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Barriers to Uptake of Oral Pre-exposure Prophylaxis for HIV among Adolescents' Young boys and Girls an Assessment of Cross River North Nigeria

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Abstract

Antiretroviral pre-exposure prevention (PrEP) to stop HIV transmission was 1st approved by the USA Food and Drug Administration in 2012. Despite correlations of decreases in new HIV infections being greatest wherever PrE-exposure prophylaxis has been deployed, the uptake of PrE-exposure prophylaxis is insulant, significantly among populations with disproportionate HIV burden. This narrative review seeks to spot individual and general barriers to PrE-exposure prophylaxis usage in African country. A comprehensive search of recent literature uncovered a fancy array of structural, social, clinical, and behavioral barriers, as well as knowledge/awareness of PrE exposure prophylaxis, perception of HIV risk, stigma from care suppliers or family/partners/friends, distrust of care providers/systems, access to school assignment, prices of PrE exposure prophylaxis, and issues around school assignment facet effects/medication interactions. significantly, these barriers might have totally different effects on specific populations in danger. The complete potential of PrE-exposure prophylaxis for HIV interference won't be realized till these problems area unit self-addressed. Ways to realize this goal ought to embody academic interventions, innovative approaches to delivery of HIV care, resource, and DE stigmatization of PrE-exposure prophylaxis and PrE-exposure prophylaxis users. Until then, PrE-exposure prophylaxis `uptake can still be suboptimal, significantly among people who would like it most. Results: Stigma influences uptake of pre-exposure prophylaxis; HIV risk perception does not affect uptake of pre-exposure prophylaxis; and a significant negative relationship between stigma and pre-exposure prophylaxis uptake. Conclusion: This study was conducted to investigate barriers to oral pre-exposure prophylaxis. Significant findings of the study conclude: stigma influences uptake of oral pre-exposure prophylaxis for HIV.

***Keywords**: Acquired immunodeficiency syndromes, Barriers, Adolescents, Human immunodeficiency virus, Human immunodeficiency virus testing, Young Boys, Young Girls, Pre-exposure Prophylaxis.*

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Introduction

Problem Statement Pre-Exposure prophylaxis for HIV uptake have been continuously suboptimal among clients at substantial Risk of HIV infection. The antiretroviral combination of emtricitabine and tenofovir disoproxil fumarate (Truvada; F/TDF) was the primary medication approved by World Health Organization in 2012 to be used as HIV pre-exposure prevention (PrEP) to forestall HIV acquisition, supported many polar trials. Since then, oral pre-exposure prophylaxis medications are shown to be effective at preventing HIV transmission in those at greatest risk of acquisition. A retrospective associate analysis of the National HIV closed-circuit television and national pharmacy knowledge showed a freelance and vital association between F/TDF oral pre-exposure prophylaxis use and a decline within the variety of latest HIV infections diagnosed in the Federal Republic of Nigeria from 2012 to 2016 in communities wherever it had been most generally used. HIV/AIDS may be a worldwide epidemic. As of 2020, 1.7 million individuals in the Federal Republic of Nigeria were living with HIV. ladies were the foremost affected cluster, reckoning 960 thousand people. Youngsters up to fourteen years World Health Organization were HIV positive equaled to one hundred thirty thousand - Statista analysis Department, September 7, 2021.

HIV/AIDS may be a vital social drawback poignant for several people around the world. The continuous analysis should present itself to keep up the HIV/AIDS population in a very state of precedence among different current social issues. The history of HIV/AIDS plays a vital role in the manner the infected population is depicted. The foremost common modes of transmission are unsafe sexual practices and blood vessel drug use.

That being the same, social employees usually tie those risky behaviors to the patient and look at them as deviant. Additionally, thereto, throughout the irruption, HIV/ AIDS critically compact the gay community; consequently, discriminatory thought might stimulate explicit perceptions towards HIV/AIDS-infected purchasers [1]. though social employees are educated, trained, and services below a code of ethics, this analysis explores the continual barriers that result from suboptimal uptake of Pre-Exposure prevention among population at substantial Risk of HIV and its doable manner forward.

