Islamic Teachings, Youth Engagement In Hiv Self-Testing And Facility Based Testing In Islamic Countries

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Abstract

Recently there is enormous emphasis on engaging young people in research including HIV research specifically in Western Non-Islamic world. Globally, 1.7 million infections of HIV were reported in 2019. Recent statistics indicate that young people will constitute a significant portion of HIV infected population by 2030. In this connection, HIV testing is one of the effective and on priority basis intervention. HIV testing is carried out through two mechanisms; first, clinic-based testing; and second, home-based or self-testing i.e., HIVST. This study is a literature-based approach whereby research studies published and conducted during 2016-2021 are cited to know that which type of testing is preferred i.e., clinic based or home-based (HIVST) by youth; and that how much youth is engaged in HIV testing research. The sampled studies are conducted in Islamic countries majority of which include African States. The focus has been on linking testing with religion (Islamic Teachings) and related factors affecting availing testing services. Literature shows that engagement levels in both testing is different whereby the levels of engagement of youth in HIVST are relatively high as compared to clinic-based testing in Islamic countries. This is because of Islamic values and teachings whereby young people are more afraid of social stigma.
in case of testing at clinics as well as perception about them as involvement in sexual behaviors that is highly prohibited in Islam.

**Key Words:** HIV, Testing, Low- and Middle-Income Countries, Islamic Countries, Barriers

**INTRODUCTION**

Globally, 1.7 million infections of HIV were reported in 2019. Among these 19 per cent were in sub-Saharan Africa, and most importantly 8 per cent infection were among 10-19 years old individuals which is a staggering statistic while 13 per cent were reported among individuals aging 15-24 years (Global Statistics, 2020). United Nations Department of Economic and Social Affairs (2015) warned that by 2030 an increase of 42 per cent in HIV infections is expected statistically in African region whereby the majority will be young adults. Day et al., (2018) in this connection expounded about the importance of HIV prevention primarily because of the demographic trend. The most challenging aspect in this regard will be low income and poverty whereby majority of African countries will face significant issues in dealing with such infection rates in the region.

Extending the discussion, it is imperative to engage youth in HIV intervention. Gaje, Do and Grant (2017) argues that youth engagement in HIV research and intervention is the focus of United Nations and for this purpose they are involving The Joint United Nations Program. Youth engagement in HIV interventions increases HIV knowledge, reduces HIV stigma, and facilitates behavior change. Lo et al., (2014) adds that youth engagement in research on HIV and intervention is imperative from intervention that are youth friendly. Youth-friendly intervention can in turn enhance recruitment of youth as well as promoting dissemination and sustainability in research and intervention. So far, the impact of intervention is well researched; however, there is need of studying the impact of intervention at different stages, for example, pre-intervention, intervention and post-intervention. This also opens the gap in researching about intervention types and phases (Arksey and O’Malley, 2005).

HIV testing is a critical entry point for both prevention and treatment. However, only a minority of adolescents have ever been tested. In the United Republic of Tanzania, for example, less than half of female youth with HIV infection are aware of their status. Low rates of testing result in late diagnosis, delayed care, and high mortality among youth; it also results in increased mother-to-child transmission (Asuquo et al., 2021).

One aspect in intervention in HIV related youth research is HIV testing. It is imperative in terms of prevention, spread and treatment of those who are affected particularly those who are unaware about infection. In this connection, United Nations aims to intervene through testing such that 95 per cent of infected individuals know about their infection status (UNAIDS, 2018).

HIVST or HIV self-testing is a medical term which refers to the act of testing one-self for Human Immune Deficiency Syndrome (HIV/AIDS). In self-testing for HIV it is not necessary to go to a hospital or clinic rather it can easily be done at home. It is useful as a matter of fact that
it is pivotal for awareness about one’s status of being infected or not. So far statistics show that 7 per cent cases of HIV are reported due to HIVST which may not have been reported if HIVST was not carried out at least in time. In many countries, for example, in United States HIVST is considered as an additional intervention strategy for HIV testing along with clinic-based testing. For this purpose, HIVST is advertised and promoted at man platforms and is an approved way of testing from CDC (Moshoeu, et al., 2019). Further, World Health Organization (WHO) approved HIVST as an alternative to HIV testing services (traditional) in 2016. WHO’s efforts particularly aimed to expand the HIV testing to population which are hardest, for example, living in rural areas; those who are unaware of the HIV infection; those who often don’t visit hospitals; and those who don’t believe in the illness and so on. In addition to it, HIVST got famous as it provides risky individuals with ease of access and that too in easy manner such as oral test (Johnson et al., 2015).

