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# Help and Care Seeking for Sexually Transmitted Infections Among Youth in Low- and Middle-Income Countries

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**Background:** The ability to seek help or medical care for sexually transmitted infections (STIs) is vital for sexually active youth; yet, their needs are often unmet.

**Methods:** We conducted a qualitative systematic review of studies to assess youth and provider views about the behaviors of young people in help seeking and care seeking for STI services in low- and middle-income countries. We searched peer-reviewed literature for studies published between 2001 and 2014 with a study population of youth (age, 10–24 years) and/or health service providers. Eighteen studies were identified for inclusion from 18 countries. Thematic analyses identified key themes across the studies.

**Results:** The majority of studies included discussion of youth not seeking treatment, resorting to self-treatment, or waiting to access care, suggesting that many youth still do not seek timely care for STIs. Youth desired more information on sexual health and cited barriers related to fear or taboos in obtaining help or information, especially from providers or parents. Many did not recognize symptoms or waited until symptoms worsened. However, many youth were able to identify a number of sources for STI related care including public and private clinics, pharmacies, alternative healers, and nongovernmental organizations. Youth's help seeking and care seeking preferences were frequently influenced by desires for confidentiality, friendliness, and cost.

**Conclusions:** Youth in low- and middle-income countries experience significant barriers in help seeking for STIs and often do not seek or postpone medical care. Improving uptake may require efforts to address clinic systems, provider attitudes, confidentiality, and cultural norms related to youth sexuality.

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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.

Conflicts of interest and sources of funding: none declared.

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Received for publication October 29, 2016, and accepted January 30, 2017. Supplemental digital content is available for this article. Direct URL citations appear in the printed text, and links to the digital files are provided in the HTML text of this article on the journal's Web site (<http://www.stdjournal.com>).

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DOI: 10.1097/OLQ.0000000000000607

Every year there are millions of newly diagnosed cases of sexually transmitted infections (STIs). The World Health Organization (WHO) estimates that there were 357 million cases worldwide in 2012 alone.<sup>1</sup> Sexually transmitted infections have important health consequences and adolescents and young people are particularly at risk.

In many low- and middle-income countries (LMIC) health services may not fully address the sexual and reproductive health (SRH) needs of youth, including STI-related needs.<sup>2–4</sup> Understanding youth's care and help seeking practices and the underlying reasons for them can help inform policies and strategies aimed at improving the accessibility and acceptability of STI care services. There is limited information available on care and help seeking for STIs. In the first half of the 2000s, WHO supported regional assessments of help seeking and the need for STI services for youth and published distillations of the findings.<sup>5,6</sup> Recently, a new Global Health Sector Strategy on Sexually Transmitted Infections stressed the importance of addressing adolescents and other populations who are most at risk for and vulnerable to STIs and experience challenges in accessing health services.<sup>1</sup> Given current efforts to improve sexual and reproductive health for youth, it is important to know if the perspectives and practices of youth have changed.

In a prior review, we identified significant barriers for youth in obtaining STI- or SRH-related care.<sup>7</sup> In this article, we address the youth's motivations for seeking care or help for sexual health and their preferences with regard to where they get such care and help. Health care seeking includes pursuing formal medical care as well as seeking help from other sources—formal or informal.<sup>6</sup>

Using qualitative systematic review methods to assess youth and provider perspectives, this paper seeks to answer the following questions: when youth in LMIC have, or suspect they have, an STI, what do they do and where do they go in terms of finding informal help, care, or treatment (including health seeking and help seeking behaviors)? We examined what youth (individuals aged 10–24 years) in LMIC do when they know or suspect that they have a STI, whether or not they turn to anyone in their homes and communities—family members, friends, teachers, sports coaches and other adults—for information, advice and support, and whether or not they seek health care, and if so where they do. The paper also examines why youth make the choices they make, from their perspectives.

## METHODS

We employed a systematic search to answer two key questions:

1. When youth in LMICs have, or suspect they have, an STI, what do they do and where do they go in terms of finding informal

- help, care, or treatment (including health seeking and help seeking behaviors)?
- In seeking appropriate care for STIs, what barriers do youth experience or perceive in relation to accessing and using STI-related care?

Results related to the first research questions are presented in this article.

### Search Strategy

We used databases, hand-searches, and reference or related articles to conduct a systematic review of care seeking for STIs in LMICs. Studies focusing on adolescents and young adults aged 10–24 years<sup>8</sup> (referred to as youth) and sexual and reproductive health (SRH) care providers were included. Detailed information on the search strategy has already been published.<sup>7</sup> In brief, we used several terms for adolescents, STIs, help seeking and health services (use and access) in our searches (Table 1).

