# Contraceptive Use in Adolescent Females

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## Introduction

Contraceptives can be defined as a method or device that serves to prevent pregnancy in females. They can come in many different forms with variability in their safety, effectiveness, availability in quantity and price, and longevity (how long they will be effective). One type of reversible birth control is the intrauterine device (IUD), which is a small, T shaped device implanted into the uterus whose function is to secrete an amount of progestin a day; this device can last for 3-6 years depending on the material and its failure rate is 0.1-0.4%. Another method that females can use is the implant, which is a thin rod that is put into a woman's upper arm that contains progestin which is released into the body for a duration of 3 years, with a failure rate of 0.1%. Another common method of contraception used by females is the oral contraceptive pill that contains estrogen and progestin that is taken the same time each day, and its failure rate is 7% (Center for Disease Control and Prevention, 2020). There are also similar devices coming in different forms such as a patch, injection, or vaginal contraceptive ring, but they all secrete the same hormones that are used to prevent pregnancy.

In terms of prevalence, according to the National Center for Health Statistics in 2017, 64.9% of women aged 15-49 in the United States were currently using a method of contraception. The most common methods were female sterilization (18.6%), oral contraceptive pill (12.6%), long-acting reversible contraceptives like IUDs and implants (10.3%), and male condoms (8.7%). In the more specific age group of college age females aged 20-29, the use of long-term contraceptives was higher at 13.1% and 8.2% in females aged 15-19 (Daniels &Abma, 2018). These birth control methods have only one purpose; they are used to protect and prevent females from getting pregnant but have no effect on the transmittance of sexually transmitted diseases (STDs). Some of the other cons associated with female contraceptives are the importance of remembering to take oral contraceptives daily, the cost of the medications or devices, the necessity of taking these contraceptives before engaging in sexual activity, and the requirement of needing a doctor or prescription (Stöppler, 2020). Although there are no direct morbidity or mortality rates associated with female contraceptive use, there can be some harmful side effects of these medications and methods such as headaches, nausea, mood swings, cramping, irregular

periods, or possible pregnancy because these methods are not 100% effective (Planned Parenthood, n.d.).

Not only are there physical side effects, but there are also social and economic barriers that inhibit adolescent females from having access to contraceptive methods. One of the largest barriers to most younger females in teenage and college years is the barrier of cost. Packs of oral contraceptives and devices like IUDs are not cheap and are not covered by a lot of insurance companies, which inhibits many females from being able to get prescriptions or have the surgical implants. Not only does it cost a lot for contraceptive methods, but an unintended pregnancy that can occur as a result can be very expensive as well and be a financial burden especially to low-income or young mothers (Committee on Health Care for Underserved Women, 2017). The U.S. Department of Health and Human Services' Healthy People 2030 initiatives include many goals that target this disparity and attempts to make these contraceptives more accessible to all. Objectives include increasing the proportion of adolescent females who use effective birth control, reducing the proportion of unintended pregnancies, increasing the proportion of at-risk adolescent females who use effective birth control, and increasing the proportion of women who receive needed publicly funded birth control services and contraceptives (U.S. Department of Health and Human Services, n.d.).

## THEORY

A theory by definition is an explanation of an aspect or behavior that can incorporate laws, hypotheses and facts. This explanation is presented by finding relationships between different variables in order to predict outcomes. These theories shape the way that people in healthcare specifically shape or form ideas or promotions about health behavior based on previous studies or experiences (Alderson, 1998). Specifically, the Health Belief Model and the Theory of Planned Behavior help to explain influences and variables that affect the use of different types of contraceptives by adolescent females.

### Health Belief Model

The Health Belief Model (HBM) is a theory from the 1950s that has roots in psychological and behavioral theory in terms of the decision-making process; this theory states the components of health behavior are the desire to avoid illness and will do a specific behavior if they believe that a health action will prevent or cure the illness. There are six constructs to this theory, including

perceived susceptibility, perceived severity, perceived benefits, barriers, cue to action, and self-efficacy (LaMorte, 2019).