This study aims to explore possible barriers to Pre-Exposure Prophylaxis uptake in Cross River North, Cross River State, Nigeria and to see possible ways of mitigating the barriers for optimal service delivery.

Methods

This study was conducted through an online survey system known as Mwater. A random sample of Cross River North Populace was selected and sent a questionnaire with the link to the online survey. The survey includes a yes or No scale that was used with perception questions. It will also include nominal questions (ex. age, gender, race, and region. Stigma, HIV Risk perception and PrEP Awareness (independent variable) and PrEP uptake (dependent variable) were tested and analysis, using percentages and frequencies,

The research hypotheses for this study are as follows:

1. There is no relationship between stigma and PrEP uptake.
2. There is no relationship between HIV risk perception and PrEP uptake.
3. There is no relationship between PrEP Uptake and knowledge of PrEP medication.
4. There is no relationship between PrEP medication uptake and general knowledge of PrEP as preventive therapy.

Significance of the Project for Public Health Practice

This study identifies barriers to Pre-Exposure Prophylaxis uptake and the effects on service delivery for clients at substantial risk of HIV infection. The study is imperative to the social

work profession as it helps determines the barriers to PrEP uptake among clients at substantial risk of HIV infection. Contributions of the study are beneficial for social work practice, policy, and further research. This study will bring awareness to the populace, such as awareness creation about PrEP medication obstacles that are in place and affect prevention (This study can further assist social work practice by requiring professionals to create demand for PrEP uptake among clients at substantial risk of HIV Infection.

This research work will help to recommend strategies to achieve optimal oral Pre-Exposure Prophylaxis uptake among the population at substantial risk of HIV infection.

provide educational information to the community, work to dispel myths and stereotypes regarding Oral Pre-Exposure Prophylaxis and help social workers to overcome possible barriers to Pre-Exposure uptake.

Literature Review

The literature used provides valuable information on Oral Pre-Exposure Prophylaxis related barriers. A brief history of Oral Pre-Exposure Prophylaxis for HIV and the outbreak provides insight into the way the illness was viewed then and also barriers to Pre-Exposure prophylaxis uptake [3].

Pre-exposure prophylaxis (PrEP) Pre-exposure prevention (PrEP) ordinarily comes within the variety of a daily course of antiretroviral medicine (ARVs) that are taken orally and may defend HIV-negative folks from HIV before potential exposure to the virus.

More than fifteen trials of oral homework have shown that, once taken systematically and properly, homework is extremely effective and reduces the possibility of HIV infection to near zero. This has diode some to explain homework as a ‘game changer’ for HIV hindrance [4].

While homework will give terribly effective protection against HIV, it doesn't give protection against different sexually transmitted infections (STIs) and blood-borne diseases like doses, their risk of HIV infection can increase considerably. It is so necessary that any program giving homework provide it as a part of a mixed package of hindrance initiatives, supported by somebody's circumstances – with support and recommendation on the importance of homework adherence.

In 2015, recognizing that homework has potential population-wide edges, the Globe Health Organization (WHO) discharged new pointers recommending that homework ought to be offered as an option to folks that are at substantial risk of HIV infection as a part of a mixture HIV hindrance program. Previously, homework was solely counselled for sure key affected populations like sex employees, men United Nations agency fuck with men (sometimes noted as MSM), and folks that inject medicine (sometimes noted as PWID). United Nations agency loosely defines priority populations for homework as teams with an associate in nursing HIV incidence of regarding three per hundred person-years or higher. In high-prevalence, generalised settings this might embody tykes, adolescents and girls. [5]

Hepatitis C, syphilis, and VD. The effectiveness of homework is closely coupled to adherence – if somebody taking homework frequently misses some daily.

