Adolescents Using the Internet for General and Sexual Health Information: An Evidence Review

By Jean O’Neil, DNP, RN, FNP-BC
Leading Adolescent Health Problems

- Early Pregnancy and childbirth
- Sexually Transmitted Infections, including HIV
- Preventable Infectious Diseases
- Poor nutritional status: malnutrition and/or obesity
  - Iron deficiency anemia is the most common type of anemia worldwide
- Drug and alcohol abuse
- Injury due to violence
- Mental Health Issues
- Other diseases/conditions
Young Adults and Healthcare

For many teens and young adults, their first access to healthcare is through appointments for reproductive services.

Healthy People 2020
More than 1 million sexually transmitted infections (STIs) are acquired every day worldwide.

The most common curable STI infections worldwide are chlamydia, gonorrhea, syphilis, and trichomoniasis.

STI’s such as HSV type 2 and syphilis can lead to an increased risk of getting infected with HIV.

We are seeing an increased problem of drug resistance for treatment of STI’s (especially gonorrhea).

WHO, 2016
Sexually Transmitted Infections

Worldwide there are approximately 300-400 million new cases annually of STIs: Chlamydia (131 million), Gonorrhea (78 million), Syphilis (6 million) and Trichomoniasis (142 million) in the 15-49 yo age group (WHO, 2016)

Sexually transmitted infections (STIs) in the U.S are on the rise in the adolescent population: 20 million new STIs are reported every year with more than half occurring in the 15-24 y.o. age group (CDC, 2012)

*It is estimated that there may be more, however, reporting mechanisms may be poor or non-existent.*
Why are STIs on the Rise in Adolescents?

- Lack of access to care or inability to afford care
- Lack of confidentiality
- Lack of immediate symptomology for certain STIs
- Expense of medical testing
- High-risk sexual practices
- Lack of knowledge regarding STIs, prevention and treatment
- Immediate gratification needs as part of adolescence
Adolescence and High-Risk Behaviors

- Adolescence is a time of physical and psychosocial upheaval...a time of egocentric behavior and feelings of invincibility (Wickman et al., 2008)

- Egocentric behavior and "personal fables" (PF) (Elkind, 1967)

- A descriptive study reported that reducing high-risk behaviors with immediate gratification requires the providers to guide the adolescent in order to accomplish change due to PF (Alberts et al., 2007)
Sexual Health and Teens in the U.S. and Europe

- U.S. teens use condoms and contraception less than European teens (Dunne et al, 2014)
- European families and healthcare providers support a more open and positive adolescent sexual health outcome and have open, honest discussions about sexuality (Dunne et al, 2014)
- In the US, Planned Parenthood, School Based Health Centers and some community clinics provide low-cost or free contraceptive services and STD counseling and checks – but these clinics are not always accessible
High-Risk Sexual Behavior in Adolescents

- Adolescents are experiencing sex at an earlier age and with multiple partners (Brown et al., 2005, Santelli et al. 2009)
- In the U.S., 46% of high school students have had sexual intercourse at least once, with only 61% reporting the use of a condom (Perry et al., 2012)
- 1 in 4 sexually active youth will have been infected with an STI or HIV by age 24 (Gilbert et al., 2005)
Knowledge doesn’t always = change

Secor-Turner (2013) longitudinal study of females age 14-17 reported that those with high risk factors were significantly correlated with multiple partners 6 months later ($p<0.05$) but not significantly ($p>0.05$) with condom use even after information presented.
Teen Pregnancy Rates

- Teen pregnancy rates are declining, however, 16 million girls age 15-19, 1 million under age 15, give birth worldwide.
- These girls usually come from low to middle income countries.
- Approximately 3 million girls age 15-19 undergo unsafe abortions.
- Infant mortality is higher in the adolescent population.

WHO, 2014
Depression and Young Adults

- More than 300 million people globally of all ages suffer from depression
- It is the leading cause of disability in all ages
- More women than men are affected by this disease
- Depression can lead to suicide. Suicide is the 2nd leading cause of death in 15-29 y.o. worldwide
- Barriers to treatment can be: lack of resources, lack of trained health professionals, social stigma of having a mental disorder

WHO, 2017
Maladaptive coping behaviors and bullying can lead to high-risk sexual behaviors among adolescents who are the bullies, as well as those who are bullied. (Holt, M. et al, 2013)
Confidentiality for Teens Seeking Health Care**

- In the state of California, AB 499 protects minors 12 years and older for confidential medical services regarding STI and HIV testing, treatment and prevention education.
- Confidential Family Planning services (Title X), including abortion, are provided.
- Pregnancy counseling and medical support for the mother and baby are also provided.
- A minor may consent to care in the case of rape or abuse.
- In certain cases, a minor can consent to care for mental health and drug rehab services.
- With most other types of health care, a consenting adult must be available (unless the teen is an emancipated minor).
- **Every state or country has their own laws that govern the ability for a teen to consent to care without the approval of an adult.
Providers and Sexual Health in the U.S.

- Pediatricians not always willing to speak with adolescents regarding sexual issues –
  - 62% discussed abstinence
  - 61% STIs and prevention
  - 54% HIV
  - 82% did not discuss sexuality and gender issues
  - 30% prescribed condoms, but only 19% provided education
  - 46% ordered STI testing, with only 28% including HIV testing

Henry-Reid et al. (2010) retrieved from the 2005 American Academy of Pediatricians survey
Internet Use by Age Groups

Who’s on the Internet:

- Ages 12-29 – 93%
- Ages 30-49 – 81%
- Ages 50-64 – 70%
- Ages 65 and older – 38%

Pew Internet Project, 2009
Teens and the Internet

- Teens frequently access the Internet and social media sites several times a day,
- 51% of teens log on at least once a day, 34% log on several times a day
- Used for networking as well as information seeking.

