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Evaluation of an Adapted Project Connect Community Based Intervention among Professionals Serving Young Minority Men

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Abstract

Background: To address sexual and reproductive health (SRH) needs of young minority urban males, we developed and evaluated Project Connect Baltimore (Connect), which was adapted from a program with demonstrated effectiveness among young females. The objectives were to determine 1) the feasibility of Connect as adapted for young minority men, 2) whether the program increased SRH knowledge and resource sharing of youth-serving professionals (YSPs) working with young men, and 3) whether the program improved awareness and use of resources for young minority men in Baltimore City, an urban environment with high rates of STDs.

Methods: Connect developed a clinic referral guide for male youth-friendly resources for SRH. YSPs working with partners and organizations serving young minority men were trained to use Connect materials and pre-, immediate-, and three-month post-training surveys were conducted to evaluate program effects. A before-after evaluation study was conducted among young men attending five urban Connect clinics where STD/HIV rates are high, recruiting young men in repeated cross-sectional surveys from April 2014 to September 2017.

Results: 235 YSPs were trained to use Connect materials, including a website, a paper-based pocket guide, and information regarding SRH for young men. These professionals demonstrated increased knowledge about SRH for young men at immediate post-test (60.6% to 86.7%, $p<0.05$), and reported more sharing of websites for SRH (23% to 62%, $p<0.05$) from pre- to three-month post-training. 169 young minority men were surveyed and reported increased awareness of Connect over three and a half years (4% to 11%, $p=0.015$), although few young men reported using the website to visit clinics.

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Disclaimer statement

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Disclosure statement

The authors declare that they have nothing to disclose.

Conclusion: Project Connect Baltimore increased knowledge of SRH needs among youth-serving professionals and sharing of SRH resources by these professionals with young men. This program also demonstrated increases in awareness of SRH resources among young minority urban men.

Short Summary

A before-after study of a community-based intervention in Baltimore, MD found that youth-serving professionals can increase awareness of sexual and reproductive health resources among young minority men.

Keywords

access to care; HIV; LGBT youth; young men

Introduction

Despite considerable resources devoted to controlling sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV), STD/HIV rates are high among young men in many metropolitan areas in the United States, including Baltimore City, Maryland.[1,2,3] Opportunities for screening young men for STDs/HIV are limited due in part to the lack of engagement of young men in sexual and reproductive health care (SRHC), especially sexually active young men.[1] SRHC for young men represents opportunities to promote sexual health and development of healthy relationships; prevent unintended pregnancy, STDs/HIV, and reproductive health–related cancers; as well as address issues related to infertility and sexual function.[4] Aligned with Healthy People 2020, the Providing Quality Family Planning Services (QFP) Federal guidelines recommend that all reproductive-aged men receive SRHC.[5]

Studies that examine connecting young men to SRHC have received little attention or mixed results. Successful strategies to engage young men in family planning services have focused mainly on clinic-based approaches through established female patients.[6,7] Other approaches more focused on increasing STD or HIV screening, include direct education via standard curriculum-based,[8,9,10] or approaches that are peer-led[11,12] or media-based.[13,14,15] Non sex-specific approaches[8,9] have not always been as successful as male-specific strategies[10,11] in engaging males as much as they do females; they have not necessarily taken into account ways in which young men are lacking in their socialization around healthcare and have not provided clear messages about the importance of SRHC promotion.

Because SRHC services are not always available as part of primary care, one key barrier for young people looking to access these services is knowing where to go. This may be easier for females, as SRHC services often are integrated into reproductive health and family planning care. Lack of this natural entry point may serve as an additional barrier for young men to access relevant SRHC. Approaches that target youth serving professionals (YSPs) represent an important avenue through which young people can be linked to SRHC. This may be particularly relevant for reaching young men, especially at-risk young men who may no longer be enrolled in school. YSPs work with youth in a wide variety of settings,

including schools and after-school/community-based programs. They represent a diverse workforce of nonclinical and clinical professionals who are already making referrals to connect youth with services provided by other organizations and agencies, and are ideally situated to talk with young men about their SRHC and link them to clinical care resources. Besides being connected to schools, many young people also report being connected to or involved with community organizations or social services agencies. However, YSPs, especially nonclinical YSPs, may not have sufficient knowledge about young men's sexual and reproductive health needs or know where to refer them for SRHC.