A study done by the Journal of Midwifery and Women's Health applied the HBM to unintended pregnancy and contraceptive use to understand determinants and come up with strategies to prevent unintended pregnancies and promote contraceptive use (Hall, 2011). They determined that the HBM was a good model to apply to the behavior as complex as contraceptive use, which encompasses many actions including contraceptive initiation, continuation, misuse, mistiming, and compliance and adherence, as well as other external factors not including the use itself such as family, peer pressure, availability of contraception and healthcare, religion, etc. In terms of perceived susceptibility, the threat or seriousness of the consequences of an unwanted pregnancy provides the incentive for using contraception (Hall, 2011). These motivations can range anywhere from seriousness of becoming pregnant, social and financial consequences of an unintended pregnancy in adolescence, fear of body changes, worries about quitting school or losing friends, etc. In terms of perceived benefits or barriers that can reduce the threat or are easy to overcome, the benefits of contraceptives are the effectiveness of the contraceptives and the ease and feasibility of using different methods of contraceptives; the barriers to contraceptive use are those that would prevent people from performing the behavior, which include side effects of contraception like mood swings and weight gain, inconvenience of taking a pill every day or getting an implant, limited access to these contraceptives due to cost or location (Hall, 2011). Another construct of the HBM is cues to action, which are external or internal triggers or stimuli that can facilitate the health behavior; in terms of contraception, a missed period after sexual intercourse, concern from a sexual partner, education from an external source, or other stimuli can all be triggers that would motivate someone to use contraception (Herold, 1983). The journal article discusses arguments against the effectiveness of applying the HBM to the behavior of contraceptive use, argues that the HBM is designed to predict "sick role" behaviors to remedy a sort of disease instead of preventing a condition. The authors also argue that it cannot perfectly encompass all constructs of the HBM because sometimes, pregnancy is not a negative outcome, and therefore contraceptive use would not be wanted (Hall, 2011). In summary, the HBM is a good tool in application to the behavior of contraceptive use and family planning, but there are limitations to it fitting perfectly in each situation.

## Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is a theory that attempts to discuss the relationship between people's attitudes and their behavior, arguing that an individual will perform a certain action based on their attitudes are towards performing the behavior and the social norms associated with that behavior (LaMorte, 2019). In a study published by BMC Women's Health, the constructs of the TPB including participant's attitudes, behaviors, perceived behavioral control, and self-identity influence the behavior of contraceptive use (DeMaria et al, 2019). Their results found that a woman's self-identity can influence their choice of contraceptive as well as choosing to use a contraceptive; how a woman identified with using a pill versus a long-acting reversible contraception (LARC) as a sense of permanence and in her identity sometimes had an effect on her choice to use it. She may feel that her chances of fertility could be impacted in the future if she goes on birth control, or that it would affect her image or how she feels about herself if she uses contraceptives. Another construct of the TPB called social norms investigates the social factors-community norms, social networking, etc- that impact a woman's choice to take contraceptives (DeMaria et al, 2019). If their friends take contraceptives or talk about it openly, a woman is more likely to take them as well; if she lives in an area where family-planning is more accepted, they are more likely to participate as well. Their beliefs such as religion, values, community, and other interpersonal relationships all have an influence on contraceptive use as well. The limitations to this study were the geographic location in which the women participating in the study lived (southeastern United States), limiting the generalizability of the study to the entire United States (DeMaria et al, 2019). The culture and social norms of the southeast are much different than those of the north, southwest, northwest, etc. that would have an impact on the perception of contraception and its norms.

## INTRAPERSONAL

When observing the intrapersonal factors that would influence an individual to practice a behavior, one can look at demographic factors such as race, ethnicity, socioeconomic status, and gender, as well as their beliefs or attitudes towards the certain behavior. These are the intrinsic ideas that affect health behavior. Studies done found that women who do not have adequate knowledge of long-term contraceptive methods such as IUDs or implants feared the possible effects that they may have and were therefore less likely to use them (Sutton & Walsh, 2017). This same study studied the effect that differing socioeconomic statuses (income, level of

education, etc.) had on contraceptive use and knowledge; the results showed that those with lower levels of income had a lower use of contraceptives, which is not beneficial because an unintended pregnancy would have a greater impact on a low-income mother who would not have as many resources to be able to take care of a child. The study also emphasized the differences between females 18-24 who were in college versus females that were 18-24 as a whole; those who were enrolled in college showed higher levels of female contraceptive use and knowledge than those who were not. There was no disparity between the use of male condoms between females in college versus females in general (Daniels & Abma, 2020). This disparity can be accounted for because there are many sexual health resources on college campuses, access to inexpensive or free healthcare at university health centers (Sutton & Walsh, 2017). It also showed that many young women who may not have access to healthcare turn to webpages or other social media pages to get information on contraceptives; it is important that those webpages or organizations offer accurate and information that is easy to understand to provide these women with the answers they need.