### Study Selection

Qualitative, quantitative, and mixed methods studies published from 2001 to 2014 were included. Our search found 2932 studies; 2790 were excluded based on inclusion/exclusion criteria after abstracts were reviewed (Fig. 1). Search criteria were intended to complement prior reviews of STI services for youth and help seeking published in early 2000s.<sup>5,6</sup> The overall search criteria included publications from 2001 to the present that focused on youth, their use of and preferences for STI services, and the barriers they faced in seeking them. Studies were limited to those set in LMIC and were written in English (Table 2).<sup>7</sup> Next, we conducted a full-text review that excluded 45 studies leaving a total of 22 studies; 1 article was excluded after further reading because it did not really address STI-related services. We include articles with themes related to care seeking and help seeking behaviors aligned with the research question addressed in this paper. A total of 18 studies were included in this analysis.

**TABLE 1.** Overall Search Protocols\*

Databases
MEDLINE, Google scholar, PsychInfo, Web of Science, EMBASE, CINAHL,
Hand Searches
International Perspectives on Sexual and Reproductive Health, Sexually Transmitted Infections, Culture, Health and Sexuality, Journal of Adolescent Health, Lancet
Search Terms
Adolescent Terms
○ Adolescent(s), Youth/young people/young adults, teen/teenage, student, juvenile, boy/girl, young men/women,
Health service and access terms
○ Sexual, Sexual health, Reproductive health
○ Condom, contraception, family planning
○ Services, youth friendly services, confidential services, care, treatment, care, clinic/clinics, treat
Barriers, legal/policy barriers, access, use/nonuse, utilization/use, seeking, “health services accessibility”
○ Acceptability/acceptance, health knowledge/attitudes/practice, perception, belief, “attitude of health personnel”
STD-specific terms
○ Sexually Transmitted Disease (STD)/Sexually Transmitted Infection (STI)/Reproductive Tract Infection (RTI), Chlamydia, Gonorrhea, Syphilis, HPV, HSV, HIV

\*Adapted from Newton-Levinson et al. (2016).<sup>7</sup>

### Quality Appraisal

As we have previously published,<sup>7</sup> we used several earlier models to develop a quality appraisal with 7 criteria: research aims, appropriate methodology, sampling and recruitment strategy, data collection, data analysis, statement of findings, and reflexivity (degree to which authors are aware of their own biases or judgments),<sup>9</sup> and consideration of bias (Supplemental Table 1, <http://links.lww.com/OLQ50303/A162>).<sup>31s–34s</sup> All studies included in this review were rated as either primary (met all criteria) or secondary. Coding schemes were developed using primary studies only; however, all studies were included in the analysis.

### Data Collection, Synthesis, and Analysis

We used thematic analysis and synthesis to identify and develop themes or codes across the study results. This approach has been previously used for qualitative-systematic reviews and on similar topics.<sup>9,10</sup> Thematic synthesis aims to summarize overarching themes across studies as well as to “go beyond” the original data to identify new concepts or explanations that apply across studies.<sup>10</sup> Themes were developed using both deductive structural codes (guided by research questions) and inductive codes (those that emerge from the data<sup>11</sup>). All results sections and tables from included studies were analyzed in NVivo10 (QSR International, Burlington, Mass). Two researchers (A.N.L., J.S.L.) independently coded a sample of primary studies and came to agreement on the final coding scheme. Finally, we grouped codes by help and care seeking behaviors. All quotes presented in this analysis are from the primary source data only (ie, we do not quote from authors’ analyses). We present both inductive and deductive themes related to help and care seeking in this article.

## RESULTS

### Overview

A total of 18 articles were analyzed in our study, including 10 from countries in the Sub-Saharan African region and 8 from countries in Asia (5 South Asia, 2 Southeast Asia) and the Pacific (1). An overview of the studies is presented in Table 3. Of the 18 studies, 8 used qualitative methods only, 3 were quantitative only, and 7 used mixed methods. The majority of articles were published between 2008 and 2014; 8 were published between 2001 and 2007. Three studies included health care providers as part of their population of interest, and one of these focused solely on providers of SRH services for youth. Most studies included both boys and girls, one focused on married females and another on unmarried males. Six studies were limited to urban youth, four to rural youth. The majority included youth from both urban and rural areas. Six studies included youth starting at the age of 10 to 12 years. Table 4 provides an overview of themes we identified in each study. These themes are grouped into high-level categories.

### Help and Information Seeking

#### Information Sources for SRH

Ten studies specifically discussed sources of information related to STIs and SRH for youth.<sup>12–21</sup> Youth often felt that they did not have adequate information or resources related to SRH.<sup>15,16,21</sup> They discussed a variety of sources for information including: media (print, radio, TV, internet),<sup>12,14,19,20</sup> health care providers,<sup>13–15,20</sup> peers,<sup>12,14–16,19</sup> schools,<sup>15,16,19</sup> parents,<sup>14,16,19–21</sup> and youth serving organizations.<sup>14,16</sup> Certain sources of information were often preferred over others. Health service providers<sup>13–15,20</sup> and schools<sup>15,16,19</sup> were often noted to be ideal places to get

