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PREVICT-SW: Protocol for a Quasi-Experimental Participatory Study to Prevent Violence Against Sex Workers

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ABSTRACT

Background: Sex workers experience disproportionately high levels of victimization, specifically violent and property-related offenses. However, victimological theory and empirically tested prevention strategies tailored to this population remain limited. While traditional frameworks, such as lifestyle and routine activity theories, provide population-level explanations, they insufficiently capture the structural, situational, and cumulative risks faced by highly vulnerable groups.

Methods: This study presents the protocol for a mixed-methods, longitudinal quasi-experiment conducted in the Swiss cantons of Fribourg and Neuchâtel, where no targeted victimization prevention programs for sex workers exist at time of implementation. The project pursues two objectives: first, to identify risk factors and victimization trajectories in order to refine victimological theory; and second, to evaluate the effectiveness of a tailored, needs-based prevention program. Co-developed with sex workers and stakeholders, the intervention integrates a multi-level approach based on sensitization, crime prevention, legal education, and psychosocial support.

By combining longitudinal and quasi-experimental methods, the study aims to advance victimological theory and provide critical evidence to inform practice, policy, and scalable prevention efforts.

KEYWORDS

Victimization; crime prevention; empowerment; legal literacy; protection strategies

Background

Overview

This article presents the research protocol for PREVICT-SW, a four-year project funded by the Swiss National Science Foundation. The study adopts a mixed-methods, intervention-based, quasi-experimental, and participatory research design. Grounded in victimology, a field that emerged in the 1940s through the pioneering work of scholars such as Benjamin Mendelsohn, Hans von Hentig, and Stephen Schafer, the study responds to a long-standing limitation of the discipline. Despite its historical development, victimology has yet to produce a comprehensive theoretical framework capable of fully explaining the processes and mechanisms of victimization¹ (Rock, 2017), especially regarding vulnerable populations. Theories like intersectionality (Crenshaw, 1989) – which posits that individual

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experiences of inequality and vulnerability are shaped by the interaction of multiple social identities and structural systems of power, such as gender, race, class, migration status, and occupation, rather than by any single factor in isolation – offer valuable insights, especially when applied to the lived experiences of sex workers. However, they fail to capture the situational aspects of victimization (e.g. working places and hours, type of clients, repertoire of resources, and the situational strategies in place, such as target hardening or the decrease of excuses, see Cornish & Clarke, 2003).

To address these limitations, this study adopts an integrative perspective informed by Agnew’s call for a unified criminology (Agnew, 2011), which emphasizes that crime and victimization are best understood through the interaction of multiple levels of analysis, including structural, social, situational, and individual factors. From this perspective, no single theory is sufficient on its own; rather, existing frameworks must be combined and refined to capture the complex pathways through which victimization occurs. In that regard, PREVICT-SW focuses on three levels of analysis: the macrolevel (laws, law enforcement practices, victim assistance, and hospital care), the mesolevel (NGOs’ practices, customers’ behaviors, and parlor managers’ prevention strategies), and the microlevel (sex workers’ knowledge, skills, and social support). [Figure 1](#) illustrates these three levels of intervention.

Since the 1970s, the advent of crime surveys has driven inquiries into victimization, leading to the formulation of well-established theories like *lifestyle theory* (Hindelang et al., 1978) and *routine activity theory* (Cohen & Felson, 1979). While these models effectively explain population-level crime and victimization by positing that individuals’ lifestyles and routines intersect with those of potential offenders to create opportunities for crime, they have important limitations. Specifically, while these frameworks sought to understand why some people are more vulnerable to victimization than others and why certain historical periods witness higher crime/victimization rates, they often overlook groups with enduring vulnerabilities – such as children, the elderly, individuals with disabilities, those discriminated against, or those in high-risk occupations – who are disproportionately susceptible to

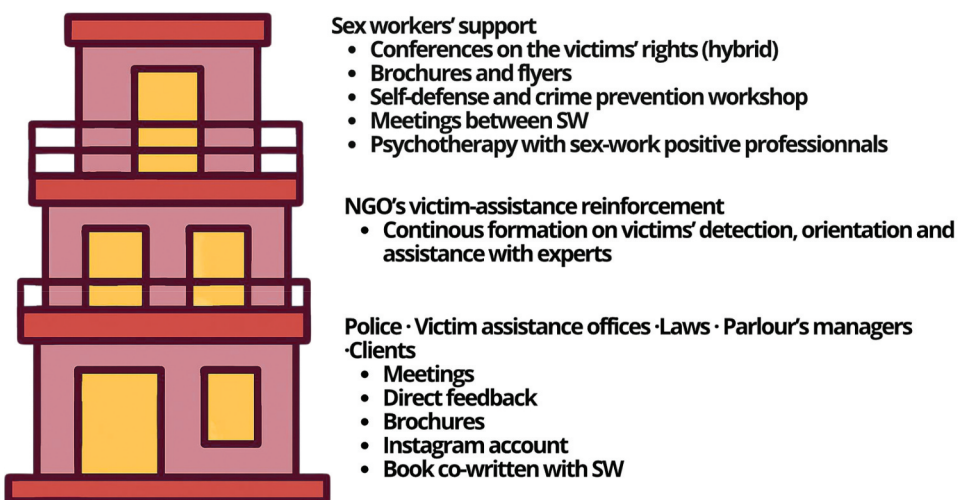


Figure 1. PREVICT-SW project: multi-level intervention.

suffering specific types of offenses (Beauregard & Chopin, 2021). A shift toward examining the distinct trajectories of these groups could yield deeper insights into their specific experiences of victimization.

Vulnerabilities in sex work

Sex workers – defined as those who engage in sexual acts in exchange for financial or in-kind compensation (Jenkins, 2020) – experience a heightened risk of victimization compared to the general population. A systematic review by Deering et al. (2014) highlights that 45% to 75% of sex workers have encountered victimization throughout their working lives. Specifically, 19% to 67% have faced violent offenses, while 14% to 54% have been victims of sexual offenses during their careers. Sex workers face victimization from a multitude of sources, including clients, colleagues, “pimps” (intermediaries), passersby, managers, and, in some cases, law enforcement, particularly in countries where sex work is criminalized (Benoit et al., 2018, 2019; Deering et al., 2014; Karandikar & Próspero, 2010; Neira, 2012; Sanders, 2001).

Europe’s regulatory approaches to sex work vary significantly – influenced by diverse political ideologies – ranging from decriminalization (in Belgium, for instance) and regulationism to abolitionism and prohibitionism (Chimienti & Bugnon, 2018; Danna, 2014). In prohibitionist countries, such as Croatia or Romania, sex workers themselves are criminalized, while in abolitionist nations like France and Sweden, clients are penalized, framing the purchase of sexual services as a form of gender-based violence. Alternatively, countries like Switzerland and Germany regulate sex work as an economic activity, implementing policies to manage the industry (Bugnon et al., 2009; Chimienti, 2009; Chimienti & Bugnon,). Studies suggest that sex workers face greater risks in criminalized or abolitionist settings, whereas regulation often correlates with lower victimization rates (Benoit et al., 2018, 2019; Deering et al., 2014).

Nonetheless, even in regulated settings like Switzerland, sex workers continue to encounter risks, including theft, fraud, physical and sexual violence, as well as exploitation (Biberstein & Killias, 2015; Brüesch et al., 2021; Chimienti, 2009; Hertig Randall et al., 2025; Molnar & Aebi, 2022; Molnar & Ros, 2022). A recent national exploratory study by Molnar et al. (2024) uncovered prevalent forms of victimization such as sexual violence (non-consensual condom removal, noted at 70.8%), discrimination, verbal abuse, and theft (each affecting 50% of participants). While clients were the primary perpetrators, incidents involving passersby, colleagues, and parlor managers were also mentioned. Crucially, many sex workers refrained from reporting these incidents to the police or victim assistance units, deterred by barriers like fear, shame, and limited awareness of available services.

Consequently, while Swiss studies have examined the extent of victimization among sex workers, significant gaps remain in understanding the specific vulnerabilities and risk factors that amplify or mitigate these risks. In addition, through a detailed legal analysis, Hertig Randall et al. (2025) point out the stigmatization of sex workers done within Swiss law across multiple fronts. Sex workers in Switzerland experience multiple forms of discrimination that arise primarily from the interaction of regulatory fragmentation, administrative barriers, spatial restrictions, and persistent social stigma. Although sex work is legal, the decentralized regulatory framework allows cantons and municipalities to impose different rules regarding registration, permits, and working locations, creating

unequal conditions across regions and legal uncertainty for workers. Administrative requirements and zoning policies can further restrict access to safe and legal working spaces, sometimes pushing sex workers into more precarious environments. These structural constraints are reinforced by stigma and paternalistic narratives that frame sex workers primarily as social problems or victims rather than workers with rights. For migrant sex workers, these dynamics may intersect with immigration rules and language barriers, creating additional obstacles to accessing legal protections and institutional support.

