

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

SJIF Impact Factor: 6.842

Review Article
ISSN 2455-3301
WJPMR

SUPPORTING YOUNG MOTHERS WITH HIV PREVENTION AND FAMILY PLANNING: A COMPREHENSIVE APPROACH

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Article Received on 17/11/2024

Article Revised on 07/12/2024

Article Accepted on 27/12/2024

ABSTRACT

Young mothers living with HIV face a unique set of challenges in managing both their health and reproductive choices. The intersection of HIV prevention and family planning plays a critical role in improving maternal and child health outcomes. This review examines the importance of HIV prevention strategies, such as antiretroviral therapy (ART), pre-exposure prophylaxis (PrEP), and routine antenatal care, in reducing vertical transmission risks. In addition, the review emphasizes the significance of empowering young mothers with the knowledge and tools to make informed decisions regarding family planning options, addressing both immediate and long-term health goals. The review also highlights the impact of stigma on young mothers living with HIV, which often leads to delayed care-seeking behavior and reluctance to engage in discussions about contraception and HIV prevention. Social stigma and discrimination, both from society and healthcare providers, can severely affect mental health, complicating the decision-making process. Psychological support, including counseling and peer-led support groups, is essential in overcoming these barriers, allowing young mothers to build trust in healthcare systems and access the services they need.

KEYWORDS: HIV, Family planning, Young mothers, Stigma reduction, Access to healthcare.

INTRODUCTION

Young mothers living with HIV are a particularly vulnerable population, facing complex challenges related to their health, family planning, and socio-economic status. This group experiences a unique intersection of medical, psychological, and social factors that significantly impact their well-being. Addressing these challenges requires a comprehensive and holistic approach that combines effective HIV prevention, family planning, and psychosocial support. HIV, if not properly managed, can have devastating consequences for both the mother and her child. Therefore, it is critical to develop strategies that help young mothers live healthier lives, prevent the transmission of HIV, and ensure they have the resources to make informed decisions about their reproductive health.^[15] One of the most pressing concerns for young mothers living with HIV is the prevention of vertical transmission, where the virus is passed from mother to child during pregnancy, childbirth, or breastfeeding. Advances in antiretroviral therapy (ART) have drastically reduced the risk of mother-to-child transmission (MTCT), but challenges remain, particularly for young women who may not have the support or resources necessary for consistent

treatment adherence. In many cases, young mothers may not fully understand the importance of ART, or they may face barriers such as stigma, limited access to healthcare, and financial constraints that impede their ability to access treatment. Ensuring that young mothers have access to the necessary healthcare resources and education is crucial for preventing MTCT and protecting maternal health. [6-10] In addition to HIV prevention, family planning is a key component of supporting young mothers living with HIV. Contraception offers young women control over their reproductive health, helping to prevent unintended pregnancies and protect their health. However, many young mothers face barriers in accessing family planning services, including social stigma, misinformation, and inadequate healthcare infrastructure. Contraceptive methods such as long-acting reversible contraception (LARC), barrier methods, and oral contraceptives can be essential tools in helping young mothers plan their families while managing their HIV status. Educating young mothers about their reproductive options, while considering their individual medical and personal needs, can help ensure better health outcomes and prevent complications associated with unintended pregnancies. [11-13]

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The role of stigma in the lives of young mothers living with HIV cannot be overlooked. HIV-related stigma is widespread in many parts of the world, and it disproportionately affects young women. These mothers may experience societal discrimination, fear of rejection by family members or partners, and negative interactions with healthcare providers. Stigma can also lead to internalized feelings of shame and guilt, which may prevent young mothers from seeking the care and support they need. This emotional burden can interfere with their ability to make informed decisions about contraception and HIV prevention. Addressing stigma through education, awareness campaigns, and supportive healthcare environments is essential in helping young mothers feel empowered to access the services they need. [14-15] Psychosocial support plays a pivotal role in improving the well-being of young mothers living with HIV. Mental health challenges, such as depression and anxiety, are common among this population due to the combination of HIV diagnosis, stigma, and the pressures of motherhood. Providing psychological support through counseling, peer support groups, and mental health services can significantly improve the quality of life for young mothers. These services can also enhance adherence to HIV treatment and family planning, as young mothers who feel supported are more likely to follow through with healthcare recommendations. A supportive, non-judgmental approach from healthcare providers is key in fostering trust and encouraging ongoing engagement with care services. [16-17]

