



## CULTURAL SUSTAINABILITY OF *DIPO* PUBERTY RITE AND ITS ASSOCIATED HIV RISKS IN THE LOWER MANYA KROBO MUNICIPALITY IN GHANA

Adjoa Afriyie Poku<sup>i</sup>

Department of Geography Education,  
University of Education,  
Winneba, Ghana

### Abstract:

*Dipo* is a puberty rite performed for adolescent girls with an average of 18 years and above into adulthood in Lower Manya Krobo Municipality. *Dipo* rite inculcates cultural values into the initiates and preserves cultural heritage. However, the reduction in age and nudity associated with the practice could put initiates at high risk of STDs including HIV transmission. The purpose of the study was to examine the cultural sustainability of *Dipo* and associated HIV risk in the Lower Manya Krobo Municipality in Ghana. A purposive sampling technique was used to select participants and interviewed them with the guide of an interview schedule. The findings of the study revealed that risk factors of HIV transmission include cultural, social, individual, and institutional risks. The study also found that cultural sustainability indicators associated with *Dipo* puberty rites include cultural heritage, vitality, diversity, locality, eco-resilience, and eco-education and civilization. While cultural heritage, vitality, diversity, locality and eco-education, and civilisation were found to sustain *Dipo* rite, eco-cultural resilience poses a risk of HIV transmission. The implication of this finding is that the performance of *Dipo* rite is a worthy cultural practice. It is recommended that innovative ways should be adopted to sustain the rite and reduce its associated HIV risk.

**Keywords:** culture, cultural sustainability, *Dipo*, Ghana, HIV, Krobo, puberty rites

### 1. Introduction

It is believed that cultural sustainability and human health and well-being are closely connected (Ali & Faruque, 2016). Cultural sustainability is viewed as a facilitator and driver of sustainable development; and refers to cultural values and attitudes that can be upheld or strengthened in the face of external pressures (Jeffrie, 2021). Among the pillars of sustainable development, cultural sustainability is increasingly portrayed as a fourth

---

<sup>i</sup> Correspondence: email [adjopok@yahoo.com](mailto:adjopok@yahoo.com)

pillar, equivalent to social, economic, and environmental issues, under sustainable development objectives (Soini & Birkeland, 2014).

HIV/AIDS in sub-Saharan Africa offers an unrivaled opportunity to investigate the intricate connection between cultural sustainability and diseases (Airhihenbuwa & Webster, 2004). With many years of research, a fresh look at culture as a determinant of the spread of HIV/AIDS is, therefore, necessary to clarify its true significance (Sovran, 2013). It is important to view HIV/AIDS beyond the dimensions of social risk, individual risk, and institutional risk and from a cultural sustainability perspective. The *Dipo* puberty rites present a great model for understanding the relationship between HIV/AIDS and cultural sustainability. *Dipo* is celebrated by the people of Lower Manya Krobo Municipal (LMKM) in the Eastern Region of Ghana and is attributed to account for the area as the most prevalent HIV/AIDS zone in Ghana. The municipality recorded a prevalence rate of 13.2% in 1995, 5% in 2009 and 10% in 2012, and 6% in 2020. These percentages are significantly higher than the national averages of 2.1% in 1999, 2.8% in 2009, 1.25% in 2012, and 1.7% in 2020 (Agyei-Mensah 2001; NACP & GHS, 2011; GHS 2012; UNAIDS, 2020). The Eastern region also recorded an adolescent HIV prevalence rate of 20.3% in 2017 (GAC, 2017).

The correlation between *Dipo* and HIV/AIDS prevalence has led to a series of studies calling for the end/abolishment of the rite (Ostrow, 2011; Kumetey, 2009) which means this cultural practice may be lost. This may have a significant effect on the identity and cultural sustainability of Krobo. Additionally, there is a paucity of studies on cultural sustainability regarding the *Dipo* rites and HIV risk. Scholars have not delved into the relationship between the cultural sustainability of the *Dipo* puberty rite and HIV prevalence in the LMKM. The aim of this qualitative inquiry was to examine the cultural sustainability of *Dipo* puberty rite and its relationship with HIV risk in the municipality to establish whether or not the *Dipo* rite contributes directly or indirectly to HIV prevalence in the municipality. Specifically, this qualitative inquiry sought to assess risk factors for HIV transmission; and cultural sustainability dimensions of *Dipo* puberty rites and their relationship with HIV transmission and prevention in the LMKM. The significance of this study is to provide information to the National Commission on Culture, traditional rulers, health officials, and nongovernmental organizations (NGOs) on the indicators that sustain the *Dipo* puberty rite as a culture and those that pose a risk of HIV transmission in order to find innovative ways of performing the rite considering diverse religious beliefs of the people to ensure diversity of the rite.

## 2. Conceptual Framework

### 2.1 Concept of Cultural Sustainability

Culture is one way of encouraging human development which includes phenomena or items that are connected to certain social groups as well as their underlying systems of authority and valuation (Hallinan & Striphias, 2014). In the debate over sustainability, culture is becoming more and more of a separate topic of discussion and debate across

scientific fields and policy areas (Hawkes, 2001; Soini & Birkeland, 2014). This has led to the seven principles or storylines guiding cultural sustainability as cultural heritage, locality, vitality, eco-cultural civilization, economic viability, eco-cultural resilience, and diversity (Soini & Birkeland, 2014).

The fundamental premise was that cultural heritage includes a stock of cultural wealth that can be passed down to future generations after being inherited from past generations (Throsby, 2008). Whereas the locality aspect of cultural sustainability is concerned with the perception and cultural rights of the less privileged in society (Soini & Birkeland, 2014), a common understanding of what it means to recognize one's identity, respect for society, creativity, and education constitutes cultural vitality (Hawkes, 2001). Eco-cultural civilization on the other hand explains that people are not just utility maximisers and that decisions about the environment are frequently not made on the basis of economic rationality representing an ecological turn in human values and behaviour (Soini & Birkeland, 2014; Burton & Paragahawewa, 2011). From the perspective of economic viability, culture is viewed as a resource as a result of tourism development (Askegaard & Kjeldgaard, 2007). Cultural diversity is also viewed as the convergence of diverse values and perceptions of people's culture in society and the interconnectedness of ecological and cultural processes constitutes eco-cultural resilience (Soini & Birkeland, 2014). All these storylines are what Soini and Birkeland (2014) suggest constitutes cultural sustainability with the proposal of making culture one of the pillars of sustainable development.