Victimization prevention in sex work

In other industries, risk and vulnerability mitigation strategies are standard practice, and preventive measures such as security protocols and violence prevention training are routinely implemented. This is not the case in sex work. While some global prevention programs have been developed for sex workers, few have undergone rigorous evaluation (Beattie et al., 2010, 2015, 2016; Brody et al., 2022; Javalkar et al., 2019; Kerrigan et al., 2015; L'engle et al., 2014; Nabayinda et al., 2024; Parcesepe et al., 2016; Tsai & Wilson, 2020; Wechsberg et al., 2006). A scoping review by Molnar and Chopin (2025) in this very journal highlighted a remarkable gap within the academic literature, especially regarding programs conducted in European or Western contexts. The evidence-based interventions they identified were often evaluated through (cluster) Randomized Controlled Trials (RCTs) – where a group of sex workers received an intervention while another group did not, or did so at a delayed stage (i.e. experimental vs. control groups) – or Pre-Post Intervention Designs without a control group. These studies measured victimization outcomes such as sexual violence, physical violence, and self-efficacy.

The most effective programs identified were integrative, combining community mobilization, peer support, policy advocacy, and legal literacy training (Molnar & Chopin, 2025). Successful programmes focused on enhancing sex workers' resilience, expanding their knowledge of legal rights, and increasing their social capital, while simultaneously raising awareness among key stakeholders. In other words, they aimed to decrease sex workers' vulnerabilities and risk exposure. However, many of these programs faced significant challenges, including high attrition rates and underreporting, largely driven by the stigma associated with sex work. Furthermore, some interventions inadvertently improved outcomes for control groups, raising important questions about the broader community-level effects of such programs. Notably, none of the reviewed studies addressed property crime or exploitation – relevant forms of victimization for sex workers in Switzerland (Molnar et al., 2024) – nor did they provide in open-access to the resources used for their interventions.

Aims of the PREVICT-SW project

In response to the lack of a strong theoretical framework addressing the victimization of sex workers in Switzerland and the absence of comprehensive prevention programs, the PREVICT-SW project has two main goals. First, it seeks to analyze the pathways of victimization experienced by sex workers to develop a micro-victimological theory specific to this population. Second, it aims to design, implement, and assess a victimization prevention program shaped by participatory action research, with findings that will also inform the theoretical development. These objectives are both foundational and applied,

recognizing that victimology – distinct from other social sciences or natural sciences – carries an inherent focus on prevention, victim support, reparation, and rights (Rock, 2017).

Theory of change

The PREVICT-SW intervention is grounded in a theory of change positing that tailored, context-specific prevention tools – delivered through linguistically accessible and rights-based workshops – will strengthen sex workers' *knowledge of their rights* and *perceived self-efficacy*. By increasing awareness of safety strategies and improving perceptions of personal safety, participants are expected to adopt more effective *protective behaviors* in their daily work.

These shifts in knowledge and practice should, in turn, reduce *victimization rates* among those exposed to the intervention. The program aims to *enhance reporting to victim assistance services*, foster *greater awareness among key stakeholders regarding the needs of sex workers*, and ultimately promote *stronger institutional responsiveness* from social workers, the police, as well as other frontline actors. Together, these individual and structural changes reinforce a virtuous cycle in which improved agency, better-supported reporting pathways, and more informed institutions contribute to a measurable reduction in violence and exploitation.

Methods

Overview

PREVICT-SW proposes a longitudinal, mixed-methods experimental study targeting sex workers as well as other key stakeholders (law makers, law enforcement offices, care providers, social workers, customers, and parlor managers). The project is implemented in the cantons of Fribourg and Neuchâtel, located in French-speaking Switzerland. To date, these cantons have not implemented structured violence prevention programs specifically aimed at reducing sex workers' risk of victimization. In contrast, other Swiss cantons – such as Vaud, Geneva, and Zurich – have a long-standing tradition of targeted prevention initiatives. These include programs such as *Previst-VD* (Molnar, 2019, 2021) at the association *Fleur de Pavé* in Lausanne, as well as the activities of NGOs like *Aspasie*, which maintains a strong presence on social media and offers self-defense courses and informational materials designed to prevent victimization by clients, intimate partners, and managers of indoor work venues. In both cantons included in the study – Fribourg and Neuchâtel – sex work is carried out almost exclusively in indoor settings, predominantly by individuals working alone or in very small groups.

The study – pre-registered on an open-access platform – employs a quasi-experimental two-group design. A baseline measurement is conducted prior to participation in the prevention program, followed by four post-intervention assessments carried out over a three-year period. In brief, sex workers are recruited through partner NGOs (*Frisanté*, via the *Grisélidis* program, and Doctors of the World, via the *Thays* program). Participants complete a baseline questionnaire, either independently or with the assistance of the researcher, according to their preference. Depending on their availability and interest, participants may then choose to take part in the intervention program in spring 2026,

autumn 2027, or not participate at all. Consequently, participation in the 2026 intervention group is not randomly assigned but determined by the participants' own decisions. The study, therefore, compares this group with sex workers who do not participate in the program in 2026, who function as a pseudo-control group. While this design limits causal inference, it reflects the constraints of conducting research in real-world settings with a hard-to-reach and highly mobile population.

For transparency, the project was initially designed in 2024 as a cluster randomized controlled trial (Puffer et al., 2005). In this original design, sex work venues (parlors) would be randomized, with the control group functioning as a wait-list control group – that is, initially not receiving the victimization prevention program but gaining access to it after a delayed implementation. However, after 3 months of fieldwork, it became clear that the population of sex workers was highly mobile in 2026, frequently moving between cities and countries. Under such conditions, randomization would likely have increased attrition and compromised the feasibility of the trial. In addition, some sex workers expressed an immediate need for the intervention in 2026, raising ethical concerns about delaying access. These observations illustrate the well-documented challenges of implementing randomized controlled trials in complex real-world contexts and the trade-offs required between methodological rigor, feasibility, and ethical considerations (Díaz-Fernández et al., 2023). Given these constraints, and consistent with the project's broader grounded theory orientation, the study ultimately adopted a quasi-experimental design.

The study, which takes place between December 2025 and 2029, involves sex workers as well as social workers and other stakeholders in the Swiss cantons of Fribourg and Neuchâtel. The intervention comprises seven targeted measures designed to address the complex victimization risks faced by sex workers. These intervention measures were proposed by 20 sex workers and 6 social workers during participatory workshops conducted in 2024; they have also demonstrated effectiveness through international research (Molnar & Chopin, 2025) and are grounded in criminological research (see the *situational prevention approach*, Clarke, 1995; Cornish & Clarke, 2003).

Access to field

Access to the field and participants is facilitated through long-standing collaborations with two NGOs that provide outreach, counseling, and social support to sex workers in the cantons where the study is conducted. These organizations play a key role in connecting the research team with potential participants and in disseminating information about the project to sex workers who use their services. The NGOs regularly conduct outreach visits to indoor sex work venues, such as erotic parlors, as well as providing support through office-based consultations. The research team accompanies these outreach activities when appropriate, allowing the project to be introduced directly in the environments where sex workers work or seek support. In addition, the researchers conduct independent visits to parlors and maintain contact with participants through multiple channels to ensure accessibility and flexibility in participation.

The collaboration is facilitated by the professional background and positionality of the research team. The principal investigator previously worked for nearly a decade as a social worker with sex workers in Switzerland and Spain, which has enabled the development of trust and familiarity with the field. The research team is also

multilingual and able to communicate in several of the languages commonly spoken among sex workers in the study region, facilitating communication with a diverse and highly mobile population. Beyond in-person outreach, the project also uses digital communication channels to reach participants, including a dedicated Instagram account and a WhatsApp Business contact through which sex workers can ask questions, receive information about the study, or express interest in participating. These combined strategies – long-standing NGO partnerships, direct field presence, multilingual communication, and digital outreach – allow the project to access a dispersed and mobile population while maintaining continuous and flexible contact with potential participants.