In terms of demographic factors, specifically race, it was found that male condom use was greater in Hispanic women (10.5%) and non-Hispanic black women (11.0%) than in non-Hispanic white women (7.0%), but non-Hispanic white women had a much higher use of the pill (17.8%) than Hispanic women (7.9%) and non-Hispanic black women (8.1%) (Daniels &Abma, 2020). Pill use and the use of long-acting contraceptive methods tended to decrease with age across all ethnicities, with women aged 20-24 the highest group (21.6%). These differences could be accounted for because younger women are more likely to use a non-permanent contraceptive barrier. Another study done in 2015 found that there were significant differences in contraceptive use and type between different races and ethnicities, which may be explained by mobility, access, and locus of reproductive control which could be influenced by beliefs, religion, and social norms. It was found that black women were much less likely than white women to use contraceptive methods of any kind, which was consistent with other findings in other studies. It was also found that Hispanic women were less likely to use contraception than white women, which can also be contributed to socioeconomic factors such as education, income, and access to healthcare (Grady et al, 2015).

Psychological and emotional factors also play in a role in the decision-making process in adolescent female contraceptive use. In one study that surveyed young women about their contraceptive behavior, it was found that fear had a great impact-fear of side effects of the contraception, fear of the intrusiveness of LARCs like IUDs, and fear of the social stigma that surrounds contraception in society. These younger females were afraid of the possible negative physical side effects of hormonal birth control and that was enough to dissuade them from using these methods. They could also be fearful that their partners would not be okay with contraceptive use or that it would not be cool to be responsible and against the social norm-this could negatively affect a female's choices by her choosing not to engage in safe sex practices. Another psychological factor that was discussed was the idea of control, that women have a desire to control their future in terms of contracting an STD or becoming pregnant so they wanted a contraceptive method that they could control. Many women also expressed the idea that they generally did not trust their male partner to use a condom correctly, so they had a supplemental method in order to be in control (Claringbold et al, 2019). A female's attitude towards contraceptives, pregnancy, and sex in general would also have an impact. Having a positive attitude toward contraception and a negative or antipregnancy attitude has shown to be associated with increased use of consistent contraceptive use compared to those who are ambivalent about pregnancy; these results of the study showed that an increase in education and interventions that target changing attitudes could increase these positive outcomes (Bruckner et al, 2004).

Another intrapersonal factor that is becoming increasingly relevant in this time period is sexual orientation. In terms of contraceptive use across sexual orientation groups, it was found that homosexual females were 90 percent less likely to use any contraceptive method, considerably less than any other sexual orientation group. Bisexuals were more than twice as likely as heterosexual groups to use long-acting reversible contraceptives (Charlton et al, 2019). This makes sense because homosexual female relationships would not have to work about contraception for pregnancy related issues, but this research shows that many sexual minority groups need more education on the necessary use of contraceptives like barriers for the prevention of STDs, regardless of their sexual orientation and partners.

## INTERPERSONAL

There are also a number of interpersonal factors such as family, friends and other social support systems that could affect contraceptive use in female adolescents. The influence that parents or other family members can be great in decisions that are related to adolescent female contraceptive use and sexual behavior. A journal published by *Pediatric Nursing* found that there is an association between parental communication and style and adolescent decision-making, specifically in terms of contraceptive use and sexual behavior (Commendador, 2010). More specifically, they found that mothers have a great influence on delay of sexual behavior, and it has a great potential to impact a child's behavior and feelings towards contraceptive use in a positive way. Parents can have a great impact on their child's sexual health by instilling in them their beliefs and values, educating them on sexual health, and setting rules and supervision that help them to develop their decision-making skills. Another study also showed that mother-in-law's have a great impact on a female's contraceptive behavior (Shahabuddin et al, 2016). As family is one of the most important factors in shaping an adolescent's behaviors, beliefs, and values, it only makes sense that it will have a great impact on a female's decision whether or not to use contraception or engage in sexual relationships.

Friends and other social groups that are on college campuses also have a great impact on contraceptive use and attitudes. An aspect of many health behavior theories discusses the impact that who you surround yourself with has on behaviors; for example, if you are surrounded by people who smoke, you are more likely to engage in that behavior as well. An article published in the *Journal of American College Health* discusses the impact of social groups and norms and found that one is more likely to engage in a behavior in college if it is a socially desirable and acceptable behavior. The article also mentions that social groups are one of the primary sources of sexual health education for college students, and a lot of the information that students get from their friends can be incomplete or inaccurate (Sutton & Walsh-Buhi, 2017). It is important to identify the influence of social groups on sexual behaviors and practices and for the information spread between students to be accurate and emphasizes safety.