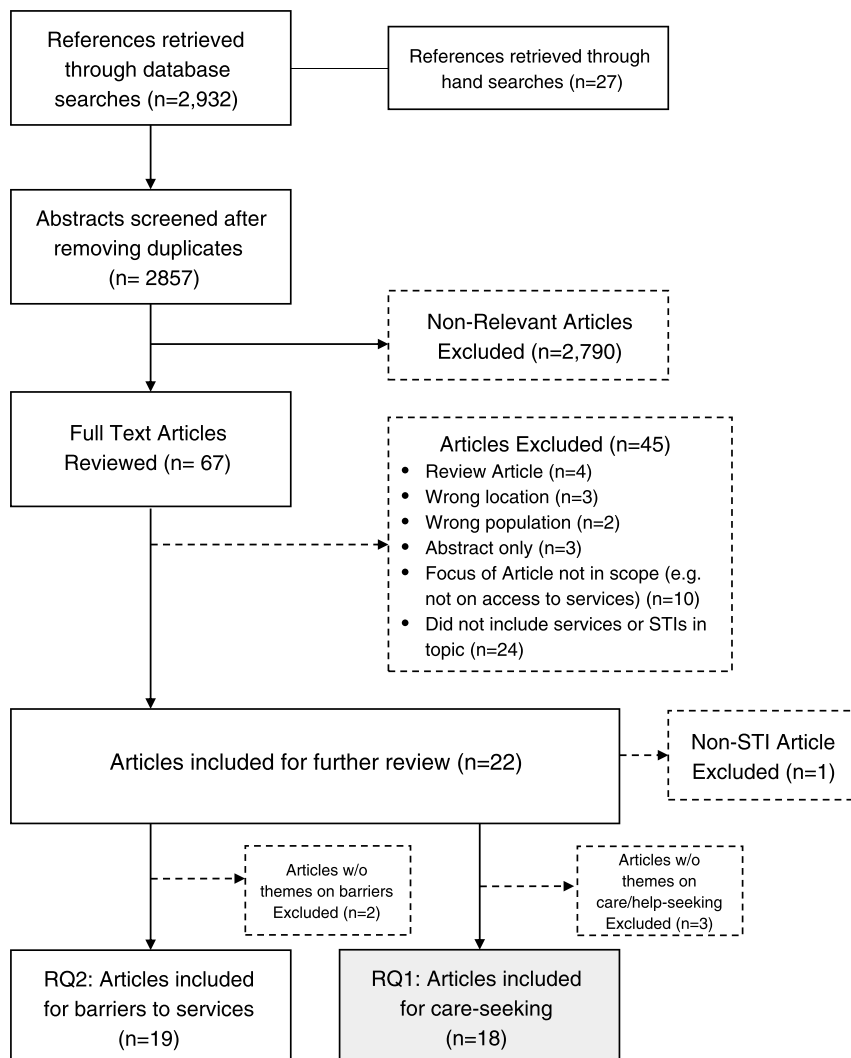


Figure 1. Flowchart of article selection process.

information from, yet youth also noted several barriers to seeking information and care.<sup>7</sup>

Parents and family members were frequently discussed in relation to SRH information, often in terms of difficulties with parents due to cultural taboos or fear of judgment from parents.<sup>14,15,21</sup> Some youth also reported that parents refused to talk about these matters or that they felt they had lost the ability to talk with their parents.<sup>13,16,18,21</sup>

*“There is lack of contact between the parents and the children, especially when it’s about sex, you see, us young people learn those STDs from our peers, we have lost contact with our parents—” (Males, Age 10–24, Kenya).<sup>16</sup>*

### Informal Help Seeking

Informal help seeking can be understood as the process of looking for advice or assistance in dealing with a problem. Nine studies discussed the help seeking and advice seeking practices of youth related to STIs or SRH problems and the factors that influence their help seeking. Important factors in decisions about who to seek help or information from are a desire for confidentiality and to avoid stigma.<sup>7,13,15,16</sup> Often friends were perceived to be a

source of confidential advice<sup>19,21–23</sup> but some studies noted that youth did not want their friends to know about their SRH problems either.<sup>22,24</sup>

Several studies also noted that youth were aware that the advice they received might not be the best and/or that they themselves had put confidentiality above getting the most effective advice.<sup>12,13,19</sup>

*The advantage of seeking information from uncles is that they won’t publicize it because it is a sexually transmitted disease (Male student, Zimbabwe).<sup>13</sup>*

Help seeking was discussed in both urban and rural settings and by young men and women, but males discussed it more frequently.<sup>12,15,19,21,23</sup>

### Care Seeking

When faced with an STI or other SRH concern, many youth did not seek timely care or care from a formal health care system. Several papers also found significant barriers in the process leading up to seeking care; these barriers are discussed elsewhere.<sup>7</sup>