ISLAMIC TEACHING AND HIV PREVENTION

Islamic values and the teaching of Islam portraying sex outside of marriage as sinful and it is believed that it has great contribution towards HIV transmission (as they reject safe-sex practices) (UNAIDS, 2010). Moreover, stigma associated with sinful behavior is frequently assumed to interfere with access to care for those infected (Country Profile, Swaziland, 2009) In contrast to the given data, it has been observed that adherence to religious teachings have relatively low incidence in the occurrence of HIV infection among Muslims. This has also been an inspiring way that there is greater possibility of using Islamic texts for the control of HIV infection and HIV/AIDS-related stigma among Muslims (Johnson et al., 2015). Literature has identified that multiple texts are applied in various Muslim countries that are truly applied to sexual conduct, cleanliness, health condition, stigma and to talk about the responsibilities of citizen following way of life according to Islam. Regarding the association of HIV with improper sexual behavior, Islamic texts also offer a starting point for tackling HIV transmission and HIV/AIDS-related stigma. Under particular conditions, the identified Islamic texts may even justify the promotion of safer-sex methods, including condom use (UNAIDS, 2018).

OBJECTIVES OF THE STUDY

Keeping in view the above discussion this study aims to know the levels of engagement in clinic and HIVST (home based testing) and the causes of difference in levels of engagement in Islamic countries with reference to Islamic teachings will be the purpose of the current study. Another key objective is to know that what are those Islamic values that hinder or promote HIVST.

METHODS AND PROCEDURES

This study based of library and content analysis where the relevant religious and non-religious material will be reviewed. For this purpose, the objectives of the study were devised. Relevant studies were searched whereby a plethora of studies were found. Through hand searching approach, 30 relevant studies were identified and selected which were conducted in Islamic
countries. The studies were specifically about HIV testing whether they were clinical based or self-testing based or both. The focus was on exploring the comparison between both and its importance in terms of engaging youth in research and intervention strategies regarding HIV/AIDS. The inclusion and exclusion criteria for studies were:

- publication and timings of the information, for examples, studies were considered conducted during and published from 2016-2021. It is also important to mention that for introductory and justification purpose studies published before 2016 are also considered.
- Studies related to HIV testing
- Studies focusing on clinic-based HIV testing
- Studies based on Self or Home-based HIV testing
- Studies indicating the trends and differences regarding clinic-based and Home-based HIV testing
- All of the studies must be conducted in Islamic Countries

Searching data bases include African Index Medicus, Google Scholar, Web of Sciences; SCIMAGO, SCOPUS and NLM. The searching key words includes HIV, youth engagement, HIV clinic and home-based testing, difference in engagement levels of HIV clinic and home-based testing. Abstracts of the studies were considered the most important in including or excluding the study which to Sharma et al., (2015) is one of the effective methods for inclusion and exclusion of studies for systematic reviews.
Based on the above methodological procedures studies which are included are

(Asuquo & etal, 2021), (Brown & etal, 2018), (Burke, et al., 2019), (Denison & etal, 2017), (Gaje, et al., 2017), (Harichund & Moshabela, 2018), (Ekouevi, et al., 2020), (Harrison, et al., 2016),
(Hawke, et al., 2020), (Indravudh, et al., 2017), (Iwelunmor, et al., 2020), (Kidman, et al., 2020),
(Koris, et al., 2021), (Moshoeu, et al., 2019), (Okonkwo & Okonkwo, 2017), (Osoti, et al., 2015),
(Petifor, et al., 2018), (Shahid, et al., 2016), (Shapiro, et al., 2020), (Staniszewska, et al., 2017),
(Zanoni, et al., 2018).

Majority of studies which were excluded were based on publication dates, for example, studies published before 2016. Other reasons included ambiguity, duplication and too broader or limited in scope. Few mentionable of such studies include Musheke, M. et al., (2013), Paulin, H. N. et al., (2015), MacPherson, P. et al (2014), Brittain et al (2015) and many more.