Pilot study: participatory workshops

The participatory workshops were conducted in 2024 with sex workers and social workers in small groups to ensure accessibility and active participation. During these workshops, participants were invited to propose strategies and intervention measures based on their own experiences and needs. One workshop was held at the NGO's premises with 10 sex workers and lasted approximately 90 minutes. The first author facilitated the session and encouraged discussion on whether violence prevention at work constituted a priority for participants and which types of information, actions, workshops, or activities they considered most helpful. Recruitment was voluntary and carried out through a flyer disseminated by the NGO. To be as inclusive as possible, particularly for sex workers working in more isolated premises or rural areas, additional workshops were also conducted in massage parlors with the sex workers present at the time of the visit. Participants received financial compensation (CHF 80) in recognition of their time and expertise.

These workshops represented an important phase in the development of the PREVICT-SW project. Although the overall framework of the intervention is overseen by the principal investigator, many of the proposed measures were, and still are, developed collaboratively with participants. Overall, the program was designed to integrate the perspectives and insights of those directly concerned, ensuring that the intervention is informed by the experiences of sex workers themselves.

Intervention

The PREVICT-SW project adopts a multi-level approach that engages a diverse set of stakeholders involved in the prevention of violence against sex workers and the strengthening of victim-support mechanisms. By engaging actors across these multiple levels, the project aims to address victimization risks not only at the individual level but also within the institutional, social, and environmental contexts in which sex work takes place. [Figure 1](#) illustrates the scope of the project and the stakeholders involved.

First, sex workers themselves constitute central stakeholders in the project, participating both as beneficiaries of the intervention activities and as contributors to the co-development and evaluation of prevention strategies. They are involved through participatory workshops, group meetings, feedback on prevention materials, and representation in advisory structures. The intervention is therefore not designed as a top-down program but

is intended to be co-constructed on site with sex workers themselves. The intervention for sex workers is based on the following activities:

- (1) *Victimization Prevention Brochure*. Developed in collaboration with sex workers, NGOs, hospital violence departments, and victim assistance services in both cantons, this brochure provides comprehensive information on victimization. It includes a step-by-step guide on what to do following victimization, detailing medico-legal procedures and victim assistance rights. The brochures are distributed among sex workers and used in social workers' daily prevention activities. They also serve as a support tool in the legal literacy course, the victimization prevention course, and the psychosocial counseling program. Once an initial version is developed, the research team discusses it with sex workers in the field and gathers feedback in an iterative process to improve the material.
- (2) *Legal Literacy Course*. Delivered by the local victim assistance office, this 1-hour group course informs sex workers about what constitutes a criminal offense, their legal rights (particularly in cases of victimization), and the services available to them should they become victims of crime. The content is adapted to the realities of sex work and is accessible online to facilitate access.
- (3) *Victimization Prevention Crash Course*. Conducted by trainers specializing in self-defense for women, this 4-hour course teaches assertiveness and victimization prevention techniques, including physical and verbal self-defense strategies adapted to the specific context of sex work.
- (4) *Psychosocial Counseling Program (Group or Individual)*. This program offers either 10 group counseling sessions (with up to 10 participants per group) or 10 individual sessions, depending on participants' preferences. The sessions aim to increase social cohesion among sex workers, provide emotional support and strengthen self-efficacy in managing professional challenges related to sex work. Group sessions are led by mental health and seasoned field professionals, chosen by the team for their expertise and human approach. Individual sessions are facilitated by sex work – positive psychologists who are native speakers of different languages. These psychologists were selected through individual meetings with the research team, during which the project and their professional positioning toward sex work were discussed. They were also asked to read a reference book on counseling with sex workers (Burnes & Dawson, 2023) to avoid stigmatizing approaches and to ensure a situated and informed practice. Sex workers can choose freely from the psychotherapists via a magazine that the research team has developed (Figure 2).

Second, NGOs working directly with sex workers are key partners in the project. Social workers and program directors contribute their field expertise to the dissemination of the project and feedback on materials, while also receiving continuous training on victim detection, orientation, and assistance. Social workers will be trained by victim assistance officers to recognize victimization and apply protection strategies for the victims. This training integrates victimology theory with practical support techniques to enhance their ability to detect and assist sex workers who are victims of crime.

Third, the project engages a broader network of institutional and community stakeholders whose practices influence sex workers' safety and access to support.



Figure 2. Magazine of sex work-positive therapists for sex workers (mock example).

These include victim assistance offices, police representatives, healthcare professionals, self-defense trainers, and sex work – affirmative psychotherapists who participate in the delivery of intervention components. The PREVICT-SW team holds annual meetings with them to inform them about the project in order to sensitize them to the obstacles encountered by the sex workers when seeking assistance and care.

Finally, actors operating within the sex work environment itself – such as managers of erotic parlors and clients – are addressed through targeted awareness materials and outreach initiatives. For customers, a brochure, “Be a Safe Client,” promotes respectful behavior toward sex workers, especially for sex workers who do not speak the local language and may advocate less effectively for themselves. Developed by NGOs, it aims to reduce clients’ use of *neutralization techniques*² (Sykes & Matza, 1957) to justify antisocial behaviors. It encourages respectful conduct and avoidance of coercion and abuse. Printed as a sticker-poster as well as an A6 flyer, it will be displayed on parlor doors in multiple languages and disseminated to customers; it helps define the concepts of violence and abuse for sex workers and parlor managers, while establishing clear rules and expectations for customers. The brochure for managers of erotic parlors presents key principles for safer working environments in massage parlors, including workers’ rights, workplace rules, and measures to prevent violence. The brochure also includes a QR code linking to additional prevention resources on the project’s website and practical tools for improving safety in sex work venues.

Participatory research

The participatory dimension of the PREVICT-SW project is informed by the traditions of Participatory Action Research (PAR), which seeks to incorporate experiential knowledge and redistribute epistemic authority in research involving marginalized populations (Adelman, 1993). While fully realized PAR ideally involves community members as co-researchers throughout all stages of research, in practice, participation often occurs at different levels depending on contextual and structural constraints. Arnstein's "ladder of citizen participation" (Arnstein, 1969) conceptualizes participation along a continuum ranging from consultation to partnership and shared decision-making. Within this framework, PREVICT-SW adopts a pragmatic participatory model combining consultation, collaboration, and elements of partnership. Prior to the launch of the intervention, participatory workshops were conducted in 2024 with 20 sex workers and six social workers. Participants discussed whether violence prevention constituted a priority in their work and identified key mechanisms of victimization, barriers to accessing victims' rights, and practical strategies that could strengthen safety in their daily activities. These discussions informed the design of the intervention and its core components.

Participation continues beyond the initial design phase through several institutionalized mechanisms. A Community Advisory Group provides ongoing oversight and feedback on both the intervention and its evaluation. This group includes three sex workers, two directors of NGO programs targeting sex workers, one national coordinator for sex work advocacy, and one social worker specialized in violence prevention against sex workers. Once the project is stabilized, the research team will return to the field to formally solicit additional input from this group, ensuring that community perspectives continue to inform implementation decisions over time. In addition, sex workers contribute to the qualitative assessment of the intervention through in-depth interviews and facilitated co-reflection processes. These discussions allow participants to evaluate the relevance, acceptability, and perceived effects of the intervention, providing insights into how prevention strategies are experienced in practice.

Importantly, several key components of the intervention are themselves co-constructed during implementation. The design intentionally avoids a fully manualized or standardized curriculum. In the counseling sessions (both individual and group-based), victimization prevention activities, and self-defense workshops, facilitators follow only a minimal structural framework necessary to ensure ethical safeguards and participant safety. Within these parameters, sessions are largely participant-led: sex workers identify the topics they wish to discuss and the issues most relevant to their work, such as negotiation with clients, boundary-setting, safety strategies, emotional support, or interactions with institutions. This flexible structure allows the intervention to remain responsive to participants' priorities and lived experiences rather than imposing a predefined "one-size-fits-all" program. Participant feedback is integrated through a continuous improvement approach to refine content, delivery modalities, and practical arrangements while maintaining fidelity to the core elements of the intervention.

Participation also extends beyond implementation to dissemination and knowledge production. Sex workers are involved in the co-development of informational materials, including flyers and brochures addressing sex workers, clients, and managers of erotic parlors, and may participate in local events aimed at sharing prevention strategies and

project findings. These dissemination efforts aim to ensure that study results are returned to the community in accessible and meaningful ways. Overall, participation is embedded throughout the research process – from initial design and implementation to evaluation and dissemination. Although the overall research architecture remains institutionally structured, the project explicitly positions sex workers as partners in knowledge production rather than merely as research subjects, recognizing their situated expertise in understanding victimization risks and prevention strategies within sex work contexts.

Inclusion criteria

Participants will be eligible for inclusion if they are aged 18 or older, currently offering sexual services in the cantons of Fribourg or Neuchâtel (even if partially), able to provide informed oral consent, and demonstrate adequate comprehension in one of the study languages or with the support of an interpreter.