Furthermore, the socioeconomic factors that affect young mothers living with HIV are significant and must be considered when designing interventions. Poverty, limited access to education, and a lack of employment opportunities can create a cycle of vulnerability that exacerbates health challenges. In many resource-limited settings, young mothers may struggle to access both HIV care and family planning services due to geographic barriers, financial constraints, or lack of awareness. Addressing these social determinants of health through community-based outreach, mobile health services, and partnerships with local organizations is crucial in increasing access to care and ensuring that young mothers are not left behind in the fight against HIV. [18-19] Lastly, policies that integrate HIV prevention and family planning services are essential for supporting young mothers living with HIV. Government and healthcare policies should prioritize the needs of young mothers in both maternal and child health strategies. Access to integrated services that provide HIV care, family planning, and psychosocial support can help reduce maternal morbidity and mortality, prevent unintended pregnancies, and decrease the risk of HIV transmission. By creating policies that focus on the unique challenges faced by young mothers, healthcare systems can better address the health and well-being of this vulnerable group. Public health initiatives, such as community education and outreach programs, can further support young mothers by providing the information and

resources necessary to make informed decisions about their health and future. [19-20]

HIV Prevention in Young Mothers

HIV prevention is a critical concern for young mothers living with HIV, as they face unique challenges in managing their health and safeguarding the health of their children. Preventing mother-to-child transmission (MTCT) of HIV is one of the most important priorities in maternal healthcare for young mothers. Antiretroviral therapy (ART) has significantly reduced the transmission rates of HIV from mother to child, making it one of the most effective interventions. However, for young mothers, consistent adherence to ART and other HIV prevention strategies can be difficult due to social, barriers.^[21-22] logistical psychological, and cornerstone of HIV prevention for young mothers is ensuring that they receive timely and consistent ART throughout pregnancy, childbirth, and breastfeeding. ART helps reduce the viral load, minimizing the risk of transmitting HIV to the infant. Adherence to ART is crucial, as interruptions in treatment can lead to viral rebound and an increased risk of transmission. Young mothers may face challenges in adhering to ART due to stigma, lack of social support, or limited healthcare access. Therefore, it is essential to provide education and counseling to empower young mothers to understand the importance of ART and encourage consistent use. Healthcare providers can offer tailored support and reminders to help young mothers maintain adherence to their treatment regimen, improving both maternal and child health outcomes. [23] In addition to ART, HIV prevention strategies for young mothers should include pre-exposure prophylaxis (PrEP) for HIV-negative partners, who may also play a significant role in the prevention of HIV transmission. PrEP is a highly effective strategy in preventing the sexual transmission of HIV, which can further protect the mother from pregnancy. Counseling reinfection during communication with sexual partners are vital to ensure mutual understanding of HIV risks and prevention measures. Furthermore, regular HIV testing during pregnancy and postpartum care is essential for detecting and managing any HIV-related complications early. Routine screenings for other sexually transmitted infections (STIs) and their management also contribute to reducing the risk of HIV transmission. [24-25] Another important aspect of HIV prevention is addressing the broader social and structural factors that contribute to HIV transmission in young mothers. Stigma and discrimination surrounding HIV can lead to delayed care-seeking behavior, reduced healthcare access, and poor mental health outcomes. Young mothers may fear disclosure of their HIV status to family members, partners, or healthcare providers, further exacerbating these challenges. Comprehensive care that includes mental health support, stigma-reduction programs, and peer counseling can help mitigate the impact of stigma, improve healthcare engagement, and enhance treatment adherence. By creating supportive environments where

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young mothers feel safe and understood, healthcare systems can play a key role in improving HIV prevention outcomes. [26]