HIV

HIV (human immunological disorder virus) may be a virus that attacks cells that facilitate the body’s fight against infection, creating someone additional at risk of alternative infections and diseases. it's unfolded by contact with bound bodily fluids of someone with HIV, most ordinarily throughout unprotected sex (sex while not a safety or HIV medication to forestall or treat HIV), or through sharing injection drug instrumentation. If left untreated, HIV will cause the sickness of AIDS (acquired immunological disorder syndrome) [6].

The body cannot eliminate HIV and no effective HIV cure exists. So, once you've got

HIV, you've got it forever. However, by taking HIV medication (called antiretroviral medical care or ART), folks with HIV will live long and healthy lives and forestall transmittal HIV to their sexual partners. additionally, there are effective strategies to forestall obtaining HIV through sex or drug use, together with pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP). First known in 1981, HIV is that the reason for one in every of humanity's deadliest and most persistent epidemics [7].

AIDS

AIDS is that the late stage of HIV infection that happens once the body's system is badly broken thanks to the virus. In the U.S., most people with HIV do not develop AIDS a result of taking HIV medication each day as prescribed stops the progression of the illness. A person with HIV is considered to possess progressed to AIDS when:

1. The variety of their CD4 cells falls below two hundred cells per cubic millimetre of blood (200 cells/mm3). (In somebody with a healthy system, CD4 counts square measure between five hundred and one,600 cells/mm3.) OR.
2. They develop one or additional timeserving infections notwithstanding their CD4 count [8].

Without HIV medication, folks with AIDS generally survive for about three years. Once somebody includes a dangerous timeserving ill health, expectancy while not on treatment falls to concerning one year. HIV medication will still facilitate folks at this stage of HIV infection, and it will even be rescued. However, people that begin ART shortly once they get HIV expertise have additional benefits—that's why HIV testing is thus necessary [9].

Stigma

Stigma is an associate degree attribute that conveys degraded stereotypes [10]. Classically outlined stigma as an associate degree "attribute that's deeply discrediting." A discredited attribute may be pronto discernible, like one's colour or body size, or maybe hidden however disreputable if disclosed, like one's list or struggles with mental disease. For Goffman, stigma could be a general facet of social life that complicates everyday micro-level interactions—the stigmatized is also cautious of participating with people who don't share their stigma, and people while not an explicit stigma might criticize, overcompensate for, or decide to ignore stigmatized people. The public, [10] argued, expertise the role of being stigmatized "at least in some connections and in some phases of life." Indeed, Goffman's broad definition of stigma incorporates several up-to-date discredited attributes, as well as what he outlined as "tribal stigmas" (e.g., race, ethnicity, and religion), "physical deformities" (e.g., deafness, blindness, and leprosy), and "blemishes of character" (e.g., sex activity, addiction, and mental illness.

Barriers

A barrier is some things like a rule, law, or policy that creates it troublesome or not possible for one thing to happen or be achieved. Duties and taxes are the foremost obvious barriers to trade. A barrier may be a downside that stops 2 folks or teams from agreeing, human activity, or operating with one another [11].

Summary

In summary, prospering integration of oral pre-exposure prophylaxis into HIV screening and bar services has the potential to cut back HIV incidence in Nigeria and facilitate win the Nigerian government's goal of ending the HIV epidemic in by 2030. However, the optimum impact of oral pre-exposure prophylaxis as a preventive intervention is nonetheless to be complete. This review has known a fancy and numerous variety of barriers to oral pre-exposure prophylaxis uptake that exist at the social, structural, individual, and medical system/provider levels [12 - 14]. These embrace a scarcity of awareness of oral pre-exposure prophylaxis among eligible people and aid

