

Original article

Sexual and gender-based violence in artisanal and small-scale mining in Ghana: Implications for African women's socioeconomic empowerment and well-being

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ABSTRACT

This paper examines the complexities of sexual and gender-based violence (SGBV) in artisanal and small-scale mining (ASM) in Africa, drawing from qualitative interviews with 38 women miners and 9 non-miners in Ghana. Our findings revealed five themes; 1) sex for mining jobs/roles and trading space protection, 2) physical aggression towards women miners during work, 3) sexual exploitations and manipulations, 4) everyday sexual harassment at mine sites: body touching and sexist comments, and 5) emotional/psychological abuse – which underlie women's experiences of SGBV in ASM spaces. These findings have implications for women's empowerment in ASM as discussed in the paper.

1. Introduction

Most of the men see us as sex objects. Our body is money to men, and they want to offer money to have sex with the beautiful women at the mine sites... At the galamsey¹ site, they also yell at us (...) and insult us for stepping into the pits while they are digging. We are nothing to the men (*a woman miner, transporter of gold ore, Ghana*)

The quote above illustrates the sexual exploitation and violence women experience from men at the informal artisanal and small-scale mining (ASM) sites. Though sexual abuse and violence can be found in formalised or licensed ASM operations, it is more common in the informal ASM because it is unregulated and primarily operated based on informal contracts that do not adhere to formal labour regulations (see Bryceson et al., 2014; Danielsen and Hinton, 2020). In spite of the opportunities this sector offers to the unskilled labour force and vulnerable sections of society, scholars have highlighted a plethora of challenges that women face in the sector that hinder their growth, participation,

and ability to thrive within the sector (Abrefa Busia and Arthur-Holmes, 2024; Buss et al., 2017; Hilson et al., 2018; Mkodzongi and Zano, 2020). ASM – low-tech, labour-intensive mineral extraction and processing activity – is noted for having a negative impact on the socio-economic position and progress of women due to various environmental, health, safety, and economic concerns (Arthur-Holmes and Abrefa Busia, 2021; Geenen et al., 2022; Yakovleva et al., 2022). A growing body of evidence in ASM, just as in other male-dominated sectors, has highlighted the systemic barriers, gendered norms and role expectations which adversely affect women in ASM spaces (e.g. Arthur-Holmes et al., 2023b; Bryceson et al., 2014; Buss et al., 2020).

There are varying statistics and estimates of women's participation in ASM. Globally, women constitute >30 % of the total number of individuals working in ASM (Delve, 2022). In sub-Saharan Africa, where the informal sector is predominant, women constitute 40–50 % of ASM workers (Hinton et al., 2003). Despite these numbers, women occupy the lower labour hierarchy of ASM and play menial roles such as digging, ore transportation, washing and separation of gold, and burning of

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¹ Galamsey, literally means gather and sell them (gold) in popular Ghanaian parlance. It is often used to refer to illegal or informal gold mining in Ghana.

amalgam (Arthur-Holmes, 2021; Arthur-Holmes and Abrefa Busia, 2021; Hinton et al., 2003; Susapu and Crispin, 2001) with few women taking up management roles in ASM spaces as administrative and casual staff (Ofosu et al., 2022).

Emerging discourses in the ASM literature have linked women's lack of economic and legal rights in the sector and lack of institutional or government support for women in ASM to their susceptibility to sexual violence and harassment, and economic exploitation (see e.g., Arthur-Holmes et al., 2023a; Arthur-Holmes and Abrefa Busia, 2021; Jenkins, 2014; Kelly et al., 2014; Mafongoya et al., 2021; Rustad et al., 2016; United Nations Environment Programme, 2013). Notwithstanding these identified challenges, empirical studies have not adequately and explicitly identified the key areas in which women experience these forms of gender-based violence in ASM spaces. Gender-based violence, a wider conception of physical, sexual, psychological and emotional abuse, harassment and exploitation, has been found to have a detrimental impact on women's economic well-being and also restricts their economic possibilities (Russo and Pirlott, 2006). For example, in most sub-Saharan African countries, prevalent socio-cultural practices and norms are translated to mining spaces because of the general patriarchal nature of these societies, with women facing subtle forms of harassment, sexist comments, marginalisation and abuse from their male peers and senior colleagues (Atim et al., 2020; Cuvelier, 2014; Mugo et al., 2020). In Ethiopia, for instance, women in ASM feel unsafe when they work far from their homes due to concerns over (sexual) harassment and gang attacks (Shagdarsuren and Purevjav, 2022, p. 34).

It is argued that ASM can provide a source of economic empowerment for women if issues of gender-based violence, lack of economic and legal rights, and discrimination are addressed in the sector (Arthur-Holmes et al., 2023a; Arthur-Holmes and Abrefa Busia 2022a; Danielsen and Hinton, 2020; Lahiri-Dutt, 2022; Mafongoya et al., 2021). In doing so, efforts are required to create a conducive environment for women in ASM and to advance women's economic well-being and agency. In view of this, there is a need for policymakers, international organisations, and gender advocacy groups to have in-depth knowledge of women's socio-economic conditions and relations with their informal mining employers² and other workers at ASM sites.

It is worth mentioning that studies that have investigated SGBV in the ASM sector in Africa are limited (e.g., Atim et al., 2020; Bashwira et al., 2014; Mafongoya et al., 2021) and do not specifically focus on exploring the various areas in which such incidents manifest as well as their possible justifications. This situation primarily stems from the sensitivity and stigma attached to revealing such incidents to an outsider. Moreover, despite the growing research on women in ASM in Ghana (see e.g., Adam et al., 2022; Adomako and Hausermann, 2023; Arthur-Holmes and Abrefa Busia, 2022b; Arthur-Holmes et al., 2021; Baddianaah, 2023; Koomson, 2019; Mengba et al., 2022; Ofosu et al., 2022; Yakovleva, 2007), not many published studies have exclusively investigated how SGBV in ASM extraction and processing spaces occur and how this further reinforces gendered norms and practices within the sector.

Through a case study in Ghana and a review of the scanty literature on gender-based violence and sexual exploitation in ASM in the Global South, this paper attempts to identify the key areas in which women in ASM spaces experience sexual abuse and violence, and to offer a detailed contextual understanding of the phenomenon. The findings from our study will broaden our understanding of the dimensions of gender-based

violence and exploitation in ASM for tailor-made policy and institutional responses to address these critical gendered concerns. Our paper provides specificity of the gender-based violence against women who seek to build a livelihood for themselves and how the complexities and vulnerabilities of such SGBV negatively impact their poverty situation, well-being, and decent work. Additionally, our findings, which demonstrate the multifaceted forms of violence against women in ASM sites, can assist human rights-based institutions and policy-makers in the mining industry to implement interventions and gender-neutral regulations that contribute to achieving Sustainable Development Goal (SDG) 5, target 5.2.1: Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking, and sexual and other types of exploitation.