Family Planning in the Context of HIV

Family planning is a fundamental aspect of reproductive health, and it is especially critical for young mothers living with HIV. Access to effective contraceptive methods empowers women to make informed decisions about their reproductive health, including preventing unintended pregnancies and promoting maternal and child health. For women living with HIV, family planning not only offers control over their reproductive choices but also serves as a key component of preventing further transmission of HIV to their partners and children. In this context, family planning becomes an integral part of HIV care, helping to address both the needs of the individual and the broader public health concerns related to the virus.[27] One of the key considerations in family planning for HIV-positive women is the choice of contraceptive methods that are safe and effective. It is crucial to ensure that young mothers living with HIV have access to a full range of contraceptive including options, hormonal contraceptives, intrauterine devices (IUDs), barrier methods, and permanent contraception such as sterilization. Contraceptive methods such as long-acting reversible contraception (LARC) — including IUDs and implants — are particularly beneficial as they do not require daily attention and offer a long-term solution, which is ideal for young mothers who may face challenges in managing daily medications. Hormonal methods, such as birth control pills, can be used safely in most cases, but healthcare providers must consider interactions drug between contraceptives and antiretroviral therapy (ART) to ensure their effectiveness.[28]

Barrier methods such as condoms are another important option, as they provide dual protection against both unintended pregnancies and sexually transmitted infections (STIs), including HIV. Male and female condoms are especially vital for HIV-negative partners of young mothers living with HIV, as they reduce the risk of HIV transmission. For young mothers who may face pressure or coercion in sexual relationships, the use of condoms gives them control over preventing further transmission, thus offering both personal protection and a method of family planning. Counseling and education are essential to ensure that young mothers are aware of the various contraceptive methods available, as well as their effectiveness and potential side effects. [29] One challenge in family planning for HIV-positive women is addressing misconceptions and stigma surrounding the use of contraceptives. In some regions, there are cultural or societal barriers that prevent women from accessing family planning services or make them reluctant to use contraceptives due to fear of side effects or misconceptions about their safety. Additionally, young mothers living with HIV may worry about the potential

impact of contraception on their HIV treatment, leading to hesitation in adopting family planning methods. Education and counseling from healthcare providers, along with community outreach programs, are critical in providing accurate information and dispelling myths about contraception. Ensuring that young mothers understand that using contraception does not affect the effectiveness of ART or exacerbate their HIV condition is crucial for promoting informed decision-making. [30]

Furthermore, family planning services must address the reproductive rights of young mothers living with HIV, ensuring that they have the freedom to choose whether and when to have children. This is especially important for young mothers who may face additional health risks from pregnancy due to their HIV status, such as complications during delivery or the risk of transmitting HIV to their child. In many regions, laws and policies that protect reproductive rights are essential in ensuring that young mothers living with HIV are able to access family planning services without fear of discrimination or coercion. A rights-based approach to family planning emphasizes the importance of autonomy and informed consent, empowering young mothers to make choices that align with their health, aspirations, and life circumstances. [31] In addition to individual access to contraceptive methods, family planning services for HIV-positive young mothers should be integrated into broader healthcare systems that offer regular monitoring and counseling. Routine visits to healthcare providers provide opportunities for family planning counseling, adjustments to contraception based on changes in health status, and ongoing support. For young mothers living with HIV, having healthcare providers who are knowledgeable about both HIV and reproductive health ensures that they receive holistic care that addresses both their HIV needs and reproductive goals. Integrated services that combine HIV care with family planning can improve health outcomes, reduce the risk of unintended pregnancies, and promote the well-being of both the mother and child.[32]

Addressing Stigma and Psychological Support

Stigma remains one of the most significant barriers to effective HIV care and prevention, particularly for young mothers living with HIV. HIV-related stigma, rooted in societal misconceptions, fear, and discrimination, can significantly impact the mental health and overall wellbeing of affected individuals. For young mothers, this stigma is often compounded by the challenges of motherhood, especially in the context of living with a chronic, stigmatized illness. Stigma can lead to feelings of isolation, shame, and fear of rejection from family, friends, and healthcare providers. These emotional burdens may deter young mothers from seeking necessary medical care, adhering to treatment regimens, and accessing family planning services. Therefore, addressing stigma is crucial in improving health outcomes for young mothers living with HIV. [33] To reduce the impact of stigma, healthcare systems must

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implement strategies that promote understanding, empathy, and acceptance. One approach is through training healthcare providers to be sensitive to the needs of HIV-positive individuals, especially young mothers. Medical staff should be educated about the psychosocial challenges these mothers face and be trained in nonjudgmental, supportive communication techniques. confidential and Establishing safe healthcare environments is essential to ensuring that young mothers feel comfortable discussing their HIV status and reproductive health without fear of discrimination. The creation of supportive networks within healthcare settings, where mothers can connect with peers or counselors, can further reduce stigma and foster a sense of belonging and community.^[34]