Individuals will be excluded if they present with a severe acute psychological crisis (see Ethical considerations section), exhibit clear signs of coercion or trafficking, lack the capacity to consent, or if their participation cannot be ensured safely – for example, in cases where an immediate threat requires emergency intervention.

Recruitment

Recruitment occurs through two complementary channels: outreach conducted by partner NGOs during their regular field visits and online contact via escort platforms. Interested individuals may register voluntarily using a phone number, with a WhatsApp number for the project as the preferred communication method. Interpreters in Spanish and Romanian will be available throughout the recruitment process, even though the first author is also a native speaker of both languages. All recruitment materials are multilingual and visually accessible – including illustrated flyers and information sheets (see [Annex 1](#)) – and participants receive clear assurances regarding confidentiality, the voluntary nature of participation, and the independence of the study from any NGO support or services they may use.

Evaluation

At the beginning of the study, a baseline assessment will take place. All participants will be asked to complete a validated face-to-face questionnaire (previously partially tested with Swiss sex workers in Molnar et al., 2024), collecting baseline data on victimization, perceptions of safety, reporting to authorities, and protective strategies.

Subsequently, the intervention will be implemented in spring 2026 for participants who are willing to take part in the program. Due to capacity constraints, places will be limited (60 places for group psychosocial support and 15 places for individual psychotherapy). After 1.5 years, participants who did not access the program in 2026 will be offered the opportunity to receive the intervention if they wish.

All interventions will be delivered by external partners (i.e., victim assistance centers, freelance crime prevention trainers, and psychologists), ensuring neutrality and professional expertise. Following the legal literacy and victimization prevention workshops,

participants will complete a short questionnaire assessing their understanding of the material, which will serve as a control measure for content comprehension. In addition, a research collaborator involved in the study (the second author) will document the implementation process and collect qualitative data, which will constitute a key component of the fidelity analysis.

After the first intervention phase, follow-up assessments – both quantitative and qualitative – will be conducted at four time points to monitor changes in victimization rates, perceptions of safety, and other key variables. Following the second intervention phase, a final assessment will be carried out.

Measures

Quantitative data will be collected at baseline and follow-up using a standardized questionnaire administered via LimeSurvey. Baseline and follow-up data will be collected using CAPI/CATI/CAWI (Computer Assisted Personal/Telephone/Web Interview) procedures, depending on participant preference and availability. All surveys will be administered by the PI or a trained collaborator in multiple languages, following standardized protocols. Participants will receive CHF 50 for each completed questionnaire.

The qualitative component consists of semi-structured interviews with sex workers, complemented by ethnographic observation in the field. The questionnaire on victimization experiences will serve as the semi-structured interview guide. Additional qualitative tools will be developed organically throughout the project, following a Grounded Theory approach (Glaser & Strauss, 2000), allowing emerging themes and insights from the field to inform data collection and analysis. The ethnographic observation referred to in the manuscript consists of systematic field observations conducted during the research team's regular presence in the field. These observations take place primarily in outreach contexts alongside partner NGOs (e.g., visits to erotic parlors, informal interactions during outreach activities, and meetings with sex workers at NGO offices), as well as during intervention-related activities such as workshops, group discussions, or meetings with stakeholders. The research team does not observe sexual transactions or private encounters. Rather, the focus of observation is on the broader social and institutional environment surrounding sex work, including interactions between sex workers and support services, collective safety practices, discussions of victimization experiences, and responses to prevention activities.

Observations are documented through systematic field notes written after field visits, which typically occur during weekly outreach activities. These notes capture contextual information, emerging themes, and reflections on implementation processes, and are later used to complement the qualitative and quantitative data collected through interviews and questionnaires. This ethnographic component therefore functions as a contextual and reflexive tool to better understand how the intervention is experienced and implemented in real-world settings.

When possible, interviews are audio-recorded with informed consent, transcribed, anonymized, and analyzed in NVivo using an iterative thematic approach. In these instances, we will delve into topics that emerged throughout the project – either their victimization experiences, their views on the project, or other relevant themes – depending on the organic needs of the project, as is common in research on such topics and with hard-to-reach and vulnerable populations (Díaz-Fernández et al., 2023).

We will apply established indicators of program fidelity, drawing on widely used theoretical frameworks (e.g. Carroll et al., 2007; Demers et al., 2021; Gearing et al., 2011) but adapted to the unique, participatory, context of this study. Given that the PREVICT-SW intervention is not based on preexisting manuals but is co-constructed with participants and stakeholders, our approach to fidelity is context-dependent, where the treatment aspect – and therefore alliance and culturally responsive interventions – is given priority (Albers et al., 2024; American Psychological Association Task Force on Evidence-Based Practice for Children and Adolescents, 2008; Rhoads et al., 2025). Consequently, rather than measuring strict adherence to pre-established guides or a checklist of fixed steps to be systematically followed across all sessions, our assessment of each intervention will primarily evaluate quality of delivery, responsiveness, enactment, and adaptation alongside measuring reach, dosage, and exposure.

In terms of a flexible approach to fidelity, our tools will be designed to evaluate adherence to the core intended components (e.g., the delivery of particular legal knowledge) while allowing for bottom-up adaptations in content, as well as exposure in terms of the number and duration of sessions delivered versus planned. This emphasizes the manner in which implementers act and interact with their audience – and vice versa – as well as participants' satisfaction with the interventions and whether they feel that these helped develop their self-efficacy and/or social cohesion. Furthermore, we will assess the quality of delivery by focusing on the facilitators' ability to maintain a safe, non-stigmatizing, and engaging environment and to adapt to participants' needs, alongside participant responsiveness, which captures the sex workers' expressed interest, engagement, and the perceived relevance of the topics discussed.

Fidelity will be assessed using both quantitative and qualitative data, addressing whether core thematic pillars were addressed, attendance rates, and the implementers' ability to remain responsive to the real-world constraints and practical needs of the target population. This reflexive approach privileges both validity and utility. Rather than measuring mechanical adherence to the specific form of the intervention, we are measuring fidelity to its core functions, based on the logic that responding to actual needs and fostering mutual engagement are more critical rather than following rote techniques. In this sense, the project aligns with findings in psychotherapy research where the strength of the therapeutic alliance is often a more significant predictor of outcomes than the specific technical approach used (Baier et al., 2020; Flückiger et al., 2018; Wampold, 2015).

The adaptation to our research contexts will ensure that fidelity measures remain methodologically rigorous while being sensitive to the realities of working with hard-to-reach populations. Assessment tools will be developed in alignment with this ethos and discussed with collaborators charged with delivering the interventions to gather feedback based on their professional reflections on the implementation process; this ensures that what is measured is both realistic and feasible within the field. Participant feedback will be systematically collected following workshops to assess perceived relevance, usefulness, and practical applicability of the intervention. We will also conduct interviews with our main partners (including NGOs, self-defense trainers, psychotherapists, and the facilitators of the group sessions) to capture their experience of the implementation process.

Study outcomes

The study's primary outcome is self-reported victimization during the 6 months prior to each data collection wave, measured using the PREVICT-SW survey, a questionnaire previously partially tested with sex workers in Switzerland. Victimization is assessed using behaviorally specific items.

Secondary outcomes are: a) *Perceived safety* across different work situations and contexts, including working during the day or at night, interacting with clients, and asking clients to leave; b) *Perceived self-efficacy* in managing work-related situations, such as negotiating boundaries, recognizing dangerous situations, leaving unsafe encounters, and seeking help; c) *Use of safety and prevention strategies*, including client screening, boundary-setting, avoiding substance use while working, informing others of one's whereabouts, and carrying safety devices; and d) *Reporting and help-seeking behavior* following victimization.

The qualitative component of the study will be analyzed using a systematic coding framework to ensure transparency, consistency, and analytical rigor. The codebook will be developed iteratively and applied across interviews, co-reflection materials, and field notes, allowing for structured comparison across participants and study phases.

Coding will prioritize "*Participants' Experiences of Victimization*," capturing narrative accounts of incidents, reporting decisions, emotional and practical impacts, and support-seeking behaviors. Subsequent coding domains will focus on "*Workshop Preparation and Delivery*," including preparatory briefings, fidelity to intervention content, facilitator neutrality, the creation and maintenance of safe environments, and indicators of participant engagement and comprehension. "*Participant Feedback and Perceived Effectiveness*" will capture perceptions of relevance and usefulness, facilitator effectiveness, and the applicability of prevention strategies to participants' work realities. "*Adherence to the Intervention Plan*" will document compliance with the protocol, as well as any deviations, contextual constraints, and adaptations introduced during implementation. Finally, "*Field Observations*" will document participant interactions, group dynamics during workshops, and relevant environmental or contextual factors shaping participation, implementation conditions, and the interpretation of outcomes.

