

# Acceptability and use of social media for accessing sexual health information among young African adults: An application of the UTAUT model

Emmanuel Olamijuwon<sup>1,2</sup>, Clifford Odimegwu<sup>1</sup>

Correspondence: [emmanuel@olamijuwon.com](mailto:emmanuel@olamijuwon.com)

<sup>1</sup>*Demography and Population Studies Programme,  
University of the Witwatersrand, Johannesburg, South Africa*

<sup>2</sup>*Department of Statistics and Demography,  
University of Eswatini, Kwaluseni, Eswatini.*

## Introduction

Sexual behaviour among young adults presents significant public health concerns. This is because early adulthood is associated with major changes, including physical growth, the onset of sexual maturation, the activation of new drives and motivations, and a wide range of social and affective changes (Forbes & Dahl, 2010). This period is also characterized by increased involvement in risky sexual behaviours such as sex in non-committed relationships, inconsistent or non-use of condoms in a casual or non-monogamous relationship, and sexual relations with multiple or high-risk partners (Michael & Ben-Zur, 2007; Crandall et al., 2017). Recent statistics suggest that over 35 million people infected with the human immunodeficiency virus (HIV) currently live in sub-Saharan Africa (UNAIDS, 2013). About 85% of the estimated 1.8 million of the world's adolescents living with HIV reside in Sub-Saharan Africa (UNICEF, 2016). In Africa today, young women comprise over 60% of HIV infections, a dramatic shift from the early days of the epidemic when infection rates were higher in men (UNAIDS, 2013). Although HIV-related deaths are declining in every age group except 10–19-year-olds, AIDS is the leading cause of death among adolescents in sub-Saharan Africa and globally (Mokdad et al., 2017). In addition to HIV, young people continue to have high rates of STIs, and an estimated one million people globally acquire a sexually transmitted infection (STI) every day (Samuels, 2013).

Given the magnitude of the epidemic, the burden that it imposes for African families and countries, and the primary mode of transmission being heterosexual intercourse, there has been an extensive focus on how to reduce infection rates for adolescents and young adults between 15–34 years, a group identified to be at risk of new infection (Adeokun, et al., 2013; UNAIDS,

2008). Educating young people on sexual health is believed to be a crucial step for reducing infection rates. This is because an effective sexual health education has the potential to reduce misinformation, increase accurate/comprehensive knowledge, help young people to abstain from or delay the debut of sexual relations, reduce risky sexual behaviours and avoid unintended pregnancies thereby lessening the transmission of infections and supporting HIV prevention effort (Jones et al., 2014; Samuels et al., 2013; UNESCO, 2009).

Social media internet sites like Facebook, Instagram, Twitter and YouTube are fast replacing traditional forms of communication because they offer individual users rapid transference of idea and opinions through a relatively low-cost and user-friendly network (Vance, Howe, & Dellavalle, 2009; Pfeiffer et al., 2014). Since the launch of these technologies, its adoption has been increasing rapidly, surpassing two billion active users worldwide in 2015. This is because they engage audiences much better than traditional media where users are passive viewers of information provided to them. These new forms of communication also provide access to user-tailored information (Fox & Jones, 2009). Through this medium, young adults generate their own messages and share them with others. In 2013, there were more than four billion mobile phone subscribers globally, two-thirds of whom are in developing countries with the fastest growth on the African continent (Pearce, 2013). A World Bank report in 2012 also showed that Africa's mobile phone market had about 650 million subscribers, a 40-fold increase since 2000 (Yonazi, Kelly, & Halewood, 2012). Due to increased mobile internet coverage, even rural sites in many African countries now allow young people to connect anywhere with reception (Pfeiffer et al., 2014).

As young people use these forms of new media, including social media, there may be new opportunities to listen to and engage with young adults about sexual health issues (Evers et al., 2013). Understanding how young adults currently use and would like to use this technology to obtain sexual health education could inform the design of education programs using social media. In Africa, evidence of the potential benefits of social media for improving sexual health is emerging. Young adults in Tanzania believed that social media especially Facebook, could be better entry points for sexual and reproductive health messages (Pfeiffer, Kleeb, Mbelwa & Ahorlu, 2014).

Despite the increased use of social media among young adults, it is unclear whether young people would use social media for accessing sexual health information and the factors that predict their use. This study will bridge the current research gap and examine the level of use of social media among young adult for accessing sexual and reproductive health education as well as the factors associated with the use of social media.