### 3. Methodology

#### 3.1 Study Area

The LMKM, located in the Eastern Region of Ghana exhibits rural characteristics. The municipality is situated between latitudes 6.05N and 6.30N and longitude 0°08W and 0.20W (Boateng & Poku, 2019). Upper Manya Krobo District is to the North-west, Asuogyaman District is to the North-east, North Tongu District is to the South-east, and Yilo and Dangme West District are to the South (Boateng & Poku, 2019). The overall population of the LMKM is estimated to be 121, 478 persons, according to the 2021 population census (Ghana Statistical Service, 2021a). The Krobo ethnic group makes up about 66% of the total population in LMKM (Ministry of Local Government, Rural Development and Environment, 2014). The municipality has a higher female population (53.4%) than males (46.6%) (Ghana Statistical Service, 2021b). The municipality's local economy is based on agriculture and about 20% of the population is into farming (Ministry of Local Government, Rural Development and Environment, 2014).

The LMKM has a high HIV rate, a high illiteracy rate among the poor, low gender mainstreaming awareness, and a high incidence of child labour and criminality, to name a few socioeconomic issues (Apinga & Tenkorang, 2021). Cultural practices observed by the people in the area include *Dipo* rite, *Lapomi*, and *Kadoba Fiame*. *Lapomi* is a practice that denies fathers naming rights until some customary rites are performed. *Kadoba Fiame*

on the other hand is a practice where one knife is mostly used by traditionalists, herbalists, or spiritualists for operation as part of treatment and healing. Whilst, *Kadoba Fiame* has been found to increase HIV risk since one knife is mostly used for such practice, the age at *Dipo* has been linked to early sex and risk of STIs. Many rural sites in Ghana have recently recorded increases in HIV prevalence rates. Thus, the LMKM is not the only rural site in Ghana that is confronted with a high prevalence of HIV cases and AIDS death (NACP & GHS, 2020). LMKM was purposively sampled based on reports of HIV/AIDS cases or incidences of death in the area recorded in Demographic and Health Survey reports from 1998 to 2014 and also in the sentinel surveillance reports from 2000 to 2020.

### **3.2 Study Design and Context**

The interpretivist paradigm and subjectivist epistemology were used in this study, which prioritized participants' original experiences, situations, behaviours, and belief systems. These viewpoints promote adequate communication between researchers and interviewees, resulting in a constructive collaborative effect.

### **3.3 The Sample, Sampling Technique, and Procedure**

Specifically, the study utilised both purposive and convenience sampling techniques (key informants who had adequate knowledge of the issue and were willing to participate in the study were sampled). The views of 3 aggregated sets of participants totaling twenty-five (25) viz health officials (n=12), traditional rulers/priests (n=6), and religious leaders (n=7) all of which 17 were males and 8 females.

### **3.4 Data Generation and Ethical Consideration**

Interview guides were used to gather data from the participants. Verbal informed consent was sought from each participant before the interviewing process. The participants were initially approached and informed of the purpose of the study. Further details of the objectives of the study were given to those who were willing to participate. The unstructured interview guide was used to collect data from health workers while the semi-structured interview was used to gather data from traditional and religious leaders. This was done in a systematic manner between each participant and the interviewer in the location where the person was recruited, which was mostly the subject's private offices. When the participants were interviewed at their workplaces, the interviews were conducted in a secure environment free from third-party interference. In the case of the health officials including the doctors and nurses, the interviews were conducted in their separate unused consulting rooms after their regular daily activities. The chiefs and queen mothers were also interviewed at their offices at the palace whilst the traditional priests were interviewed at their shrines without any interference. Other religious leaders were interviewed in their offices at the church premises.

To ensure anonymity and confidentiality, no names were assigned to interviewees. No personal identifying information was recorded. The interviews were done in both Akan and English Languages. This was done to serve the needs of the

participants with different socio-economic backgrounds and varying literacy levels. The instruments included questions relating to the participants' views on the cultural sustainability of *Dipo* and associated HIV risk in the LMKM. Specific issues that were of particular interest included knowledge on puberty rite and HIV risk factors in relation to the dimensions of cultural sustainability such as cultural diversity, eco-resilience, vitality, eco-education and civilization, locality, and heritage. In addition to field notes taken, the consent of interviewees was sought before interviews were audio recorded. This enabled the interviewer to record the participants' responses and comments in their own words, allowing for a more thorough examination of the topic discussed. The audio records were transcribed in both Twi and English Languages and those in Twi were later transcribed into English. To maintain precise accuracy, transcripts were chosen at random, re-checked by the writers independently, and matched with the audio tapes and field notes. Each interview lasted for approximately 45 minutes. For the purpose of ethical consideration, the study was approved by the Ethics Committee of the St Martins de Porres Hospital and the University of Nottingham's School of Geography Ethics Committee.

### **3.5 Data Analysis**

Data categories were manually analysed. The views of the participants were coded and summarized based on themes. Open coding of the data was initially done. This was followed by selective coding. These generated a series of themes after thorough multiple readings of the transcripts. Finally, a thematic analysis was performed based on the data content. The themes were compared with the responses to identify common trends, similarities, and contrasts. The thematic analysis provided the opportunity to identify, analyse and report themes within the data and helped organize and describe the data in full detail (Braun & Clark, 2001). The results were presented and the key views of the participants were presented verbatim.

## **4. Results and Discussion**

The findings represent the inferred views of the three aggregated sets of participants who informed that study, namely, health officials, traditional rulers/priests, and religious leaders. The perspectives of the participants on the cultural sustainability of *Dipo* puberty rites and its relationship with HIV risk in the LMKM were the established categories from the data. The explanations of the established categories identified in the interviews were classified and well outlined into two themes: risk factors for HIV transmission and cultural sustainability dimensions of *Dipo* puberty rites.

### **4.1 Risk Factors of HIV Transmission**

Participant views were sought on the risk factors of HIV transmission in the LMKM. The participants views were categorised by the researcher into cultural risk, social risk, individual risk and institutional risk factors.

### **A. Cultural Risk**

The findings show that the scarification ritual which forms part of the performance of the *Dipo* puberty rites creates a feeling of belonging, solidarity, and identity. However, the scarification ritual was also found to present a risk for HIV transmission among young girls. For example, it emerged from the interviews that the use of the same unsterilized sharp objects on all the girls for the scarification ritual exposes them to HIV infection if some of the girls have initiated sexual activity. Health officials, in particular, reported that when the scarification ritual is performed by the traditional high priest, the same sharp object is not used for all the girls, each girl produces a new sharp object which is used on her. Some participants explained further as demonstrated by the following quotations:

*“The same sharp and unsterilized objects used for all the girls contribute to the transmission of HIV. The Dipo custom, therefore, becomes an HIV risk factor for these young girls who go through it.”* (Health official 5)

*“The use of the same sharp objects for all the girls might expose them to the risk of HIV infection, especially if some of them had already begun engaging in sexual activities.”* (Religious leader 3)

More so, another religious leader revealed that the age at which young girls are initiated makes it possible for them to engage in early sexual activities. This represents a potential HIV exposure route for young girls:

*“Very young and innocent children who don’t even know why they are going through some rites have to do it and the only thing they learn is that they are now women so they start having sex early and some even get pregnant immediately they reach menarche. How can you teach children who are 5 years things about menstruation when they have not experienced it. This is a big problem in this community.”* (Religious leader 4)

