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# Exploring the impact of military conflict on sex work in Ukraine: Women's experiences of economic burden

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**ABSTRACT**

Little is known about the impact of military conflict on sex work from the perspective of sex workers. We attempt to explore the meaning of conflict on sex work by asking women about the changes that they have experienced in their lives and work since the beginning of the 2014 military conflict in eastern Ukraine. The findings in this article are based on qualitative interviews with 43 cisgender women living and practicing sex work in Dnipro, eastern Ukraine. Our analysis highlights the meanings that sex workers have linked to the conflict, with financial concerns emerging as a dominant theme. The conflict therefore functions as a way of understanding changing economic circumstances with both individual and broader impacts. By better understanding the meaning of conflict as expressed by sex workers, we can begin to adapt our response to address emerging, and unmet, needs of the community.

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Conflict; Ukraine; sex work; Big Events; HIV

## Introduction

According to the United Nations, conflict and violence are on the rise globally (United Nations, 2020). Many of these conflicts are linked to regional tensions, corrupt or absent state institutions, illicit economic activity, and scarcity due to climate change, with the regionalisation of conflict leading to longer, more protracted forms of conflict (United Nations, 2020). There are numerous harmful consequences of conflict, including violence, displacement, and interrupted health services, all of which are also known mediators of HIV risk (Friedman et al., 2009; Hankins et al., 2002; Mock et al., 2004; Spiegel et al., 2007). Terms like 'Big Events' have been used to explore how wars and similar types of upheavals impact HIV epidemics (Friedman et al., 2009). Friedman et al. (2009)

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point to how Big Events, including the political and economic transition of post-Soviet Union states, can be '*slow-moving* precipitators of epidemics' (p. 284). In particular, the authors explore how variables in Big Events, such as displacement, disruptions in economic and health care structures, and impacts on family, social, and sexual networks, are confronted by individuals and communities and mediate HIV risk.

Little is known about the impact of conflict on sex work (with notable exceptions: Ferguson et al., 2017 Goldenberg et al., 2016; Muldoon et al., 2017). Ferguson et al. (2017) conducted a comprehensive literature review of HIV/STI vulnerability and sexual and reproductive health services access among sex workers in conflict settings. They pointed to social and structural factors, such as violence, human rights violations, displacement, as well as disruptions to health services, employment, and social structures as severely negatively impacting HIV/STI prevention and access to sexual and reproductive health services, with women disproportionately impacted by the negative consequences of displacement. Importantly, they highlighted a lack of research, policy, and programming for sex workers affected by conflict and advocate for sex worker-informed policies and programmes which follow a human rights-based approach, rather than a narrow behavioural and biomedical focus (Ferguson et al., 2017).

Since 2014, Ukraine has been in a continuing state of conflict in the Donbas region in eastern Ukraine (Holt, 2018; Vasylyeva et al., 2018). Since the start of the conflict, the country has seen approximately 1.5 million internally displaced persons (IDPs) and over 13,000 conflict-related deaths, with approximately 3.4 million people requiring humanitarian assistance (Office of the United Nations High Commissioner for Human Rights, 2020; USAID, 2020). The conflict has had major social and economic consequences in Ukraine, including unemployment and poverty (Holt, 2018; International Monetary Fund, 2020; World Bank, 2021). The conflict has also had negative ramifications for the country's public health care system and its troubled economy (Mackenbach et al., 2014). While the conflict has been called a 'ticking bomb of HIV' (Holt, 2018), research among IDPs in Ukraine has also shown impacts on mental health and alcohol use (Doty et al., 2018) and non-communicable diseases, including psychological distress and interruptions to health care and medication use (Greene-Cramer et al., 2020). Women, in particular, reported a higher prevalence of non-communicable diseases and psychological distress, and research suggests that women affected by the conflict may have experienced more stress and anxiety, or experienced stress more acutely, which may worsen their disease experience and lead to seeking care (Greene-Cramer et al., 2020).