## **Theoretical Framework**

This study adapts the unified theory of acceptance and use of technology (UTAUT) in explaining the use of social media for accessing sexual health information among young African adults. The UTAUT model is the unification of several frameworks including the diffusion of

innovation, the theory of reasoned action, technology acceptance model (TAM), theory of planned behaviour (TPB), combined TAM-TPB, model of PC Utilization, and the social cognitive theory (Venkatesh et al., 2003). The model identifies four key constructs such as performance expectancy, effort expectancy, social influence and facilitating condition in predicting individual's intention to use a recent technology and are moderated by gender, age, experience and voluntariness of use (Venkatesh et al., 2003). The theory asserts that individuals may be likely to adopt the use of a new technology if they believe that using the technology will help them to attain performance or improvement in the behaviour, and that the technology is easy to use, and that others believe that they should use the new system and there are enough organizational and technical infrastructure that supports the use of the system. The UTAUT model has the evidence of content validity through six longitudinal field studies and accounts for 70% of the variance for technology usage intention, better than any of the eight frameworks alone (Venkatesh et al., 2003).

Till date, the model has only been applied in the sciences to predict the use of new technologies such as mobile banking, virtual learning systems, open data technologies and others (Zuiderwijk, Janssen, & Dwivedi, 2015; Hew, et al., 2015; Wu, Tao, & Yang, 2008; Dulle, & Minishi-Majanja, 2011). These studies have provided evidence that the constructs of the UTAUT model have a positive influence on behavioural intention. Helena and colleagues further argued that the degree to which individuals believe that a system would be beneficial for his/her performance is one of the highest explanatory powers of variables on behavioural intention (HelenaChiu, Fang, & Tseng, 2010). Recently, there are emerging evidence that provides evidence of its effectiveness in the use of technology in health care service delivery (Chang, & Hsu, 2012; Kim et al., 2015; Stankovic, 2017). Given that social media is increasingly emerging to be an alternative technology for communicating sexuality education, it may be essential to understand whether and how effectively, the constructs of the model predicts young African adult's use of social media in accessing sexual health education.

## Hypothesis

By adopting the unified theory of acceptance and use of technology model, this study hypothesizes that performance expectancy, effort expectancy, social influence, and facilitating conditions will influence the young adult's use of the social media for accessing sexual health information. For example:

- Young African adults who believe that using social media will enhance their sexual and reproductive health and rights (performance expectancy) may be more likely to use social media compared to those who do not believe.
- Young adults who believe that using social media to access sexual health information will be free of effort (effort expectancy) may be more likely to use it compared to those who do not believe.

- Young African adults who believe that their friends, family and other people would approve their use of social media for accessing sexual health information (social influence) may be more likely to use compared to those who do not believe.
- Young African adults who believe that they have the infrastructure that supports the use of social media for accessing sexual health information (facilitating conditions) may be more likely to use compared to those who do not believe.

This relationship is also expected to moderate by socio-demographics such as age, sex, wealth and voluntariness of use.

## Data and Methods

Data for this study was obtained from 2,179 young adults aged 18-34 years who were from Africa and resident in any of the African countries. Participants were recruited using Facebook's advertising platform to participate in the online survey from August to October 2019. The survey was uploaded on the project website: <https://shyad.net> and received approval from the University of the Witwatersrand human research ethics committee. A 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) adapted from the unified theory of acceptance and use of technology with twenty-three items were developed to explore five conceptually identified dimensions of the theory: (a) performance expectancy, (b) effort expectancy, (c) social influence, (d) voluntariness of use, (e) facilitating conditions, and (f) behavioural intention to use social media. Participants also provided information related to vital sociodemographic characteristics such as age, sex, as well as the country of residence. The final sample excluding incomplete response, and participants younger than 18 or older than 34, resulted in 1,972 responses.

Data analysis is ongoing and descriptive statistics will be used to describe the study sample. In order to answer the main research question of this study, we will adopt a two-stage latent variable structural equation model with one endogenous variable (behavioural intention to use social media) and multiple exogenous variables (performance expectancy, effort expectancy, social influence, voluntariness of use, facilitating conditions). We retained factors based on their interpretability or the extent to which items in the same factor are related to another (i.e., a dimension of religiosity), the significance of factor loadings and goodness of fit. Model fit for the CFA will be assessed through the fit statistics and the statistical significance of paths. We will consider a root-mean-square error of approximation (RMSEA) that is 0.05 or less; a standardized root mean square residual (SRMR) that is less than 0.08; a Tucker-Lewis index (TLI) and comparative fit index (CFI) that are 0.90 or higher as indicators of a good model fit (Tucker & Lewis, 1973; Hu & Bentler, 1999). Convergent validity, discriminant validity and construct reliability will also be examined to assess the quality of the measurement model.

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