RESULTS

A total of 21 studies were sampled among 383 relevant studies. Studies were selected exploring engagement in HIV testing among young girls and women (n=2), a study on guidelines and practices related to HIV testing (n=2), studies on engaging youth in HIV intervention as prevention strategy (n=5) and studies focusing on clinic and home-based HIV testing (n=14).

HIV Clinic based testing

Osoti (2015) asserts that Clinic Based HIV testing is a traditional method of testing for HIV infection. It is done on patient’s demand at clinic; it is done while testing the patient before surgery; it is done during normal testing for other infections; it is done during pregnancy (Harrison et al., 2016). The levels of clinic-based HIV testing is one the key concerns in terms of number of testing. For example, Kidman et al., (2020) found that levels of youth engagement in HIV clinic-based testing is matter of concern in Islamic countries. The study focused on barriers to lower level of youth engagement in clinic-based testing and found that equity is they barrier. For example, the services often are focused on married couples. However, it is a fact that unmarried individuals are at higher risk of getting infected thereby showing a flaw in policy. Secondly, the age of consent was notable aspect in lower clinic-based testing. Individuals aging below 18 years was not part of policy whereas as in African Islamic region many individuals aging below 18 years had sexual relationships, gender-based violence including leading to rape etc. Therefore, youth engagement policy of clinic-based HIV testing is less effective increase the levels of engagement. In addition, Brown et al., (2018) focused on girls aging 15-24 years in sub-Saharan Africa. To Brown and colleagues, the causes of lower levels of clinic-based testing is age. Cultural reasons among girls. It is a fact that among many girls just entering to puberty sexual relationships develops; however, social acceptability to it is a problem and thereby lack of clinic-based testing among such girls is one of the core reasons of infection spread. In this connection, at the end of 2019, Tanzania took steps to reduce this legal barrier, dropping the age of consent to 15.

Asuquo et al., (2021) concluded from there research that levels of youth engagement in clinic-based testing. The study shows that levels youth engagement in clinic-based testing is low. It is due to anxiety levels at clinics which are generally found higher resulting in fear of test results
which apprehends many individuals from testing at clinic and Islamic values are important in this connection. The attitude and behavior of clinic staff or health care workers also results in low clinic-based HIV testing among youth Islamic countries.

**Self-Testing for HIV (HIVST) in Islamic Countries**

HIVST or HIV self-testing is a medical term which refers to the act of testing one-self for Human Immune Deficiency Syndrome (HIV/AIDS). In self-testing for HIV, it is not necessary to go to a hospital or clinic rather it can easily be done at home. It is useful as a matter of fact that it is pivotal for awareness about one’s status of being infected or not.

Moshoeu, et al., (2019) explicates that 7 per cent cases of HIV are reported due to HIVST which may not have been reported if HIVST was not carried out at least in time. In many countries, for example, in United States HIVST is considered as an additional intervention strategy for HIV testing along with clinic-based testing. For this purpose, HIVST is advertised and promoted at man platforms and is an approved wat of testing from CDC; however, in Islamic countries HIVST can be used as major intervention instead of additional intervention.

Indravudh et al., (2017) and Harichund (2018) are of the opinion that currently a trend in preferences of HIVST is evident among young person in low- and middle-income countries of Africa (Islamic) such as increasing prevalence of acceptability and feasibility of using HIVST. In this regard, the preferences are embedded in individual level characteristics, for instance, test and service deliveries. Test and service delivery are determined through effectiveness of the testing and its optimization which affects young people perception about HIVST. Youth engagement in HIVST is relatively high. It is because of test level characteristics are important to preference of HIVST among young individuals. Cost is the first indicators in this regard such as if cost is low or where costs are low young people tends to conduct HIVST. Second indicator is testing methods. Many of the young person in particular females don’t tend to use blood test as they have injection related anxieties. Therefore, oral and saliva tests are preferred by them. Many studies shows that young female is not welling for test because of fear of injections whereas oral test make them comfortable with testing (Okonkwo, 2017). Third indicators, however, not impact as cost and testing method is marketing related thing i.e., packaging and advertisement that are proven to have some sort of effects on testing interventions among young person regarding HIVST. In this regard, other related discussions around test characteristics included the presentation and packaging of the HIVST kit. Some felt that the branding of the kit was medical-looking, subdued and could be rebranded to look more youth-friendly and discreet.