A successful intervention approach that aimed to overcome knowledge barriers for young people's entry to SRHC and which used YSPs to do so is Project Connect. Project Connect has at its core two key intervention components: 1) the development of a clinical guide for SRHC services which uses a systematic healthcare infrastructure scan to identify community clinics that are already doing a good job of providing SRHC services to young people; [16,17,18] and, 2) training YSPs on how to use the SRHC clinical guide as a resource when referring young people for SRHC.[16,17] Previously, Project Connect was implemented among providers serving mostly Latino students in the Los Angeles school system, and successfully increased HIV and STD testing and birth control receipt among adolescent female students. [19] Likewise, males in intervention schools who reported they went to a school nurse for any reason in the past year reported significant increases in SRHC receipt.[20] An adaptation of Project Connect conducted among mainly African American students in Detroit found increases in STD screening among the student population in general; this study did not stratify its results by gender.[17]

Given limited past work on engaging young men in SRHC using community-based approaches, the Project Connect model was adapted and implemented in Baltimore using a community-based approach and was specifically tailored to engage African American and Latino men aged 15–24 in SRHC, including HIV testing. The objectives of this study are threefold: 1) to determine the feasibility of Project Connect Baltimore (Connect) as adapted specifically for young men, 2) to determine whether the training improved YSPs' knowledge about young men's SRHC needs, their perceived confidence in talking with young men about SRHC, and their discussions with young men about SRHC and referrals to SRHC, and 3) to evaluate whether Connect improved access to SRHC for young men, including use of web-based Connect resources.

Materials and Methods

Program implementation overview.

Connect began with an environmental scan to identify a target area (i.e., a set of zip codes) as well as community partners and organizations serving young minority men in those areas. [21,22] Organizations (e.g., recreation, community, and family centers, and faith-based organizations) were contacted and asked to participate in Connect trainings. Next, we conducted a healthcare infrastructure scan to identify clinical settings that serve minority young men. Identified clinics were contacted to verify their experience delivering young men's SRHC. Clinics with documented experience providing SRHC for young men were included in a clinical guide for young men's SRHC. We then developed a mobile-friendly

web-based clinical guide (Y2CONNECT.org) and paper-based materials (i.e., handout cards, posters) as a bridge.[23] The clinical guide described each setting including hours, location, contact information, transportation, and SRHC services available.

We developed a 60-minute training to teach YSPs about male youth's SRHC needs and barriers to accessing care in Baltimore City; to improve effective engagement with and referral of male youth to SRHC, including normalizing care seeking, especially for SRHC; to describe SRHC provided at clinics on the guide; and to encourage YSPs' use of the guide in its various formats to share with youth and others. The training was based on Social Cognitive Theory,[24] with the goal of increasing YSPs' self-efficacy, knowledge, and skills to improve their discussions with the young men they work with about SRHC. Content for the trainings and additional materials developed for the clinical guide was also informed by formative work with young men that highlighted how multiple levels of their socioecology influenced their SRHC use, including their cultural, structural, social, and personal contexts.[23] The training consisted of didactic and role-playing opportunities for YSPs to practice and develop relevant skills that were conducted by program staff including two young adult male peer educators representative of the participating communities. All YSPs who completed the training received a certificate of training completion.

From August 2014 until June 2016, Connect clinical guides were disseminated as part of formal trainings of YSPs who worked in organizations serving youth located in the target area. Finally, we conducted a broader dissemination of the web-based clinical guide starting November 2016 after all trainings were complete using a series of electronic mail campaigns. In addition to the clinic information, web-based guides also contained extensive resources and information pertaining to a wide range of topics for youth, for YSPs, and for parents (e.g., PrEP, health insurance).

Study design.

We evaluated program implementation in three phases. In phase one, YSPs participating in the training completed an in-person paper-based survey prior to and immediately after the training, as well as three months later using email and a web-based survey. In phase two, a selection of clinics listed on the guide agreed to allow cross-sectional survey of their young male patients aged 15 to 24 at several instances in the period from April 2014 through September 2017.[25] Clinics that had reported positive STI test results in the time period 2009–2011 that were also male-friendly (defined as having experience serving young men, delivering SRH services to young men including urine-based STD screening and HIV testing and treatment), community-based (excluding school-based clinics), and were adjacent to the East Baltimore catchment area were asked to participate in repeated cross sectional surveys. Male patients were screened by age, and those who were eligible (i.e., aged 15–24), and provided consent, completed a brief survey using an audio-assisted computer survey (ACASI) in English or Spanish and received a $5 gift certificate for their time. We grouped these surveys as either before or after the Connect intervention. In the third and last phase, the number of unique visitors to the website and the total number of pages viewed were collected and compared over time.