Given the ongoing vulnerability of sex workers largely related to socio-structural contexts (Shannon et al., 2018), it is surprising that little is known about the impact of conflict on sex work, especially from the perspective of sex workers themselves. In our study, we explore the impact of conflict on sex work by asking women about the changes that they have experienced in their lives and work since the beginning of the 2014 military conflict in eastern Ukraine. It is important to stress that this research and analysis took place prior to the escalation of full-scale war in the country on 24 February 2022.

## Methods

### *Study setting*

Dnipro, a city in Dnipropetrovsk oblast, is approximately 200 km from the conflict in the Donbas region, and has become one of the main destinations for IDPs since the start of the conflict (United Nations High Commissioner for Refugees, 2017). The city has an estimated population of 1 million (State Statistics Service of Ukraine, 2018). There are an estimated 87,000 sex workers working across Ukraine (UNAIDS, 2019) and approximately 1087 sex workers (range 817–1357) in Dnipro (McClarty et al., 2018). Sex work in Ukraine operates in many spaces, including street-based and in more formal apartment and 'brothel'-type settings (Herpai et al., 2021; Owczarzak et al., 2018).

In Ukraine, sex work is considered an administrative offence, under Article 181.1 of the Administrative Code of Ukraine, and punishable by a warning or a fine (Pyvovarova & Artiukh, 2020; Rachok, 2019). Managing a 'brothel' and procuring clients are criminal offenses under Articles 302 and 303 under the Criminal Code of Ukraine and punishable by a fine and/or imprisonment (Pyvovarova & Artiukh, 2020; Rachok, 2019). A draft law aimed at legalising 'prostitution' in Ukraine was submitted in 2015, and proposed that sex workers be considered as 'entrepreneurs', required sex workers to undergo regular medical examinations, and stated that sex workers should be entitled to protections under the Labour Code of Ukraine. The draft law was subsequently withdrawn due to public outcry (Pyvovarova & Artiukh, 2020). Ethnographic fieldwork in Ukraine has pointed towards demands for decriminalisation among sex workers (Rachok, 2019), findings which have also emerged through a national sociological study (Pyvovarova & Artiukh, 2020).

## Study design

As part of an ongoing mixed-methods study aimed at assessing the influence of conflict on sex work and the ongoing HIV and hepatitis C epidemics in Ukraine (for more details, see Becker et al., 2019), we conducted longitudinal in-depth interviews with 43 sex workers living in Dnipro, who were also invited to participate in diary writing. Briefly, the *Dynamics* study includes mapping of places where women work, a serial, cross-sectional bio-behavioural survey among sex workers and their clients, in-depth interviews with sex workers and key actors in the sex work industry, participant diaries among sex workers, archival review, and mathematical modelling. Our study is being conducted as a partnership between the Ukrainian Institute for Social Research after Oleksandr Yaremenko (UISR after Oleksandr Yaremenko) and the Institute for Global Public Health at the University of Manitoba, with collaboration from the Center for Public Health of the Ministry of Health in Ukraine and the Dnipro Oblast AIDS Center. Local data collection was undertaken by researchers from UISR after Oleksandr Yaremenko, DEF Group (a research organisation-based in Dnipro), and with support in recruitment and local interviewing space from Road to Life (a local service organisation working with key populations, including sex workers and people who use illicit drugs).

