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Preference for physician vs. nurse initiated opt-out screening on HIV test acceptance

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Abstract

Provider initiated opt-out HIV screening suggests that providers should routinely order HIV tests unless a patient declines. However, data on how providers will respond to this new screening model is scarce. Documented concerns from the providers' perspectives have included time constraints of a typical patient encounter, and discomfort with discussing sexual history and risk behavior with patients. To address these potential barriers, nurse-initiated screening has been proposed as an approach to increasing screening rates in general medical and urgent care settings. This study compares patient acceptability of provider-initiated opt-out HIV screening with nurse-initiated opt-out HIV screening among 220 patients between the ages of 18–64 from two publically funded "safety-net" outpatient clinics in Los Angeles County. Our study found that 77% of patients agreed to HIV testing using opt-out screening, and that HIV test acceptance was higher with the physician initiated opt-out model compared with the nurse initiated opt-out model (Adjusted odds ratios[AOR]=2.92; 95% CI=1.37–6.22). These findings indicate that adding opt-out screening to primary care providers responsibilities may be an acceptable and effective strategy for addressing the perennially low HIV testing rates, particularly among low income, traditionally underserved patient populations among whom the epidemic is expanding most rapidly.

Keywords

HIV/AIDS; Opt-out screening; test acceptance; health care providers

Introduction

Timely HIV testing persists as a major public health challenge in the United States (U.S.). An estimated 25% of HIV-infected individuals in the U.S. are unaware of their HIV status (CDC, 2008). To address this problem, the Centers for Disease Control and Prevention (CDC) in 2006 recommended a new paradigm of HIV testing using an 'opt-out' HIV

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screening strategy to include all patients ages 13–64 in medical settings, regardless of HIV risk (Branson et al., 2006). In 'opt-out' screening, the provider notifies the patient that HIV testing will be performed and offers the patient the opportunity to ask questions and to decline testing, if they choose to (Branson et al., 2006; Bassett & Walensky, 2010). However, despite these changes in policy, low HIV screening rates continue with approximately 54% of all adults (aged 18–64) in the U.S. having ever been tested (The Henry J. Kaiser Family Foundation, 2012).

Many questions remain regarding the best possible strategies for implementing opt-out screening (Korthuis et al., 2011), as well as the potential acceptability of and barriers to routine HIV testing (Cunningham et al., 2009). A potential barrier to the adoption of opt-out screening programs that has already been identified in previous research is the "provider-initiated" component of the opt-out screening program since providers attitudes regarding routine HIV testing could influence its uptake (Anaya et al., 2008; Bokhour, Solomon, Knapp, Asch, & Gifford, 2009; Korthuis et al., 2011; Mahajan et al., 2008). Documented concerns from the providers' perspectives have included time constraints of a typical patient encounter, lack of perceived certification to provide counseling, lack of patient acceptance, and discomfort with discussing sexual history and risk behavior with patients (Anaya et al., 2008; Bokhour et al., 2009; Korthuis et al., 2011; Mahajan et al., 2008). For example, in a study conducted in a Veterans Administration (VA) setting, some providers viewed pre-test counseling as an obstacle to HIV testing because it took up many "precious primary care minutes" (Bokhour et al., 2009). Barriers to implementing opt-out screening programs have also been identified from the patients' perspectives. Another recent study conducted in the VA healthcare system found that some patients indicated that those who trust their provider would be more likely to be tested; however, the patients were also concerned that discussing the sensitive topic of HIV testing might negatively impact the patient-provider relationship (Bokhour et al., 2009). To address these potential barriers, nurse-initiated screening has been proposed as an approach to increasing screening rates in general medical and urgent care settings (CDC, 2001). Few studies have examined whether test acceptance rates vary by the type of provider who offers the test (physician vs. nurse) (Anaya et al., 2008; Cunningham et al., 2009). One study, conducted within the VA Healthcare System, found that nurse-initiated opt-out screening increased HIV testing and result receipt rates significantly when compared to physician-initiated screening (Anaya et al., 2008). Another study, conducted in a community health center in New York, also found higher rates of test acceptance with nurse initiated screening compared with physician-initiated screening (Cunningham et al., 2009). The present study contributes to this literature by comparing patient acceptability of provider-initiated opt-out HIV screening with nurse-initiated opt-out HIV screening among 220 underserved minority patients from two publically funded "safety-net" outpatient clinics in Los Angeles County (LAC).