The findings also revealed that the expectation of the community that initiates fend for themselves and their families after going through the *Dipo* rite forced them to travel to Abidjan, and other cities in Ghana. Health officials reported that evidence gathered from the community shows that young women travel to engage in prostitution and return home to die when they become infected and sick. A participant said this:

*“Evidence that I gathered from around the community shows that after the Dipo rites young women are supposed to fend for themselves and their families. This makes them to travel to Abidjan and other cities in Ghana to practice prostitution. They return permanently to die when they are infected and sick.”* (Health official 2)

Belief in curses and superstition was found to be an important factor in disease causation. The Traditional high priest indicated that offending the gods through acts such as engaging in sex on bare ground in sacred places or cursing other family members causes prolonged illness including AIDS as expressed in the comment:

*“People can offend the gods by having sex on bare ground in sacred places in the bush without knowing or rain curses on other family members and this can result in prolonged illness which wastes the person.”* (Traditional Priest 2)

## **B. Social Risk**

Denial of the existence of the disease was found to be a social risk factor for HIV transmission in the LMKM. The findings showed that inhabitants of the area deny and do not accept that the health facilities in the municipality have the highest number of HIV patients enrolled in antiretroviral therapy. Health officials reported that inhabitants in the municipality continue to attribute the cause of the disease to curses and the belief that the disease does not exist. The health officials further indicated that patients thus consult the traditional priest at the onset of disease to cast away demons causing the disease and only report to the hospital when their conditions have deteriorated. One health official explained that:

*“I have to say and indicate here that this facility has the highest number of HIV patients and cases but we don’t normally say it and the people do not accept it. The people still believe the disease is a curse and it doesn’t exist. Therefore, they visit the Traditional Priest before they come to the hospitals for demons to be cast away and when things get worse, they visit the hospitals. This poses a problem for HIV prevention in this area.”* (Health Official 4)

The findings also revealed that discrimination and stigmatisation of people living with HIV/AIDS (PLWHA) prevent patients from disclosing their status which contributes to HIV transmission. Health officials reported that PLWHA are neglected by their relatives when admitted. They also indicated that this is because relatives equally faced being stigmatised as HIV-positive patients if found on the road that leads to the hospital. This finding is expressed by a health official:

*“Their own relatives treat them differently; they are not cared for; they leave them with us here when the patients are admitted never to return. This is a district hospital and we don’t serve food so it becomes a problem. Even the road leading to the hospital is stigmatised. It is believed that any sick person seen either on the road towards the hospital or seen in the hospital is an HIV and AIDS victim.”* (Health official 6)

A traditional ruler in confirmation of the above finding reported that PLWHA feel reluctant to disclose their status to family and other community members due to fear of being stigmatised. In most instances, PLWHA, especially women associate their illness

with witchcraft even though most of them are aware they have AIDS. This is to prevent them from being tagged as engaging in deviant behaviours including prostitution. The traditional ruler expressed:

*“People with HIV/AIDS do not want others in the community to know. They normally say they are being bewitched although most of us now know some of the signs and symptoms of AIDS. They deny it because the moment they accept it as AIDS no one will like them. In the case of women, they are seen as prostitutes and deserve what they have gotten. They also deny that they have the virus and spread it.”* (Traditional ruler 2)

### **C. Individual Risk**

An individual risk factor for HIV transmission in the Krobo area is the physiological makeup of the female reproductive system. The large surface area of the female reproductive organ puts women at risk of contracting the virus. One health official said:

*“Biologically women’s system is prone to infections because of the large surface area of the vagina. This puts women at risk of contracting the virus.”* (Health official 4)

Also, the fear of not receiving material benefits, and losing intimacy and trust with spouses among women, in particular, prevents them from disclosing their HIV status to their husbands. In connection with this, the traditional high priest had this to say:

*“The women in this community do not want their partners to know about their condition. They fear losing certain material benefits from marriage or husbands. Again, the fear of losing intimacy and having broken trust with their husbands deter them from disclosing their status.”* (Traditional priest 1)

### **D. Institutional Risk**

An institutional risk factor for HIV transmission is Health facilities not keeping records of where their HIV-positive clients come from. This has implications for where and how HIV campaign messages are conveyed. Health officials reported that they do not pay attention to clients’ residential locations. The health official commented:

*“We at the clinical side don’t pay attention to where our HIV/AIDS clients come from but what I can say is that we see a lot of them in this facility more than any hospitals in the country.”* (Health official 3)

Offensive and decline in HIV campaign messages, and decline in the use of condoms was found by the study to contribute to the spread of HIV in the Municipality. For instance, it was revealed that HIV campaign messages conveyed in the area are not age-friendly. One religious leader had this to say:

*"The messages conveyed by various HIV prevention groups are not good for our children, it is rather spoiling them."* (Religious leader 1)

A traditional ruler noted that an institutional HIV risk factor in the LMKM is the decline in campaigns on the use of condoms. She further indicated that the various stakeholders in the campaign for condom use have stopped the campaign and advocating condom use which has increased HIV prevalence in the municipality:

*"There has been a decline in the level of campaigns on condom use. The radio stations, information and volunteer groups have stopped the campaign on the use of condoms. They are no longer advocating for it and this has contributed to the spread of the virus."* (Traditional ruler 2)

The non-involvement of local people in policy implementation on poverty reduction in the Municipality was also revealed by this study to be an institutional HIV risk factor. Traditional rulers noted that the government does not involve the local people when implementing poverty reduction strategies. Poverty results in transactional sex, especially, among women and such transactional sex involves non-use of condoms. Pertaining to this finding, a traditional ruler said:

*"I think the government does not involve the local people when it comes to implementing policies that will help minimize poverty in our area."* (Traditional ruler 3)

### **E. Sustaining *Dipo***

The views of the participants were sought on the cultural sustainability dimensions of *Dipo* rite in LMKM. The participants mentioned some of the cultural sustainability indicators of *Dipo* rites. The researcher categorised them into heritage, vitality, diversity, locality, eco-resilience, eco-education and civilization.

### **F. Heritage**

The views of the participants were sought on the cultural heritage indicator as a cultural sustainability dimension. The participants mentioned some of the cultural heritage indicators of *Dipo* rites in the LMKM. The researcher categorised them into cultural capital and tangible and intangible cultural heritage.