The findings in this article are based on baseline qualitative interviews with 43 cisgender women living and practicing sex work in Dnipro. Participants were recruited through their participation in the bio-behavioural survey, through social workers at Road to Life, or through peer referral. Interviews were conducted by researchers affiliated with UISR after Oleksandr Yaremenko, who received training on qualitative interviewing techniques. The interview guide was piloted and revised during the training sessions. Baseline interviews lasted on average one hour and took place at Road to Life, rented meeting rooms in a hotel, women's workplaces, or at local cafes, depending on the preference and comfort of the participant. Women were invited back to participate in three follow-up interviews, each occurring two weeks apart, and were also asked whether they would be interested in participating in a diary writing exercise. The diary component was intended to compliment the follow-up interviews and women were asked to complete four diary entries per week for four consecutive weeks. Baseline interviews explored the impact of conflict on women's lives and work, as well as their access to social and medical services. Follow-up interviews and diary writing further explored themes on work, income, clients, experiences accessing health and social services, and family life. Interviews took place between February and June 2018. All interviews were audio recorded, transcribed in Russian (the language most commonly spoken by participants), and translated into English. The English-language transcripts were reviewed for accuracy by the interviewers, who are fluent in both languages. Diary entries were transcribed in Russian and translated into English, following the same process as the interview transcription.

### Analysis

The Dynamics study team, comprised of researchers from Ukraine and Canada from diverse disciplinary backgrounds, including public health, medical anthropology, sociology, feminist economics, and infectious diseases, met in Kyiv in October 2018 to review transcripts and collaboratively develop the coding scheme. First, a qualitative training session was led by the first and senior author, as much of the team was new to qualitative analysis. The research team then read through a sample of transcripts and individually assigned parent codes to the transcripts, followed by a group discussion where themes were discussed and grouped into parent and child nodes, after which a joint coding scheme was agreed upon by the team. The team coding activity also served as an opportunity for data contextualisation and elucidation of social and political dimensions by the research team based in Ukraine. The second author then applied the codes to all 43 transcripts using NViVo 12 software. The first author reviewed the coded data and did a further round of inductive thematic analysis on the theme of conflict. The selected English quotations were re-checked against the original Russian transcripts.

### Ethical approval

Ethical approval was obtained from the Health Research Ethics Board at the University of Manitoba, Canada and the Ethical Review Committee of the Sociological Association of Ukraine.

## Findings

Forty-three women participated in the baseline interviews, with a median age of 38 years (interquartile range [IQR] = 32–42). Interview participants had been working in sex work for a median of seven years (IQR = 3–17), with 35% ($n = 15$) having worked for over 10 years. Women had lived in Dnipro for a median of 37 years (IQR = 9–40), with 72% ($n = 31$) having lived in the city for more than 15 years. Nearly 47% ($n = 20$) of the women were single and had never been married; however, 74% ($n = 32$) were responsible for supporting at least one dependent. Demographic characteristics of the participants are presented in Table 1. In our analysis, we explore the impact of conflict on sex work and changes experienced in women's lives and work since the start of the conflict in 2014. Women linked meanings of the conflict to the economic situation in the country, their earning potential, and changes in the nature of clients, including rises in aggression, as further detailed in the following sections.

### The economic burden of conflict

While most of the women that we spoke with in our interviews were not directly involved in the conflict, its shadow was still felt, as expressed in the quotations below. Participants described 'the scary situation in the country' and 'the disturbances' of the conflict.

> Everyone, just slightly, or indirectly, or remotely, does not matter, we all *(!)* depend on that. We hear about that everywhere. We hear everywhere like someone has lost someone, someone else has someone being injured, someone has visited the injured in the hospital, others did something else. So that even we, who live peacefully, we are still living this too. Not in the way they do, thank God, of course. But we still feel it. As for me, it hasn't affected me much personally. But that's what I hear, that a lot of people are getting involved. Some went there, some worked there, others did something else that had to do with it still. Back then people … A man couldn't have imagined, that he would get there, it's not his field at all. And then it turns out that the person was a director of a fund, then sped off and went to the ATO [anti-terrorist operation]. (woman in her 30s, main place of work: apartment-based)

> The war itself. People are dying. This is very scary. I cannot imagine how, my relatives, friends, how it all will affect them. This is very scary, in my opinion. Very much. (woman in her 30s, apartment-based)