The remainder of the paper is organised as follows. Section 2 provides a review of the scanty literature on gender-based violence and abuse in ASM spaces. Section 3 briefly describes the context of the study, and the research methods adopted to investigate the dimensions of SGBV in Ghana. Section 4 describes the research findings in detail, and the last section (i.e. Section 5) provides the concluding discussions that include the implication of SGBV cases for women's empowerment and well-being in Africa's ASM.

2. Framing gender-based violence and abuse in ASM spaces

A critical body of ASM literature demonstrates that women are exposed to sexual exploitation, abuse and gender-based violence (Arthur-Holmes et al., 2023a; Danielsen and Hinton, 2020; Mafongoya et al., 2021; Zvarivadza and Nhleko, 2018). Sexual exploitation and gender-based violence in ASM settings in the Global South are markedly different and diverse. In the Democratic Republic of Congo (DRC), for example, women who live within geographical proximity to ASM sites and those aged 15–49 were more likely to experience sexual violence by both their intimate partners and non-partners (Rustad et al., 2016). Because of the lucrative nature of ASM and limited opportunities for women in the sector, employers usually resort to dubious tactics to recruit the few women interested in building a livelihood in the sector.

Scholars have highlighted that some ASM operators use coercive and persuasive means to lure women miners to engage in sexually exploitative activities such as transactional sex in order to work with them (Hinton et al., 2003; Lauwo, 2018; Munir, 2022; Zvarivadza and Nhleko, 2018). There is also evidence that some male ASM employers and workers utilise and insist on sexual favours and intimacy in order to bail female miners out of financial situations during hard times, such as when there are ASM bans (Arthur-Holmes et al., 2023a). In the DRC, research has shown that most women are compelled to have sexual intercourse with workers in the ASM industry before they are recruited to work, intern or gain favours at the workplace (Rustad et al., 2016). These forms of sexually exploitative acts are also employed as tools to frustrate women and other occupants in and around mining sites (Götzmann et al., 2019; Kotsadam et al., 2017).

Financial empowerment and bargaining power that women gain through their involvement in ASM activities may not sit very well with men who tend to dominate the most lucrative part of the ASM industry. This situation may result in some of them using violence and abusive behaviours to avoid competition from women in order to maintain the historically male-dominant hierarchy of mining (Danielsen and Hinton, 2020; Götzmann et al., 2019; Jenkins, 2014). Some scholars have indicated the deep-seated cultural beliefs and gender norms that associate women's involvement in the ASM industry with bringing bad fortune to mine owners or operators (Arthur-Holmes and Abrefa Busia, 2021; Buss et al., 2017; Jenkins, 2014; Rutherford and Chemane-Chilemba, 2020). As a result, some men adopt violent behaviours to deter ambitious women with desires of venturing into mining away from the ASM sector (Danielsen and Hinton, 2020; Jenkins, 2014). Women suffer from psychological and socio-economic forms of violence from men, which includes public withholding of payment for their services, social

² Informal mining employer is used here because male ASM owners or miners have a book that records women's transportation-related tasks on a daily basis, and thus, women miners refer to these men who informally recruit and give them such roles as their employers, managers or owners. Words such as employers, manager, or owner are used interchangeably to show who recruited the women for their mining roles in the informal ASM spaces (see Arthur-Holmes et al., 2023b for details about women's recruitment and negotiation dynamics).

stigmatization and public humiliation (Danielsen and Hinton, 2020, p. 30).

Further emphasising the phenomenon of sexual exploitation and harassment in ASM, an ethnographic study in Tanzania (Geita mine) found that women miners are often put in a position where it is usually difficult to refuse offers from employers and workers when sexual advances are made towards them (Lauwo, 2018). The difficult tasks and activities in the mining sector may also facilitate sexual exploitation in ASM. For example, in a Ugandan ASM mine, some women were found to trade sex with men to escape difficult tasks at the workplace, including breaking of hard rocks (Hinton and Mbabazi, 2009 cited in Danielsen and Hinton, 2020, p. 24). Several small-scale mines' inaction can also reinforce sexual violence and harassment in ASM spaces as a way of controlling resources and ensuring men's power over women (Mafongoya et al., 2021; Danielsen and Hinton, 2020; Jenkins, 2014; Kelly et al., 2014). Inappropriate gears that expose women's body parts entices their male counterparts to capitalise on them to harass and rape them. In Colombia, internal armed conflict has had a negative impact on women's lives, which exposes them to various forms of sexual violence and gender-based human rights violations (Céspedes-Báez et al., 2022).

Women experience sexual abuse and violence in mining communities, due to patriarchal norms and beliefs that "do not tolerate women as actors in public spaces" (Mafongoya et al., 2021, p. 3). These settings are rampant with gender-based violence and sexual exploitation in and outside the workplace due to the breakdown of law and order, formal and informal social control of law enforcement agents and ordinary individuals (Cuvelier, 2014; Kotsadam et al., 2017). Fourati et al. (2021) found that where there is a presence of rebel groups, women working in artisanal mines experience sexual violence. Due to the targeted forms of abuse and violence against such women, they become susceptible to contracting communicable diseases such as HIV/AIDS and other sexually transmitted infections (Meger, 2010). According to Hinton and her colleagues (2003), the high incidence of transactional sex, together with SGBV has a significant impact on women miners' general health and wellbeing. Despite the rippling effect sexual violence, exploitation, and harassment have on the physical and psychological well-being of women, they usually refuse to disclose their plights due to stigmatisation

and maintaining family honour, which is instrumental in African traditional societies (Kotsadam et al., 2017; Nukunya, 2003).

3. Research context and methods

This paper was generated from a research project on "Women, artisanal and small-scale gold mining, and COVID-19 impact in Ghana" from May 2020 to July 2021. More specifically, the research was conducted in the Prestea-Bondaye Mining Area (PBMA) in the Prestea-Huni Valley Municipal District of the Western Region, Ghana (see Fig. 1). The study sought to explore women artisanal miners' and non-artisanal miners' livelihood vulnerabilities during the COVID-19 pandemic and their experiences of gender-based violence and sexual harassment/exploitation by male ASM miners and employers during and after the pandemic. The research project was based on a qualitative research approach that used a case study design based on in-depth interviews (semi-structured and unstructured) and field observations as data collection instruments.