Data analyses

Victimization will be operationalized using three complementary indicators derived from the PREVICT-SW questionnaire: (i) A binary indicator of any victimization (yes/no), defined as endorsing at least one item with a frequency greater than "Never"; (ii) A victimization frequency index (severity score), calculated as the sum (or mean) of the Likert-scale responses (0="Never" to 4="Always") across all items, distinguishing between participants who experience rare versus chronic victimization; (iii) A poly-victimization score (variety count), calculated as the count of distinct victimization types endorsed (0 to K types).

The primary analysis will follow intention-to-treat principles, analyzing participants according to their original assignment. The main confirmatory effect is the Group \times Time interaction, with Time treated as a categorical factor. Analyses will account for repeated measures within individuals and for clustering at the parlor level using generalized linear mixed-effects models (GLMM) with random intercepts for participant and cluster.

For the binary indicator, we will fit a mixed-effects logistic regression model. For the frequency index, we will fit a linear mixed-effects model, treating the score as

continuous. If the distribution is heavily skewed or violates normality assumptions, we will employ robust errors or ordinal regression as a sensitivity analysis. For the poly-victimization score, we will fit a mixed-effects negative binomial model to account for probable overdispersion. A Poisson specification will be substituted only if dispersion diagnostics indicate it is appropriate. Additionally, excess zeros will be assessed and, where indicated, zero-inflated or hurdle mixed models will be estimated as sensitivity analyses to ensure robustness.

Planned contrasts will estimate adjusted between-group differences at each follow-up wave and between-group differences in change from baseline (difference-in-differences), with *p*-values corrected using Holm adjustment.

To improve precision, models will adjust for pre-specified baseline covariates (e.g., age, financial strain, sex work duration, work setting). However, strict model parsimony will be enforced. Adhering to a “rule of 10” (at least 10 events or observations per predictor variable) to prevent overfitting (Harrell, 2015), the covariate set will be reduced if the sample size drops significantly from our target of $N = 160$ (e.g., over half of the expected sample size of 160 lost in Years 2 to 4) or if model convergence issues arise. In such cases, priority will be given to theoretically important covariates and those showing strong prognostic value (e.g., baseline correlations with the outcome of $r > .30$).

Secondary outcomes will be analyzed under the same intention-to-treat, multilevel longitudinal framework (random intercepts for parlor and participant; fixed effects for arm, time, and arm×time; adjustment for baseline covariates). Outcomes measured as approximately continuous scales (e.g., perceived safety and self-efficacy ratings) will be analyzed using linear mixed-effects models. To address potential bias in standard errors arising from a small number of recruited clusters (e.g., <20 parlors) or unequal cluster sizes, we will apply small-sample corrections (e.g., Kenward-Roger or Satterthwaite approximations) to ensure valid inference (as recommended by Leyrat et al. (2018); McNeish & Stapleton (2016)). Furthermore, if the effective sample size or cluster count is insufficient to power complex mixed-effects models, simpler models (e.g., Ordinary Least Squares with cluster-fixed effects) will be explicitly substituted as a robust alternative. Confirmatory moderation tests will be limited to pre-specified baseline moderators: work setting (parlor vs freelance), prior prevention exposure, and migration-related vulnerability, tested via Group×Time×Moderator terms.

Qualitative data will be analyzed using thematic analysis (Braun & Clarke, 2012), focusing on identifying recurring patterns in participants’ experiences of victimization, safety strategies, and perceptions of the intervention.

Power analysis

A common approach to justifying sample size relies on using past research to estimate expected effect sizes for a priori power analysis. However, while multiple violence prevention programs targeted at sex workers exist globally, few have undergone rigorous scientific evaluation (Molnar & Chopin, 2025). This scarcity limits the availability of reliable effect size estimates for victimization prevention in this demographic. Furthermore, the specificities of the target population – including high turnover rates, mobility, and the stigmatized, often clandestine nature of sex work – render large-scale recruitment unrealistic or unfeasible.

While larger sample sizes theoretically enhance accuracy and replicability, strict adherence to ideal power calculations often conflicts with real-world constraints. Consequently, researchers frequently aim for “cost-effective” sample sizes, explicitly treating feasibility as a critical consideration (Lakens, 2022; Perugini et al., 2018; Serdar et al., 2021). We chose to adopt a pragmatic approach, balancing statistical requirements with field observations and recommendations from the sex worker community to shape achievable recruitment goals.

We established a feasible recruitment target of $N = 160$ participants (80 per arm). To justify this number, we employed the Smallest Effect Size of Interest (SESOI) approach. For our primary continuous outcome – the victimization frequency index (Likert score) – a sensitivity analysis (using G*Power 3.1) with an alpha of 0.05 and power of 0.80 indicates that a sample of $N = 160$ is sufficient to detect an effect size of $f^2 = 0.05$ (approx. Cohen’s $d = 0.45$) within a multiple regression framework. This corresponds to the intervention explaining approximately 5% of the unique variance in outcomes. We posit that this threshold represents the minimum effect size possessing sufficient policy significance to justify the implementation of the proposed intervention; effects falling below this threshold would arguably yield diminishing returns for policy planning.

For our complementary count outcome – the poly-victimization score (variety of distinct victimization types experienced) – we confirmed that $N = 160$ remains robust. Recent exploratory research in Switzerland indicates high prevalence rates for victimization in this demographic, ranging from 50% for discrimination, verbal abuse, and theft to 70.8% for sexual violence forms such as stealthing (Molnar et al., 2024). Utilizing a conservative baseline rate of 3.0 types of events in our sensitivity analysis (G*Power 3.1; z-test family, Poisson regression), we determined that a sample of $N = 160$ provides robust power (>0.80) to detect an Incidence Rate Ratio (IRR) of approximately 0.79 (roughly a 21% reduction in the variety of victimization types). We acknowledge, however, that real-world poly-victimization data frequently exhibits overdispersion (where variance exceeds the mean), which necessitates the planned use of a Negative Binomial model rather than a standard Poisson distribution. Consequently, while our Poisson-based sensitivity analysis provides a strong baseline estimate, the actual statistical power for this specific indicator may be slightly attenuated depending on the degree of overdispersion observed.

To ensure the study remains valid even under high-attrition scenarios common in longitudinal sex work research, we also conducted a conservative *a priori* calculation for the linear model to serve as a lower-bound benchmark for study power. Results indicate that even if the sample drops to 55 participants, the study retains sufficient power to detect standard medium effects ($f^2 = 0.15$). Given that count models with high baseline frequencies typically exhibit superior power to linear approximations, this confirms that $N = 160$ provides a substantial safety buffer against attrition rates of up to 40–50%, ensuring the primary analysis remains rigorous even in worst-case retention scenarios.

Blinding

Given the participatory design and the fact that the principal investigator conducts face-to-face recruitment and data collection, participants, facilitators, and the PI cannot be blinded to group allocation. To reduce analysis bias within these constraints, the primary quantitative outcomes will be analyzed on a dataset in which group allocation is coded (e.g. “Group A/B”) and participant identities are anonymized. The principal analyses will be

specified in a pre-defined analysis plan, and a second researcher, who is not involved in data collection, will independently replicate the main analyses using this masked dataset to verify the robustness of the findings. The absence of fully independent, blinded outcome assessors will be acknowledged as a limitation.

Availability of data and materials

At project completion, anonymized quantitative datasets and full documentation (codebooks, questionnaires, README files) will be deposited on Zenodo (<https://zenodo.org/>) under a CC-BY license and assigned a DOI, ensuring long-term preservation in compliance with FAIR principles. Qualitative transcripts and raw field notes will be deleted 1 year after project closure. All data management procedures comply with the Swiss Federal Data Protection Act, GDPR principles, institutional policies, and SNSF requirements.

A Data Release Plan will be established prior to any data sharing. This plan will specify concrete anonymization procedures (e.g. suppression of cells with fewer than five observations), document the associated disclosure risk assessment, and clearly define the conditions for data access. Based on this assessment, a deliberate decision will be made to deposit the dataset either in an open repository such as Zenodo (when sufficient anonymization is ensured) or in a controlled-access repository.