Measures.

We examined the feasibility of Connect by describing results from the environmental scan, the clinical guide, and YSPs' satisfaction with Connect training as measured immediately after the training.

For phase one, to evaluate the impact of the training, we examined the surveys of trained YSPs for change in SRHC knowledge (in general and about where to refer), perceived confidence (talking about SRHC with young men, using a website for SRHC – general website at baseline and Y2CONNECT.org post-training, and referring for SRHC), and actions taken with young men in a typical month (talking about SRHC, using a website – general website at baseline and Y2CONNECT.org post-training, and making referrals for SRHC). Measures used for this survey tool were developed for this evaluation based on the training's learning objectives (e.g., to increase knowledge, confidence, and behaviors on young men's SRHC), with single items or brief scales being used for measures to minimize the burden of survey completion.[25]

For phase two, to evaluate whether Connect improved access to SRHC among young minority men, we examined survey data collected from young men at select clinical settings from the guide. Our primary measure of impact is whether young men were aware of Connect at these clinical settings. We also asked whether and how young men were referred to the clinic, if they were engaged with a community-based organization, and the reason for their clinic visit. Measures used for this survey tool were adapted from prior work whenever possible.[10] Although the objective of the Connect program was to improve access to and use of SRHC, especially including screening for STDs/HIV, we were unable to measure screening rates directly among young men interacting with YSPs.

Finally for the last phase, and for a supplementary measure of impact on young men's access to SRHC, we examined website use with the total number of unique users accessing the website and the total number of pages viewed. Only internet browsers specifying English language were considered for analysis.[26]

Data analysis.

For phase one, for YSPs who were not lost to follow-up, we compared their knowledge, perceived confidence, and behaviors over time by simultaneously modeling pre- and post-training survey responses using generalized linear additive models with random effects, accounting for clustering within individuals and within YSPs from the same organization.[27] We also compared pre-training surveys for those who were lost to follow-up to surveys from those who were followed for three months. For phase two, we compared those surveyed prior to and after Connect implementation for their awareness of Connect with a Fisher's exact test.[28] For the last phase, using a Student's *t* test, we compared two time periods, prior to broader online dissemination (before November 2016), excluding days when trainings with YSPs occurred, and after broader online dissemination (on or after November 2016).

Ethical clearance.

Study protocols were approved by the Johns Hopkins University School of Medicine Institutional Review Board (IRB) and affiliated institutional IRBs.

Results

Feasibility.

The environmental scan identified 63 organizations that were actively serving young men in the target area; 51 (81%) agreed to participate in Connect. Among these 51 organizations, we trained 235 YSPs to use the clinical guide and to promote access to SRHC for young men.[29]

The clinical guide identified 15 clinics currently serving young men that provided a range of SRHC services. All 15 clinics had experience providing care to minority young men, provided urine-based STD screening, and distributed condoms. Nine (60%) of these clinics provided rapid HIV testing, eight (53%) had experience providing care to LGBT individuals, and seven (47%) served only youth under 25 years.

Among the 235 trained YSPs, 230 (98%) completed a survey immediately before and after the training and 225 (96%) had complete data about their satisfaction with training. Of these, 216 (96%) YSPs reported that the training increased their understanding of resources for young men's SRHC in Baltimore, and 206 (92%) reported that their communication with young men about SRHC would be improved. Overall, YSPs agreed or strongly agreed that they were satisfied with the training and that they would use the information provided in the future with young men in their professional role, at 221 (98%) and 220 (98%), respectively.

Knowledge, perceived confidence, and behavior among YSPs.

Demographics and baseline knowledge, perceived confidence, and behaviors for 235 trained YSPs are described in Table 1.