Psychological support is another critical component of HIV care for young mothers. The emotional and mental health challenges associated with living with HIV are significant, as young mothers may experience anxiety, depression, and stress related to their diagnosis, the fear of transmitting the virus to their children, or the social stigma they encounter. Mental health services tailored to the needs of young mothers living with HIV can significantly improve their ability to cope with these challenges. These services may include individual therapy, group counseling, and peer support networks. Peer support groups, where mothers can share their experiences and provide emotional support to one another, are particularly valuable in helping reduce feelings of isolation and enhancing self-esteem. [35] Moreover, addressing mental health concerns such as depression and anxiety is vital for improving adherence to antiretroviral therapy (ART) and family planning. Psychological distress can undermine a mother's ability to consistently follow her treatment regimen and make informed decisions about contraception. By providing psychological support, healthcare providers can help young mothers better manage their mental health, thereby improving their overall health outcomes. Psychological counseling can also address trauma or grief associated with living with HIV, whether related to past experiences of stigma or the loss of loved ones due to the virus. Building a network of care that includes both physical and mental health services can enhance the effectiveness of HIV prevention and treatment interventions.[36]

Another critical aspect of psychological support is the involvement of partners and families. Support from intimate partners can greatly reduce the emotional burden experienced by young mothers, helping them navigate the complexities of living with HIV. In many cases, partners may also need education and counseling to understand the HIV status of the mother, the potential risks, and the ways to prevent transmission. Family-based counseling can foster understanding and acceptance within the household, providing a supportive environment for young mothers to thrive. In some cases, young mothers may be facing a lack of support from

their families or partners, further exacerbating feelings of isolation. In these instances, it is vital that healthcare providers connect mothers with social services or community-based organizations that can offer additional support and resources.^[37] Community outreach and education programs are also instrumental in addressing stigma and providing psychological support. Community interventions that focus on dispelling myths about HIV, educating the public on the realities of the virus, and promoting acceptance can help reduce the social stigma surrounding HIV. By shifting public attitudes and fostering a more accepting environment, young mothers are more likely to seek care, share their experiences, and benefit from available healthcare services. These community-based programs can also provide information on mental health resources, enabling young mothers to access support within their local communities. [38]

Socioeconomic Factors and Access to Services for Young Mothers Living with HIV

Socioeconomic factors play a crucial role in determining the access to and quality of healthcare services for young mothers living with HIV. Poverty, lack of education, limited employment opportunities, and inadequate housing can exacerbate the challenges that these women face in managing their health and achieving optimal outcomes. For young mothers, socioeconomic barriers are often compounded by the demands of raising children, which can further limit their ability to access HIV care, family planning services, and mental health support. As a result, addressing socioeconomic disparities is essential to ensure that mothers living with HIV receive comprehensive care and support they need. [39] One of the most significant socioeconomic factors affecting access to healthcare for young mothers living with HIV is financial constraints. Many young mothers face economic instability, which may prevent them from affording transportation, medication, or regular visits to healthcare providers. In some cases, young mothers may have limited access to health insurance or governmentfunded healthcare programs, further hindering their ability to seek timely medical attention. Healthcare costs, including antiretroviral therapy (ART) and routine HIV care, can be prohibitive, particularly for those living in communities. Governments, low-income governmental organizations (NGOs), and international agencies can play a key role in reducing financial barriers by providing subsidized or free healthcare services, as well as support for transportation and medication costs. Additionally, outreach programs that bring HIV care to underserved areas can help reduce geographical barriers, ensuring that young mothers living with HIV in rural or remote locations have access to the services they need.[40]

Education is another critical socioeconomic determinant that influences health outcomes for young mothers living with HIV. Limited education can reduce awareness of available healthcare services, hinder understanding of