Iwelunmor et al., (2020) worked on level and involvement of youth engagement in HIVST. The theme of the work was 4 youth by youth. The research work concluded that crowdsourcing and informing the youth increases the levels of youth in HIVST as well as bring new ideas to engage youth in HIVST. HIVST was seen in context of protection from social stigma whereby Muslim students are apprehended and they remain away from clinics for testing HIV due to stigma.
Shahid et al., (2016) are of the opinion that HIVST are imperative for expanding testing capacities in terms of service provision. In Islamic countries HIV home-based testing is effective in case of diagnosing infections among couples. It is important for those who involved in stigmatized acts such as injecting drugs whereby HIVST provides such people with privacy and confidentiality. Diagnosis through HIVST is imperative in terms of protective behaviors even if somebody does not seek treatment.

Umeh et al., (2020) work is important in terms of engaging youth HIV testing in African Islamic region. The work and project focused on delivering testing kits to home. The study concluded that self-testing is enhanced when kits are delivered at home though knowing and collecting information about results is challenge.

For improving the situation further and to bring more youth into HIVST (Ekouevi et al., 2020) work is important to be mentioned. To improve youth engagement in HIVST counseling is need to overcome. Fear and anxiety of expecting positive results of the infection is the prominent one and specifically among populations who are engaged in drugs and unprotected sex. Lack of counseling at home is the key barrier as it is expected that upon positive result risk of suicidal ideation ranging to attempt is expected.

Like clinic-based testing there are some barriers to engage youth in home based or self-testing as well. First in this connection are individual level characteristics that are perceived barriers to HIV self-testing. Fear and anxiety of expecting positive results of the infection is the prominent one and specifically among populations who are engaged in drugs and unprotected sex. Lack of counseling at home is the key barrier as it is expected that upon positive result risk of suicidal ideation ranging to attempt is expected.
The work of Andrea (2021) is very recent and imperative in context of engaging youth in HIV home-based or self-testing connection. The study was carried out and sampled at colleges who were Muslim students i.e., on campus HIV testing. Andrea theorized the higher level of youth engagement in HIVST in into three dimensions; first, autonomy. It was perceived by the on-campus Muslim students that it offers autonomy to them. In this regard, control and privacy were important indicator of autonomy. The levels of control such as deciding how, when, where, and with whom to test for HIV are important to young individuals at campus. Second cause of preference is convenience whereby movement, time consumption, traveling costs etc. are at convenience of the students. During studies students often don’t have time to go to clinics as well as at campus students are vulnerable to have multiple sex partners therefore ease of access is the priority. The third factors are social acceptability. Counselor availability at campus site makes it acceptable way of conducting HIVST whereby in case of positivity things are handled properly. Further, campaigns at campus enhances the social acceptability of the testing as well. Testing is carried out at campus among same age group individuals which is another indicator for enhancing the social acceptability of the testing. In other words, crowd behavior is developed regarding HIV testing. However, some concerns were also reported. In terms of concerns the perceived risks of lack of privacy, social coercion, and insufficient post-test counseling was mentioned by students regarding testing at campus. The campuses on colleges are social in nature and test results may spread to the campus very quickly in case of positivity. Even if it is negative the questioning bothers many students. Thereby, few students at campus want to test themselves for HIV very privately that is home. Further, social coercion emerged as a cross-cutting theme related to participant experiences with campus-based HIVST. Social pressure was the key aspect in this regard whereby fellows pressurized many individuals to test themselves at campus for HIV. However, it is important to pin down that female’s response was different. They were in favor of on campus HIVST, but they were the source of coercion for male colleagues as they wanted safer and protective sexual relationships. It led to coercions in a manner so that male cannot refuse due to its ease and convenience at campus. Lastly, at many instances there is lack of post-test counseling. It is a fact that HIV reactive results causes sudden emotional bouts and family and social support is necessary at that time which often lacks at campus when such occurs. Perception of inadequate post-test counseling was a motivating factor for those participants opting out of campus-based delivery of HIVST.

**Statistical difference between HIVST and clinic-based testing**

Sheparo (2020) asserts that survey in South Africa revealed that 17% young individuals want to get tested in clinic for HIV whereas 42% wanted to get tested though HIVST. Venter et al., (2017) revealed that HIVST is one of the policies of African countries to increase tested among young people by engaging them through HIVST and it is observable that about threefold increase in testing is noted so far in terms of more engagement in HIVST. UNAIDS (2019) project showed that in developing and poor countries youth engagement is observable by introduction of HIVST.
By 2030 as high as 90 per cent of population will know about their HIV status through HIVST which is not possible though clinic-based testing.