#### **a. Cultural Capital**

The *Dipo* rite, a cultural capital, is a common cultural practice performed for Krobo girls who reached menarche. For instance, a traditional priest indicated that the performance of the *Dipo* rite of passage remains common among the Krobos in the area:

*"A cultural practice that remains common amongst the Krobos is the 'Dipo' rite of passage for girls who have attained menarche."* (Traditional priest 1)

*Diplo* puberty rite was again found to be an important cultural capital of the Krobos. One traditional ruler posited that the *Diplo* rite was inherited from previous generations and handed to current generations. A narrative from the traditional ruler has it that:

*“It is a cultural practice that the Krobos inherited from previous generations. It was handed over to us the current generation. The cultural practice which is for women originated from the Volta region and was adopted by the Krobos in the 1800s.” (Traditional ruler 2)*

### **b. Tangible and Intangible Heritage**

Serving as a tangible cultural heritage the study found that the sacred stone is a material object that people see the girls jump over and as an intangible cultural heritage the sacred stone possesses supernatural powers that are able to detect girls who have broken their virginity. According to a Traditional priest in the area, *Diplo* girls are made to jump over a sacred stone believed to have supernatural powers that are able to determine whether a girl is a virgin or has engaged in sex. In explaining this, a traditional priest had this to say:

*“As a test of a girl’s virginity, the Diplo Yo or girls are made to individually jump over a sacred stone which is believed to have been carried from the ancestral home of the Krobos located in the Krobo Mountains. We the Krobos hold a strong belief that during the rites the sacred stone possesses supernatural powers that allow it to be able to detect whether a girl has already indulged in sexual activity before performing the rites.” (Traditional Priest 1)*

Another cultural heritage that is both tangible and intangible that the study found is the shrine where the sacred stone is preserved and conserved. The traditional priest further indicated that the final stage of the rites takes place at a shrine located in the community, which is a tangible cultural heritage. The shrine houses supernatural powers including ancestral spirits and the sacred stone belongs to the ancestors of the Krobos which can detect the virginity of *Diplo* girls, making it an intangible cultural heritage. The Traditional priest further reported that the girls are made to jump individually over the sacred stone three times and any girl who stumbles and fall is perceived to have broken her virginity.

*“The final stage of the rite which takes place at a shrine requires girls to jump over that stone three times. A girl who stumbles or falls is perceived to have engaged in sex.” (Traditional Priest 1)*

It was again revealed by the traditional priest that the rite is a very common one and has been accepted by all Krobos and this forms part of the intangible cultural heritage of the Krobos. In explaining this, a traditional priest had this to say:

*“The practice is widely accepted and seen as a very important custom.”* (Traditional priest 1)

### **G. Vitality**

*Dippo* rite ensures recognition of identity, respect for society, dignity, and education for women in the community. Religious leaders reported that women in the community view *Dippo* custom as giving a form of respect and dignity to them as expressed in the comment:

*“Most of these women in this community say that the Dippo custom gives a woman respect and recognition in the community.”* (Religious leader 1)

Education is made possible through the provision of domestic training by the Queen mothers in the communities during the *Dippo* puberty rites. The girls are mobilised during the festival and given training (domestic training) during the period of the *Dippo* rite. Alluding to this, a traditional ruler (Queen mother) said:

*“As the Queen mother, I ensure that during the festival, the Krobo girls are mobilized through the Queen mothers and give them training (domestic training) during the performance of Dippo rite.”* (Traditional ruler 2)

### **H. Diversity**

*Dippo* puberty rite recognises the diversity of cultural values, perceptions, and attitudes as well as knowledge of HIV prevention and transmission. It also entails issues of multiculturalism and ethnicity. For instance, the *Dippo* rite was practised in the Volta Region and later adopted by the people of Krobo.

#### **a. Diversity of Cultural Values**

The study found that the *Dippo* puberty rite reveals how different cultural practices and beliefs meet. The study revealed that circumcision was performed for boys before the adoption of *Dippo* rites in 1800 for girls. The rite of passage was adopted by the Krobos from a farmer who migrated from the Volta Region and settled in the Krobo area. In explaining this, one participant said:

*“Even before the 1800s, circumcision was performed for boys to usher them into adulthood and also to give them social recognition and status in the community. In order to enhance the status of women, the Dippo custom was adopted for girls in the early 1800s by a man who had migrated from the Volta region of the country to settle as a farmer in the Krobo*

*area. The man brought along the culture from his place of origin to the Krobo land where he performed the custom for his daughters when they reached menarche.*" (Traditional ruler 1)

### **b. Perception and Attitudes of People about *Dipo* Rite**

*Dipo* rites are perceived by the Krobos as important since it tests the chastity of young women. It was further revealed that any girl who becomes pregnant before the time to perform *Dipo* is banished from the Krobo Traditional area. The participants alluded to the fact that *Dipo* is very significant because it preserves the virginity of young girls and girls who become pregnant before *Dipo* are sanctioned. In narratives from a traditional priest, he said:

*"The practice was seen by the Krobos as very significant to their own culture because it tested the chastity of young women."* (Traditional priest 1)

*"An aspect of the *Dipo* custom some years back was that girls who became pregnant before the time to perform '*Dipo*' were banished from the Krobo Traditional area."* (Traditional ruler 2)

### **c. Knowledge of HIV Prevention and Transmission during the *Dipo* Rite**

Findings from the study indicate that the traditional chief priest follows strict rules in order to prevent the spread of HIV. According to the traditional chief priest, he follows strict rules by using a new blade on each girl to prevent HIV transmission. A health official also indicates that the Catholic Church forbids the use of condoms, yet they do provide demonstrations of how condoms are used. Nevertheless, they advocate abstinence as a form of adhering to Catholic doctrines. In explaining this new development, these are what a traditional ruler and health official had to say:

*"One blade was used on all the girls but one girl is entitled to one blade due to modernization, education and human right advocacy and with knowledge on HIV/AIDS transmission and prevention, the Traditional Chief Priest follows strict rules by using a new blade on each girl."* (Traditional ruler 2)

*"The Catholic Church is against the use of condom; however, they do allow demonstration on how to use it but preach abstinence."* (Health official 5)

## **I. Locality**

*Dipo* rite incorporates the perceptions and cultural rights of minorities and indigenous people. Girls who successfully go through the *Dipo* rite were honoured, ready to be married by any Krobo man, and participate in all traditional social gatherings. However, girls who are unsuccessful are ostracized by community members to serve as a deterrent

to other young girls. Also, girls who are unable to go through *Dipo* are not married by any Krobo man and thus those who defend their rights are considered threatened by the locals. In explaining this situation, one participant said:

*“Such girls are a disgrace to their families and in traditional times, faced the consequence of being ostracized by community members as a punishment. They also served as a deterrent to other young girls in the community.”* (Traditional ruler 1)

There is family pride after a young girl goes through the *Dipo* rite successfully. The successful *Dipo* girl is then prepared for her prospective suitor for marriage. This was revealed in a narrative by a traditional ruler saying:

*“Successful girls bring honour to their families and are ready to be married to a Krobo man and also take part in traditional social gatherings. Girls who successfully complete the *Dipo* rituals are given three small marks on their wrist and at the back of their waist as proof of going through the ritual.”* (Traditional ruler 3)