HIV-related care, and make it difficult to navigate the healthcare system. Moreover, lower levels of education are often associated with higher levels of stigma, which can further discourage young mothers from seeking care or disclosing their HIV status. Empowering young mothers through education can improve their ability to make informed decisions about their health and reproductive choices. Programs that provide HIV education, family planning counseling, and life skills training are essential to empower these women and help them make healthier choices for themselves and their families. In addition, educational support for young mothers to continue their schooling or gain vocational skills can provide long-term economic benefits, improving their overall quality of life. [41] Employment and economic independence are key factors that affect the ability of young mothers to access healthcare services and support. Unemployment or underemployment often leads to financial dependence, which can limit a young mother's ability to pay for healthcare or make decisions about her reproductive health. In many cases, young mothers may be dependent on their partners or family members for financial support, which can result in limited autonomy and influence over their healthcare decisions. Providing opportunities for young mothers to access employment, vocational training, or small support can improve their financial business independence and overall well-being. In addition, policies that promote workplace protections for HIVpositive individuals and ensure equal opportunities for employment can help reduce the social and economic disparities faced by young mothers living with HIV. Economic empowerment is a critical factor in improving access to healthcare services and increasing overall health outcomes.^[42]

In addition to education and employment, social support networks and community involvement play a significant role in accessing healthcare services. Young mothers living with HIV often face isolation due to stigma, lack of family support, or geographical distance from healthcare centers. Social support systems, such as community-based organizations, peer support groups, and social networks, can help mitigate feelings of isolation and provide essential resources for accessing HIV care and family planning services. Community health workers can be instrumental in reaching out to young mothers in underserved areas, providing homebased care, and facilitating access to HIV-related services. By integrating HIV care and family planning services into community-based platforms, young mothers are more likely to engage with healthcare services in a comfortable and accessible setting. [43] Access to healthcare services is also influenced by cultural and societal norms that impact a young mother's decision to seek care. In some communities, traditional beliefs and practices may conflict with modern healthcare practices, leading to delays in seeking HIV care or family planning services. In such cases, culturally sensitive healthcare providers who understand local customs and values can

play a pivotal role in bridging the gap between traditional and biomedical care. Programs that incorporate community leaders, religious leaders, and local influencers can also help challenge stigma and promote the importance of HIV care, family planning, and maternal health within the broader cultural context. Tailoring healthcare interventions to align with local norms while maintaining evidence-based medical practices is essential to improving access and utilization of services. [44]

Policy and Community-Level Interventions for Supporting Young Mothers Living with HIV

Effective policy and community-level interventions are critical to supporting young mothers living with HIV. These interventions can address the multifaceted challenges faced by young mothers, including access to healthcare, mental health support, stigma reduction, and economic empowerment. Governments, governmental organizations (NGOs), and communitybased organizations play vital roles in designing and implementing policies that promote the well-being of young mothers while ensuring their access to essential HIV prevention and care services. A combination of topdown policies and bottom-up community-level initiatives can create a comprehensive support system that addresses the unique needs of this population. [45] At the policy level, governments must prioritize the integration of HIV prevention, treatment, and family planning services into national health strategies. Policies that make antiretroviral therapy (ART) and maternal healthcare services widely accessible, affordable, and stigma-free are essential for ensuring that young mothers living with HIV receive the care they need. Governments should also expand health insurance coverage to include HIV-related services, including counseling, ART, and family planning. Public health policies should ensure that young mothers are not only treated for HIV but also supported in making informed reproductive choices, thus empowering them to plan their families safely. National health programs should provide comprehensive sexual health reproductive services, contraception, prenatal care, and HIV testing, which are critical in preventing vertical transmission of HIV and improving maternal health outcomes. [46]

In addition to healthcare services, policies should address the broader socioeconomic challenges faced by young mothers living with HIV. Financial support programs, such as subsidies for healthcare, housing, and transportation, can help alleviate the financial burden that often prevents young mothers from seeking care. Social protection policies that promote access to education, employment opportunities, and social welfare benefits can further enhance the economic stability of young mothers, giving them the resources to care for themselves and their children. Policies that encourage workplace protections for HIV-positive individuals and ensure that young mothers are not discriminated against in employment can improve their ability to support their

families financially, ultimately leading to better health outcomes. [47] Community-level interventions are also essential in creating an environment where young mothers feel supported and empowered. Communitybased programs can play a pivotal role in providing education, mental health support, and peer networks that are critical to the well-being of young mothers living with HIV. Peer support groups, where young mothers can share their experiences, offer emotional support, and access relevant information about HIV care and family planning, are particularly valuable. These groups help reduce isolation and build social capital, which is essential for coping with the stigma and emotional burden often associated with living with HIV. Community health workers can be instrumental in delivering HIV education, testing, and counseling services in local settings, making healthcare more accessible and reducing the barriers to care for young mothers in rural or underserved areas. [43]