**Table 1.** Demographics.

| | | Sex workers $N = 43$ (100.0) |
|---|---|---|
| Age | Median (IQR) | 38 (32–42) |
| Education | | |
| Incomplete secondary education | *N* (%) | 18 (41.86) |
| Complete secondary education | *N* (%) | 20 (46.51) |
| Some/completed post-secondary education | *N* (%) | 5 (11.63) |
| Marital Status | | |
| Single never been married | *N* (%) | 20 (46.51) |
| Living with spouse/partner | *N* (%) | 6 (13.95) |
| Widowed | *N* (%) | 7 (16.28) |
| Divorced/separated | *N* (%) | 10 (23.25) |
| Financially supporting dependents – Yes | *N* (%) | 32 (74.42) |
| Number of Dependents | Median (IQR) | 1 (0-2) |
| Children | *N* (%) | 23 (53.49) |
| Father | *N* (%) | 1 (2.33) |
| Mother | *N* (%) | 8 (18.60) |
| Intimate Partner | *N* (%) | 2 (4.65) |
| Other | *N* (%) | 6 (13.95) |
| Years living in Dnipro | Median (IQR) | 37 (9-40) |
| ≤5 years | *N* (%) | 7 (16.28) |
| 6–15 years | *N* (%) | 5 (11.63) |
| > 15 years | *N* (%) | 31 (72.09) |
| Years doing sex work | Median (IQR) | 7 (3-15) |
| < 3 years | *N* (%) | 9 (20.93) |
| 3–6 years | *N* (%) | 12 (27.91) |
| 7–10 years | *N* (%) | 7 (16.28) |
| > 10 years | *N* (%) | 15 (34.88) |
| Main workplace | | |
| Office | *N* (%) | 9 (20.93) |
| Public place (street/park) | *N* (%) | 17 (39.53) |
| Apartment | *N* (%) | 10 (23.26) |
| Other- entertainment venue, on call | *N* (%) | 7 (16.28) |
| Multiple Workplaces: Yes | *N* (%) | 15 (34.88) |

Some other women felt far enough removed from the conflict in the Donbas region, while residing in Dnipro, noting that nothing had changed for them, stating that 'in general, all is the same'.

While the vast majority of women that we spoke with were not directly involved in the military actions or had not lived in the conflict zone, when asked about how their life has changed since 2014, when the conflict began, many women responded with financial concerns.

> What has changed?! Prices have changed *(laughter),* life has changed for the worse. (woman in her 30s, public place-based (street/park))

> Well, that's because of the prices, the fact that the prices have increased and there is less work now. And the prices have increased, because of that. I'm not suffering because of war itself. Only because of the finances. (woman in her 30s, apartment-based)

> Generally, it did not bring anything good. First, the economic crisis. The prices have risen for everything. Earlier we noticed the money that we've earned. Now who does not go to the store … Or money for living, it will just fly away. In addition, we watch out that there are no unfavorable clients. Because many people escape somewhere, they come somewhere. Chaos. (woman in her 40s, "brothel"-based)

The conflict served as a powerful metaphor for conveying what participants saw as a decline in their financial situations while also helping to explain their more general sense of a disordered society. Participants associated the conflict with financial hardship, shrinking work opportunities, rising prices, and changing relations to clients, as further described in the next section.

### *Higher prices, less earnings*

While women spoke of their financial concerns, they also described how people in general, and clients in particular, had less disposable income since the start of the conflict.