Common Sense Media, 2012
What are Young Adults Looking for on the Internet Regarding their Health?

- 31% of all teens utilizing the Internet were looking for information on health, sensitive health information, dieting and physical fitness
- The majority of these teens were females between the ages of 14-17
- The most frequently visited health related topics on the Internet by those ages 18-29 (N-499):
  - Specific disease and treatments
  - Finding providers and clinics/hospitals for treatment
  - Health insurance
  - Food and Drug safety
  - Pregnancy

Composition: Common Sense Media, 2012
Adolescents utilize media as their primary resource for education on sexuality and sexual behaviors.

Cellular phone use had grown from 45% in 2004 to 75% in 2011 of 12-17 year olds, and that 20% of media consumption occurred on mobile devices.

Adolescents reported intentional viewing, as well as unintentional viewing of sexually explicit websites due to misleading e-mails or URLs.

Accessing wrong websites have also lead to sexual solicitation by online perpetrators.

Approximately, 20% of adolescents have participated in sexting and posting of provocative photos of themselves.

Harris, 2011
Many teens would prefer to talk face to face about their health needs rather than texting, tweeting, utilizing Facebook or other social media devices.

- Talking by telephone is virtually “dead” with only 4% of teens using the phone to have a conversation, other than texting.
- 13-17 y.o. teens are the first generation to go through their entire teen years with complete use of digital media and will admit they are addicted to their digital devices.
- Organizations like Common Sense Media – provides ratings by expert reviewers regarding sexual health information/movies/videos and will discuss what age group it addresses (from child to young adult).

Common Sense Media, 2012
Which Teens are Searching for Sexual Health Information Online and Why?

- Fear of becoming infected with an STI is a common motivator of seeking online information for many LGBTQ teens (Magee et al, 2012)

- TheTeen Health and Technology Study surveyed 5542 Internet users between ages 13-18 in the U.S.

  - Of those searching for sexual health information
    - 19% identified as heterosexual
    - 78% identified as LGBTQ
    - The most common reason for looking online was for curiosity and privacy/confidentiality issues
    - In addition, LGBTQ persons stated that they looked online because they didn’t feel like they had anyone to ask or discuss this information with.
The Internet provided 24/7 access

Depression, violence and drug and alcohol information were also searched for online

Non-sexual health topics were equally or more commonly reported to be searched online

Only 22-39% did take some action to correct or prevent medical issues.

However, most teens stated that having the information did increase the likelihood that they might take some action

Mitchell, K. et al, 2013
Examples of accessible online general and sexual health information, blogs, and discussion:

- [http://www.nhs.uk/pages/home.aspx](http://www.nhs.uk/pages/home.aspx)
- [http://www.iwannaknow.org](http://www.iwannaknow.org)
- [https://familydoctor.org/?s=sexual+health](https://familydoctor.org/?s=sexual+health)
- [https://www.avert.org](https://www.avert.org)
- [http://www.scarleteen.com](http://www.scarleteen.com)
- [http://www.teenissues.co.uk](http://www.teenissues.co.uk)
- [http://www.teencentral.net](http://www.teencentral.net)
The Impact of Using Online or Computerized Programs for Sexual Health Information Regarding Changed High-Risk Behaviors

- Few peer-reviewed articles or empirical research published on the feasibility, acceptability and effectiveness on using computers to promote sexual health (Allison et al, 2012)

- Knowledge does not always correlate with changed behaviors, but w/o knowledge one can’t make an informed decision towards better health (Allison et al, 2012; Whiteley et al, 2012; Roberto et al, 2007)
A quasi-experimental study done by Roberto et al., (2007) on using computers to enhance knowledge about STIs reported that at the end of 7 weeks, the experimental group scored higher on knowledge and condom use ($p<0.05$).

Howard et al, (2011) in a quasi-experimental study implemented a CBE on STIs/HIV. At the 3 and 6 month mark, the experimental group had increased knowledge of STIs and improved condom use ($p<0.05$).

Bull et al. (2012) in a randomized controlled study reported that 2 months post-exposure to media on STIs had a significant increase in condom use ($p=0.04$), but no significant increase in 6 months ($p>0.05$).
Jones and Biddlecom (2011) in their qualitative study of 58 teens reported that the teens knew the information on STIs was available to them and while they may not actively seek it out, they liked knowing it was available to them.

Not all teens have access to computers or the Internet so having access to a clinic’s computers gives them a sense of empowerment and self-direction (Guse et al. 2012; Howard et al., 2011)
Implications for Healthcare Providers and Educators

- Encourage the teens to talk about their sexual health, or any other health concern
- Offer the adolescent a safe and confidential environment for discussion
- Encourage the community schools to provide sexual information regarding heterosexual, as well as LGBTQ sexual issues
- Access to community clinics that have providers that are comfortable working with youth and their sexual health needs
- Provide the youth with access to healthy and accurate websites regarding teen issues of sexuality, drugs, alcohol and depression
- Encourage teens to find a trusted adult to speak with about their healthcare and sexuality
- Encourage parents to address these issues with their children in a nonjudgmental manor
- Warn against sexual predators and their websites
- Stress the etiquette of using social media, as well as the permanent damage that can be done if used recklessly
- Conduct more research regarding:
  - How information gained from the Internet regarding sexual health is being utilized by the adolescent
  - Ethnic and cultural differences and their impact for teens seeking sexual health information online
  - The efficiency and cost-effectiveness of utilizing social media and digital devices to implement programs regarding sexual health
References


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