Methods

Participants and procedures

Data for this study were collected as part of a larger study that compared HIV test acceptance rates among patients from two "safety-net" outpatient clinics in LAC using one of the following four HIV screening models: (1) physician initiated, risk-based (2) nurse initiated, opt-in, (3) nurse initiated, opt-out, and (4) physician initiated, opt-out. For each of the four screening models, a Licensed Vocational Nurse (LVN) was tasked with performing the HIV test, collecting the oral fluid specimen sample, running the sample, reading and interpreting the results, and recording the results in the chart. Prior to the implementation of the screening program, both the nurses and physicians attended two training sessions on the basic procedures of initiating opt-out HIV screening. In addition, a research staff member attended the two clinics on specific days each month to invite a random subset of patients

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who agreed to or declined testing to participate in a brief one time only face-to-face administered survey. For this analysis, we examined data on 220 patients between the ages of 18–64 who were screened for HIV testing using either the nurse initiated or physician initiated opt-out screening model and completed the survey. The Institutional Review Board at the University of California, Los Angeles reviewed and approved the study.

Measures

Sociodemographic characteristics—Demographic characteristics included gender, race/ethnicity, age, education, health insurance, primary language spoken, County of birth, and perceived susceptibility to HIV. Since < 1% of the sample reported "other" as their race/ethnicity, this category was removed from further analysis.

HIV Test Acceptance—HIV test acceptance was assessed with the following question, "Did you agree to or decline HIV testing today" (agreed to/accepted, declined)?

Who Offered HIV Test—To assess who offered the participant the test, the following question was used: "Who made the initial offer of HIV testing? Was it a nurse (or nurse practitioner) before you saw the doctor, OR was it the doctor?

Data analysis

We first examined the distribution of all independent and dependent variables. We then used logistic regression to assess the unadjusted and adjusted odds ratios (UOR/AOR) for the association between HIV test acceptance and who offered the test. All analyses were conducted using STATA Version 11.0 (College Station, TX).

Results

Sociodemographic characteristics, who offered HIV testing and HIV test acceptance rates are presented in Table 1.

Unadjusted and adjusted associations of who offered test and HIV test acceptance

The UOR and AOR for the association of who offered testing and HIV test acceptance rates are presented in Table 2. In the adjusted analyses, those with a higher odds of accepting an HIV test included: individuals who accepted the test using the physician initiated opt-out model compared to those using the nurse initiated opt-out model (AOR = 2.92; 95% CI = 1.37–6.22) and those with health insurance compared to those without health insurance (AOR = 6.56; 95% CI = 2.66–16.18). Those with a lower odds of accepting an HIV test included individuals who were not born in the U.S. compared with those who were born in the U.S. (AOR = 0.23; 95% CI = 0.05–0.94).

Discussion

Our study found that 77% of patients agreed to HIV testing using opt-out screening. These findings suggest that implementing a routine opt-out screening program is feasible in community health clinics serving disadvantaged minority populations. We also found that HIV test acceptance was higher with the physician initiated opt-out model compared with the nurse initiated opt-out model. These findings are opposite those of the other two published studies we are aware of that examined differences in test acceptance rate by comparing nurse initiated screening with physician initiated screening (Anaya et al., 2008; Cunningham et al., 2009). A potential explanation for our finding is that LVN's were hired specifically for this study while the physician's were permanent staff members at the clinics. It is possible that patients in our study had an ongoing relationship with their provider,

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trusted their provider, and thus felt more comfortable accepting an HIV test from their provider; whereas the LVN's in our study were new staff members and patients may not have been familiar with them, thus there may have been some reluctance in accepting an HIV test from them. More studies, both quantitative and qualitative, are needed to better understand the factors that impact patients' preferences for physician versus nurse initiated screening for opt-out HIV test acceptance.