> So people have become more … as well … insolvent. Money and people … in general, roughly speaking, people have less money. If earlier somehow – they came more often, then how much you say - so much you get. Now, he will think – yeah, aha, he [the client] comes maybe once a week, maybe once every two weeks. So, because people's financial situation has become much worse. (woman in her 50s, apartment-based)

> *(Pause)* I think they were always the same. The only thing is now … At first, when I was working, they were richer. It was possible to earn there some excellent tips. Now, perhaps again with this war, people have no money. And they are greedy for every penny. So even, well, there are such that even … Well, basically I work in cars. Rarely, when I go out to some saunas. But if you come to the sauna, and they offer there a bottle of beer extra. Forgive me, but they are all penny pinchers now. (woman in her 40s, public place-based)

> No. Regular clients are the same, but they ask for cheaper, because it seems that people started having less money. Their budget is cut, or prices are getting higher. They lack it, but they want it. *(Laughs).* (woman in her 30s, "brothel"-based)

This resulted in some women reporting clients coming less often and requesting to pay less for visits. As one woman put it, 'They all say "it is war, there is no money"'. This led to women sometimes accepting lower prices for services, in order to not lose clients. At the same time, many women discussed the prices they charge rising over the years, but this making little difference in growing their real income due to growing inflation and all costs increasing.

> Well, probably, due to the fact that everything is becoming more expensive, we become more expensive too *(laughing)*, the condoms are expensive. (woman in her 30s, apartment-based)

> Well, if in hryvnia [the national currency], then it is the same money. And if earlier I could work for an hour, and go to [grocery store chain], bring two bags, then now I can not do it. Here I went to the [grocery store chain], for 120 rubles [meaning hryvnia, approximately $4.50 USD] I can just buy stuff for a pan of borsch. That's all. (woman in her 30s, "brothel"-based)

The economic decline was not always directly linked to the conflict, with women reflecting on longer durations of involvement in sex work and the changing economic situation in the country. Women also discussed how their work-related expenditures have equally increased, further impacting their earnings.

> Well, I do not manage to save anything, well, what you get, you spend. That's why I'm saying that now everything is expensive. And I need a facial massage once a month, and I have to go to have my eyelashes done – they all have fallen off already, … and pedicures, and manicures, well, it's all for me … the expenses are big. Eyelashes – 300 rubles [meaning hryvnia, aprox. $11.25 USD], these ones – 200 rubles [approx. $7.50 USD], and she makes me the cheap ones. In the salon it would cost 600–700 [approx. $22.50-26.25 USD] … . (woman in her 50s, apartment-based)

Work-related costs, including facials, eyelashes, manicures, and pedicures, among the many other gender-related expenses women face to adhere to expected norms of femininity, cut into the take-home earnings of sex workers. These rising costs also led to challenges in making ends meet and supporting family and dependents, as well as being able to afford medical expenses.

> Yes, it changed, I do not know how this … how the war affected it, but yes, it changed, because, in general, prices are rising, and prices for sex services have also increased. Well, I need to eat, dress, all this becomes with every month (*accentuates*), just with each month more expensive; not just with the year, but every month everything becomes more expensive. Even, roughly speaking, one needs more and more for food each time. So, of course, prices are rising, you try to achieve your best and tell [the clients] "I'm poor, unhappy, I need more money" (*laughs*). And all the girls are like this, some have families, children, husbands, which they support (*accentuates*), there, some have five children, plus drugs. Everyone has their own problems. (woman in her 30s, public place-based)

> … . It was possible to earn a monthly salary overnight. For 2–3 months, you could buy gold and fur coats for yourself. And now – not enough for the teeth. I cannot save up a normal amount to have them done. (woman in her 40s, public place-based)

While some women felt that they were able to financially meet their needs, inflation also meant that money did not stretch as far, and the women we spoke to discussed it being harder to save and invest in the future.

> No. The income is different. Because the number of clients has decreased. So the earnings also decreased. But, in general, I can afford. It is enough for me that I can afford what I want. (woman in her 20s, "brothel"-based)

> … Or utilities, does not matter, maybe, you pay some. Plus transportation, food. Then there is trifle left, generally, for a month. Although earlier the intimate services were much more valued. Earlier the meeting cost at least $100-200 dollars. This for an hour spent with him. (woman in her 40s, "brothel"-based)

> Yes. Now it is much lower. Earlier you could save up money. Some kind of investment planning. Now this is the average standard of living. Such, not cash-strapped, but not for saving, let's say. (woman in her 40s, "brothel"-based)

Participants expressed contrasting views on whether the conflict impacted the number of available clients. Some women highlighted military clients as taking the place of previous clients who could no longer afford visits.