Marriage between Krobos and other ethnic groups is not common as one purpose of the *Dipo* custom is to groom and preserve young girls of Krobo to get married to Krobo men. Failure to take part in the *Dipo* rite would mean that particular young girl will not be married to a Krobo man in the future. In relation to this finding, one participant said:

*“Although today, enrollment to take part in *Dipo* is not compulsory, the majority of women and young girls in this area have gone through the custom. Girls who do not go through the custom will not be married by any Krobo man, and this tradition has made marriage between the Krobos and people of other ethnic backgrounds rare.”* (Traditional ruler 2)

## **J. Eco-cultural Resilience**

The study showed that the stone at the shrine constitutes a human/community-nature relationship. However, with the advent of Christianity, this was associated with idol worship since it is against the first commandment of the Bible. Nonetheless, some mothers sneak their daughters to the shrines for them to go through the rite to become true Krobo women. This was revealed by a Catholic priest that said:

*“Their concern was the sacred stone at the shrine which they associated with idol worship which is against the first commandment in the Bible. They, therefore, look for older women in their extended family who take the girls through the rites. Some of the girls who go through *Dipo* performed by old women in the community had already begun sexual activities.”* (Religious leader 2)

## **K. Eco-education and Civilisation**

As revealed by this study, *Dipo* cultural rite promotes education for all groups and thus ensures value acquisition. The Krobo girls are taught basic handicraft and housekeeping skills on how to make income for themselves and be good wives to their husbands. With this, a traditional ruler said:

*"Young women are taught basic handicraft skills including the making of pots and beads, which they are expected to use to generate additional income to support their families. Young women are also taught basic housekeeping skills and also how to be good wives. Today, even with Free Compulsory Basic Education (FCUBE), women in the Krobo area are denied formal education but obtain informal education through Dipo."* (Traditional ruler 1)

Following the little fear of HIV/AIDS in the LMKM now, proposals have been made to train and educate the youth with the necessary skills and expertise in order to make them resourceful for the job market. This was revealed by a traditional ruler that said:

*"The youth are no longer afraid of the disease so new strategies are put in place to educate them. Strategies are put in place by the local and traditional authorities to equip the youth with skills to make them busy in their communities. We are organizing training for our youths, especially the girls. We have helped in the HIV/AIDS campaign in the district. The traditional leaders are doing well when it comes to this. The traditional council has set up training centres for the youth to acquire skills for themselves."* (Traditional ruler 1)

The culture and tradition of the Krobos are always projected during the period of the *Dipo* puberty rite. This is where the Krobo girls are educated on their customs and avenues such as festivals are used to protect the culture and traditions of the Krobos.

## **5. Discussion**

Pertaining to HIV risk factors as a result of the performance of *dipo* in LMKM, the result from the study indicates that *Dipo* rite is a cultural risk factor for HIV transmission in LMKM. HIV/AIDS in sub-Saharan Africa offers an unrivaled opportunity to investigate the intricate connection between culture and disease (Airhihenbuwa & Webster, 2004). In order to promote the culture of the indigenous people of LMKM, hence the performance of *Dipo* rite, the participants reported that the scarification ritual with the use of same sharp and unsterilized objects on all the girls contributed to the transmission of HIV. The primary purpose of *Dipo* rite which is to preserve the virginity of females before marriage among the people of Manya Krobo has failed (Langmagne et al., 2018) as it was revealed, and consistent with the finding of this study that the rite has seemingly led to the spread of HIV/AIDS among these people, making Manya Krobo to have very high HIV/AIDS infection (Emefa & Selase, 2014). Also, the *Dipo* puberty rite, which involves the initiation

of young girls into adulthood and marriage rather introduces these young girls to early and commercial sex as it was found that these *Dipo* girls travel outside their homeland to engage in prostitution to fend for themselves and family. Alluding to this finding, a study conducted in LMKM has shown that the *Dipo* girls are at risk of contracting HIV and eventually dying as a result of prostitution (Nanegbe, 2016; Yarney et al., 2015). Additionally, the belief in superstition regarding curses and having sexual intercourse on sacred grounds is noted to have caused the transmission of HIV/AIDS in LMKM. In relation to this finding, it was found in another study that it is common to believe in supernatural causes of HIV in LMKM (Atobrah, 2016). The cultural risk of HIV transmission is a behavioural act and can be managed to prevent the spread of HIV in LMKM. It is worth to note that the social risk factor of HIV transmission was also found in LMKM and its importance to this study cannot be downplayed.

Stigma, denial, belief in superstition, blame, and non-disclosure are the social risk factors of HIV transmission in LMKM as discovered by this study. The stigma connected with HIV refers to unfavourable ideas, sentiments, and behaviours against those who have the virus, the groups they belong to, and other important groups who are more likely to contract it (Fauk, et al., 2021). More to this, it has been noted that since the beginning of the HIV epidemic, people living with HIV or the social groupings to which they belong have experienced stigmatization more than any other health condition (Erena et al., 2019). The study also identified unequal power relations as a risk factor for HIV transmission in LMKM. In an African setting, hence LMKM, women are taught to be submissive to their husbands or partners. A study in Ghana has found women to be reluctant to use condoms during sexual intercourse (Rokicki & Merten, 2018) constituting the transmission of HIV in the country, hence LMKM. More so, religious organizations, especially the Catholics have influenced the use of condoms in LMKM thereby contributing to the transmission of HIV in the municipality. For a number of years now, the Catholic Church has advised its members against the use of condoms (Benagiano et al., 2011) and Catholics in LMKM who heed this advice are likely to contract and transmit HIV in the municipality. It was also discovered by this study that people do not accept that St. Martins de Porres Hospital has the highest number of HIV cases in the municipality. It is strange to understand that people who are seen using the road leading to this hospital are seen as HIV/AIDS patients. If this continues, people in the community will be prevented from checking their HIV status and may live with HIV and infect others with it. This then poses a social risk of contracting the HIV in the communities of the LMKM. Aside from the importance placed on the social risk factor of HIV transmission in this study, the individual risk factor of transmitting this disease cannot be underrated.

With respect to the individual risk factors of HIV/AIDS transmission, the study revealed that non-disclosure of status to partners, poverty, educational level, religious affiliations, marriage, and patrilineal inheritance were the individual risk factors associated with HIV transmission in LMKM. Individual risk factors, which are important elements in the transmission of HIV (Baral et al., 2013) can be linked to the majority of the participants who mentioned that the large surface area of the female reproductive

system is a risk factor for HIV transmission in the municipality. Consistent with this finding is a study that found women in sub-Saharan Africa to have a higher risk of HIV infection (Kaul et al., 2011). More to this discovery is that men and women who engage in transactional sex saw women being more highly infected with HIV than men (Wamoyi et al., 2016). Additionally, the individual belief in the non-existence of the disease coupled with poverty, religious affiliation, and marriage are some individual risk factors associated with the transmission of HIV.