PBMA was chosen as a case study for the research project because it has a notable population of women who are engaged in informal ASM in the area (see e.g., Arthur-Holmes and Abrefa Busia, 2020; Arthur-Holmes, 2021). In PBMA, both ASM and large-scale mining activities (LSM) take place, resulting in a heterogeneous population from different ethnic groups who have moved into the area for economic opportunities in mining (Arthur-Holmes and Abrefa Busia, 2020; Hilson and Hu, 2022). Though there are restricted mineral lands for indigenes, they have developed a livelihood survival mechanism of working on the abandoned pits of large-scale mines and invading their old shafts for their ASM operations. ASM sites were visited at Prestea, Bondaye, Nsuta and Gambia as studied communities (see Fig. 1).

The qualitative research adopted face-to-face and telephone interviews, field observations, and face-to-face informal conversations to obtain first-hand information on women's economic vulnerabilities during the COVID-19 pandemic and their experiences of gender-based violence in the ASM sector. Women interviewed in this study were directly and indirectly involved in ASM. Women directly engaged in ASM worked as gold ore carriers/transporters, diggers, forewomen, and

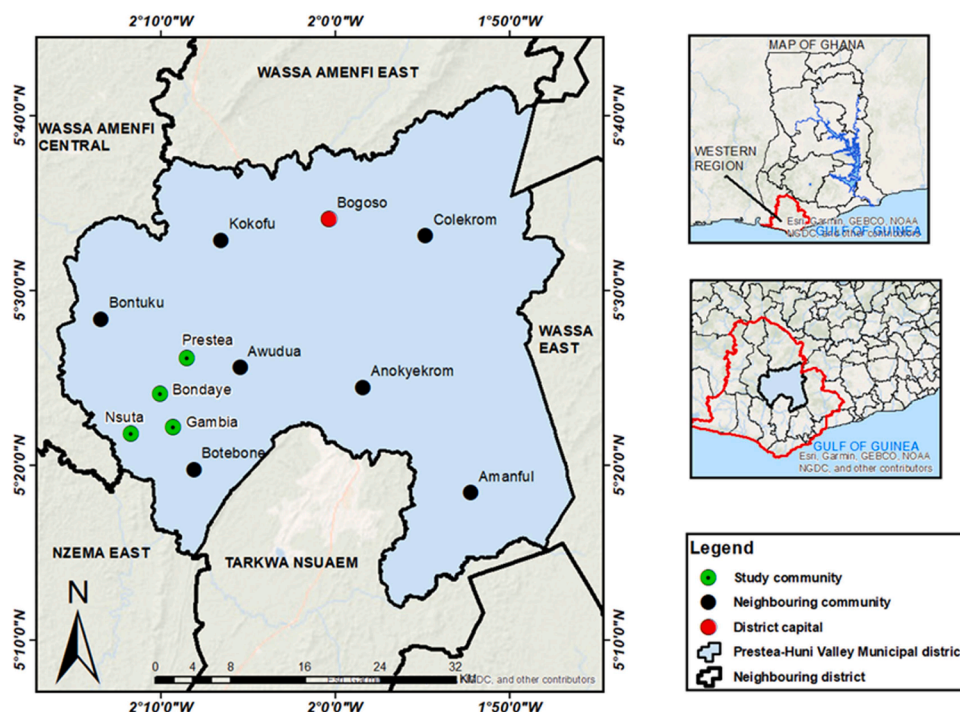


Fig. 1. Map of study communities in Prestea-Bondaye Mining Area (PBMA).

“dig and wash” mining women. In contrast, indirect ASM participation involved women trading at the mine sites.

This study used several recruitment strategies that proved useful. First, the study used purposive sampling, as it focused on only women in ASM spaces as our target group. Second, snowball sampling technique was used after those women initially contacted for the interviews directed the interviewers to other colleagues who had experienced sexual violence and gender-based violence. The inclusion and exclusion criteria for the study were that study participants should not be under 18 (legal working age) and must be either vendors in an ASM setting or female ASM workers/miners. Subsequently, only those who consented to participate in the study were recruited, interviewed, or engaged in informal conversations about the research.

Informal conversations (unstructured interviews) were employed for those recruited through snowballing technique. Those women responded to different questions. For telephone interviews, female miners and non-miners adhered to interview protocol at home. For the entire research, three (3) female research assistants with tertiary education were hired and trained for two days, with each session lasting 1.5 h, to assist with the data collection. The research assistants had a local understanding of the mining terrain and dynamics in the PBMA. Their familiarity with the communities and some women directly involved in ASM helped to build trust with the recruited women and to negotiate access to the mine sites. The gendered positionalities of the research team, including the research assistants, influenced the research outcomes, particularly in terms of responses, as we believed that female interviewees would feel more comfortable disclosing experiences of violence perpetrated by men to female research assistants rather than to male researchers. Thus, considering the positionality of the research team involved in data collection played a key role in obtaining interview responses that truly captured women miners' experiences of gender-based violence at ASM sites.

A structured interview guide was used for semi-structured in-depth interviews that included questions such as: “*have you experienced any form of violence or abuse from male ASM miners or your informal mining employer? if yes, could you please narrate how it happened?*” etc. The interviews were conducted in the local Akan language, specifically in Fante, Wassa and Twi, and lasted typically 25–37 min. Also, the interviews were conducted at mutually approved ASM spaces, where there would be no interference from other women or male ASM workers. In total, 47 interviews (both semi-structured and unstructured) were conducted. Interviews were stopped after reaching the point of data saturation, where no new responses emerged. The field observations were done at 16 unlicensed ASM sites in the four communities and two (2) licensed ASM sites (in Nsuta), with most conducted in the Bondaye community (7 unlicensed ASM sites). Permission to audio-record interviews was obtained before the interviews. In cases where interviewees did not consent to recording the interviews, responses were written as field notes. A similar approach was used for taking pictures and videos of the visited sites. Permissions were taken from the ASM site committee member, galamsey site taskforce officer and informal mine owner or employer depending on site leadership structure and roles.