> No, it did not, because now there are a lot of military men coming through Dnipro. So because of this, we can say that the number has not changed. There were already those who could not already pay, they fell away, and new, military, they appeared. So … (woman in her 30s, apartment-based)

While some women did not notice any changes to their work, noting that 'clients are as they used to be', other women shared there being fewer clients more generally, that demand for their services had decreased, which was attributed to there being fewer men, or fewer 'good' men in the city (due to conflict), and men having less disposable income because of economic decline.

> No, in general. Just that … The work … Everybody is in the war. (*Laughing*). (woman in her 50s, "brothel"-based)

> Fewer. Fewer. I can sit all night long and not earn a ruble [meaning hryvnia]. (woman in her 30s, "brothel"-based)

> That's exactly why there are fewer clients, I have less income. (woman in her 30s, apartment-based)

Along with changes in client numbers, women also drew connections to changes in client behaviour since the start of the conflict, as further explored in the next section.

### *Assessing safety and risk among clients*

When asked about changes following the conflict, some women spoke of clients becoming more aggressive and linked increases in aggression to the ongoing conflict.

> Aggressive. Because, I think, because they were living their lives, and everything was fine. And then suddenly, from the favourite place … Can you imagine? You live your whole life in this apartment of yours, and then suddenly, basically, from scratch, you have to turn round and leave. And this aggression, I think. Here people take the evil out on those [who are weaker] … (woman in her 30s, public place-based)

While there was initial excitement over military clients from the ATO zone, who would travel to Dnipro on days off with money to spend, some women spoke of keeping away from these clients, describing them as 'more aggressive' and unpredictable.

> Yes, then, when, there is war. And the first military actions. When only the very, very, very first "boom" happened. This was the end of August. Now, literally by the middle of September, when already more or less those who were wounded, let's say, they survived. And, here, literally three, probably, categories of men were clearly seen. Those who, without hesitation, went into battle. Despite everything. Very clear. And it later somehow

> became visible, in the future, understandably, psychologically, behold, the guys are … It's very good that, pooh-pooh-pooh [knock on wood], I have not yet come across these guys. Because it is unclear that at some point a person will want, if suddenly, wants to drink, maybe he will be good at first, and then he has something … Memories, some kind of explosion … (woman in her 30s, apartment-based)

> Well, I do not know, I just have ATO militaries, maybe just … well, just when they first started to appear, ATO military, here they came from the war, they had a lot of money, and all the girls, well, we hoped so much, "Now, we will have new clients". Then, as it was (*laugh*), it was not very encouraging for everyone, because they are simply, 50–50, that is, you sit down – with ATO military you never know who he will turn out to be. They may be normal, they will pay you 2–3 thousand [approx. $75–112.50 USD] for an hour instead of 500 UAH [approx. $18.70 USD], because they simply have money, they stayed there for six months, they brought it, I do not know, they have 50,000 [approx. $1872.54 USD] in their pockets, they have such pockets of money. They poured money for you and they do not care. Well, or you can sit in a car with some scumbags who will take you somewhere and they'll do with you anything they want, and throw you out somewhere in the woods. Therefore, someone takes the risks, someone does not work with them, let's say so. Well, I would not say that it was reflected on other men, I do not know, maybe I did not think about it, maybe I did not pay attention. (woman in her 30s, public place-based)

While some participants stated that they avoided military clients, it should be noted that others expressed the generosity they experienced from them, 'Well, I had ATO guys, they are generous, they give money, and treats, and everything you want'.

In interviews, women also discussed the importance of avoiding military topics with clients, while others avoided drinking alcohol.