One of the most important relationships that can have an effect on contraceptive use in females is the relationship that they have with their partner or partners. The discussion of methods of contraceptives in sexual intercourse can be a touchy subject and mistrust between partners can reduce the likelihood that they will talk to each other about such an intimate topic. If the sexual intercourse occurs in between new partners or casual partners, the use of a condom is more likely to be used to prevent the spread of STIs or an unintended pregnancy. But in more long term, committed relationships, partners are more likely to stray from the condom method and use female contraceptives like the oral birth control pill, because of the increased trust that the partner is faithful (Woodsong & Koo, 1999). In another study done to observe the relationship between partner support and contraceptive use, the results showed that open communication between partners about intention of preventing STDs and unintended pregnancies tended to increase contraceptive use or support (Sarnak et al, 2021). While females have their own internal control of their decision to use contraceptives, their partner's opinions and attitudes towards contraception do have an effect on adoption or termination of these methods.

## ORGANIZATIONAL, COMMUNITY, ENVIRONMENT, AND POLICY

Religious organizations such as churches or campus ministries can have an effect on the use of contraceptives in female adolescents. Religions such as Christianity preach no sex before marriage and some denominations, specifically ones like Catholicism, also denounce the use of contraceptives in those who are having sex, preaching that the purpose of sex is to multiply and provide children. This can also reduce the chance of these adolescents having proper sex education, and not knowing how to have sex or practice safe sex (Hill et al., 2014). In a study done in 2017 in the Journal of Religion and Health, it was implied that there needs to be more programs or lessons on safe sex practices in religious groups and affiliated organizations, as the ignorance that these adolescents have will only lead to unintended pregnancies and the transmittance of sexually transmitted diseases (Green et al., 2017). Several studies have found a correlation between being a member of a religious organization and a delayed timing of first sexual intercourse in females: more specifically, in white women in comparison to black women. Of these females who had sex, 29% of them did not use contraception the first time they had sex, and 62% did not make a family planning visit to either a doctor or clinic within the first 6 months of having sex. The same study states that among sexually active women in the college age-range

who attended religious services or were a part of religious organizations were less likely to use contraception that others (Jones et al., 2005). In terms of public health, the best solution to these issues is to create faith-based sex education programs that educate adolescents with accurate information about safe-sex practices and contraceptive use.

The use of social media and other social norms such as peer pressure have an effect on the use of contraceptives in female adolescents at a community level. Social media specifically can have both positive and negative effects on the use of contraceptives by distorting and skewing sex education information, but also having a positive impact by spreading information and making people more aware of the types of contraceptives available and how normal and beneficial it would be to use them. Social media platforms such as Instagram, Tik Tok, Twitter, Snapchat, Facebook, as well as commercials or websites can be a great tool in increasing information and awareness of contraceptive use and safe sex. It is also a great tool in health promotion because it is cheap and easy to use to be able to reach a very large audience. Adolescents tend to choose to research information on social media because it is more private; according to a study in 2012 from the American Journal of Health Education, those who participated in focus groups came up with three main points- they want sex education to be easily accessible, to be trustworthy, and to be offered in a safe and private way (Selkie et al., 2011). In one study, adolescents who were exposed to sexual health social media messages were 2.69 times more likely to use contraception in their last intercourse, in comparison to those exposed to more traditional messages from parents or schools (Stevens et al.,2017). Another study done that analyzed videos from YouTube regard intrauterine devices, IUDs, showed the negative impacts of social media as they reported that about 30% of videos portraying IUDs were inaccurate (Nguyen & Allen, 2018). These studies show the importance of accurate information on social media sites due to the great influence that they have.