suppliers, concern of stigma and/or aspect effects, supplier implicit bias, distrust of the aid system, and a scarcity of access to medical aid or monetary help. Among aid suppliers, misconceptions around the development of treatment resistance and/or the potential for risk compensation in oral pre-exposure prophylaxis users seem to be vital factors behind the reluctance to inflict oral pre-exposure prophylaxis Overcoming these barriers would require multifarious approaches that mix monetary, social, structural, and academic interventions—not solely addressing the practicalities of accessing oral pre-exposure prophylaxis however conjointly acknowledging and addressing ingrained problems like sociohistorical racism and general bias, combined with branding of oral pre-exposure prophylaxis and its users [15]. aid professionals wishing to inflict oral pre-exposure prophylaxis will sit down with current CDC/USPHS tips, the UN agency clinical implementation tool, and the U.S.A. Preventive Services Task Force Recommendation Statement [16 -18]. what is more, on condition that facilitates patients with navigating aid was known as a barrier to uptake, each clinician and patient ought to be created alert to the "Ready, Set, PrEP" program, which offers access to oral pre-exposure prophylaxis medication at no price for qualifying recipients in Nigeria. Finally, learnings from oral pre-exposure prophylaxis uptake might offer vital insights for the implementation of any HIV bar ways that are nonetheless to return [19].

Methods

Introduction This project focuses on gathering data from the population at substantial risk of HIV infection and exploring barriers towards Pre-exposure prophylaxis for HIV uptake. This project determines if there are barriers that affect oral pre-exposure prophylaxis for HIV. The information was gathered through an anonymous, 4-item questionnaire that was distributed using a random sample of adolescent boys and girls and young men at substantial risk of HIV. Data from 98 participants were analyzed using Chi-square with univariate and bivariate analyses. Univariate analysis includes the reporting of percentages and frequencies while bivariate analysis includes a non-directional test and a Pearson R product-moment correlation test. [20]

Study Design. This study aims to explore possible barriers to oral Pre-Exposure Prophylaxis uptake in Cross River North of Cross River State, Nigeria and to see possible ways of mitigating the barriers for optimal service delivery [21]. The quantitative research design allowed us to evaluate the barriers to the uptake of oral pre-exposure prophylaxis among populations at substantial risk of HIV infection. For the purposes of this study, barriers were defined as something such as a rule, law, or policy that makes it difficult or impossible for something to happen or be achieved. *Duties and taxes are the most obvious barrier to free trade.* Research Question The research questionnaire was designed to explore barriers and uptake of oral pre-exposure prophylaxis among populations at substantial risk of HIV infection service being provided to the HIV high-risk population [22]. The research hypotheses for this study are as follows:

1. There is no relationship between stigma and PrEP uptake.
2. There is no relationship between HIV risk perception and PrEP uptake.
3. There is no relationship between PrEP Uptake and knowledge of PrEP medication.
4. There is no relationship between PrEP medication uptake and general knowledge of PrEP as preventive therapy.

Sampling the targeted sample was of at least 60 participants. A convenience sample was selected due to the large number of participants needed. A snowball sampling method was adopted for data collection. Once utilizing the snowball sample method, we were able to gather exactly 60 responses. Participants who chose not to participate were not penalized, nor did they

receive any benefits for completing the survey if they chose to participate. Data Collection Instruments A questionnaire composed of knowledge, attitudes, and demographic questions was used. The questionnaire is composed of yes/no, four points. Items on the questionnaire address knowledge on pre-Exposure prophylaxis for HIV awareness and HIV risk perception. a large number of adolescents and young adults within Cross River North; this provides a large sample pool and the anonymity of the questionnaire allows for sincere responses. Procedures The questionnaire was created online using Mwater. The link to the questionnaire were provided on respondents WhatsApp page with use of the directory that will be provided by social network. Data was collected as participants completed the questionnaires. Data was only accessible by the researchers with a password-protected, online system.

The data was extracted and placed into a table for analysis using univariate and bivariate analysis, percentages, frequencies, and t-tests. After research, analysis, and conclusions were drawn, the data gathered was destroyed. Protection of Human Subjects Individuals was studied for this research project; this was conducted by questioning participants via through self-administered online survey using Mwater. The confidentiality and anonymity of individuals surveyed were protected. Prior to starting the questionnaire, respondents were provided with informed consent. Participants had the ability to check a box on the questionnaire indicating that they agree or leave the box unchecked to deny consent. If consent was denied participants were no longer directed to continue the survey. Data collected was only accessible by the researchers using a password-protected, online system. Data gathered was destroyed after conclusions were drawn. Data Analysis Quantitative procedures were used to conduct this research project. This included a questionnaire that consists of four sections that will measure: 1. PrEp awareness 2. Perceptions of risk 3. General knowledge of PrEp medication 4. Stigma and prep uptake [23 -25].