Of 235 trained YSPs, 140 (61%) successfully completed the three month follow-up survey. These YSPs were more likely to be female and had somewhat higher baseline knowledge about SRHC than those lost to follow-up ($p<0.001$). YSPs who did not complete the three month follow-up survey had lower baseline knowledge about SRHC referral (4.4/8 for those lost compared to 5.5/8 for those followed-up, $p = 0.002$) and lower perceived confidence to talk about SRHC (3.0/4 vs 3.3/4, $p=0.007$), share an SRHC website, including the Connect site, (2.9/4 vs 3.2/4, $p =0.024$) and make an SRHC referral (3.1/4 vs 3.5/4, $p<0.001$).

Compared to before training, at three months post-training YSPs demonstrated increased knowledge about SRHC in general (65% to 80%, $p < 0.001$) and about SRHC referral (5.5/8, 69% vs 7.4/8, 93%, $p < 0.001$), perceived confidence to talk about SRHC, share an SRHC website, and make an SRHC referral (Table 2). Also increased were actual behaviors in talking with young men about SRHC (70% to 84%, $p = 0.002$) and sharing an SRHC website (23% vs 62%, $p < 0.001$) in the past typical month. YSPs were not more likely to have made an SRHC referral for young men in the last typical month at three-month follow-up compared to baseline (46% vs 47%, $p = 0.811$).

Among YSPs who were surveyed at three months, 89% reported using at least some of the Connect materials; 72 (51%) used the handout cards, 65 (46%) used the training manual handouts, 43 (31%) used the poster, and 36 (26%) used the Connect website.

Access to SRHC for minority young men.

Five clinics agreed to participate in repeated cross-sectional surveys during the study period. Of 1022 male patients referred to the study team in these clinical settings, 705 (69%) were of eligible age. Among eligible participants, 157 (22.2%) were missed, 55 refused (7.8%) and 493 enrolled (69.9% participation rate). These young men were predominately African American (90%), identified as heterosexual (75%), with prior sexual experience (90%), did not use a condom at last sex (54%). Fewer had a history of STDs (35%) or history of a pregnant partner ([33%] Table 3).

We compared awareness between groups surveyed before and after Connect training completion of YSPs for a measure of increased access to SRHC as a result of Connect (Table 4). Young men's awareness of Connect increased from before Connect implementation to after implementation (4% to 11%, $p = 0.015$). There was no difference in young men reporting use of Y2CONNECT.org over time. Few men reported using at least one Connect material, and this was unchanged pre-/post-Connect implementation (1% to 2%, $p = 0.185$).

Overall, general usage of Y2CONNECT.org increased substantially over the project period as measured by website analytics (Figure 1), although this is the whole United States, not only in Baltimore, and for a general population rather than young minority men. Prior to broader dissemination, the website had approximately 43 new users per month, and after dissemination there were approximately 225 new users per month. This represented an average difference of 182 additional new users per month ($p < 0.001$). The total number of pages viewed also increased during this period, from 379 to 993 per month ($p < 0.001$).

Discussion

Project Connect Baltimore substantially increased YSPs' knowledge, perceived confidence, and behaviors about young men's SRHC immediately after the Connect-developed training, with sustained impact assessed at three months, including discussing SRHC and sharing Y2CONNECT.org website information with young men. Website tracking over time demonstrated substantial activity during the period while training of YSPs was underway, and increasingly so after the website was disseminated broadly. Young men surveyed in clinical settings showed greater awareness of the web-based clinical guide. However, young men assessed in clinics did not report using Y2CONNECT.org or Connect materials to find the clinic they were using, and YSPs did not report making more referrals than before Connect training.

This study demonstrated that a relatively short 60-minute intervention with YSPs supplemented with paper and web versions of a clinical referral guide substantially increased their knowledge, perceived confidence, and behaviors related to talking with young men about SRHC, even 3 months later. We did not see changes in YSPs' SRHC referral

behaviors for young men, although this may be because their professional roles are for the majority nonclinical.[21] An amended Connect training has the potential to increase referrals for SRHC, perhaps with sample scripts to encourage proactive initiation of SRHC discussion and referrals. Such an amendment could more fully utilize the community-based approach in Connect allowing for a potentially greater reach among higher risk males that may be missed with a school-based approach as in previous implementations of Project Connect.[22]

Connect also made study materials available online, including the clinical guide for SRHC services. Having online materials allowed for direct dissemination and made materials easily available to YSPs and young men. These materials facilitated website analytics to complement program evaluation, representing an emerging area of analysis for process evaluation and program implementation.[30] The online materials also allows for longer-term program sustainability.