On an environmental level, specifically in college, the presence of university health centers, clinics, doctor's offices, etc. is a great indicator of the use and procurement of contraceptives for female college students. On Clemson's campus specifically, there is a Women's Clinic in the Redfern Health Center whose services include providing emergency contraception prescriptions, pregnancy counseling, STD testing, and birth control consultation and prescriptions (Clemson

Medical Services, n.d). Although these services are offered at most universities, these health centers are not very effective at helping to reduce unintended pregnancies and sexually transmitted diseases because college students are not aware that these programs are offered. In a study done by professors at Clemson University, college students were given a list of 19 sexual health services and were supposed to say if they thought these services were offered at their center or not. Results showed that students were generally unaware that the health center offered variety of tests for STDs (13-27.4% aware), emergency contraception (18.6% aware), IUD appointments (8.8% aware), providing evidence that health centers need to do a better job of promoting their sexual health services (Mozingo, et al., 2021). Another aspect that health centers need to improve on is the availability and range of their services. One barrier that restricts female adolescents from receiving contraceptives is cost or insurance; university centers are a great way for them to get contraception for little to no cost. There is a need for these services to be more available for both college and high school females not only in university health centers, but also clinics or pharmacies available to the general public. A journal article found that of more than 60,000 requests from one pharmacy, 50.4% of them were for emergency contraception, 33% were for condoms, and services requested were 85.6% female (Gauly et al., 2021), demonstrating an awareness and a need for contraception in the females of 18-24 year range.

Policies in terms of laws and health care coverage have a great impact on the availability of contraceptives for female adolescents. There have been great improvements in the availability of these services to reduce this barrier to make it available for all women, especially those who are of lower socioeconomic status, are younger, or are uninsured. According to the American College of Obstetricians and Gynecologists, 49% of pregnancies are unintended and the human cost of these pregnancies is high, resulting in about 12.5 billion dollars' worth of government spending in 2008; the goal is to increase the availability and coverage of contraception to overall reduce the cost of healthcare in the United States. Most private insurances cover contraceptives, but costs in terms of copays and deductibles will vary and can still make these things very expensive for some women. Under the Affordable Care Act, all FDA-approved contraceptive methods and education were covered by the insurance plans under them, but that does not affect the women who are covered through plans by their employer or those who are still uninsured, making long-term birth control methods such as IUDs and implants unattainable (Committee on

Health Care for Underserved Women, 2015). This keeps the subject of cost as a barrier that will affect those not fortunate enough to have extra spending for contraceptives or insurance to be able to see a physician. Reducing this barrier will allow for the percentage of unintended pregnancies to decrease, reducing overall healthcare costs and keeping opportunities open for female adolescents to participate in safe sex.

Another important policy that plays a key role in attitudes in terms of contraception are the policies by each state that determine sex education curriculum in high schools. A proper and comprehensive sex education curriculum in middle or high schools is a crucial factor in shaping sexual behaviors and attitudes in adolescents; this can also have a great impact on the rates of STDs and unintended pregnancies. As reducing these numbers are some of the goals of Healthy People 2030, improving education can potentially drastically change these rates in the United States. According to the National Conference of State Legislatures, only 30 states and the District of Columbia require public schools to teach sex education, 28 of those have both sex education and HIV education (NCSL, 2020). Each state can choose their own curriculum, and only 13 of these 30 states require that their sex education be medically accurate, and most states don't even mention different sexual orientations or contraception (Centers for Disease Control and Prevention, 2019). This not only creates disparities across the country, but it also shows the severe lack of education that these students are getting, a subject of education that threatens their future health and their livelihood.

## SUGGESTIONS FOR INTERVENTION

There are many strategies that can be implemented to attempt to increase female contraceptive behavior in female adolescents. As the percentage of unintended pregnancies sit at 45-50% in the United States, it is important to increase prevalence of contraceptive use in order to reduce this percentage, which is an objective that was stated in the Healthy People 2030 campaign (Curtis et al, 2016). Access and education are two crucial factors that can be targeted for change as a lack of these two results in great disparities.

Access to contraceptives, whether they be oral or LARCs like IUDs, is one of the biggest barriers that young females have in their attempts to reduce their risk of unintended pregnancy. This barrier includes limited access to publicly funded services, medical centers, cost of these services, inadequate transportation, etc. (US Department of Health and Human Services, n.d.). One of the greatest strategies that can be implemented in the US is to increase the availability of publicly funded contraceptive programs, which are programs that provide these services that cater to the general public and use state or federal funding for little to no cost to the public (Frost et al, 2018). In the United States, it is estimated that more than 19 million women are in need of publicly funded contraception and live in areas where there are no clinics or healthcare services around to provide these family planning services (Power to Decide, 2021). Those who live in these "contraceptive deserts" typically are of lower socioeconomic status or an ethnic minority, which are two risk factors that increase the chance of an unintended pregnancy, which further emphasizes the need to supply these women with this type of care. Along with access to contraceptives is the barrier of cost; many women of adolescent age cannot afford the monthly bill for an oral contraceptive pack, or the large front-end cost of a LARC such as an IUD. Not only the cost of the contraceptive themselves, but also the copays and deductibles that accompany the doctors' visits needed to get a prescription. In terms of insurance plans and what is covered, it was found that a lot of plans through employers did not cover contraception and on average, women pay approximately 60% out of pocket cost for contraceptive methods. Under the Affordable Care Act implemented under the Obama Administration, those under the public plan received all contraceptive methods and related appointments for no charge, which also applied to Medicare programs. This was a step in the right direction with the hopes of increasing the rate of use and reduce the rate of unintended pregnancies in females; however, this does not help those who do not have any insurance or are under employer's plans. Further suggested strategies to reduce these barriers of cost and access would be to increase the amount of public funding for the construction of public clinics in rural or impoverished areas as well as funding allocated to contraceptive methods (Committee on Healthcare for Underserved Women, 2017).