Demographics of participants Univariate analyses and bivariate analyses including a non-directional test and Pearson R Product-Moment Correlation test were used for this study. Univariate analyses were used to describe the demographics of our sample, i.e., the number of male and female respondents and age ranges. Summary the evaluation of barriers to the uptake of oral pre-exposure prophylaxis for HIV was conducted to examine the relationships between barriers and uptake of oral pre-exposure prophylaxis for HIV. Researchers maintained the confidentiality and anonymity of participants; no harm was permitted for the research study. The study is a quantitative study in which a link to the survey was sent to the respondents. However, random sampling was used to select respondents. 98 Data was analysed with the use of Chi-square to identify frequencies, percentages, relationships between variables and differences between groups.

Data Presentation and Analysis

The data collected from the respondents are presented and analyzed here, for the sake of clarity; frequency counts and percentages were used.

Table1. The Distribution of Questionnaire on Basis of Sex

Sex	No. Of Questionnaires Administered	No. Of Questionnaires Returned
Male	50	50
Female	50	48
Total	100	98

The table above indicates that out of 100 questionnaires administered earlier 98 were returned. The female respondents had 48 questionnaires out of 50 administered to them.

Research Question 1

Does stigma have any influence on PrEP uptake?

Table 2. Response to Question 1

S/N	Sex	Response			
		Yes		No	
		F	%	F	%
1	Male	47	47%	3	3%
2	Female	44	45%	4	8%
Mean score		45.5	46.4%	3.5	3.5%

Source: Field survey (2021)

The result as shown in the table two above indicates that 47 male respondents representing 47 percent agreed that stigma influences uptake of oral Pre-exposure prophylaxis and 44 female respondents representing 45 percent agreed that stigma influences uptake of oral pre-exposure prophylaxis while 3 male respondents representing 3 percent do not agree that stigma influences uptake of oral pre-exposure prophylaxis and 4 female respondents representing 8 per cent do not agree that stigma influences the uptake of Oral pre-exposure prophylaxis.

Research Question 2

Did you think PrEP medication can prevent HIV Virus?

Table 3. Response to Question 2

S/N	Sex	Response			
		Yes		No	
		F	%	F	%
1	Male	34	34%	16	16%
2	Female	33	33.6%	15	15%
Mean score		50.5	51.5%	23.5	23.9%

Source: Field survey (2021)

The results in table 3 above reveals that 33 female respondents representing 33.6 percent of the female sampled population agreed that oral pre-exposure prophylaxis prevents HIV and 34 male respondents representing 34 percent of the male sampled population agreed that oral pre-exposure prophylaxis prevents HIV while 16 male respondents represent 16 percent of the male sampled population do not agree that oral pre-exposure prophylaxis prevents HIV and 15 female respondents represent 15 percent of the female sampled population do not agree that oral pre-exposure prophylaxis prevents HIV

Research Question 3

Do you believe in the existence of HIV Virus?

Table 4: Response to Question 3

S/N	Sex	Response			
		Yes		No	
		F	%	F	%
1	Male	51	52%	4	4%

2	Female	45	45.9%	0	0%
Mean score		73.5	75%	2	2%

Source. Field survey (2021)

The results in table 4 above reveals that 51 male respondents representing 52 percent of the male sampled population agreed that they belief in the existence of HIV virus and 45 female respondents representing 45.9 percent of the female sampled population agreed that they belief in the existence of HIV virus while 4 male respondents represent 4 percent of the male sampled population do not agree that HIV virus exists and 0 female respondents represent 0 percent of the female sampled population do not agree that HIV virus exists.

Research Question 4

Have you heard of Pre-Exposure prophylaxis for HIV before?