In many communities, traditional beliefs and cultural practices may influence attitudes toward HIV care and family planning. It is crucial to involve community leaders, including religious leaders and local influencers, in efforts to address stigma and promote the importance of HIV care and reproductive health. Community leaders can serve as advocates for young mothers, helping to challenge misconceptions about HIV and supporting the acceptance of HIV-positive individuals. Programs that engage community leaders in promoting HIV education and family planning can create a more supportive environment and encourage young mothers to seek care. Additionally, culturally sensitive approaches that respect local traditions while promoting evidence-based healthcare practices can improve the effectiveness of interventions. [44-45] Furthermore. community-based interventions should focus on youth engagement and empowerment. Young mothers may benefit from initiatives that provide them with opportunities for leadership, education, and skills development. Community programs that offer vocational training, literacy classes, and entrepreneurship opportunities can equip young mothers with the tools they need to improve their socioeconomic status and enhance independence. By creating spaces where young mothers can engage in community decision-making processes and advocate for their rights, these programs foster a sense of empowerment that can positively impact their health and well-being.^[46] To ensure the sustainability and effectiveness of policy and community-level interventions, collaboration between government, NGOs, and local communities is essential. Governments can provide the regulatory framework and funding necessary to support large-scale initiatives, while NGOs and community organizations can deliver services tailored to the specific needs of young mothers. Collaboration between these sectors helps bridge the gap between policy implementation and on-the-ground realities, ensuring that interventions are both comprehensive and

responsive to the needs of young mothers living with ${\rm HIV.}^{[47]}$

CONCLUSION

Supporting young mothers living with HIV requires a multifaceted approach that addresses their unique health, social, and economic needs. HIV prevention, treatment, and family planning services are critical to ensuring their well-being and reducing the risk of vertical transmission of HIV. However, access to these services is often hindered by socioeconomic factors, stigma, and a lack of supportive policies. Therefore, it is essential to create a supportive environment where young mothers are empowered to make informed decisions about their health and reproductive choices. Effective interventions must focus on integrating HIV care with family planning providing comprehensive reproductive health education, and reducing financial and social barriers to care. Policy-level strategies that address financial support, healthcare accessibility, and social protection are vital in ensuring young mothers can manage their HIV care while planning their families. Additionally, community-based programs that offer peer support, educational resources, and engagement with community leaders are essential for reducing stigma and building a supportive network for young mothers living with HIV.

REFERENCES

- 1. Obeagu EI, Obeagu GU. Harnessing B Cell Responses for Personalized Approaches in HIV Management. Elite Journal of Immunology, 2024; 2(2): 15-28.
- 2. Obeagu EI, Obeagu GU. The Role of L-selectin in Tuberculosis and HIV Coinfection: Implications for Disease Diagnosis and Management. Elite Journal of Public Health, 2024; 2(1): 35-51.
- 3. Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. Elite Journal of Haematology, 2024; 2(3): 10-24.
- 4. Obeagu EI, Obeagu GU. Impact of Maternal Eosinophils on Neonatal Immunity in HIV- Exposed Infants: A Review. Elite Journal of Immunology, 2024; 2(3): 1-18.
- 5. Obeagu EI, Obeagu GU. Advancements in HIV Prevention: Africa's Trailblazing Initiatives and Breakthroughs. Elite Journal of Public Health, 2024; 2(1): 52-63.
- 6. Pederson A, Greaves L, Poole N. Gender-transformative health promotion for women: a framework for action. Health promotion international, 2014; 30(1): 140-150.
- 7. Turchik JA, Hebenstreit CL, Judson SS. An examination of the gender inclusiveness of current theories of sexual violence in adulthood: Recognizing male victims, female perpetrators, and same-sex violence. Trauma, Violence, & Abuse, 2016; 17(2): 133-148.
- 8. World Health Organization. Consolidated guidelines on HIV, viral hepatitis and STI prevention,

