can be targeted for intervention aimed at increasing HIV prevention in primary care. For example, targeting patient factors can improve patient education by developing interventions to increase patient knowledge regarding HIV.

Discussion

The majority of participants reported that medical training and work experience influenced their current HIV prevention practices such that those who had training and work experiences that involved interactions with patients with HIV/AIDS who were older than 50 years were more likely to offer HIV screening to those older than 50 years than those who did not. Patient literacy, both general and health literacy, presented a barrier to HIV prevention. Findings from this study are consistent with prior research that suggests that low patient literacy is associated with adverse health outcomes, such as reduced health screenings (DeWalt, Berkman, Sheridan, Lohr, & Pignone, 2004). This study suggests that

low patient literacy leads to reduced HIV screening. In the present study, the lack of guidelines with an emphasis on HIV prevention appears to constrain providers' HIV prevention efforts. Furthermore, and similar to previous research, lack of practice guidelines for HIV screening is a barrier to testing (Burke et al., 2007).

This study found that specific factors differentially affected primary and secondary prevention efforts among PCPs. Educational efforts, identification of risk, and facilitators and barriers to HIV education influenced primary prevention. Participants' responses varied greatly regarding the availability of printed information about HIV/AIDS; however, none of the providers had information specifically targeting older adults, a finding similar to that of Orel, Wright, and Wagner (2004), who found that few health departments have HIV/AIDS and aging information, despite the availability of free resources from the Administration on Aging and the National Institute on Aging. PCPs in this study did not report routinely obtaining a sexual history from older patients; one reason for not obtaining a sexual history is perhaps discomfort. Research has repeatedly found that a positive patient-provider relationship can improve patient's outcomes (Bauer et al., 2014). Participants in this study who reported having a good relationship with their patients felt more comfortable discussing HIV prevention or asking questions about sexual history. Society, in general, tends to ignore the issue of HIV/AIDS among older adults, which could be influencing both primary and secondary HIV prevention practices for older adults. Time has been identified as a barrier to other preventive health measures (Yarnall, Pollak, Ostbye, Krause, & Michener, 2003). Time was found to be a barrier to both primary and second prevention efforts. As well, screening guidelines, HIV counseling, and facilitators and barriers to HIV screening were influential. Though the majority of participants were aware of the recommendations from the CDC or USPSTF for HIV screening, few had implemented them. Surprisingly, several participants indicated that federal recommendations regarding other diseases influenced their HIV screening practices. They mentioned that the CDC's recent 2012 recommendations to screen baby boomers for Hepatitis C influenced their thinking about older adults' sexual and drug use behaviors and risk for HIV. Previous research has identified pre- and post-HIV-test counseling as a barrier to HIV screening among physicians (Burke et al., 2007), but most participants did not view counseling as a barrier. The presence or concerns about STIs, no additional consent form, low white blood cell count, and the sexual orientation of the patient were found to facilitate HIV screening. Many participants reported that sexual orientation of the patient influenced HIV screening practices, specifically if the patient identified as homosexual. This finding was somewhat surprising given that recent research indicates that men who have sex with men are not being tested often enough (Mitchell & Petroll, 2012).

HIV/AIDS is one of the most highly stigmatized diseases in the world (Valdiserri, 2001) and is often regarded as an impediment to public health disease and promotion and prevention efforts. This study confirmed these findings as many participants reported that stigma and stereotype continue to surround HIV/AIDS in Kentucky and influence providers' and patients' HIV prevention practices.

Future Studies and Recommendations

Findings from this study help elucidate PCPs' prevention practices and recommendations for future studies and improvement can be gained from these findings. A broader range of health care providers should be interviewed to build on the foundational information gained from this study. By interviewing a broader range of health care providers, we can gain insights from providers in different geographical regions who may have different perspectives. In addition to including data via survey/interview methodology, the addition of data gathered by observation of provider interface with older adults would greatly add to the understanding of PCPs' HIV prevention practices for older adults (Theunissen, de Ridder, Bensing, & Rutten, 2003). Interventions should be developed and tested to increase HIV prevention for older adults in primary care settings and behavioral change theories incorporated into test interventions aimed at increasing HIV prevention in primary care settings for older adults.

In addition to the need for interventions to increase prevention efforts, there are immediate policy and practice implications. For instance, as the CDC currently recommends HIV screening only for individuals between 13 and 64 years (Branson et al., 2006), individuals older than 65 years should be included in the recommendation to increase screening among older adults. The state of Kentucky should include information specifically about HIV prevention among older adults in the required HIV/AIDS continuing education credits to increase awareness of the importance of HIV prevention among older adults. Printed information about HIV/AIDS and aging should be available to older adults in primary care settings to increase patient awareness. Printed information specifically for older adults can be found at the following website: http://www.nia.nih.gov/sites/default/files/hiv_aids_and_older_people_0.pdf.

This study is not without limitations. Study participants were recruited using both snowball and convenience sampling methods. Snowball and convenience sampling methods can lead to a sampling bias (Henry, 2009), resulting in a sample that can be more homogeneous and less representative of all the health care providers in Kentucky. Multiple recruitment strategies should be used to increase the number of participants included in future studies. This study had a relatively low response rate (23%) and may have benefited from different recruitment strategies. A larger, more diverse sample, including more nonphysician providers can enhance our understanding of clinical HIV prevention practices.

Conclusion

In conclusion, findings from the present study are exploratory and provide an important addition to the paucity of HIV/AIDS and aging prevention literature. Changes (e.g., updating medical education and training to include information about HIV/AIDS and aging, and reducing misconceptions held by society regarding older adults' sexual and drug use behaviors) must occur to facilitate PCPs' HIV prevention practices for older adults. Because it is imperative to improve these practices, intervention efforts should focus on addressing individual, patient, institutional, and societal factors as they influence primary and secondary HIV prevention practices.

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Biographies

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