As part of the institutional risk of HIV transmission, the findings of the study revealed offensive and decline in HIV campaign messages, the decline in the use of condoms, and non-involvement of local people in policy implementation, and issues with record keeping of HIV patients contribute to the spread of HIV in the Municipality. In recent times, little has been seen from certain state institutions in Ghana like the Ghana Education Service, Ghana AIDS Commission, and Ghana Health Service in the fight against HIV/AIDS. This is because these state institutions relaxed in their efforts to totally curb the spread of the disease when HIV infection cases dropped some years ago. However, in recent times, cases of HIV infection have risen (Africa News, 2022) tempting people to ask whether community engagement, education, and sensitization programs on the disease which used to take place in HIV infection hotspots in Ghana like LMKM still exist. Schools that are to promote education on the use of condoms in Ghana have failed. This is evident in the opposition of the Ghana Education Service to allow condom demonstrations and distributions in Ghanaian schools although the right to information on education of this nature is clearly recognized under the National Adolescent Reproductive Health Policy (Agbeve, 2020). In support of the inaction of these state institutions, some religious organizations like the Catholic Church have viewed the HIV campaign as not age-friendly to children and can promote sexual immorality among children. The perspectives of cultural sustainability of *Dipo* puberty rites and their relationship with HIV risk in the LMKM are vital to this study.

With cultural capital, as an aspect of cultural heritage, the study showed that *Dipo* rite is a common cultural practice performed by Krobo girls who reached menarche. Cultural capital, which includes ways of life, things of a cultural kind that have been gained or acquired, as well as knowledge, abilities, traditions, languages, and education (Klimczuk, 2015) has presented the *Dipo* rite as a cultural heritage or asset that is typical of the people in LMKM. The people of Krobo hold the *Dipo* initiation rite in very high esteem such that no other initiation rite is of more importance than this puberty rite (Huber, 1993). The *Dipo* rite was inherited from previous generations and handed to current generations. It is expected to be preserved and handed to the generation to come. The preservation of the *Dipo* rite as a cultural heritage can be achieved if this cultural practice can be viewed and appreciated in tangible and intangible terms.

Reference to tangible cultural heritage has it that adolescent girls are made to jump over a sacred stone believed to have been carried from the Krobo Mountains. This sacred stone serves as the tangible heritage of the Krobos as tangible heritage concerns the conservation of material cultural heritage like historical structures, monuments, and

natural conservation areas (Soini & Birkeland, 2014). The sacred stone of the Krobos has supernatural powers that is able to detect whether a girl is a virgin or has engaged in sex before the performance of the rite. The *Dippo* rite is a very common puberty rite and is accepted as a very important custom by all Krobos serving as their intangible heritage. It has also been argued that modernization and globalization serve as a threat to tangible and intangible heritage (Hoelscher, 2011) and this can negatively affect cultural norms and practices including the *Dippo* rite in the future.

Delving into the cultural vitality of this study, it was found that the majority of the participants claim the *Dippo* rite gives respect and dignity to the women in the community. With this, it is worthy to note that a sense of belonging, a common understanding of what it means to recognize one's identity, respect for society, creativity, and education are all aspects of cultural vitality (Hawkes, 2001). More to this, the study found that the Queen mother of the Krobo land mobilizes the girls during festivals and gives them training (domestic training) during the period of *Dippo* rite. This act of identity and recognition for one's culture is compatible with the Krobo people's beliefs, practices, and traditions, which are connected to adult identity and the transformational result that the rite wants to bring about is symbolized by this idealized cultural construction of womanhood (Nanegbe, 2016). In connection with what the study found, the *Dippo* rite confers respect and dignity to the community and adolescent girls.

In explaining cultural diversity, upholding cultural values and beliefs and the diversities that come with them are intrinsically linked to the natural world and they are essential for maintaining the African unique identity (Aniah & Yelfaanibe, 2016) and that of the LMKM. The study revealed that circumcision was performed for the boys to usher them into adulthood before the adoption of the *Dippo* rites in 1800. This has brought to bear that adolescent girls do not only go through ritual performance in the LMKM but the boys are also circumcised as well. As part of cultural diversity, it is believed that the *Dippo* puberty rite originated in the Volta Region of Ghana before it was introduced to the Krobos in the 1800s. The value placed on the *Dippo* rite and its acceptance gives social recognition and respect to the girls as found by this study in LMKM.

Focusing on the perception and attitudes of people about the *Dippo* rite, the study revealed that the majority of the participants perceived the cultural rite as important since it tests the chastity of young women. Any girl who becomes pregnant before *Dippo* is banished from the Krobo Traditional area. Therefore, adolescent girls are expected to preserve their virginity until marriage and accept their position in adult society (Glozah, & Lawani, 2014). The perception some people have about this puberty rite is that it has prevented prostitution, infidelity, premarital sex, pregnancy, and sexually transmitted infections (Schroeder & Danquah, 2000). However, some religious bodies, especially Christians have criticized this cultural rite as ritualistic and ungodly (Langmagne et al., 2018). Another critique of this cultural rite is that it abuses the human right of adolescent girls who take part in this initiation rite (Atuire, 2019).

With HIV prevention and transmission during the *Dippo* rite, the findings of the study revealed that there has been a change in the performance of *Dippo* rite. Unlike

previous studies that found a sharp object that was used on multiple adolescent girls for the *Dipo* rite without sterilization (Emefa & Selase, 2014), this study confirmed that new sharp objects are used in the initiation rite for each girl. This can allude to the finding of this study where the Traditional Chief Priest follows strict rules by using a new blade on each girl to prevent HIV transmission. The new trend of using a new blade on each *Dipo* girl was mainly due to modernisation, education and human right advocacy.

Findings on locality, an indicator of cultural sustainability revealed that girls who are unsuccessful with the *Dipo* rite were ostracised by community members to serve as a deterrent to other young girls because it brings disgrace to their families. This finding is consistent with the study that found young ladies to be outcasts after they are found to have engaged in sexual intercourse before the *Dipo* rite (Abotsi, 2020). It is worth noting that Cultural sustainability with regard to locality places a strong emphasis on the cultural rights of individuals who are marginalized in society, including indigenous people, ethnic minorities, and other groups whose ability to engage in any activity or defend their rights is seen in futility (Soini & Birkeland, 2014). It was discovered by this study that enrolment to take part in the *Dipo* rite is not compulsory nowadays, as most of the women and young girls in Krobo have gone through the rite. However, girls who are unable to go through the *Dipo* rite are not married by any Krobo man which makes marriage between Krobo and people of other backgrounds uncommon.