Study results highlight the feasibility of training and advising YSPs embedded within a high-risk community to improve interactions with young men regarding SRHC, however, the ultimate utility of YSPs and their willingness to expand their official roles in interactions with young men remains uncertain. If YSPs were willing to act on their training, the Connect approach could be adapted to engage youth populations about access to care for other health needs (e.g., mental health). The training of YSPs was easily integrated into programs' staff meetings, relatively brief, and well received. YSPs already engaging young men in difficult to reach populations can be trained and were receptive to being trained on engaging young men on additional topics of concern. Further research is needed to determine how best to leverage YSPs experience for SRHC. For example, Project Connect may be a valuable component of a multi-level intervention that includes other program activities including public health campaigns at the greater community level, and educational interventions with parents/families or in schools. A small but expanding literature highlights the importance that multi-level interventions can have in engaging young men in SRHC and improving young men's sexual and reproductive health.[6]

The evaluation of this program had several limitations. We used a before-after study design to determine the changes in YSPs' knowledge, perceived confidence, and behaviors regarding the SRHC needs of young men, as well as among clinical populations of young men and for determining usage ofY2CONNECT.org. This design does not include comparison to a group of YSPs or an area not exposed to Connect activities, so we cannot determine for sure what changes are due to intervention efforts. We were unable to follow-up with all YSPs over time, including some with low initial knowledge about SRHC for young men. We also did not record awareness of Connect or access to SRHC among young men in the community or among those engaged with community organizations. This evaluation also did not include validated measurement tools, although many of our tools built upon our prior work in this area or were mapped to our training's learning objectives. Future work may need to invest in prospective analysis in more specific populations.

Despite limitations, we were able to note some promising results. Evidence indicated that young men's awareness of Connect improved over the program period, and that general website usage increased. We also saw an increase in the knowledge and confidence of YSPs

related to the SRHC of young men, and that more YSPs shared SRHC-related websites with young men. These were all desired outcomes of the Connect Program, but they were not the primary object of increasing access and use of SRHC among young men, and do not necessarily translate to that object. The promise of these results is additionally tempered by the failure of YSPs to increase referral for young men to SRHC. Adapting Project Connect to a community-based approach, which expands the role of YSPs in a variety of settings, appears to be a very feasible model to engage young men in SRHC. Better measurement of the impact of community-based programs may be necessary to determine whether Project Connect can successfully expand the role of YSPs to engage young men in SRHC.

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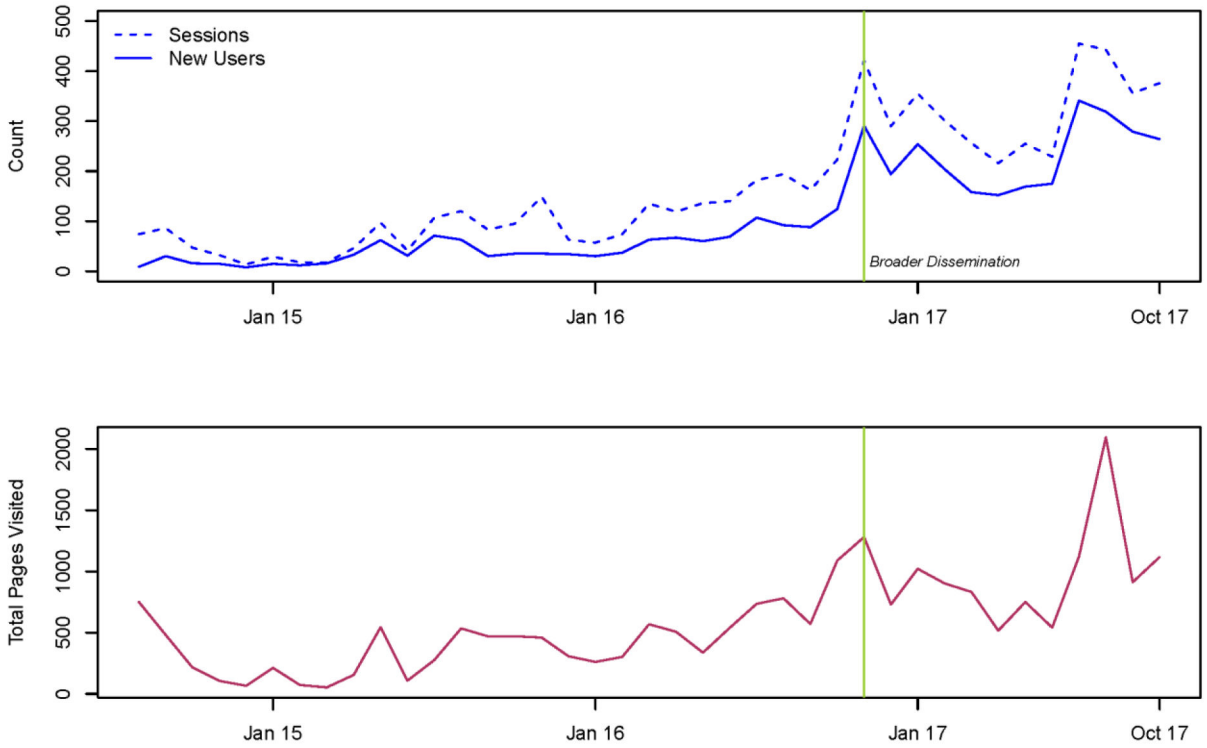