Our findings also showed that participants not born in the U.S. were less likely to accept an HIV test using opt-out screening. It is possible that social and cultural factors or issues surrounding acculturation, such as language barriers, may have impacted HIV test acceptance rates. Further research is needed to better understand this finding. Not surprisingly, participants with health insurance were more likely to accept an HIV test.

There were limitations to our study. All measures were based on self-reported data and may be subject to reporting and recall biases. Also, this study was limited to an underserved minority population in LAC; thus, while these are important populations to study in the HIV epidemic, generalizability of our findings to broader populations is uncertain.

Despite these limitations, a major component of the opt-out screening model is that providers will be expected to present these new testing guidelines to their patients. Our findings that test acceptance was higher with physician initiated screening than nurse initiated screening are promising, and indicate that adding opt-out screening to their primary care responsibilities may be an acceptable and effective strategy for addressing the low HIV testing rates among underserved populations. As other studies have documented, more research is needed to fully examine the impact of implementing the opt-out screening approach on patients, providers, and the patient-provider relationship (Bokhour et al., 2009).

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Table 1

Sociodemographic characteristics of sample, who offered patients the HIV test (Nurse vs. Physician) and HIV test acceptance rate (Total N = 220).

Characteristics	N (%)
Gender	
Male	106 (48)
Female	114 (52)
Race/ethnicity *	
African-American	82 (37)
Latino	122 (56)
Other	15 (7)
Age	
18–34	51 (23)
35–54	130 (59)
55+	39 (18)
Education	
Less than high school	84 (38)
High school	115 (52)
Greater than high school	21 (10)
Health insurance	
No	128 (58)
Yes	92 (42)
Primary language spoken	
English	98 (45)
Spanish	122 (55)
County of birth	
U.S.	90 (41)
Non-U.S.	130 (59)
Who offered HIV test	
Nurse	120 (55)
Physician	100 (45)
Accepted HIV test	
Yes	170 (77)
No	50 (23)

* N = 219

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Table 2

Unadjusted and adjusted odds ratios (UOR/AOR) for the association of who offered testing (Nurse vs. Physician) and HIV test acceptance rates using the opt-out screening model (N = 220).

Variable (reference group)	Accepted HIV Test UOR (95% CI)	Accepted HIV Test AOR (95% CI)
Who offered HIV test (nurse)		
Physician	2.57 (1.29–5.11) **	2.92 (1.37–6.22) **
Gender (female)		
Male	0.82 (0.44–1.54)	0.59 (0.27–1.26)
Race/ethnicity (Hispanic)		
African American	0.86 (0.45–1.69)	0.67 (0.09–4.79)
Age (18–34)		
35–54	0.35 (0.14–0.89) *	0.42 (0.15–1.20)
55+	0.52 (0.16–1.64)	0.85 (0.24–3.07)
Education (less than high school)		
High school	0.77 (0.40–1.51)	0.96 (0.44–2.10)
Greater than high school	2.59 (0.55–12.18)	2.76 (0.50–15.27)
Health insurance (no)		
Yes	4.35 (1.99–9.50) ***	6.56 (2.66–16.18) ***
Primary language spoken (English)		
Spanish	0.97 (0.51–1.83)	1.29 (0.18–9.24)
County of birth (U.S.)		
Non-U.S.	0.68 (0.35–1.32)	0.23 (0.05–0.94) *

* $p<0.05$,

** $p<0.01$,

*** $p<0.001$