In order to project eco-cultural resilience, scholars have attempted to conceptualize human-nature relations in ways that emphasize the indivisibility of humans from the environment in which they find themselves, thereby rejecting the historical divisions between nature and culture (Arora-Jonsson, 2016). A stone is a cultural resource among the Krobos in performing the *Dipo* rite. The study showed that the stone at the shrine was associated with idol worship since it is against the first commandment of the Bible. History has it that, the Krobos who are part of the Dangme group exploited stones and used them for many purposes (Biveridge, 2019) which may include their use in the rite. Additionally, the first traditional priestess of the people of Krobo appeared on Krobo Mountain and later became a deity of the mountain (Ostrow, 2011). This, therefore, gives the reason for the use of stone as one of the ritual items in the performance of the *Dipo* rite. Though the traditional priests are trained to perform the *Dipo* ritual on the young girls among the Krobos, evidence gathered by this study indicates that some Christian parents know that the sacred stone used during the *Dipo* rite is associated with idol worship rather falls on untrained old women who use single and unsterilized sharp objects on the young girls. This is therefore a risk factor for HIV transmission in LMKM. Nonetheless, the initiation rite of the Krobos is a clear example of eco-cultural resilience and more efforts are needed to protect and maintain it for the sake of cultural sustainability.

Focusing on eco-education and civilization of the *Dipo* puberty rite, the findings of the study further revealed that young girls are taught basic handicraft skills as part of the practice to generate income to support their families. Consistent with the findings of this study was the vocational training given to the *Dipo* girls in beads making, and other

handicrafts in order to make income for themselves (Kissi-Abrokwah et al., 2021). Again, this study found that the *Dipo* rite was an avenue to educate the *Dipo* girls on the HIV/AIDS. As young as these girls are, it is expected that they get knowledge about the disease that is very common in their communities and be faithful to their prospective husbands. The *Dipo* rite also comes with training on basic housekeeping skills and further grooms them to be good wives to their prospective husbands.

## 5. Conclusion

This study has drawn attention to how cultural sustainability with respect to the *Dipo* rite either promotes or prevents the spread of HIV. The study concludes that cultural practices and the everyday life of the people are risk factors for HIV transmission in the LMKM. This current study demonstrates that scarification ritual which involves the use of the same and unsterilised objects on *Dipo* girls, age at *Dipo*, stigma, and discrimination against HIV living persons, the influence of religion on condom use, denial and non-disclosure of HIV status, superstition, unequal power relations, poverty, non-involvement of, the decline in and offensive HIV campaign messages pose a high risk of HIV transmission in LMKM. *Dipo* puberty rites are a cultural heritage, a cultural capital, and a tangible heritage that conserves material culture and gives the people a sense of belongingness and identity has a diversity of cultural values and gives cultural rights to women in society. The puberty rite has a human-environment relationship and provides domestic and family life education making it a worthy cultural practice that is worth sustaining. For the purpose of cultural sustainability, National Commission on Culture in conjunction with traditional rulers, health officials, and NGOs involved in HIV prevention campaigns in the LMKM should provide innovative ways of performing *Dipo* puberty rites that sustain the *Dipo* culture and also reduce the risk of HIV transmission. It is imperative in unearthing the interplay of cultural sustainability in relation to other cultural practices among other ethnic groups and disease transmission including HIV in other areas.

The interplay of cultural sustainability in puberty rites especially with *Dipo* rite in unearthing HIV transmission by this study has brought to bear the importance of further research on cultural sustainability in relation to other cultural practices that are perceived to spread HIV among other ethnic groups in a different jurisdiction or geographical area.

## Conflict of Interest Statement

The authors declare no conflicts of interest.

## About the Author

Adjoa Afriyie Poku is a Senior Lecturer at the Department of Geography Education at the University of Education, Winneba. She received a master of philosophy degree in social change at the Norwegian University of Science and Technology (NTNU), and a PhD from

Nottingham University. Her research interests and publications are on population, medical, and health geography.

## References

- Abbey, E. A., Mate-Kole, C. C., Amponsah, B., & Belgrave, F. Z. (2021). Dipo Rites of Passage and Psychological Well-being Among Krobo Adolescent Females in Ghana: A Preliminary Study. *Journal of Black Psychology*, 47(6), 387-400.
- Abotsi, P. (2020). Experiences and coping mechanisms of adolescent mothers and intervention programmes to reduce adolescent pregnancy in Lower Manya Krobo Municipality, Ghana (Master's thesis, The University of Bergen).
- Africa News. (2022, August 24). *HIV high in Ghana: 23,495 positive cases in six months - official*. Africanews. Retrieved October 9, 2022, from <https://www.africanews.com/2022/08/24/hiv-high-in-ghana-23495-positive-cases-in-six-months-official//>
- Agbeve, A. S. (2020). *Sexual and Reproductive Health Education among Rural Families in Ghana: A Study in Adaklu, Volta Region* (MPhil thesis, University of Cape Coast).
- Agyei-Mensah, S. (2001). Twelve Years of HIV/AIDS in Ghana: Puzzles of Interpretation. *Canadian Journal of African Studies* 35(3). 441-472
- Airhihenbuwa, C. O. & Webster, J. D. (2004). Culture and African contexts of HIV/AIDS prevention, care, and support. *Sahara J*, 1(1), 4-13.
- Ali, A., & Faruquie, D. S. (2016). Significance of social and cultural sustainability in total health. *Editorial Board*, 17.
- Aniah, P., & Yelfaanibe, A. (2016). Learning from the past: The role of sacred groves and shrines in environmental management in the Bongo District of Ghana. *Environmental Earth Sciences*, 75(10).
- Apatinga, G. A., & Tenkorang, E. Y. (2021). Determinants of sexual violence against married women: Qualitative evidence from Ghana. *Sexual Abuse*, 33(4), 434-454.
- Arora-Jonsson, S. (2016). Does resilience have a culture? Ecocultures and the politics of knowledge production. *Ecological Economics*, 121, 98-107.
- Askegaard, S., & Kjeldgaard, D. (2007). Here, there, and everywhere: place branding and gastronomical globalization in a macromarketing perspective. *Journal of Macromarketing*, 27(2), 138-147.
- Atobrah, D. (2016). Elderly Women, Community Participation and Family Care in Ghana: Lessons from HIV Response and AIDS Orphan Care in Manya Krobo. *Ghana Studies*, 19(1), 73-94.
- Atuire, C. A. (2019). A Prolegomenon to Bioethics in Africa: Issues, Challenges and Commonsensical Recommendations. *Bioethics in Africa: Theories and Praxis*, edited by Atuire Caesar Alimsinya and Frimpong-Mansoh Yaw Augustine, 1-30.