Ethical considerations

The study (which has received ethical approval from the Institutional Review Board of the Faculty of Management, Economics, and Social Sciences, University of Fribourg, Ref. 2025-09-03) is designed and implemented with particular attention to the ethical challenges associated with research involving highly stigmatized and potentially vulnerable populations (Díaz-Fernández et al., 2023; ESWA, 2025). The consent process is adapted to participants' lived realities and follows international best practices for research with sex workers and other marginalized groups. Participants receive multilingual information sheets written in clear and accessible language, and informed *oral consent* is obtained to avoid creating unnecessary written documentation that could increase risks related to confidentiality or exposure. Throughout the study, participation is, naturally, strictly voluntary, and participants are repeatedly reminded of their right to decline participation, skip questions, or withdraw at any time without consequences. Consent is treated as an ongoing process and covers all core elements, including study aims, procedures, duration, potential risks and benefits, confidentiality measures, and the limits of confidentiality.

To recognize participants' time and expertise while avoiding coercion, participants receive a compensation of CHF 50 per completed questionnaire. This compensation is explicitly non-conditional and is not tied to continued participation. In the Swiss context, where sex workers often earn approximately CHF 100 for a 15–20-minute service, this amount reflects the significantly greater time investment and emotional labor required by the study. This approach aligns with ethical guidance from organizations such as the European Sex Workers' Rights Alliance (ESWA), which emphasizes that compensating sex workers for research participation constitutes an ethical obligation rather than an undue inducement. Failing to provide compensation would risk reproducing extractive research practices historically imposed on this population.

Potential risks to participants are carefully assessed and minimized through a comprehensive ethical framework. The primary anticipated risk relates to emotional distress when discussing sensitive experiences such as violence, exploitation, or victimization. To mitigate this risk, participants may pause or stop any activity at any time and may skip questions without providing justification. A pre-established referral system with victim-assistance centers, psychosocial counselors, and trusted non-governmental organizations ensures timely access to professional support if needed. Social and privacy-related risks – such as unintended exposure to clients, landlords, or third parties – are addressed through strict pseudonymization procedures, encrypted separation of identifying data, the use of a dedicated project phone number, and data collection exclusively in discreet and confidential locations jointly chosen with participants. No minors, coerced individuals, or persons in acute crisis are included in the study, and a clear escalation pathway is in place in cases of suspected trafficking or coercion.

All research activities are guided by trauma-informed and culturally sensitive principles. Particular emphasis is placed on creating predictable and safe environments, using non-stigmatizing language, and remaining attentive to signs of distress. All individuals interacting with participants – including researchers, interpreters, psychologists, self-defense trainers, and facilitators – receive training on sex workers' realities in Switzerland (co-developed with the NGOs), as well as sex worker-friendly communication, professional boundaries, vicarious trauma, and emergency procedures. A detailed Standard Operating Procedure specifies how to respond to mild, moderate, and acute distress, including grounding techniques, crisis referral pathways, and documentation requirements. The linguistic and migratory diversity of the research team further supports trust-building and enables communication in participants' preferred languages.

Given the sensitive nature of sex work and the potential consequences of disclosure, confidentiality protections are particularly stringent. Each participant is assigned a unique study code used across all research materials (comprising two letters indicating the canton of participation – FR or NE – and a two-digit number ranging from 01 to 80). In addition, participants are invited to generate a secondary personal code based on the first three letters of their mother's name, the first three letters of their grandmother's name, and their month of birth, allowing longitudinal linkage of data without direct identifiers. Personal contact information is stored separately in paper files accessible only to the principal investigator.

Workshops, interviews, and surveys are conducted in secure and private environments, such as NGO offices or discreet spaces within parlors. All individuals involved in data collection or intervention delivery sign confidentiality agreements and receive sensitization on stigma, trauma, and the legal context of sex work in Switzerland. Only aggregated or fully anonymized data are disseminated publicly.

Ethical considerations also extend to power dynamics, responsabilization, and the participatory nature of the intervention. All workshops and intervention components are co-developed with sex workers and trusted outreach professionals using bottom-up, sex work – friendly approaches. Facilitators are external to law enforcement or control institutions and are trained to foster inclusive, non-judgmental spaces. Participation is entirely voluntary and anonymous, and no formal registration is required. Anonymous feedback is collected after each session to continuously assess whether participants feel safe, respected, and empowered. While the project operates within a prevention framework, it explicitly centers autonomy, consent, and non-institutional trust to reduce – rather than reproduce – existing

power imbalances. In the Swiss context, where sex work is legal and supported by established NGOs, this further limits the risk of institutional coercion.

Importantly, the intervention is designed to avoid narratives of individual “responsibilization” that place the burden of violence prevention on sex workers themselves. While self-protection strategies are included, they are embedded within a broader framework that also provides legal literacy, psychosocial support, and awareness-raising for customers and stakeholders. Clients are addressed through tailored informational brochures; more direct intervention with clients is not methodologically feasible within the present design. The overarching aim is to shift responsibility toward systems and institutional responsiveness rather than onto individuals.

Finally, ethical considerations inform the trial design and dissemination strategy. As mentioned before, initially planned as an RCT, the study now follows a quasi-experimental design due to ethical reasons. The project is also committed to returning results to participants in accessible and meaningful ways. A steering committee composed of sex workers and social workers advises on dissemination, multilingual non-technical summaries are distributed via NGOs and outreach activities, and an open feedback event allows participants to engage with findings anonymously. Throughout the project, interim updates are shared via flyers, newsletters, and a project website, and no identifying information is ever included in dissemination materials.

Conclusion

Victimological theory in criminology has historically been developed using general population samples and has often concluded – almost tautologically – that sex workers are vulnerable, without sufficiently unpacking how and why victimization occurs in concrete, actionable terms. While the elevated risks faced by sex workers are well documented, far less attention has been paid to the differentiated vulnerabilities within sex work itself. These vulnerabilities are shaped by a constellation of factors, including work setting, legal literacy, stigma and discrimination, social isolation, the type of services offered, clientele, mobility, and access to social and institutional capital. As a result, much of the existing literature (e.g. Beattie et al., 2010; Karandikar & Próspero, 2010; Molnar & Aebi, 2022; Sanders, 2001), even the one of experimental nature, remains rather descriptive, identifying heightened exposure to violence without adequately theorizing the processes through which victimization emerges in specific legal and social contexts.

Against this backdrop, the PREVICT-SW study aims to contribute by advancing a victimological framework that moves beyond correlational associations to examine potential causal pathways of victimization rooted in structural, social, and situational mechanisms. Rather than proposing a universal theory of sex work victimization, the project seeks to refine existing perspectives – such as lifestyle – exposure theory and routine activity theory, as well as intersectionality theory – by empirically examining how specific mechanisms operate for a highly stigmatized population within a regulated legal context such as Switzerland. In this sense, the study responds to calls for more context-sensitive victimological theory that accounts for both agency and constraint, as well as for the interaction between individual practices and structural conditions.

Central to this contribution is the conceptualization of “victimization mechanisms” as dynamic processes rather than static risk factors. Legal literacy, psychosocial resources,

stigma, work environments, and institutional access are treated not as isolated variables, but as interrelated mechanisms through which vulnerability and protection evolve over time. The longitudinal and mixed-methods design of the study is therefore not merely a methodological choice, but a theoretical one, allowing these mechanisms to be examined as hypotheses about causally relevant pathways rather than as fixed correlates of risk.

The embedded mixed-methods and participatory design further strengthen this contribution by enabling analysis not only of whether the intervention produces effects, but also of how, for whom, and under what conditions these effects occur. The combination of exploratory qualitative work, participatory co-design, and quasi-experimental evaluation allows theory development to remain grounded in lived experience, including the realities of stigma, mobility, and the chronic underreporting of violence. Importantly, the longitudinal structure – with repeated measurements over 30 months – makes it possible to observe changes in both outcomes and underlying mechanisms, offering insights that would not be accessible through cross-sectional designs alone.

The intervention itself was deliberately designed as a co-constructed bundle, responding to participants' consistent articulation that no single component – legal knowledge, psychosocial support, or safety tools – would be sufficient in isolation. While this complexity limits the ability to attribute effects to individual components, it reflects a well-recognized trade-off in complex intervention research aimed at real-world relevance. By integrating fidelity measures, attendance tracking, and qualitative interviews, the study nevertheless allows for meaningful insights into which components are most used, valued, or perceived as transformative, even in the absence of isolated causal estimates.

Measurement choices further reinforce the study's contribution. By relying on behaviorally specific measures of victimization grounded in established survey methodologies, and by triangulating quantitative data with interviews and field observations, the study addresses well-known challenges related to underreporting and ambiguity in violence research. The use of trusted intermediaries, guaranteed anonymity, and fair compensation further supports candid reporting, particularly in a population that has historically been subject to surveillance and extractive research practices.