The research was conducted voluntarily and ensured the confidentiality and anonymity of research participants. Interviewees could decide to opt out of the study at any time of the study. In this study, for instance, six (6) interviewees opted out of the face-to-face interviews due to time constraints as they had to return home from the mine sites. After the interviews and fieldwork by the first author and research assistants, audio-recorded interviews were listened to several times by the other co-authors to understand the responses and identify patterns that run through the recordings. Later, the recorded interviews were transcribed verbatim. The field notes were added to the interview transcript for the next data analysis. Inconsistencies and errors were checked and subsequently corrected or removed. Since de-identification is vital to protecting research participants' identity and preventing them from harm in social science research, we maintained interviewees' anonymity

by using pseudonyms and deleting identifiable information from the interview transcripts and field notes. Following this critical step, we read the final transcript data several times to identify the recurring codes through thematic analysis. The first coding stage was to identify a set of words recurring in the data transcript such as: *insulting*, *“being aggressive”*, *“touching my buttocks”*, *“let me sleep with you and help you financially”*, *“give you a forewoman role if you allow me to have sex”*.

This initial coding teased out codes for further coding analysis. It was done by manual coding, line-by-line reading and highlighting keywords and important texts with a highlighter. The second coding stage was read to identify if new codes were missed from the initial coding. The new ones, which emerged included: *“help your fatherless child with a top-up on your age”*, and *“you won't work but be paid”*. These new codes were subsequently added to the final set of codes. The third coding stage sought to identify, list, and group those with similar meanings to form key themes. After the themes were generated, the transcripts were given to a second author and one independent researcher to analyse the interview data for the credibility and reliability of the findings. Similar themes were identified by these two academics but with slightly different headings, such as 1) *sex before employment*, 2) *sex for work*, 3) *insult*, 4) *disrespect*, and 5) *sexual harassment*.³

In all, five (5) themes emerged: 1) *sex for mining jobs/roles and trading space protection*, 2) *physical aggression towards women miners during work*, 3) *sexual exploitations and manipulations*, 4) *everyday sexual harassment at mine sites: body touching and sexist comments*, and 5) *emotional/psychological abuse*. In qualifying the psychological abuse, field observations were helpful in classifying the interview responses from women, such as insults and disrespect, as a form of abuse. By comparing these examples with those of emotional/ psychological abuse reported in the literature, we identified similar patterns, which led to the emergence of this theme in our research. More importantly, our research methods account for cultural factors, ethically recognising the complexities and vulnerabilities involved when qualifying SGBV in ASM. Quotations from the interview transcripts were used to support key arguments and themes where relevant.

To ensure the trustworthiness of our qualitative research, we adopted Lincoln and Guba's (1985) four (4) criteria: credibility, dependability, confirmability, and transferability. In terms of credibility, the first author and research assistants shared their responses from the interview notes with the interviewees to confirm if they reflected what they said at the end of the interviews. Where there was the need for clarification, considerations were made to enhance the rigour of our findings. The first author consulted with experts in violence research to assess the accuracy of our interpretations. This process further ensured the credibility of the research findings to guide policy interventions to promote women's economic empowerment and better working conditions in the ASM sector. Besides, the research team followed the research design and interview protocol throughout the research process, ensuring the dependability of the findings obtained in this study. Regarding transferability, although the study's findings can offer valuable insights into the heterogeneous forms of SGBV in ASM extraction sites, they cannot be generalized to all mining contexts in Africa. The findings are specifically relevant to PBMA in Ghana while allowing for comparisons to ASM sites with similar mining operations, socio-cultural environments and economic structures. We achieved confirmability by ensuring that the research process generated findings that accurately reflected the interviewees' responses without incorporating prejudices, assumptions or biases of the data collection team and the authors. An independent researcher played a key role in reviewing the research process for

³ After the independent validations of themes generated from the data transcript, the first author discussed the themes and codes generated from the data transcripts with the second and third authors to review, fine-tune and verify themes to reflect the responses of the interviewees. Where there were disagreements about the themes, we discussed them to arrive at a consensus.

confirmability.

4. Research findings

4.1. Sex for mining jobs/roles and trading space protection

An important area in which women in ASM spaces – both mining and non-mining women⁴ – experience gender-based violence is through transactional sex for employment and to also secure spaces for their on-site trading activities. From the interviews, there was a clear-cut distinction between commercial sex and transactional sex. Prostitution was described as a form of commercial sex, where women engaged in sex with men for money as their primary means of livelihood. In terms of transactional sex, women primarily engaged in this practice for work roles at the ASM sites. This situation was reported by some local women and migrant women⁵ who were naive or had limited knowledge about employment opportunities as ore transporters in the various ASM areas. For some migrant women, the informational asymmetries about job opportunities in other sites compelled them to engage in transactional sex for jobs with their potential employers due to fears and anxieties about not finding employment elsewhere when they were not recruited. In many extraction sites, informal ASM employers often needed women's services to obtain more mineralised materials to increase their production and revenues.

Nonetheless, women who were unaware of such employment opportunities and desperate to find informal work to reduce their economic hardships and improve household poverty, narrated that they had to give in to sexual advances from their employers before they were considered for their jobs. For example, a 34-year-old female ore transporter described her experience when she was desperate to find mineral ore carrying-related tasks at a mine site:

When I arrived in Prestea for the first time, I did not know I needed to visit *galamsey* sites where women carried loads (mineralised sand) for Chang Fa operators.⁶ I was only informed that when I visit *galamsey* sites in search of a job as a load transporter, I will find work to do. So, I approached a mine owner for a job, and he mentioned that I sleep with him so that he could help me work with other women carrying loads at the mine site. I needed money, so I accepted his proposal after thinking about it for some days.

According to some married women at the sites, male miners and employers persistently made unsolicited sexual advances to them despite denying such proposals. A 29-year-old female ore transporter noted:

These *galamsey* operators do not care if you are married or not. I often tell them I am married with two children, so I cannot accept it. Yet, they do not feel ashamed to make sexual advances and proposals about wanting to sleep with you.

A 32-year-old female migrant from Northern Ghana also shared her experience of succumbing to the relationship advances of a Chang Fa operator because she lacked decent accommodation. As she further narrated:

⁴ Mining women are those who are solely engaged in mining roles at the sites, while non-mining women consist of women selling cooked local food, water, and beverages at the mine sites.

⁵ Most of the migrant women engaged in informal ASM operations in the study communities were from Northern Ghana while others were from villages and towns in the Western region and other surrounding regions.

⁶ The Chang Fa operators are gold miners who use a diesel-powered crushers as part of their alluvial mining or surface/open pit mining operations. These crushers were introduced into Ghana's ASM industry by the Chinese nationals. In our study, the Chang Fa operators do not have small-scale mining license and operating permit.