- Baral, S., Logie, C. H., Grosso, A., Wirtz, A. L., & Beyrer, C. (2013). Modified social ecological model: a tool to guide the assessment of the risks and risk contexts of HIV epidemics. *BMC public health*, 13(1), 1-8.
- Benagiano, G., Carrara, S., Filippi, V., & Brosens, I. (2011). Condoms, HIV and the Roman Catholic Church. *Reproductive BioMedicine Online*, 22(7), 701–709.
- Biveridge, F. (2019). Ethno archaeological Clues to Stone Exploitation in Ancient Dangme-land, Greater Accra Region, Ghana. *Legon Journal of the Humanities*, 30(2), 19-42.
- Boateng, S., & Poku, K. O. (2019). Accessing finance among women-owned small businesses: evidence from lower Manya Krobo municipality, Ghana. *Journal of Global Entrepreneurship Research*, 9(1), 1-17.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Burton, R. J., & Paragahawewa, U. H. (2011). Creating culturally sustainable agri-environmental schemes. *Journal of Rural Studies*, 27(1), 95-104.
- Emefa, A. F., & Selase, G. R. (2014). Increasing HIV awareness through reduced sexual provocations: Implications for Dipo initiation rite among the Krobos in Ghana. *International Journal of Innovative Research and Development*, 3(9).
- Erena, A. N., Shen, G., & Lei, P. (2019). Factors affecting HIV counselling and testing among Ethiopian women aged 15–49. *BMC Infectious Diseases*, 19(1), 1-12.
- Fauk, N. K., Ward, P. R., Hawke, K., & Mwanri, L. (2021). HIV stigma and discrimination: perspectives and personal experiences of healthcare providers in Yogyakarta and Belu, Indonesia. *Frontiers in medicine*, 8, 625787
- Ghana Statistical Service (2021a). Population and Housing Census. Summary Report of Final Results.
- Ghana Statistical Service. (2021b). 2021 Population & Housing Census General Report Volume 3A: Population of Regions and Districts.
- Ghana AIDS Commission (2017). National and Sub-National HIV and AIDS Estimates and Projections. 2017 Report. UNAIDS (2020). Country Fact Sheet. <http://unaids.org/en/regionscountries/countries/ghana>, accessed 27.05.2021
- Ghana Health Service (2012). 2011 Annual Report. Ghana Health Service: Accra. (Online) [www.ghanahealthservice.org](http://www.ghanahealthservice.org), accessed 20.04.2020.
- Glozah, F. N., & Lawani, S. (2014). Social change and adolescent rites of passage: A cross cultural perspective. *Journal of Human Sciences*, 11(1), 1188-1197.
- Hallinan, B., & Striphos, T. (2014). Recommended for you: The Netflix Prize and the production of algorithmic culture. *New Media & Society*, 18(1), 117–137.
- Hawkes, J. (2001). *The fourth pillar of sustainability: Culture's essential role in public planning*. Common Ground.
- Hoelscher, S. (2011). Heritage. In, Macdonald, S. (ed) *A Companion to Museum Studies*. United Kingdom: Wiley-Blackwell.
- Huber, H. (1993). *The Krobo: Traditional social and religious life of a West African people*, (Fribourg: University Press Fribourg)

- Jeffrie, N. (2021). *Why Cultural Sustainability Encourages Sustainable Development and Growth*. Lotus Project | Rural Development & Renewable Energy. Retrieved October 14, 2022, from <https://www.lotus-project.org/blog/2020/9/4/why-cultural-sustainability-encourage-sustainable-development-and-growth>
- Kaul, R., Cohen, C. R., Chege, D., Yi, T. J., Tharao, W., McKinnon, L. R., ... & Kimani, J. (2011). Biological factors that may contribute to regional and racial disparities in HIV prevalence. *American journal of reproductive immunology*, 65(3), 317-324.
- Kissi-Abrokwah, B., Mensah, G., Aboiyom, A. I., & Aidoo, E. B. (2021). Guidance Implications of Dipo Rite and It's Initiation among Manya Krobo Groups in Ghana. *European Journal of Development Studies*, 1(4), 1-7.
- Klimczuk, A. (2015). Cultural Capital. *The Wiley Blackwell Encyclopedia of Consumption and Consumer Studies*, 1–3. doi:10.1002/9781118989463.wbeccs083 10.1002/9781118989463.wbeccs083
- Kumetey, J. J. (2009). *Krobos' perception of dipo contemporary Ghana: A case study of Somanya, Yilo Krobo district* (Doctoral dissertation, University of Cape Coast).
- Langmagne, S., Tenkorang, E. Y., Asampong, E., Osafo, J., & Bingenheimer, J. B. (2018). Approaches to regulating adolescent sexual behavior in Ghana: Qualitative evidence from Somanya and Adidome. *Archives of sexual behavior*, 47(6), 1779-1790.
- Ministry of Local Government, Rural Development and Environment. (2014). *Medium-term Development Plan for Lower Manya Krobo District*.
- Nanegbe, E. K. N. (2016). *Transitions and transactions: Adult identity development among adolescent girls of the Krobo ethnic group* (Master's thesis, The University of Bergen).
- Nassauer, J. I. (2004). Monitoring the success of metropolitan wetland restorations: cultural sustainability and ecological function. *Wetlands*, 24(4), 756-765.
- National AIDS Control Program (NACP) and Ghana Health Service (GHS) (2011). *National HIV Prevalence & AIDS Estimates Report 2010-2015*. NACP, GHS, and MOH. Accra: Ghana
- National AIDS Control Program (NACP) and Ghana Health Service (GHS) (2020). *National HIV Prevalence & AIDS Estimates Report 2010-2020*. NACP, GHS, and MOH. Accra: Ghana
- Ostrow, C. (2011). Dipo and other rites of passage in Odumase Krobo. *Independent Study Project (ISP) Collection*. 1106.
- Rokicki, S., & Merten, S. (2018). The context of emergency contraception use among young unmarried women in Accra, Ghana: a qualitative study. *Reproductive health*, 15(1), 1-10.
- Schaich, H. (2009). Local residents' perceptions of floodplain restoration measures in Luxembourg's Syr Valley. *Landscape and Urban Planning*, 93(1), 20-30.
- Soini, K., & Birkeland, I. (2014). Exploring the scientific discourse on cultural sustainability. *Geoforum*, 51, 213-223.
- Schroeder, R., & Danquah, S. (2000). Prevention of HIV/AIDS through traditional means: The cultural practice of Dipo rites. *Psych Discourse*, 31(10), 5-6.

- Sovran, S. (2013). Understanding culture and HIV/AIDS in sub-Saharan Africa. *Sahara-J: Journal of Social Aspects of HIV/AIDS*, 10(1), 32-41.
- Throsby, D. (2008). Linking cultural and ecological sustainability. *The International Journal of Diversity in Organizations, Communities, and Nations: Annual Review*, 8, 15-20.
- Wamoyi, J., Stobeanau, K., Bobrova, N., Abramsky, T., & Watts, C. (2016). Transactional sex and risk for HIV infection in sub-Saharan Africa: a systematic review and meta-analysis. *Journal of the international AIDS society*, 19(1), 20992.
- Yarney, L., Mba, C., & Asampong, E. (2015). Qualitative study on the socio-cultural determinants of care of children orphaned by AIDS in the Ashanti and Eastern regions of Ghana. *BMC Public Health*, 15(1), 1-13.

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Social Sciences Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)