Figure 1.

General website usage in the United States, unrestricted by age or sex, represented by total number of sessions, new users and total page views to the Y2CONNECT.org website, August 15, 2014 - October 31, 2017. Thirty-five specific days when training was conducted were excluded. The beginning of the dissemination period is indicated by a vertical green line.

Table 1.

Demographics and self-reported knowledge, perceived confidence, and behaviors related to young men's sexual and reproductive health care, among 235 youth-serving professionals trained to use Y2CONNECT.org, Baltimore City, 2014–2016.

	Total trained (n=235)	
	N	% or Mean (SD)
Demographics		
Occupation		
Caseworker or counselor	84	35.7
Teacher, peer leader, or other	80	34.0
Health professional	47	20.0
Director or administrator	24	10.2
Age		
18–29	50	21.3
30–39	60	25.5
40–49	50	21.3
50–59	46	19.6
60+	22	9.3
Unknown	7	3.0
Race/ethnicity		
Non-Hispanic Black	161	68.5
Non-Hispanic White	40	17.0
Hispanic	14	6.0
Other	20	8.5
Gender		
Female	164	69.8
Male	65	27.7
SRHC measures about young men		
Knowledge scores		
General SRHC (Range: 0–100)	228	60.6 (25.2)
Refer for SRHC (Range: 0–8)	229	5.10 (2.64)
Perceived confidence scales (Range: 1–4)[a]		
To talk about SRHC	228	3.18 (0.73)
To share website about SRHC	227	3.12 (0.95)
To refer for SRHC	228	3.35 (0.74)
Behaviors in past typical month[b]		
Talked about SRHC	226	62.8
Shared website about SRHC	221	19.9
Referred for SRHC	224	39.3

[a] From not at all confident (1) to very confident (4)

[b] Assessed as no or yes

SRHC: Sexual and reproductive healthcare

Table 2.

Average knowledge, perceived confidence, and behavioral intention about sexual and reproductive health care at baseline and immediate follow-up, and at baseline to three month follow-up among youth-serving professionals participating in Project Connect Baltimore, Baltimore City, 2014–2016. Measures at follow-up that are significantly different from baseline at 0.05 are shown in bold.

		Baseline	Immediate follow-up		Baseline	3-month follow-up
Outcomes	**N**	**Mean (SD) or %**	**Mean (SD) or %**	**N**	**Mean (SD) or %**	**Mean (SD) or %**
Knowledge scores						
General SRHC (Range: 0–100)	228	60.6 (25.2)	**86.7 (18.5)** *	140	65.3 (23.1)	**79.8 (18.0)** *
Refer for SRHC (Range: 0–8)	229	5.10 (2.64)	**7.72 (1.06)** *	140	5.53 (2.43)	**7.44 (1.13)** *
Perceived confidence scales (Range: 1–4)[a]						
To talk about SRHC	228	3.18 (0.73)	**3.68 (0.48)** *	138	3.29 (0.68)	**3.54 (0.57)** *
To share website about SRHC	227	3.12 (0.95)	**3.78 (0.52)** *	138	3.24 (0.91)	**3.59 (0.68)** *
To refer for SRHC	228	3.35 (0.74)	**3.80 (0.42)** *	138	3.49 (0.68)	**3.66 (0.58)** *
Behavioral intention in next 3 month scales (Range: 1–4)[b]						
To talk about SRHC	228	2.95 (0.99)	**3.44 (0.81)** *		-	-
To use website to share SRHC	226	2.69 (0.97)	**3.54 (0.73)** *		-	-
To refer for SRHC	227	2.85 (0.98)	**3.48 (0.82)** *		-	-
Behaviors in last typical month[c] **(%)**						
Talked about SRHC		-	-	115[d]	70.2	**84.3** *
Shared SRHC website		-	-	115[d]	23.2	**61.7** *
Referred for SRHC		-	-	115[d]	46.0	47.4
Used any Connect materials				140	-	88.6
Materials used						
Website				140	-	25.7
Handout card				140	-	51.4
Poster				140	-	30.7
Training manual handouts				140	-	46.4
QR code				140	-	4.3
None				140	-	11.4