**TABLE 2.** Overall Inclusion and Exclusion Criteria\*

Criteria	Inclusion	Exclusion
Timeframe	2001–2014	Pre-2001
Study population	Studies where the primary population of interest is: adolescents (10–24)†, male or female. Health care providers (eg, doctors, nurses, midwives, community health workers, and so on)	Studies on the general or adult population.
Study design	Qualitative studies using methods, such as interviews, focus groups, or group activities. The studies include participants' own words about their perspectives and use qualitative analysis methodology. OR Quantitative studies that use surveys to capture attitudes related to access and services.	Articles that use quantitative methods that do not address attitudes/perceptions of barriers (eg, demographic variations in use of services, or modeling).  Book reviews, literature reviews, conference papers, clinical trials, or intervention studies, policy documents. Gray literature, unpublished reports, or theses.
STI/SRH care	Studies with a major focus on barriers to or perceptions of STI services. Or articles on barriers to SRH services that, at a minimum, include STIs/STDs in the definition of SRH care in the introduction and include some reference to STDs in the results (eg, burning symptoms, STI services, condoms access, STI education, and so on).	Studies with a major focus on access to specific SRH services such as HIV or contraception.
Barriers/use	A focus of the study is on identifying perceived factors that impede or significantly delay accessing appropriate health care services. Studies that assess youth perceptions and/or use of (or services provider perceptions) SRH/STI services. Or the study solicits input on what would make services more youth friendly (eg, perceptions of services, “youth friendliness,” and so on)	Studies that focus on increasing use of services through specific program interventions.
Knowledge/Behavior (Not necessary for Inclusion)	Studies reporting knowledge of STIs and services as related to accessing care. Studies on individual SRH behaviors (eg, condom use) as related to access to SRH care.	Studies solely on knowledge of SRH/STI issues.  Studies solely on SRH related behaviors.
Geographic Scope	LMICs: Including the regions of Africa (North and Sub-Saharan), Asia (South and Southeast), Oceania, Central and South America.	Studies in the following countries/regions: United States, Canada, Europe, Australia, New Zealand, China, Japan, Hong Kong
Language	Articles written in English	Articles in all other languages

\*Adapted from Newton-Levinson et al.<sup>7</sup>

†Note: Youth up to age 24 years were included per United Nations Educational, Scientific, and Cultural Organization definition of youth (<http://www.unesco.org/new/en/social-and-human-sciences/themes/youth/youth-definition/>). Married and unmarried youth were also included given high rates of HIV among married women in some countries.[8]”

SRH, sexual and reproductive health;

**No Treatment**

Eight articles reported on youth who had not sought medical treatment or formal medical services of any kind for their sexual health problems.<sup>20–22,24–29</sup> Some studies that included information on STI prevalence found that youth had not sought any treatment for these infections.<sup>24,26,27</sup> The range of those not seeking treatment varied from a little over 1% to 60%. Not seeking treatment was found in both boys and girls with no clear pattern across studies. Youth were found not to seek treatment in both urban and rural contexts but it was more frequently found in youth based in urban settings.<sup>20,24,28,29</sup>

**“Waiting” or Delayed Treatment**

Eight studies cited delayed treatment seeking for STIs among youth.<sup>12,17,19,23–26,28</sup> Youth often described waiting until their symptoms worsened or became difficult to bear.<sup>12,17,19,23,28</sup>

*“For some when it [infects] their genital parts they are ashamed to go to the clinic for treatment so they will wait until it is worse, then that is the time they will go for treatment.” (Male, 16–21, Gambia)<sup>19</sup>*

Both delayed treatment and not seeking treatment were frequently associated with a lack of understanding. Youth often remarked that they did not know what they had<sup>19,24,26</sup> or that they did not think that their problems or symptoms were STI-related.<sup>24,25,28</sup> Waiting was more frequently mentioned by girls than by boys and was associated with not being alarmed by symptoms or not knowing they were important.<sup>19,23,25,26</sup>

**Self-Treatment**

Five articles mentioned self-treatment for STIs or SRH issues.<sup>19,23–26,28,29</sup> Some youth simply failed to recognize