> You know, we try to talk less about the war, about this all, because everyone has to start this topic – at once psychologically … the psychological mood of the client changes at once, it falls. And if the mood falls, then falls to the sexual, well, then what is there to say light and good? – because all this is interconnected. (woman in her 50s, public place-based)

> Yes, yes, they are especially aggressive. But, basically, if they are not given a drink [alcohol], this does not happen (*laughter*). That's basically, if we start asking something, we [say] "let's go without alcohol". Well, we try to persuade calmly, so that everything will be fine. And they, generally, then become regular clients. (woman in her 30s, apartment-based)

While participants recounted the volatile nature of ATO clients, they also drew on their skills in supportive listening, noting that due to cultural norms around masculinity, men were unlikely to access mental health services.

> They are coming back from there with traumas and with concussions. And there was one life, and here is the other. The psychologists – no. We don't have such a mentality. And if someone goes to the psychologist – it means he is sick [meaning "crazy"]. (woman in her 30s, apartment-based)

> Immediately no, it is, basically, then they themselves tell about it, because these are people who need to share their experiences with others. They say they share with the girls, you know, like in hairdressing salons or somebody else … [*Interviewer: As with a psychologist.*] Yes, here, and, basically, they tell, it happens, they just come just to talk (*accentuates*), they do not need anything, but just talk. They want to tell the horrors they experienced there. (woman in her 30s, apartment-based)

Despite their access to disposable income, women that we spoke to discussed their hesitancy around seeing clients from the ATO zone, drawing connections between their unpredictable nature to the trauma that they faced during their service. When seeing clients, women attempted to avoid discussing the war, sometimes steered clients away from alcohol, and also took on roles of supportive listeners.

## Discussion

Our analysis highlights the major impacts that sex workers have linked to the conflict between the periods of 2014–2018, with financial concerns emerging as a dominant theme when discussing conflict and sex work. The conflict therefore functions as a way of understanding changing

economic circumstances with both individual and broader implications. By exploring conflict as experienced by sex workers, we can seek to respond to the types of 'suffering' (Kleinman et al., 1997) produced by this ongoing 'Big Event' (Friedman et al., 2009). Understanding the negative consequences of conflict among different populations demands increased consideration as new and ongoing events continue to emerge due to pandemics, climate change, and shifting geopolitical dynamics. Furthermore, due to the unrecognised nature of their labour, sex workers may not be able to tap into the same types of social and financial supports available to others during crises, as seen during the COVID-19 pandemic, where sex workers were left out of many government protections schemes globally (Platt et al., 2020; Reza-Paul et al., 2020; UNAIDS, 2020). These considerations are now even more pressing, following the escalation of war across the country and humanitarian crisis.

The narratives shared by the women in our study reflect economic analyses undertaken by Osiichuk and Shepotylo (2020), who reported declining real total and real household incomes in Ukraine since the start of the conflict, with the most severe decreases in household income closest to the conflict zone. While there has been some recovery in household incomes in more recent years across the country, these improvements have not been seen to the same extent in the areas surrounding the conflict zone or across all occupational strata. Women, in particular, evaluated their current ability to make ends meet and future financial well-being as worse off than their male counterparts (Osiichuk & Shepotylo, 2020). Economic crises have a history of widening gender gaps, with COVID-19 as a most recent example of this phenomenon, as women leave the workforce to take on the responsibility of caring for children and extended family (Kabeer et al., 2021). Furthermore, most markers of economic recovery, such as gross domestic product and unemployment, often overshadow the burden assumed by women and other marginalised populations (Kabeer et al., 2021; Stiglitz et al., 2010; Waring & Steinem, 1988). In particular, feminist economists stress how micro-level decisions fit within broader macro-economic contexts (Conrad & Doss, 2008; Heintz et al., 2021; Kabeer et al., 2021). Currently available economic opportunities largely impact decisions individuals make, including those surrounding HIV-related risks. In their comprehensive review of the literature on conflict and sex work, Ferguson et al. (2017) highlight how political and economic conflicts create particularly precarious environments for sex workers, where financial needs may overshadow HIV/STI prevention measures. Elmes et al. (2017) conducted research following the economic collapse in Zimbabwe in 2009 in order to understand its impact on sex work amid a generalised HIV epidemic. They found that changing economic conditions and increased knowledge of HIV impacted demand for sex work, led sex workers to alter where they found clients, and the types of payments they received, explicitly linking changing socio-economic conditions to shifts in behaviour and risk. This is similar to findings in our study, where some women continued to meet with military clients, despite others' concerns surrounding unpredictable risk and safety. To respond to this, Mock et al. (2004), in their framework on conflict and HIV risk, call for 'aggressive and progressive approaches to poverty alleviation and reduction' (p. 13), naming development programmes as important for addressing HIV risk in conflict settings. However, sex workers are often left out of conflict-related policies and programmes (Ferguson et al., 2017), with a few notable exceptions (see for example: Burton et al., 2010; United Nations High Commissioner for Refugees, 2010; Women's Refugee Commission, 2016).