[a] From not at all confident (1) to very confident (4)

[b] From very unlikely (1) to very likely (4)

[c] Assessed as yes or no

[d] 14 participants shared they no longer worked with males aged 15–24, and 10 participants reported using something other than Y2CONNECT.org at 3-month follow-up.

*Significance difference between follow-up and baseline determined by generalized linear additive models, with random effects for site and for each participant.

SRHC: Sexual and reproductive healthcare

Table 3.

Male clinic survey participants' demographic characteristics, sexual behavior, and visit characteristics over time surveyed at five clinics, Baltimore City, April – July 2014 and July 2016 - September 2017.

	Overall n=253
Demographic characteristics	
Age	
15–19	102 (40%)
20–24	151 (60%)
Race/ethnicity	
Non-Hispanic Black	222 (88%)
Non-Hispanic White	20 (8%)
Hispanic	9 (4%)
Ever sexual experience	229 (91%)
Gender of sexual partner	
Women only	160 (63%)
Men only	47 (19%)
Men and women	22 (9%)
Never had sex	24 (9%)
Sexual orientation	
Straight	180 (71%)
Gay	38 (15%)
Bisexual	27 (11%)
Not reported	7 (3%)
Sexual behavior	
History of STD	97 (38%)
Age of 1st sex ≤ 13	116 (46%)
History of pregnancy	79 (31%)
Number of children	
0	172 (68%)
1 or more	57 (23%)
If experienced, number of sex partners in prior three months	
0	21 (8%)
1	97 (38%)
2 or more	111 (44%)
No condom use at last sex	117 (46%)
Visit characteristics	
Patient new to clinic	60 (24%)
Clinic type	
Primary care	169 (67%)
STD clinic	84 (33%)

STD: Sexually transmitted disease

Table 4.

Male clinic survey participants' knowledge and potential referral relating to Y2CONNECT.org, Baltimore City, April – July 2014 and July 2016 - September 2017.

	Pre training† n=84*	Post training†† n=169*
Have you ever heard of or seen Y2CONNECT.org?	3 (4%)	11 (11%)
Did you use Y2CONNECT.org to visit this clinic today?	0 (0%)	0 (0%)
Have you used any Y2CONNECT materials?	1 (1%)	3 (2%)
How did you find out about this clinic?		
This is my normal clinic I use	38 (45%)	87 (51%)
Family	21 (25%)	28 (17%)
Friend or partner	14 (17%)	20 (12%)
Coach, counselor, school nurse, or teacher	1 (1%)	3 (2%)
Y2CONNECT.org	0 (0%)	1 (1%)
Flier/poster/handout	1 (1%)	5 (3%)
Other (e.g., phone book, web search, health fair)	9 (11%)	25 (15%)
Participated in CBO	28 (33%)	39 (23%)
Participated in CBO where YSPs were trained	0 (0%)	22 (13%)
Did anyone from CBO tell you about this clinic?	6 (7%)	4 (2%)
Did anyone from your school tell you about this clinic?	3 (4%)	4 (2%)
Visit reason		
Routine physical examination	34 (40%)	88 (52%)
STD screen	24 (29%)	37 (22%)
STD concern	16 (19%)	15 (9%)
Other (e.g., cold)	10 (12%)	29 (17%)

† April 2014 – July 2014

†† July 2016 – September 2016 and July 2017 – September 2017

CBO: Community-based organization; STD: Sexually transmitted disease; YSP: Youth-serving professional