When I came to Prestea to carry load [mineralised sand], I was living with two friends in a kiosk. My friends introduced me to their Chang Fa operation owner to recruit me for load-carrying work. He told me I could work the same day...After I started work, the owner started asking me questions about where I lived in Prestea...He also asked me whether I was married or not. I told him I was married. After a while, he declared his intention of having a sexual relationship with me. I informed him I could not accept his proposal because our culture does not permit married women to have sexual relations outside marriage...He then began promising to rent a place for me to stay and that he would give me money to take care of myself. Since my husband was not here in Prestea with me and I did not have a house to sleep in, I gave in to the owner's sexual advances. It was because of poverty that made me engage in such an abomination... He did not help me after having sex with me.

Job recruitment for women in most ASM spaces occurs through informal employment processes and negotiations. This situation offers an avenue for some women to be sexually exploited before getting work roles as ore transporters at the *galamsey* sites. To avoid sexual transactions, some women, especially migrants seeking jobs as ore transporters in informal ASM extraction spaces, were advised by local women and residents against going to miners' homes to talk to them about vacant ore transportation roles or "dig and wash" mining work at their sites.

Women have seen that if you go to Chang Fa operation owners' house for work, they want to sleep with you before granting you access to the mine site to carry the load. From my own experience, one male miner tried to have sex with me even though I later found out he no longer needed women at his site to carry the load. Some of the owners will want to have sex with you before giving you the work because they know you are desperate and do not have money.

Some women miners mentioned that some informal miners (in this case, operators who Chang Fa machines for alluvial mining) convinced them of extra remuneration in addition to job offerings if they had sex with them. For example, a 27-year-old female miner shared her experience and that of her friend who went through a similar situation:

... If you agree to sleep with me, I will give you a top-up to your actual wage. He also mentioned that he would give me extra money during difficult times. We hear this most of the time as women miners. My friend was in the same situation, and the Chang Fa operation owner continued pestering her with unsolicited sexual advances.

Moreover, our findings indicate that there are limited employment opportunities for women in licensed ASM settings because of the level of mechanisation used in mining operations. Due to the limited number of women in licensed ASM operations, "women who work with licensed operators feel privileged and are seen as special by other people"⁷. This forces some women to accept men's sexual conditions for employment at their licensed ASM sites. Though transactional sex for employment in licensed ASM was reported, some women miners indicated that there were more transactional sexual exchanges in unlicensed ASM settings because most women who worked with licensed operators were often relatives of the mine owners or had close ties with them. From our interviews, most women who accepted sexual transactional offers ended up having higher positions reserved for women in the sector, such as forewomen or record keepers of women's transportation work. As one-woman digger who doubles as an ore transporter mentioned:

Beautiful women are the ones contacted when Chang Fa operators want to engage in transactional sex for higher women positions or jobs, but not the ugly women. Ugly women do not face such issues as

⁷ Interview response by one 27-year-old female miner.

the operators are not interested in them. We often hear that some women are exchanging sex for higher positions as forewomen.

Another female miner (ore transporter) also noted that:

Some informal ASM employers mostly give better positions, not involving mineralised materials transportation, to some of the women they admire in order to relate to them sexually.

In some instances, some women's transactional sex acceptance or activities got exposed at the ASM sites because they informed their colleagues and male miners, who subsequently spread the information. From the interviews, some male miners disseminated women's transactional sex activities because the women rejected their proposals for intimate relationships or sexual intercourse. In the case of public exposure about their transactional sex, women felt shy and embarrassed, which resulted in some of the women not visiting the mine site to work again. Consequently, they had to find other unlicensed ASM sites to work as head porters.

Regarding sex for ASM trading spaces and trading protection, four food vendors indicated that because many women wanted to sell at the informal ASM sites, some galamsey Chang Fa operators used sexual demands as conditions to chase away some food vendors and bring new food vendors to sell. From the interviews, the ones who were driven away from the site reported that they refused to give in to the sexual threats of Chang Fa operators. Consequently, they had no protection from the operators for their food-selling spaces at the sites. Some women could no longer sell their cooked food at the site because of the constant unwanted sexual advances made by male employers and miners who wanted sexual favours in order to help them safeguard the spaces they traded at the sites. One 38-year-old food vendor narrated her ordeal:

One galamsey operator did not want me to sell again at the site if I did not have sex with him. He threatened to let another food vendor come to the site to sell the same food. I was very worried that my vending space was threatened and no longer secured.

On the contrary, some food vendors who had sex with some male informal miners for trading space did not permit other food vendors to the mining sites to sell the same kind of food or beverages unless they sold different local dishes.

4.2. Physical aggression towards women miners during work

Many women miners reported that they had experienced some form of physical aggression from male ASM workers or miners during their work at the sites. According to some women miners interviewed, they experienced such physical aggression when they (1) rushed for mineralised materials in the mine pits, (2) dumped transported materials at the wrong side of the piles of mineralised materials at the processing sites, and (3) removed some mineralised rocks from their pan which they considered heavy to transport to the processing area. For example, a 25-year-old female ore transporter narrated her experience of physical violence from a male gold ore digger:

The digger screamed at me when I was recklessly trying to remove the heavy mineralised rocks from the pan. On another occasion, I entered the pits to dig myself, and the digger who was resting got angry, walked aggressively in my direction and took the shovel from my hand.

Another a 37-year-old female ore transporter also added that:

We were dumping loose materials at a particular spot because the place we were instructed to dump loose materials was full. In the process, the male miners became furious about it. One male digger wanted to beat us when we exchanged words with them.

Women who experienced physical violence stressed that different situations that occurred at the mine site involving women miners led to

other incidents of such violence. However, some physical attacks against women miners seemed repetitive due to women's failure to adhere to open pit invasion regulations⁸ and some basic safety regulations, such as not running while transporting the load or bringing kids to the open pits where they receive mineralised materials for transport. Though these were provided as factors for male pit diggers and Chang Fa operators attacking them physically or making such attempts, most women miners felt that their running did not necessitate such aggressive reactions from male miners. For instance, as this 22-year-old female ore transporter shared her ordeal:

Because I wanted to finish my task earlier and go for another set of rounds of mineralised load, I was running to and from the digging and minerals washing sites. One male digger hit my back, telling me to stop running to avoid bumping into other women. I did not think this aggression was necessary. He has no right to hit me. I felt the pain.