- diagnosis, treatment and care for key populations. World Health Organization, 2022.
- Dubé K, Kanazawa J, Campbell C, Boone CA, Maragh-Bass AC, Campbell DM, Agosto-Rosario M, Stockman JK, Diallo DD, Poteat T, Johnson M. Considerations for increasing racial, ethnic, gender, and sexual diversity in HIV cure-related research with analytical treatment interruptions: a qualitative inquiry. AIDS research and human retroviruses, 2022; 38(1): 50-63.
- Reavis KM, Bisgaard N, Canlon B, Dubno JR, Frisina RD, Hertzano R, Humes LE, Mick P, Phillips NA, Pichora-Fuller MK, Shuster B. Sexlinked biology and gender-related research is essential to advancing hearing health. Ear and hearing, 2023; 44(1): 10-27.
- 11. Obeagu EI, Obeagu GU. Hematologic Considerations in Breast Cancer Patients with HIV: Insights into Blood Transfusion Strategies. Elite Journal of Health Science, 2024; 2(2): 20-35.
- 12. Obeagu EI, Obeagu GU. Understanding ART and Platelet Functionality: Implications for HIV Patients. Elite Journal of HIV, 2024; 2(2): 60-73.
- Obeagu EI, Obeagu GU. Optimizing Blood Transfusion Protocols for Breast Cancer Patients Living with HIV: A Comprehensive Review. Elite Journal of Nursing and Health Science, 2024; 2(2): 1-17.
- 14. Obeagu EI, Obeagu GU. Immune Modulation in HIV-Positive Neonates: Insights and Implications for Clinical Management. Elite Journal of Nursing and Health Science, 2024; 2(3): 59-72.
- 15. Obeagu EI, Obeagu GU. Transfusion Therapy in HIV: Risk Mitigation and Benefits for Improved Patient Outcomes. Asian Journal of Dental and Health Sciences, 2024; 15, 4(1): 32-7.
- 16. Davies SE. Gender empowerment in the health aid sector: Locating best practice in the Australian context. Australian Journal of International Affairs, 2018; 72(6): 520-534.
- 17. Shetty S. Fostering Inclusive Development in Sub-Saharan Africa Through Gender Equality. SAIS Review of International Affairs, 2021; 41(1): 33-48.
- Blankenship KM, Reinhard E, Sherman SG, El-Bassel N. Structural interventions for HIV prevention among women who use drugs: A global perspective. JAIDS Journal of Acquired Immune Deficiency Syndromes, 2015; 69: S140-155.
- 19. Tripathi S, Rajeev M. Gender-inclusive development through Fintech: Studying gender-based digital financial inclusion in a cross-country setting. Sustainability, 2023; 15(13): 10253.
- 20. May JF, Rotenberg S. A call for better integrated policies to accelerate the fertility decline in sub-Saharan Africa. Studies in family planning, 2020; 51(2): 193-204.
- 21. Obeagu EI, Obeagu GU, Okwuanaso CB. Optimizing Immune Health in HIV Patients through Nutrition: A Review. Elite Journal of Immunology, 2024; 2(1): 14-33.

- 22. Obeagu EI. Erythropoietin and the Immune System: Relevance in HIV Management. Elite Journal of Health Science, 2024; 2(3): 23-35.
- 23. Obeagu EI, Obeagu GU. Hematocrit Fluctuations in HIV Patients Co-infected with Malaria Parasites: A Comprehensive Review. Int. J. Curr. Res. Med. Sci, 2024; 10(1): 25-36.
- 24. Obeagu EI, Ubosi NI, Obeagu GU, Akram M. Early Infant Diagnosis: Key to Breaking the Chain of HIV Transmission. Elite Journal of Public Health, 2024; 2(1): 52-61.
- 25. Obeagu EI, Ubosi NI, Obeagu GU, Obeagu AA. Nutritional Strategies for Enhancing Immune Resilience in HIV: A Review. Int. J. Curr. Res. Chem. Pharm. Sci, 2024; 11(2): 41-51.
- 26. Rodrigo C, Rajapakse S. HIV, poverty and women. International Health, 2010; 2(1): 9-16.
- 27. Greener R, Sarkar S. Risk and vulnerability: do socioeconomic factors influence the risk of acquiring HIV in Asia?. Aids, 2010; 24: S3-11.
- Amin A. Addressing gender inequalities to improve the sexual and reproductive health and wellbeing of women living with HIV. Journal of the International AIDS Society, 2015; 18: 20302.
- 29. Zierler S, Krieger N. Reframing Women's Risk Social Inequalities and HIV Infection. Women, Medicine, Ethics and the Law, 2020; 401-436.
- Berndt VK, Austin KF. Drought and disproportionate disease: an investigation of gendered vulnerabilities to HIV/AIDS in lessdeveloped nations. Population and Environment, 2021; 42(3): 379-405.
- 31. Obeagu EI, Obeagu GU. Understanding Immune Cell Trafficking in Tuberculosis-HIV Coinfection: The Role of L-selectin Pathways. Elite Journal of Immunology, 2024; 2(2): 43-59.
- 32. Obeagu EI, Anyiam AF, Obeagu GU. Synergistic Effects of Blood Transfusion and HIV in Children Under 5 Years with Severe Malaria: A Review. Elite Journal of HIV, 2024; 2(1): 31-50.
- 33. Kim J, Pronyk P, Barnett T, Watts C. Exploring the role of economic empowerment in HIV prevention. Aids, 2008; 22: S57-71.
- 34. Chersich MF, Rees HV. Vulnerability of women in southern Africa to infection with HIV: biological determinants and priority health sector interventions. Aids, 2008; 22: S27-40.
- 35. Folayan MO, Arije O, Enemo A, Sunday A, Muhammad A, Nyako HY, Abdullah RM, Okiwu H, Undelikwo VA, Ogbozor PA, Amusan O. Factors associated with poor access to HIV and sexual and reproductive health services in Nigeria for women and girls living with HIV during the COVID-19 pandemic. African Journal of AIDS Research, 2022; 21(2): 171-182.
- 36. Armoon B, Higgs P, Fleury MJ, Bayat AH, Moghaddam LF, Bayani A, Fakhri Y. Sociodemographic, clinical and service use determinants associated with HIV related stigma among people living with HIV/AIDS: a systematic review and