Lack of education about contraceptive methods, misconceptions about sex education, and lack of knowledge on the availability of contraceptives are specific barriers that are encompassed by the ultimate barrier of education. The importance of a comprehensive and scientifically accurate sex

education in adolescent students is vital; not only about sex itself but also about contraception, sexually transmitted diseases, choosing a partner, and the risks of unplanned pregnancies are all topics that need to be discussed. In the 2014 CDC School Health Profiles, it was documented that less than half of high schools and fifth of middle schools taught all 16 topics that the CDC has recommended as important components of sex education. Another statistic reports that about 43% of females and 57% of males at adolescent age did not receive information about birth control before they had sexual intercourse (Planned Parenthood, n.d.). Not only is there a lack of information topics being taught in schools, but there is no uniform curriculum in the United States. Each state can create their own sex education curriculum to be implemented in their schools, and only 38 of the 50 states in America have sex education laws (Blanton, 2019). These programs do not have to be scientifically accurate, and they do not have to teach about STDs, contraceptives, or sexuality; 30 out of 50 states use an abstinence only program that does not teach students about any other topics. Even though it has been proven that when sex education included information about contraceptives, safe sex practices, HIV and other STDs, condom use, etc, teens have a lower risk of pregnancy than those who received an abstinence-only education (CDC, 2013). In order to reduce these disparities, the United States needs to create a national standard for sex education, which should include multiple sexual orientations, socioeconomic backgrounds, contraceptive methods, sexually transmitted diseases, and other topics. More funding needs to go into these programs as well; increased funding of education programs which would lead to increased education has been shown to reduce overall healthcare costs by reducing the number of unintended pregnancies (Hall et al, 2016).

My suggestion for an intervention to increase the knowledge and use of contraceptives in female adolescents would be to utilize social media and create a campaign across many platforms like Instagram, Tik Tok, Facebook, Twitter, Snapchat, and other applications. This would be the best way to reach the target age group because according to a 2018 Pew Research Center study, 97% of adolescents use a social media platform and at least 45% are online daily (Mayo Clinic Staff, 2019). A campaign across social media platforms that would offer graphics and accurate scientific information highlighting the importance of contraceptives and safe sex practices would not only increase information and access, but also alter social norms to make these behaviors more normal and increase self-efficacy among female adolescents. It would also reduce the

disparity of access by reaching those who live in rural areas, live in poverty, or live in areas where public transportation is not available to them to get to health clinics. Another advantage to using social media for sex education would be to provide an individual and private way for adolescents to learn about topics that may make them uncomfortable to talk about with another person (Collins et al, 2011).

One example of a social media campaign that had an impact on social norms is the End It Movement, a campaign that began to show up all over social media in 2013, as people posted pictures of themselves with a red X on their hands to promote awareness of the issue of human trafficking. This elicited a global response and brought a large increase in awareness of the issue as well as funds that went to nonprofits dedicated to fighting the cause; this campaign really shows the power of social media and how it can be a helpful tool in promoting social change. I believe that this same idea can be used to promote safe sex practices in adolescents and create an environment in which talking about and getting treatment for sexual health is less taboo. Not only would it reach a large target audience, but it would also be relatively low cost as compared to the amount of money that could be saved in medical expenses.

There are a multitude of factors both internally and externally that shape a female's ideas and actions towards the behavior of contraceptive use. It is important that health professionals continue to study the motivations behind this behavior and use them to apply to interventions to improve the outcome. Increasing the prevalence of this preventative behavior will improve the lives and safety of these females to ensure their health and future.

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