TABLE 3. Overview of Studies Included in Synthesis (n=18)\*

Study Author (Date)	Research Aim	Population of Interest	Data Collection Methods	Context	Country	Region	Quality
Sub-Saharan Africa Berhane (2005)	To describe the health service utilization pattern of adolescents, assess their attitudes towards existing services, and their preference of services in terms of place, person and time.	Adolescents (10–24)	<b>Quantitative:</b> Survey n=2647	Secondary School	Ethiopia	East Africa	Secondary
Biddlecom (2007)	To assess adolescents' use of sexual and reproductive health services, the barriers they face in accessing such services and their opinions and preferences regarding different sources of care.	Adolescents (12–19)	<b>Quantitative:</b> Survey n=5955 (BF) n=4430 (G) n=4031 (M) n=5112 (U)	National Surveys	Burkina Faso Ghana Malawi Uganda	South Africa	Primary
Calves (2009)	To assess and contrast current norms and attitudes vis-à-vis sexual activity and access to reproductive health information and services.	Adolescents (10–19)	<b>Qualitative:</b> 116 FGDs (n=968)	Local focus groups	Madagascar Comoros Mauritius Reunion Seychelles	Sub-Saharan Africa	Primary
Cherie (2012)	To assess adolescents' knowledge of STI symptoms and identify perceived barriers to seeking STIs services among high school adolescents.	Adolescents (15–24)	<b>Mixed Methods:</b> Survey (n=316) 4 FGDs (n=38)	Urban High schools and clubs	Ethiopia	East Africa	Primary
Godia (2014)	To explore the SRH problems young people face as well as their perceptions of available SRH services. Compared experience with integrated and youth targeted SRH services.	Adolescents (10–24)	<b>Qualitative:</b> 18 IDIs 39 FGDs (n=57)	Health Facilities and Youth Centers	Kenya	East Africa	Primary
Kipp (2007)	To assess providers' perceptions and attitudes of important barriers for adolescents in receiving good quality RH services. Also to assess providers' attitudes related to adolescent sexual behavior and RH.	Providers	<b>Qualitative:</b> 10 IDIs	Health Facilities	Uganda	East Africa	Primary
Langhaug (2003)	To explore the views of young people, nurses, and parents on the accessibility of existing reproductive health services for young people and the means for improving this.	Adolescents (16–19) Providers	<b>Qualitative:</b> 10 FGDs 16 Direct Observations	Community focus groups	Zimbabwe	South Africa	Secondary
Miles (2001)	To understand the social processes that inform young people's sexual health seeking behavior in rural areas with a focus on the influences of decision making in relation to seeking advice and treatment for STIs.	Adolescents (14–25)	<b>Qualitative:</b> 12 FGDs (n=97)	Village focus groups	Gambia	West Africa	Primary
Molla (2009)	To assess youth's use, perceptions of, and preferences for STI services from the perspective of both youth and providers.	Adolescents (15–24)	<b>Mixed Methods:</b> Survey (n=3743) 10 Provider IDIs	Village survey and health clinic interviews	Ethiopia	East Africa	Primary

Continued next page

TABLE 3. (Continued)

Study Author (Date)	Research Aim	Population of Interest	Data Collection Methods	Context	Country	Region	Quality
Okereke (2010)	To examine the unmet reproductive health needs and health seeking behavior of adolescents.	Adolescents (10–19)	Mixed Methods: Survey (n=896) 4 FGDs 15 IDIs with Providers	Secondary School and Community FGDs and Survey	Nigeria	West Africa	Secondary
Asia and the Pacific Char (2011)	To investigate whether young unmarried rural men in India are underserved in terms of SRH issues. To review their knowledge, attitudes, and perceptions about SRH.	Adolescents (17–22) <i>Unmarried Men</i>	Mixed Methods: Survey (n=316) 4 FGDs	Village FGDs and Survey	India	South Asia	Primary
Joshi (2006)	To assess reproductive health problems and help seeking behavior among urban school going adolescents.	Adolescents (11–14)	Mixed Methods: Survey (n=300) 4 FGDs	Secondary School	India	South Asia	Primary
Kennedy (2013)	To assess barriers to accessing SRH services and describes the features of a youth friendly health service as defined by adolescents.	Adolescents (15–19) Providers	Qualitative: 12 IDIs 66 FGDs n=353	Community focus groups	Vanuatu	Pacific	Primary
Prasad (2005)	To investigate the prevalence of RTIs in young married women and understand treatment seeking behavior.	Adolescents (16–22) <i>Married women</i>	<b>Mixed Methods:</b> Cross-sectional survey (n=451), 17 IDIs, 8 FGDs	Community FGDs and Survey	India	South Asia	Primary
Regmi (2010)	To explore young people's perceptions of barriers to accessing sexual health services and information, including condom-use.	Adolescents (18–22)	<b>Qualitative:</b> 10 FGDs and 31 IDIs n=50	Colleges and youth clubs	Nepal	South Asia	Primary
Talpur (2012)	To assess attitudes towards services, awareness of and perceived barriers for sexual health services and education among young adults.	Adolescents (16–25)	<b>Quantitative:</b> Cross sectional survey n=150	Academic institutions	Pakistan	South Asia	Secondary
Tangmunkongvorakul (2005)	To describe the experiences and perspectives of young people with regard to obstacles to their safe sexual health outcomes and desirable health services.	Adolescents (17–20)	<b>Qualitative:</b> 82 IDIs	Community interviews	Thailand	Southeast Asia	Primary
Tangmunkongvorakul (2012)	To understand gender double standards and the ways in which these constitute barriers to successfully accessing sexual and reproductive health services.	Adolescents (14–20)	<b>Mixed Methods:</b> Cross-sectional survey, 30 IDIs, 16 FGDs N=1745	Community, non-formal educational centers, and schools	Thailand	Southeast Asia	Primary

\*Adapted from Newton-Levinson et al.<sup>7</sup>

†Adolescents are defined as 10–24 for the purposes of this review.

‡Providers category includes health service providers (doctors, nurses, health workers, and so on), NGO workers, and teachers. IDI indicates, in-depth interview; FGD, focus group discussion; BF, Burkina Faso; G, Ghana; M, Malawi; U, Uganda.