- meta-analysis. BMC health services research, 2021; 21: 1-20.
- 37. Yah CS, Tambo E. Why is mother to child transmission (MTCT) of HIV a continual threat to new-borns in sub-Saharan Africa (SSA). Journal of infection and public health, 2019; 12(2): 213-223.
- 38. Wamoyi J, Mshana G, Mongi A, Neke N, Kapiga S, Changalucha J. A review of interventions addressing structural drivers of adolescents' sexual and reproductive health vulnerability in sub-Saharan Africa: implications for sexual health programming. Reproductive health, 2014; 11: 1-5.
- 39. Zachek CM, Coelho LE, Domingues RM, Clark JL, De Boni RB, Luz PM, Friedman RK, de Andrade ÂC, Veloso VG, Lake JE, Grinsztejn B. The intersection of HIV, social vulnerability, and reproductive health: analysis of women living with HIV in Rio de Janeiro, Brazil from 1996 to 2016. AIDS and Behavior, 2019; 23: 1541-1551.
- 40. Alemayehu BA. Gender inclusive training challenges in higher education institutions in Ethiopia: Implications for reforming training for gender equality. International Journal of Didactical Studies, 2020; 1(1): 16-21.
- 41. Gudhlanga E, Chirimuuta C, Bhukuvhani C. Towards a gender inclusive curriculum in Zimbabwe's education system: Opportunities and challenges. Gender and behavior, 2012; 10(1): 4533-4545.
- Sevelius JM, Keatley J, Gutierrez-Mock L. HIV/AIDS programming in the United States: considerations affecting transgender women and girls. Women's Health Issues, 2011; 21(6): S278-282.
- 43. Sørensen H. Gender inclusive science education?: The influence of attitudes and values toward science. InThe re-emergence of values in science education, 2007; 249-267. Brill.
- 44. Lowik AJ, Knight R. Toward gender-inclusive, nonjudgmental alcohol interventions for pregnant people: challenging assumptions in research and treatment. Journal of Addiction Medicine, 2019; 13(5): 335-337.
- 45. Restar A, Jin H, Operario D. Gender-inclusive and gender-specific approaches in trans health research. Transgender Health, 2021; 6(5): 235-239.
- 46. Keith RM. Gender and food security: cross cutting or crossed out? The challenge of implementing gender-just food security solutions. InHandbook of Food Security and Society, 2023; 145-161. Edward Elgar Publishing.
- 47. Tordoff DM, Restar A, Minalga B, Fernandez A, Dimitrov D, Duerr A, Seattle Trans and Nonbinary Sexual Health (STARS) Advisory Board. Including transgender populations in mathematical models for HIV treatment and prevention: current barriers and policy implications. Journal of the International AIDS Society, 2024; 27(6): e26304.