Islamic Values and HIV Testing

Barmania et al., (2016) asserts that Islam works in two ways regarding HIV/AIDS. First, Islamic values prevents HIV/AIDS by controlling the behavior of followers such as sexual behavior. Second, regarding testing the Islamic values exacerbates the situation. Being a religion there are strict values regarding sexual behaviors, and the followers are apprehended from testing. It has been found by many research studies that even opting for testing makes one to be perceived negatively, for example, perceiving that an individual testing himself/herself has been involved sexual activities.

Islam, Social Stigma HIV/AIDS

National Strategic Plan (NSP) (2017) was a project in Malaysia. The project findings showed that social stigma is intensive in Islamic countries like Malaysia. In this case, HIVST are more effective as compared to clinic-based testing among youth.

Discussion

Recently there is enormous emphasis on engaging the young people in research including HIV research. Globally, 1.7 million infections of HIV were reported in 2019. Among these 19 per cent were in sub-Saharan Africa, and most importantly 8 per cent infection were among 10-19 years old individuals which is a staggering statistic while 13 per cent were reported among individuals aging 15-24 years. By 2030 an increase of 42 per cent in HIV infections is expected statistically in African region (mostly Islamic World) whereby the majority will be young adults (Global Statistics, 2020); therefore, it is imperative to engage youth in HIV intervention in Islamic regions (Andrea, 2021). Testing in this regard is the most important step and intervention as it is source of detection and helps to prevent the spread of infection. There are two types of testing; first, clinic-based testing which is carried out at clinic or hospital particularly aiming to know about infections and or as including with normal routine tests. Second, the HIVSTA that is specifically for the purpose of detecting HIV, but it is carried out by an individual himself at home or at any other place.

Studies shows that level of engagement of youth is different in HIVST and clinic-based testing. Levels of engagement in Islamic regions are high in HIVST as statistically evident from Sheparo (2020), Venter et al., (2017) and UNAIDS (2019), Barmania et al., (2016) and National Strategic Plan (NSP) (2017). There are numerous reasons for it, for example, some segment of youth as it provides privacy, confidentiality, social acceptability, and ease of access. In addition, often before testing there is less anxiety and fear associated with it as fear and anxiety is common at clinic. Cost has been found another aspect of HIVST as the efforts of WHO and governments is to engage more youth in HIV testing and the costs are low. A lower level of engagement in clinic-
based testing (as evident from Kidman et al., 2020 and Asuquo et al., 2021), is due to costs, anxiety at clinic, less visits at clinic, misperceptions, and staff behavior etc. Youth apprehends of clinic based testing in Islamic region and HIVST is better option to avoid stigma.

**Conclusion**

Recently there is enormous emphasis on engaging the young people in research including HIV research. HIV testing is an important component in identification, treatment, and prevention of HIV. There are two types of testing; first, clinic based and home-based or HIVST. Literature shows that engagement levels in both testing is different whereby the levels of engagement of youth in HIVST are relatively high as compared to clinic-based testing in Islamic countries.

**Suggestions**

We identified two creative ways to engage youth in HIV prevention research. One intervention held a crowdsourcing open call for youth to share their ideas on how to promote HIV self-testing among youth. This intervention engaged a large number of youth with a diverse set of ideas on HIV interventions that are relevant to their needs. This crowdsourcing approach has been used in other Islamic settings (Staniszewska et al., 2017). Other interventions identified in this review described youth as co-researchers who were tasked, under supervision, with planning and implementing program activities, disseminating research findings, or organizing post-intervention community HIV testing and counselling. Crowdsourcing and youth as co-researchers are mechanisms that foster youth engagement in the HIV research process. These participatory approaches provide an environment for meaningful youth engagement, which can lead to the development of health services that are appropriately tailored to the needs of youth (Asuquo et al., 2021).

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Figure one: predictors for level of engagement of youth in clinic and HIVST

Figure Two: Issues with HIVST and Clinic Based Testing
Issues with HIVST

- Bout of anxiety upon positivity
- Lack of training for proper usage
- Lack of immediate counseling
- Misperceptions
- Staff behavior
- Costs