**TABLE 4.** Overview of Studies and Themes: Help and Care Seeking Behaviors (n=18 Studies)

Study Author (Date)	Population		Help Seeking			Care Seeking				
	Adolescents	Providers	Help Seeking	Information Seeking	Alt-Care Seeking	Self-Treatment	No Treatment	Waiting	Service Preference	
<b>Sub-Saharan Africa</b>										
Berhane (2005)	(10–24)		X				X		X	
Biddlecom (2007)	(12–19)				X		X			
Calves (2009)	(10–19)			X					X	
Cherie (2012)	(15–24)		X				X	X		
Godia (2014)	(10–24)			X					X	
Kipp (2007)	—	❖		X					X	
Langhaug (2003)	(16–19)	❖	X	X	X					
Miles (2001)	(14–25)		X	X	X	X		X	X	
Molla (2009)	(15–24)				X	X	X	X		
Okereke (2010)	(10–19)				X					
<b>Asia and the Pacific</b>										
Char (2011)	(17–22)		X	X						
Joshi (2006)	(11–14)				X	X	X			
Kennedy (2013)	(15–19)	❖		X				X		
Prasad (2005)	(18–22)				X	X	X	X	X	
Regmi (2010)	(15–24)		X	X				X		
Talpur (2012)	(16–25)			X			X		X	
Tangmunkongvorakul (2005)	(14–20)		X	X						
Tangmunkongvorakul (2012)	(16–22)		X			X		X		

symptoms (didn't think it was that serious, and so on).<sup>7,28</sup> Others self-treated with home remedies or with prayer. Self-treatment was also associated with other barriers such as reluctance to get care due to issues with services and the treatment youth received (eg, services are not meant for youth, providers will judge you).<sup>23,24</sup>

*“The existing health services are not generally meant for adolescents. Most do not want to get treatment in health institutions for sexual related issues because the setting is not meant for adolescents it is either for small children or for adults. Thus, adolescents prefer to self treat (sic) their STI symptoms rather than going to health facilities.” (Youth, 15–24, Ethiopia)<sup>24</sup>*

Self-treatment was discussed more frequently in urban settings and mentioned more frequently among girls than boys.<sup>19,23,25,28</sup>

**Preference for Service**

Fourteen studies included discussion related to where youth go for services and their preference for services by type (Table 5). For the youth who sought care for their SRH problems (including STIs) the type of service they sought included both alternative and nonlicensed providers as well as medical sources. Included were: public and private services, pharmacists, nongovernmental organization (NGO) provided services, and alternative medicine or traditional healers, and other non-specified services. Youth's stated preference for services were shaped by a variety of factors including those they perceived to be: fast,<sup>26,27</sup> lower cost,<sup>26,27,29</sup>

**TABLE 5.** SRH Preferences for Care Seeking by Type of Service Among Youth

Study Author (Date)	Nowhere	Public	Private	Pharmacists	NGO	Alternative Treatment	Other
<b>Africa</b>							
Berhane (2005)	X (highest)	X	X	X			X
Biddlecom (2007)	X (highest)	X (highest*)	X	X		X	
Calves (2009)		X	X	X	X (highest)	X	
Cherie (2012)				X			
Langhaug (2003)		X (highest)				X	
Miles (2001)		X (tied)		X		X (tied)	
Molla (2009)		X (highest)	X	X		X	X
Okereke(2010)		X		X (highest)		X	
<b>Asia</b>							
Joshi (2006)	X (highest)	X	X (highest*)	X		X	
Kennedy (2013)		X	X		X (highest)		
Prasad (2005)		X	X			X (highest)	X
Regmi (2010)		X (hospital)					
Tangmunkovorakul (2005)	X (highest)	X (lowest)		X			
Tangmunkovorakul (2012)		X (lowest)	X (highest)	X	X		

\*Highest of those seeking care.

youth-friendly,<sup>17,21,23,26</sup> and confidential.<sup>12,13,23,26</sup> Youth frequently considered the effectiveness of services and often tried to choose those they felt would be the most effective or of highest quality.<sup>13,17,19,26,27</sup> Service quality was often linked to the perceived competence of staff or those providing services.<sup>16-18,20,23</sup>

Preference for service varied slightly with the degree of youth's urbanicity. Public clinics were mentioned equally in both rural and urban contexts and throughout all regions, but the use of pharmacies, NGOs, and private clinics was more frequently discussed in urban settings.