The explanations and the excerpts provided in support of this theme on SGBV in ASM so far demonstrate that male miners and mine owners/supervisors sometimes used or attempted to use physical aggression in their work interactions with women miners at the sites. However, some women miners supported the physical aggression towards their fellow women by men, as the women did not comply with informal rules that restricted them from performing certain mining and non-mining-related activities. For example, as this 32-year-old female ore transporter asserted:

The men's aggressive behaviour is not appropriate against the incalcitrant women. But these women deserve the physical aggression or the fierce insult from men. Many women have stopped disobeying the diggers because of the abuse they receive.

4.3. Sexual exploitations and manipulations

Apart from sex for jobs, some women also encountered another form of sexual exploitation when their remunerations were not paid. Some women miners explained that when there was low gold ore production, some Chang Fa operation owners denied paying them their remuneration and often used manipulation tactics to lure them into sexual relations and intercourse before paying them. Often, Chang Fa operation owners and licensed ASM operators based their non-payment of some women miners (ore transporters) on low gold production and non-availability of funds as a starting point to convince the women into sexual acts. In doing so, some owners coerced some of the women into having sexual intercourse with them and promised to pay the women from their personal funds because profits from previous mining operations were very low. The employers informed these women not to inform other women about their remunerations being paid under such arrangements. For these women who were paid because informal mine owners or recruiters wanted to have sexual intimacy with them, the owners lied to other women miners that they had not paid them, which made the favoured women develop trust for their employers. Over time, these mine owners, employers, and operators indicated their sexual conditions and demands if they wished to receive financial support from them. From the findings, some women, including some married women, fell prey to this situation of sexual exploitation. As noted by a 38-year-old female ore transporter:

⁸ At some informal ASM sites, there are rules that women miners who work as head porters are not supposed to enter the alluvial mine pits or surface/open pits to dig or shovel the mineralised materials into their pan. Those who disobey such rules encounter some form of physical attack from the male diggers. This is what we refer to as open pits invasion regulations.

A Chang Fa [operation] owner told me there were no funds from the mineralised materials processed to pay me, but he could give me something for my needs. I took the money, and later, he told me the money was not free. I had already used the money. He did not pay for another two weeks of work. The same excuse was given, calling some women he had not paid so I could believe... I was a victim of this strategy of Chang Fa operation owners. When I found out that he was deceiving me about non-payment of remuneration and sleeping with others, it was too late. He had already slept with me.

The denial of remuneration constituted a form of sexual exploitation as it allowed some male ASM employers to sexually exploit women miners who were facing financial hardships and needed monetary support. From the interviews, some women who were working with their Chang Fa operators sometimes approached them for monetary support to address their financial problems so that they could later deduct these monies from their remunerations, which were paid weekly or bi-weekly depending on the specific arrangements at various mine sites. However, the operators would deliberately refuse their financial support request with the intention that the women plead further in order to exploit them sexually and grant them their request. This sexual exploitation occurred when the male miners and male ASM employers offered sexual proposals for the women miners in exchange for financial assistance. As three (3) women miners indicated, some women miners in these situations refused to fulfil their part of the (sexual) deal. Consequently, they stopped working with the miners. They later joined other ASM employers, leading to some confrontations between their former employer (s) and current employer, especially when the new employer's mine site was at the same location as that of the former employer. As narrated by this 31-year-old migrant female ore transporter:

Some galamsey operators are very cunning. They do not want to help you genuinely when you approach them for financial assistance...I needed money and asked the Chang Fa owner if he could give me GH ₵ 100 (US\$17.23). He later gave me the money on condition that I have sex with him. Later, when it was time to pay my remuneration, he deducted the amount he gave me initially and refused to give me the remaining money. Instead, he intended to use the refusal as an opportunity to declare his sexual intentions and possibly a relationship before giving me the amount he owed me. Some women ore transporters went to their employers for financial help, and they received it without any sexual demands, but I did not.

4.4. *Everyday sexual harassment at mine sites: body touching and sexist comments*

According to most of the women miners, they often experienced everyday practices of sexual harassment at the mine sites as a form of gender-based violence. Different forms of sexual harassment have become a common practice against women miners and non-miners, such as vendors in ASM spaces. Young women and migrant women mostly face this form of mistreatment in ASM extraction sites. Economic status and community status (as migrant, native, or settler) influence women miners' or non-miners' experience of sexual harassment. Many interviewees emphasised that ASM operators, including employers or owners, harassed them by touching their sensitive and sexually attractive body parts such as breasts, buttocks, neck, and waist. Also, some women reported that some male miners were fond of hugging them from behind, unaware in a playful manner and sometimes made funny jokes about it. These men made these sexual attempts as a subtle way of ascertaining if the women would be open to sexual conversations and relations with them. As emphasised by this 25-year-old woman:

On numerous occasions, my buttocks were touched inappropriately. I stood in the digging area, waiting for my turn to collect mineralised sand; the digger touched my buttocks and squeezed it (...). The male diggers and the owners [of the mining operations] do that to us a

lot...If you do not react to what they are doing, they think that you are interested in such sexual play and then begin to have sexual conversations with you.

Another 28-year-old food seller lamented that:

Oh yeah, we are sexually harassed every day. You often hear some female head porters complaining and arguing with men for touching their buttocks or waist without their consent. Usually, these sexual abusers would tell you that they are just playing with you...As a food vendor at the galamsey site, I have experienced that myself. Some of the men will be like, Hey! rice seller (in a funny way) and then touch your bum. I always tell the men not to do that because I do not like such type of play and unsolicited touching.

The personal experiences shared by these women demonstrated the pervasive sexual harassment of women at the ASM sites. According to some older female head porters, the actions of male miners and employers go against Ghanaian social norms and cultural customs that demand women to be adored, respected and treated well, either in public or at the workplace. Others also opined that the sexual harassment meted out to women miners at the sites was embarrassing for women, especially when other workers were watching and made the victims appear "cheap and weak". Consequently, many of the women who experienced harassment indicated that they lost the respect of other men and became concerned that these other men would also treat them in such a manner. Due to these reasons, older women often intervened when such sexual harassment practices occurred to warn men to refrain from such disgraceful and embarrassing acts. These older women were worried for the younger women because they felt that they would become 'sexual prey' to the men at the sites, who could easily reject them when they got pregnant. In the words of a 44-year-old woman miner:

The young boys and men digging in the open pits and those loading the machines sexually harass young girls and women, finding the means to just sleep with them...I am particularly worried for those young girls who are still in school and those who have migrated here [Nsuta] ...I see many young girls getting pregnant by these *galamsey* boys and men who later abandon them...Young girls who give in to galamsey men's unsolicited touching end up becoming pregnant and later stop school.