Table 5. Response to Question 4

S/N	**Sex**	**Response**			
		Yes		**No**	
		F	%	F	%
1	Male	34	34%	16	16%
2	Female	33	33.6%	15	15%
Mean score		50.5	51.5%	23.5	23.9%

The results in table 5 above reveals that 34 male respondents representing 34 percent of the male sampled population agreed that they have heard about pre-exposure prophylaxis for HIV before and 33 female respondents representing 33.6 percent of the female sampled population agreed that they have heard about pre-exposure prophylaxis for HIV before while 16 male respondents represent 16 percent of the male sampled population do not agree that they have heard about pre-exposure prophylaxis for HIV before and 15 female respondents represent 15 per cent of the female sampled population do not agree that they have heard about pre-exposure prophylaxis for HIV before.

Discussion

The research was conducted to explore possible barriers to Pre-Exposure Prophylaxis uptake in Cross River North of Cross River State, Nigeria and to see possible ways of mitigating the barriers for optimal service delivery people are aware of the existence of the HIV virus, people know about pre-exposure prophylaxis for HIV, people belief that pre-exposure prophylaxis can prevent a negative person from contracting HIV and lastly, people agreed that stigma influences the uptake of pre-exposure prophylaxis. There is a negative relationship between stigma and oral pre-exposure prophylaxis uptake. Three of four of the hypotheses resulted in being unsupported. The research conducted shows that stigma-affects the uptake of oral pre-exposure prophylaxis for HIV. Recommendations include further research on barriers to uptake of oral pre-exposure prophylaxis for HIV, formulation of policy to mitigate stigma against Pre-exposure prophylaxis for HIV clients, and the engagement of community stakeholders through community dialogue meetings to destigmatize oral pre-exposure prophylaxis [26]. This study found that stigma influences the uptake of oral pre-exposure prophylaxis. The majority of the participants are aware of HIV. In addition to that, the majority of the participants also reported that pre-exposure prophylaxis prevents HIV-negative clients from contracting HIV, additionally, the majority of the people are aware of oral pre-exposure prophylaxis. In addition, a fair amount of the participants felt strongly about

not legally separating people living with HIV/AIDS from the public. Nevertheless, there are few international studies that measure barriers related to the uptake of oral pre-exposure prophylaxis stigma. Specifically, in 2021 [27], a study conducted in Kenya explored barriers to oral pre-exposure prophylaxis uptake among adolescent's boys and girls. Results showed that most of the providers.

a significant negative relationship between stigma and knowledge of HIV/AIDS contraction. This outcome signifies that as the level of stigma increases, the level of knowledge for HIV/AIDS contraction modalities decreases. Limitations for this study include a small sample size and a narrow data collection time frame. Additional data collection time would have allowed for larger sample size and greater participant representation. The small sample size compromised the generalizability of the findings of this study. Implications for Future Research, Social Work Practice, and Policy From the results of this study,

We recommend that social workers work towards educating the populace and engage stakeholders through community dialogue meetings to destigmatize oral pre-exposure prophylaxis, and people living with HIV. We recommend that policies are needed to advocate for people living with HIV and pre-exposure prophylaxis for HIV clients. Social workers need to advocate for PLWHA to reduce health disparities and participate in the prevention of HIV/AIDS. The result of this research can be used towards advocacy towards increased HIV education for the population.

Results

Stigma influences the uptake of pre-exposure prophylaxis uptake; HIV risk perception does not affect the uptake of pre-exposure prophylaxis; and a significant negative relationship between stigma and pre-exposure prophylaxis uptake.

Conclusion

This study was conducted to investigate barriers to oral pre-exposure prophylaxis. Significant findings of the study conclude: stigma influences the uptake of oral pre-exposure prophylaxis for HIV.

Researchers suggest further research and examination of the underrepresentation-sampled population. Researchers also suggest that social workers should increase awareness of HIV and demand the creation of oral pre-exposure prophylaxis for HIV uptake and policy formulation.

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Conflict of Interest

There was no conflict of interest in this study.

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