### Public Services

Public services were defined for this review as government or publicly operated clinics, hospitals, and so on, but if a quotation mentioned a generic medical source it was also classified as public (eg, 'I go to the clinic'). Public services came up more frequently than any other and were mentioned by 12 studies.<sup>12,14,16,17,19,21-23,25-27,29</sup> Public services were also the most likely place for youth to go for SRH services, according to most studies and especially in African countries.<sup>13,26,27</sup>

Although public services were often listed as the places that youth knew of or went to most frequently for STI care, they came with barriers.<sup>7</sup> Public services were generally found to be more accessible and less costly than others,<sup>22,23,26,27</sup> but posed problems, to varying degree, in relation to confidentiality or provider treatment. Some studies reported that youth perceived public services positively in terms of the treatment they received<sup>26,27</sup> or in terms of perceived improvements in treatment.<sup>16</sup> But other studies found that youth experienced significant barriers related to both confidentiality and provider treatment.<sup>12,17,21,23</sup>

*"I once went to a government STD clinic when I felt pain when urinating ... The price of the service was quite low and it was situated in town, easy to get to. However, to register for the service I needed to give the health providers my ID card, and the staff there called my name very loudly. I thought at that time that it was lucky I was a man ... Well, the girls would be in trouble if they were treated [by the health staff] like that. (Male, 19 years, Thailand)<sup>23</sup>*

Depending on the study location, youth had varied experiences with public services for SRH. Public services also seemed to be more highly preferred in African regions and not as frequently the top choice for care in Asian regions. There was no clear pattern of change over time in terms of youth's preference with regard to services or with regard to barriers experienced.

### Private Clinics

Eight studies mention use of private clinics or providers, often as an alternative to public clinics.<sup>14,16,22,23,25-28</sup> Private services were not often discussed as the preferred service, though when they were chosen this preference was related to the treatment received and to the degree of confidentiality that accompanied it.<sup>23,26,28</sup> Private clinics were also frequently associated with higher cost.

Private clinics were discussed by both young men and women, but more frequently in urban settings.<sup>22,23,28</sup> In 1 study in Thailand, girls were said to prefer private clinics because they were associated with more confidentiality and better provider treatment.<sup>23</sup>

### NGO Run Clinics

Services provided by NGOs were mentioned by 5 studies.<sup>14,16,17,21,23</sup> These included reproductive health related NGOs (eg, International Planned Parenthood Federation),<sup>14</sup>

Nongovernmental organizations focused on youth services (eg, Youth Street program) or on SRH education and sexual health services (Youth Sex Education Team, Men's Sexual Health Team).<sup>23</sup> Although NGO provided services were only mentioned a few times, they were seen very positively by youth often because of the perceived youth-oriented, confidential, and generally friendlier services they provided.<sup>17,21,23</sup>

*"[NGO clinic] is better because they explain things well and talk kindly to clients." (Female 18-19 years old, Vanuatu)<sup>17</sup>*

Nongovernmental organizations were discussed by both male and female participants but were not discussed in studies from completely rural settings.

### Pharmacies

Seven studies reported that youth sought care from pharmacists especially in relation to STI-specific treatment.<sup>14,22-24,26,27,29</sup> Such sources were often associated with lower cost, confidentiality, and sometimes friendlier services.<sup>21-23,29</sup>

Pharmacies were also mentioned as a source for youth who preferred to self-treat or even use drugs as prophylaxis.<sup>23,24,29</sup>

*"I used to have burning sensations when urinating. I went to pharmacies to buy drugs and felt relieved for a while. And then the symptoms occurred again. It was like this a few times, so I decided to go to a [government] STD clinic. The doctor yelled at me that I should not have got so many antibiotics from pharmacies because they might destroy my kidneys. ... I didn't want to go to the STD clinic at first. It's kind of scary." (Male, 19 years, Thailand)<sup>23</sup>*

Pharmacies were spoken of more frequently in urban contexts than rural<sup>22-24,29</sup> and were identified as a source of care more frequently in studies from African regions than from Asian regions.

### Alternative Care Seeking

Alternative care seeking, described as visiting a traditional healer or seeing a "quack" was described in 8 studies.<sup>13,17,19,25-29</sup> Almost all of the articles mentioned alternative care seeking specifically for STI-related services.<sup>13,17,25-27,29</sup> Reasons for seeking alternative care frequently had to do with a desire to maintain confidentiality<sup>13,27</sup> or with what was perceived to be more effective treatment or easier access.<sup>19,27</sup> Cost of services was mentioned by two studies but some reported lower costs, whereas another reported higher costs. Alternative care or traditional healers were often described as the first option for care by youth, but this was often followed by a visit to a clinic if the issue did not subside.<sup>13,19,25,29</sup> In some studies, the youth acknowledged that alternative care could sometimes take much longer than other forms of care<sup>19</sup> or that it was not always the most effective or potentially more harmful than good.<sup>13</sup>

*"Some uncles are crooks, they may tell you that if you want your STD to heal, you have to sleep with many other girls so that you pass it on to others (Male, 16-19, Zimbabwe)<sup>15</sup>*

Alternative care seeking was mentioned by both young women and men and in both rural and urban contexts but much more frequently in rural contexts.<sup>13,19,25</sup> Alternative care seeking was discussed by articles from both the Sub-Saharan African region and Asia. No differences were noted between the more recent and older studies.