We also observed in some unlicensed mine sites that some older male miners and mine owners were not supportive of sexual harassment and thus warned the younger male miners who were not married to desist from such practices. Some of the older women head porters had some influence and control over the younger male miners because they had participated in the load transportation activities for a longer period and were, thus, highly regarded at the mining sites. Consequently, their perspectives of women's welfare and mining activities were considered and respected in most instances when they voiced their concerns. From our interviews, some younger male ASM workers or miners shied away from engaging in such acts of sexual harassment when the older female head porters were present to avoid being reprimanded. In three (3) unlicensed mine sites visited, there were informal rules against sexual harassment. Among various mine sites visited, only a few showed concerns for women regarding sexual violence and abuse at the mine sites.

Apart from the abovementioned examples of daily practices of sexual harassment against women at the ASM sites, many interviewees also mentioned that women miners and traders received misogynistic and sexist comments when they had misunderstandings with the male operators (including diggers, load washers/machine boys, owners/employers, and supervisors) and also when they [the women miners] rejected their sexual advances and relationship proposals. The misogynistic and sexist comments were both explicit and implicit. Some examples included: "*you are even ugly, and that digger looks better*", "*you are not even a woman*", "*...with your flat bums like that of a man or flat plate,*

who even likes you”, “look at that woman thinking that she is a woman”, and “a woman’s body is for sex so what do you want”. These comments were demeaning to most of the women miners interviewed.

Moreover, some men even used the poverty conditions of women that drove them into ASM to humiliate and make them feel bad. Concerning this situation, some interviewees mentioned that some women miners also enjoyed the ‘sexual harassment’ without being offended by the male ASM operators. Some women interviewed reiterated that men at the formalised and non-formalised sites harassed different women daily because their bodies were portrayed as objects for sexual gratification by the men. This situation made it difficult for women to be protected and treated well, especially in the formal ASM spaces.

4.5. Emotional/psychological abuse – insults and disrespect

From the field observations and interviews with women miners, emotional/psychological abuses in the form of insults and disrespect were very rampant at the ASM sites. Some women miners indicated that they received a lot of insults from male miners and owners/employers related to their tasks, especially when they were reckless with their work roles and failed to follow specific instructions from male diggers. A woman working with a licensed operator as a cook admitted that she received insults from the male miners because the food did not taste how they wanted it. This situation further suggests that in formal ASM settings, unfair treatments and verbal abuses could be meted out to women despite following formal employment regulations and labour laws.

Disrespect was evident in the way ASM operators, particularly mine owners, supervisors and male miners, spoke to some women at the sites. According to some women miners interviewed, ASM operators spoke to female head porters impolitely and in a displeasing manner that hurt them emotionally. For instance, this 35-year-old forewoman indicated:

The digging boys and Chang Fa machine boys speak to us like we are children and shout at us, don’t put the load there...Are you blind? You can’t put it there. I have been disrespected a few times. Women carrying loads are not respected at all here.

From the interviews and field observations, mine owners/supervisors also disrespected male miners, for instance, those who were not fast enough with their digging and shoveling activities, while at the same time they were having conversations with women waiting for mineralised materials to transport to the processing sites. As one female miner who works as an ore transporter narrated based on one of the encounters she observed in an open pit mine:

It is not only women who are disrespected by the Chang Fa [operation] owners or the digging boys. Male miners are also not shown respect on some occasions...Some digging men and boys who feel disrespected talk to the owners angrily.

However, while issues of disrespect are complex and manifest in various forms, our findings suggest that women miners are often disrespected because they are perceived as not belonging to mining sites let alone performing the most challenging tasks at the ASM sites. Relatedly, some male employers often disrespected women miners for demanding higher wages for their work. In this context, women may be disrespected because not every man accepts that women can undertake work at the mine sites. Women are seen from the lens of social reproduction, child nurturing and domestic activities. The situation of women not being entirely welcomed in some mining spaces and not having the same working conditions as men reveals the embedded socio-economic structural conditions and inequalities they have faced in the ASM sector. Thus, this makes it difficult for some women in certain ASM operations to voice their economic, health and safety concerns at the mine sites and also to receive respect for the work they perform from the

men working as diggers, ore washers/processors and “lokko boys”⁹ and those in the upper echelons of the ASM labour structure as mine owners or supervisors. Interview responses showed that some women miners were disrespected because they were constantly asking for better working conditions.

Additionally, some women miners mentioned that male ASM operators and owners/employers disregarded women’s traumatic work experience at the mine sites. For instance, a 24-year-old female ore transporter indicated that:

The [Chang Fa operation] owners do not pay attention to you as a woman if you are struggling and stressed with carrying load...Also, when you have a traumatic experience from carrying loads filled with heavy rocks to the processing sites, they do not show any duty of care and will sometimes use harsh words on you for being too slow to transport the rocks to the processing site.

5. Concluding discussions

Our research has offered insights into the sexual and gender-based violence (SGBV) in ASM, providing new dimensions to the scholarship on the topic. Offering specificity to the scanty literature on gender-based violence in ASM, we provide five (5) key findings from this study in PBMA in Ghana: 1) *sex for jobs and trading space protection*, 2) *physical aggression towards women miners during work*, 3) *sexual exploitations and manipulations*, 4) *everyday sexual harassment at mine sites: body touching and sexist comments*, and 5) *emotional/psychological abuse*. Our findings showed variations in experiences of violence against women miners, with most cases happening at the unlicensed ASM sites. Unlike unlicensed sites, most women working at licensed sites are protected by their relatives, who either employ them or play an important role in recruiting them. As a new finding, our study demonstrates that non-mining women at ASM extraction sites, such as vendors, also face the issue of transactional sex to secure the trading spaces they use for their informal economic activities. There are several reasons why women engage in risky ASM operations though the sector is financially rewarding. Earlier studies showed that despite the numerous reasons for women’s participation in ASM, poverty is the most common reason (see e.g., Arthur-Holmes and Abrefa Busia, 2022a; Kumah et al., 2020; Labonne, 1996; Yakovleva, 2007).