Research from Ukraine prior to the conflict has pointed to the ways that social and health services can reinforce gender norms, with HIV programmes characterising 'women as hapless victims of unfortunate family circumstances and troubled personal relationships that produce sudden poverty, or social strivers who seek access to wealth and privilege at the expense of their health', highlighting how 'programmes constituted around these stereotypes of women and their vulnerabilities reflect new forms of institutional power that deflect attention away from gendered socio-economic processes that contribute to women's HIV vulnerability' (Owczarzak et al., 2018, p. 1171). HIV programmes in the country focus predominantly on providing reproductive and sexual health services and harm reduction supplies, and have yet to systematically address the more complex socio-

economic and gendered power imbalances that drive risk (Owczarzak et al., 2018). Under a socio-economic and gendered lens, there is a recurring call to shift away from a narrow, individual-level HIV prevention focus, towards exploring macro-level change through novel interventions and labour- and human rights-based approaches (Conrad & Doss, 2008; Owczarzak et al., 2018; Santini et al., 2020). Empowerment-based approaches that seek to build community and create more accepting and safer environments for sex workers have been widely successful in contexts such as India (see for example Jana et al., 2004; Reza-Paul et al., 2012; Reza-Paul et al., 2019). Similar outreach and advocacy approaches in Ukraine in the future could help in creating safer work environments for sex workers.

### *Strengths and limitations*

Our study has a number of strengths. First, our large sample size allowed us to ensure that a number of diverse voices were included from across different demographic characteristics and work environments. Secondly, our recruitment strategies worked to build trust, by recruiting interview participants through community partners and women who had already participated in the bio-behavioural questionnaire. At the same time, it is possible that our recruitment strategies could have left out women not connected to our partners or working in spaces that were not included in our initial mapping and questionnaire recruitment process. Despite this, our large sample size ensures that a number of different experiences were included in our study. Our follow-up interviews and diary writing approach also allowed for relationships to be developed over time. Findings from the follow-up interviews and diaries will be explored in future manuscripts. It is also important to note that our study took place prior to the full-scale war in Ukraine.

## Conclusion

'Big Events' can have major economic consequences, with negative health outcomes disproportionately affecting marginalised populations, as further seen during the COVID-19 pandemic (Vasylyeva et al., 2020). In countries without strong financial assistance programmes and for populations who fall outside of recognised employment structures, these economic burdens can have dire impacts on health and well-being (Vasylyeva et al., 2020). However, Friedman et al. (2009), point towards Big Events as potential moments of change, where communities can come together to form stronger networks, advocate for their rights and demand large-scale action. In particular, discussions around sex work decriminalisation and the recognition of sex workers' labour and human rights can have a real impact in addressing some of the financial precarity faced by sex workers and improving their work environments. By better understanding the meaning of conflict, as expressed by sex workers themselves, we can begin to adapt our response to address the emerging needs of the community.

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