Some youth sought alternative care from unlicensed drug shops or “patent medicine operators.”<sup>26,27,29</sup>

*“There are informal health providers in town...who treat only STIs, but no one talks about them...only the victims know them. They treat [STI cases] with a single dose of potent antibiotics, although they aren't legally entitled to administer such medication.” (Health Provider, Ethiopia)<sup>26</sup>*

Seeking treatment from unlicensed drug shops was often considered more confidential, faster, and less expensive than other modes of treatment. One source noted that youth would sometimes instruct the medicine operator on which medicine or dosage to give based on how much money they had.<sup>29</sup>

## DISCUSSION

Our qualitative review of mixed method studies identified 18 articles that discussed help and care seeking practices of youth in Africa and Asia. Our review found that many youth still do not have the information they desire about sexual health or STIs and do not seek timely, formal medical care. Most studies (13) discussed help- or information seeking practices and suggested that information seeking and help seeking were still influenced by taboos related to sexuality. These taboos limited the resources youth could draw on. Lack of knowledge about STIs and difficulty in getting information continued to be a challenge for youth and did not seem to have changed significantly from the 2005 analysis conducted by WHO.<sup>30</sup> Youth still preferred to get more information than they were getting and often felt impeded by social and cultural norms related to sexuality. The majority of studies (11) included discussion of not getting treatment, self-treatment, or of waiting to access care, indicating that many youth still do not seek timely care for STIs. Findings suggest that some youth may be more aware of STI services and quality services than before but that they still often do not recognize symptoms or delay treatment.

Youth identified a range of sources for STI-related care including public and private sources, pharmacies, alternative healers, and NGOs. Publicly provided services and pharmacies were the most frequently used for STIs and SRH care. Consistent with previous findings, youth also used unlicensed drug shops and in many instances the dosages they received were not correct.<sup>30</sup> Though not discussed as frequently, NGOs that provided youth-oriented services were often the most positively reviewed. Non-governmental organizations were often construed as nicer and more understanding.

When youth did seek care, their preferences were shaped by factors such as quickness, confidentiality, and cost. Youth often chose to seek help or care from those they identified as being confidential. As discussed in our paper on barriers to STI care, lack of confidentiality and provider treatment were also significant barriers to seeking care.<sup>7</sup> Studies in the United States and Canada have found similar patterns with regard to confidentiality and choice of care.<sup>35s, 36s</sup> In their 2005 review of the literature, Barker et al<sup>6</sup> noted similar patterns, and that girls were more likely to see help overall.

As with Barker et al,<sup>5</sup> our review also found that youth were more likely to seek help from people and places that they trusted or where they felt they belonged. But trust could be complicated. Some youth trusted family, friends, or traditional healers, but still acknowledged that they were often not getting the best quality care. Choosing care therefore involved feeling torn between cultural norms about who one should trust and seek care from and a desire for quality and competency. This tension was often more

challenging for young women. Females discussed waiting, alternative care seeking, self-treatment, and getting no treatment more often than boys, suggesting that girls may seek care less frequently. Although youth continue to seek SRH and STI care from traditional or alternative sources there seems to have been further acknowledgement than in previous reviews of the conflict between wanting quality care and wanting to obey traditions about whom one should confide.<sup>6</sup> Despite discussing alternative care, self-treatment, and asking advice from traditional healers, youth frequently recognized that these were not necessarily the best modes of treatment, but because of a desire for confidentiality, speed, or because of respect for tradition youth pursued them anyway.

This study does have some limitations. We were unable to include grey literature or studies evaluating programs and thus may have missed some additional information related to service preferences or motivations. Because of our original search criteria, we were unable to identify any studies published in English from Latin American countries. Additionally, our original search criteria did not include studies that solely addressed information sources for sexual health or STIs; thus, articles only addressing informational support were not included in this review. Finally, we did not include studies that focused on specific subpopulations, such as sex workers, young MSM, and so on, though these populations may have been included in larger groups of youth. Further research is needed to identify whether these trends differ for those youth who are most vulnerable to STIs.

## Implications

Our findings indicate that youth in LMIC are not seeking timely and appropriate medical care which has significant implications for further transmission of STIs. Additionally, our review indicates that youth continue to delay help or care seeking and that the barriers, such as confidentiality, cost, and stigma, influence not only their decision to seek care but also whom they seek help from and where they may eventually go for it.

Thus, it may be useful if programs design services that provide confidential and affordable options for youth that make youth feel as if the services are meant for them. As we have identified, significant barriers to adolescent care seeking remain. The WHO guidelines for adolescent friendly care services address many of these systems-level barriers.<sup>37s</sup> Improving demand for adolescent SRH and STI services and community support for such services is also key.<sup>38s</sup> Efforts to reduce stigma are needed but difficult to implement. Thus, providing services that are easily accessible and confidential is key to enabling youth to use them. Although the focus of this article is on help and health care seeking behaviors for STI, our findings have wider implications because STI services in the government and nongovernment (not for profit) sectors are often grouped with other sexual and reproductive health services and in the private for-profit sector are typically part of a range of services offered. Given that the new global strategy for addressing STIs now may be an ideal time for further investment in and development and integration of youth friendly STI care systems.

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