Given the precarious nature of ASM work, women face various challenges, not only related to economic factors but also occupational health and safety issues. Indeed, the precarious conditions in which women find themselves contribute to their economic insecurity, making them vulnerable to sexual exploitation and violence. This situation occurs because of a lack of gender-sensitive policies in the ASM sites to protect women from any abuse, including sexual coercion and violence. Besides, the increased participation of women in informal ASM tends to intensify gender-based violence. Consistent with other studies conducted elsewhere (see Atim et al., 2020; Mafongoya et al., 2021), women’s financial situations create different avenues for sexual exploitation. For instance, women who engage in ASM because of family financial struggles are more likely to be exposed to unwanted sex, as most fall into the traps of men’s sexual exploitative mechanisms at mine sites (Arthur-Holmes et al., 2023a). As found in our study, the limited economic opportunities in rural areas exposed women to transactional sex for employment due to their relatively lower socio-economic position, though some were reluctant to engage in such practices.

Those in informal ASM, whose economic position is unstable due to the constant threat of termination, may experience sexual abuse from their employers (Arthur-Holmes and Abrefa Busia, 2021). As the study has highlighted, the influx of women into the ASM sector influences the behaviour of men who use their wealth and control over mining roles to

⁹ Lokko boys are underground mine “ghetto” helpers.

entice women to engage in sexual activities with these women. This situation further reveals the unequal benefits that ASM offer to men and women working in the sector (Hinton et al., 2003; Buss et al., 2019; Lahiri-Dutt, 2022). Such gendered livelihood benefits and economic outcomes influence women's decisions, especially when facing financial hardships and difficulties, to yield to persuasive and coercive sexual advances from male miners and employers. Under such circumstances, it is difficult to protect women from sexual violence or other forms of abuse and ensure their human rights, especially in informal ASM settings where many women are generally paid remuneration that is insufficient to meet their basic needs and acquire important assets. As Miller (2007) notes, human rights protection and enforcement are hard to enforce in informal economies, particularly in developing countries.

The violence against women in ASM settings could be attributed to the lack of recognition by owners of ASM operations for women's roles. As found in this study, women in ASM spaces encounter "everyday experiences of sexual harassment" through body touching and sexist comments related to their bodies and facial features. In our study, women's bodies were visualised as objects of sexual pleasure as male miners failed to accord women miners and non-miners the necessary respect as fellow humans, making many women feel uneasy at work. Aside from instances of some men visualising women as sex objects and their associated violence and harassment in and outside the workplace, previous studies have offered critical accounts of sexual violence and harassment in ASM communities (e.g., Bashwira et al., 2014; Rustad et al., 2016). For instance, a study conducted in Zimbabwe showed high levels of physical violence, emotional abuse, sexual assault, sexual violence, economic violence, forced labour, and maltreatment affecting women and girls in ASM (Mafongoya et al., 2021), which underscores the multilayered and complex nature of women's SGBV in the sector. Cultural practices embedded in patriarchy normalise harmful gender norms, and the lack of strong laws and policies exacerbates women's vulnerability in ASM work environments (Mafongoya et al., 2021; Mengba et al., 2022).

Given the fact that ASM operations shape social, economic, and political structures, measures seeking to end SGBV need to address structural barriers that perpetuate and reinforce gender inequality at the mine sites. The findings of this research call into question the gendered power relations in ASM spaces that provide men with more power to exhibit their masculine dominance over women and dictate and make critical decisions at the mining sites. SGBV in ASM spaces is meted out to women to deprive them of access to mineral resources, control their mining roles, reinforce traditional gendered norms and relations, and communicate men's authority as miners and decision-makers at the mine sites. According to some (feminist) scholars, the disregard for gender-sensitive policies and practices in the ASM sector critically affects women's decent work, sustainable and productive employment and hinders safe and inclusive spaces for women to work and thrive (Arthur-Holmes and Abrefa Busia, 2021; Buss et al., 2017; Lahiri-Dutt, 2022; Yakovleva, 2007).

In addressing gender-based violence in ASM, though ASM legal and regulatory framework is gender-blind, formalisation efforts should support women in making their economic roles more visible with economic protection, technical support, training, and access to credit facilities to establish women cooperatives for their own mining activities (Arthur-Holmes and Ofosu, 2024; Arthur-Holmes and Mengba, 2024). Given women's specific concerns and marginal position in the sector, concerted efforts and pragmatic approaches could address pervasive SGBV in ASM while promoting gender-sensitive regulations and practices that consider women miners. Recent evidence by the Tariro Youth Development Trust in Zimbabwe shows that "there are no ASM-specific GBV [gender-based violence] policies, legislation or regulations for GBV prevention and reporting" (Mafonyoga et al., 2021, p. 3). That being said, women's working conditions should be a priority for men who recruit women for ore transportation at ASM sites because women's economic roles contribute to their income generation and wealth accumulation. It should not be seen as an "area of bargain" to improve

women's well-being. Indeed, this is a major problem, considering that most informal ASM spaces studied do not have formal rules and policies to deal with violence and abuse against women miners and non-miners.

In terms of the contribution to scholarship, this study contributes empirically to understand better the overlooked dynamics of the everyday experiences of sexual harassment and gender-based violence against women in ASM spaces in the Global South. Our study points out that even in formal ASM settings, there are incidences of sexual exploitation and gender-based violence against women and young girls employed in various economic positions. The findings of this study position researchers well to conduct further studies and theorise the incidence of violence and abuse against women in ASM settings. It also calls for complex and intersectional approaches to broadly understand how social norms and practices interact with gendered ASM organisation and management factors to impact women's everyday working experience at ASM sites and their relationships with male employers and miners (see Abrefa Busia and Arthur-Holmes, 2024; Arthur-Holmes and Matey, 2025).

Our study problematises the precariousness and hazardous nature of ASM operations, which can expose women miners and non-miners to multiple sets of risks (related to social, economic, human rights, occupational and environmental) which can adversely impact their physical and mental health as well as psychological well-being. Given the heterogeneous nature of ASM and socio-cultural dynamics in African settings, we call for further research on gender-based violence in ASM in different social contexts to obtain the nuances and complexities of the violence and sexual abuse women miners and non-miners experience from men in ASM spaces to guide policymakers, donors and NGOs for interventions that address this enduring and evolving social problem.

CRediT authorship contribution statement

Francis Arthur-Holmes: Writing – review & editing, Writing – original draft, Validation, Supervision, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Kwaku Abrefa Busia:** Writing – review & editing, Writing – original draft, Validation, Formal analysis, Data curation, Conceptualization. **Enoch Bofo Amponsah:** Writing – original draft, Conceptualization. **Jennifer Dokbila Mengba:** Writing – review & editing, Validation.

Declaration of competing interest

The authors declare that they have no conflict of interest.

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