From a broader perspective, the findings of PREVICT-SW – whether demonstrating clear effects, mixed results, or null outcomes – have implications that extend beyond intervention efficacy. If effective, the intervention materials are designed to be modular and adaptable to other cantonal or national contexts. If effects are limited, the embedded qualitative component will be critical for distinguishing between issues related to intervention content, delivery, or broader contextual barriers such as trust, stigma, or institutional responsiveness. In both cases, the study generates theoretically and practically relevant knowledge about how violence prevention can be meaningfully implemented with marginalized populations.

Ultimately, this project illustrates the necessity of aligning methodological rigor with ethical and contextual realities. Rather than pursuing methodological purity through laboratory-style designs that are infeasible in this field, PREVICT-SW applies the most robust design possible under real-world constraints: a pre-registered, longitudinal mixed-methods quasi-experiment embedded in community practice. This is not an abstract methodological exercise, but a real-world prevention experiment with tangible consequences. In a context where doing nothing would be methodologically simpler but socially irresponsible, the study contributes to a growing body of work that seeks to produce knowledge that is both scientifically credible and directly actionable.

Notes

1. *Victimization* refers to the experience of becoming a victim of an offense, such as physical or sexual violence, theft, robbery, insults, or exploitation.
2. Neutralization techniques, as defined by Sykes and Matza (1957), are justifications used by perpetrators of crime to alleviate feelings of remorse. These techniques are categorized into five types: denial of responsibility, appeal to higher loyalties, condemning the condemners, denial of injury, and denial of the victim.

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Disclaimer

The authors confirm that, as non-native English speakers, they used AI-based tools solely to refine the language of the manuscript. The authors retain full responsibility for the content.

References

- Adelman, C. (1993). Kurt Lewin and the origins of action research. *Educational Action Research*, 1(1), 7–24. <https://doi.org/10.1080/0965079930010102>
- Agnew, R. (2011). *Toward a unified criminology: Integrating assumptions about crime, people and society*. New York University Press.
- Albers, B., Verweij, L., Blum, K., Oesch, S., Schultes, M. T., Clack, L., & Naef, R. (2024). Firm, yet flexible: A fidelity debate paper with two case examples. *Implementation Science*, 19(1), 79. <https://doi.org/10.1186/s13012-024-01406-3>
- American Psychological Association Task Force on Evidence-Based Practice for Children and Adolescents. (2008). *Disseminating evidence-based practice for children and adolescents: A systems approach to enhancing care*. American Psychological Association.
- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>

- Baier, A. L., Kline, A. C., & Feeny, N. C. (2020). Therapeutic alliance as a mediator of change: A systematic review and evaluation of research. *Clinical Psychology Review*, 82, 101921. <https://doi.org/10.1016/j.cpr.2020.101921>
- Beattie, T. S., Bhattacharjee, P., Isac, S., Mohan, H. L., Simic-Lawson, M., Ramesh, B. M., Blanchard, J. F., Moses, S., Watts, C. H., & Heise, L. (2015). Declines in violence and police arrest among female sex workers in Karnataka state, South India, following a comprehensive HIV prevention programme. *Journal of the International AIDS Society*, 18(1), 20079. <https://doi.org/10.7448/IAS.18.1.20079>
- Beattie, T. S., Bhattacharjee, P., Ramesh, B., Gurnani, V., Anthony, J., Isac, S., Mohan, H., Ramakrishnan, A., Wheeler, T., Bradley, J., Blanchard, J. F., & Moses, S. (2010). Violence against female sex workers in Karnataka state, South India: Impact on health, and reductions in violence following an intervention program. *BMC Public Health*, 10(1), 476. <https://doi.org/10.1186/1471-2458-10-476>
- Beattie, T. S., Isac, S., Bhattacharjee, P., Javalkar, P., Davey, C., Raghavendra, T., Nair, S., Ramanai, S., Kavitha, D. L., Blanchard, J. F., Watts, C., Collumbien, M., Moses, S., & Heise, L. (2016). Reducing violence and increasing condom use in the intimate partnerships of female sex workers: Study protocol for Samvedana Plus, a cluster randomised controlled trial in Karnataka state, South India. *BMC Public Health*, 16(1), 660. <https://doi.org/10.1186/s12889-016-3356-7>
- Beauregard, E., & Chopin, J. (2021). *Elderly Sexual Abuse. Theory, Research, and Practice*. Routledge). <https://doi.org/10.4324/9781003121039>
- Benoit, C., Jansson, S. M., Smith, M., & Flagg, J. (2018). Prostitution stigma and its effect on the working conditions, personal lives, and health of sex workers. *Journal of Sex Research*, 55(4-5), 457-471. <https://doi.org/10.1080/00224499.2017.1393652>
- Benoit, C., Smith, M., Jansson, M., Healey, P., & Magnuson, D. (2019). “The prostitution problem”: Claims, Evidence, and policy outcomes. *Archives of Sexual Behavior*, 48(7), 1905-1923. <https://doi.org/10.1007/s10508-018-1276-6>
- Biberstein, L., & Killias, M. (2015). *Erotikbetriebe als Einfallstor für Menschenhandel?*
- Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *Apa handbook of research methods in psychology, vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57-71). American Psychological Association. <https://doi.org/10.1037/13620-004>
- Brody, C., Chhoun, P., Tuot, S., Fehrenbacher, A. E., Moran, A., Swendeman, D., & Yi, S. (2022). A mobile intervention to link young female entertainment workers in Cambodia to health and gender-based violence services: Randomized controlled trial. *Journal of Medical Internet Research*, 24(1), e27696. <https://doi.org/10.2196/27696>
- Brüesch, N., Herzig, M., Khater, N., Müller, M., Steiner, C., Tschumi, L., & Trümpy, A. (2021). *Auswirkungen der Massnahmen gegen die COVID-19-Pandemie auf Sexarbeit und Sexarbeitende in Zürich*. ZHAW Zürcher Hochschule für Angewandte Wissenschaften. <https://doi.org/10.21256/zhaw-3129>
- Bugnon, G., Chimienti, M., Chiquet, L., & Eberhard, J. (2009). Marché du sexe en Suisse. Etat des connaissances, best practices et recommandations. *Sociograph*, 7. <https://www.unige.ch/sciences-societe/socio/archives-de-la-sociologie/archives/archive-sociograph/sociograph7>
- Burnes, T. R. B., & Dawson, J. (2023). *Essential clinical care for sex workers: A sex-positive handbook for mental health practitioners*. North Atlantic Books.
- Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J., & Balain, S. (2007). A conceptual framework for implementation fidelity. *Implementation Science*, 2(1), 40. <https://doi.org/10.1186/1748-5908-2-40>
- Chimienti, M. (2009). *Prostitution et migration: La dynamique de l'agir faible* (Première ed.). Editions Seismo.
- Chimienti, M., & Bugnon, G. (2018). Switzerland. In S. Jahnsen & H. Wagenaar (Eds.), *Assessing prostitution policies in Europe*. Routledge.
- Clarke, R. V. (1995). Situational crime prevention. *Crime and Justice*, 19, 91-150. <https://doi.org/10.1086/449230>

- Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 44(4), 588–608. JSTOR. <https://doi.org/10.2307/2094589>
- Cornish, D. B., & Clarke, R. V. (2003). Opportunities, precipitators and criminal decisions: A reply to Wortley's critique of situational crime prevention. *Crime Prevention Studies*, 16, 41–96.
- Crenshaw, K. W. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1, 139–167. <https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf>
- Danna, D. (2014). *Report on prostitution laws in the European Union*. Università degli Studi di Milano. <http://lastradainternational.org/lisidocs/3048-EU-prostitution-laws.pdf>
- Deering, K. N., Amin, A., Shoveller, J., Nesbitt, A., Garcia-Moreno, C., Duff, P., Argento, E., & Shannon, K. (2014). A systematic review of the correlates of violence against sex workers. *American Journal of Public Health*, 104(5), e42–e54. <https://doi.org/10.2105/AJPH.2014.301909>
- Demers, C., Higgins, Z. E., Bahraini, S., Pelchat, R., Gifford, W., & Lefebvre, P. (2021). Interdisciplinary studies and implementation science: Clarifying the concept of fidelity. *Issues in Interdisciplinary Studies*, 39, 91–131.
- Díaz-Fernández, A. M., Del-Real, C., & Molnar, L. (2023). Conclusions: Deciphering the unspoken: A collective examination of sensitive fieldwork experiences in criminology and security studies. In A. M. Díaz-Fernández, C. Del-Real, & L. Molnar (Eds.), *Fieldwork experiences in criminology and security studies* (pp. 609–635). Springer International Publishing. https://doi.org/10.1007/978-3-031-41574-6_32
- ESWA. (2025). *Gold standard guidelines: For safe and ethical sex work research in Europe*. https://assets.nationbuilder.com/eswa/pages/2602/attachments/original/1756816379/ESWA_Gold_Standard_Guidelines_for_Safe_and_Ethical_Sex_Work_Research_in_Europe_2025_final.pdf?1756816379
- Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. *Psychotherapy*, 55(4), 316–340. <https://doi.org/10.1037/pst0000172>
- Gearing, R. E., El-Bassel, N., Ghesquiere, A., Baldwin, S., Gillies, J., & Ngeow, E. (2011). Major ingredients of fidelity: A review and scientific guide to improving quality of intervention research implementation. *Clinical Psychology Review*, 31(1), 79–88. <https://doi.org/10.1016/j.cpr.2010.09.007>
- Glaser, B., & Strauss, A. (2000). *The discovery of grounded theory: Strategies for qualitative research*. Routledge.
- Harrell, F. E. (2015). *Regression modeling strategies: With applications to linear models, logistic and ordinal regression, and survival analysis*. Springer International Publishing. <https://doi.org/10.1007/978-3-319-19425-7>
- Hertig Randall, M., Montavon, C., Markarian, Q., & Eskandari, V. (Eds.). (2025). *Travail du sexe, vulnérabilités et droit* (1 ed.). Helbing & Lichtenhahn.
- Hindelang, M. J., Gottfredson, M. R., & Garofalo, J. (1978). *Victims of personal crime: An empirical foundation for a theory of personal victimization*. Ballinger Pub. Co.
- Javalkar, P., Platt, L., Prakash, R., Beattie, T. S., Collumbien, M., Gafos, M., Ramanaiik, S., Davey, C., Jewkes, R., Watts, C., Bhattacharjee, P., Thalinja, R., Di, K., Isac, S., & Heise, L. (2019). Effectiveness of a multilevel intervention to reduce violence and increase condom use in intimate partnerships among female sex workers: Cluster randomised controlled trial in Karnataka, India. *BMJ Global Health*, 4(6), e001546. <https://doi.org/10.1136/bmjgh-2019-001546>
- Jenkins, J. P. (2020). *Prostitution | definition, history, & facts*. Encyclopedia Britannica. <https://www.britannica.com/topic/prostitution>
- Karandikar, S., & Próspero, M. (2010). From client to pimp: Male violence against female sex workers. *Journal of Interpersonal Violence*, 25(2), 257–273. <https://doi.org/10.1177/0886260509334393>
- Kerrigan, D., Kennedy, C. E., Morgan-Thomas, R., Reza-Paul, S., Mwangi, P., Win, K. T., McFall, A., Fonner, V. A., & Butler, J. (2015). A community empowerment approach to the HIV response among sex workers: Effectiveness, challenges, and considerations for implementation and scale-up. *Lancet*, 385(9963), 172–185. [https://doi.org/10.1016/S0140-6736\(14\)60973-9](https://doi.org/10.1016/S0140-6736(14)60973-9)

- Lakens, D. (2022). Sample size justification. *Collabra: Psychology*, 8(1). <https://doi.org/10.1525/collabra.33267>
- Leyrat, C., Morgan, K. E., Leurent, B., & Kahan, B. C. (2018). Cluster randomized trials with a small number of clusters: Which analyses should be used? *International Journal of Epidemiology*, 47(1), 321–331. <https://doi.org/10.1093/ije/dyx169>
- L'engle, K. L., Mwarogo, P., Kingola, N., Sinkele, W., & Weiner, D. H. (2014). A randomized controlled trial of a brief intervention to reduce alcohol use among female sex workers in Mombasa, Kenya. *Journal of Acquired Immune Deficiency Syndromes (1999)*, 67(4), 446–453. <https://doi.org/10.1097/QAI.0000000000000335>
- McNeish, D. M., & Stapleton, L. M. (2016). The effect of small sample size on two-level model estimates: A review and illustration. *Educational Psychology Review*, 28(2), 295–314. <https://doi.org/10.1007/s10648-014-9287-x>
- Molnar, L. (2019). Previst project: Prevention of victimisations in sex work in the canton of Vaud (Switzerland). Reflections from the criminological praxis. *International E-Journal of Criminal Sciences*. https://serval.unil.ch/notice/serval:BIB_4E88E83D5066
- Molnar, L. (2021). *Previst project: The passage from the “object paradigm” to the “choice paradigm”. A Swiss campaign within the general population for crime prevention in sex work*. Tirant lo Blanch. (pp. 130–136). https://serval.unil.ch/notice/serval:BIB_4784009FEC66
- Molnar, L., & Aebi, M. F. (2022). Alone against the danger: A study of the routine precautions taken by voluntary sex workers to avoid victimisation. *Crime Science*, 11(1), 3. <https://doi.org/10.1186/s40163-022-00166-z>
- Molnar, L., & Chopin, J. (2025). What works to reduce sex workers' risk of crime victimization? A scoping review. *Journal of Evidence-Based Social Work*, 22(3), 315–333. <https://doi.org/10.1080/26408066.2025.2456758>
- Molnar, L., Chopin, J., Hashimoto, Y. Z., & Vazsonyi, A. T. (2024). Towards a multifactorial framework of the Roma's victimisation: Discrimination, risky situations, and acceptance of violence as correlates of physical assault and harassment. *International Review of Victimology*, 30(3), 480–502. <https://doi.org/10.1177/02697580241232436>
- Molnar, L., & Ros, J. (2022). Sex workers' work-related victimisation and drug use during the first year of the COVID-19 pandemic in Switzerland. *International Criminology*, 2(1), 19–31. <https://doi.org/10.1007/s43576-022-00045-2>
- Nabayinda, J., Witte, S. S., Kizito, S., Nanteza, F., Nsubuga, E., Bahar, O. S., Nabunnya, P., & Ssewamala, F. M. (2024). The impact of an economic empowerment intervention on intimate partner violence among women engaged in sex work in southern Uganda: A cluster randomized control trial. *Social Science and Medicine*, 348, 116846. <https://doi.org/10.1016/j.socscimed.2024.116846>
- Neira, M. (2012). *Una mala mujer: La prostitución al descubierto*. Plataforma Editorial.
- Parcesepe, A. M., Kelly, L. L., Martin, S. L., Green, S., Sinkele, W., Suchindran, C., Speizer, I. S., Mwarogo, P., & Kingola, N. (2016). The impact of an alcohol harm reduction intervention on interpersonal violence and engagement in sex work among female sex workers in Mombasa, Kenya: Results from a randomized controlled trial. *Drug & Alcohol Dependence*, 161, 21–28. <https://doi.org/10.1016/j.drugalcdep.2015.12.037>
- Perugini, M., Gallucci, M., & Costantini, G. (2018). A practical primer to power analysis for simple experimental designs. *International Review of Social Psychology*, 31(1). <https://doi.org/10.5334/irsp.181>
- Puffer, S., Torgerson, D. J., & Watson, J. (2005). Cluster randomized controlled trials. *Journal of Evaluation in Clinical Practice*, 11(5), 479–483. <https://doi.org/10.1111/j.1365-2753.2005.00568.x>
- Rhoads, C., Montrosse-Moorhead, B., Anglin, K., & Lewis, C. (2025). Implementation fidelity: The disconnect between theory and practice. *Journal of Multidisciplinary Evaluation*, 21(49), 23–37. <https://doi.org/10.56645/jmde.v21i49.813>
- Rock, P. (2017). Theoretical perspectives on victimisation. In S. Walklate (Ed.), *Handbook of victims and victimology* (2nd ed.) (pp. 30–49). Routledge.
- Sanders, T. (2001). Female street sex workers, sexual violence, and protection strategies. *Journal of Sexual Aggression*, 7(1), 5–18. <https://doi.org/10.1080/13552600108413318>

- Serdar, C. C., Cihan, M., Yücel, D., & Serdar, M. A. (2021). Sample size, power and effect size revisited: Simplified and practical approaches in pre-clinical, clinical and laboratory studies. *Biochemia Medica*, 31(1), 010502. <https://doi.org/10.11613/BM.2021.010502>
- Sykes, G. M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review*, 22(6), 664–670. JSTOR. <https://doi.org/10.2307/2089195>
- Tsai, J., & Wilson, M. (2020). COVID-19: A potential public health problem for homeless populations. *Lancet Public Health*, 5(4), e186–e187. [https://doi.org/10.1016/S2468-2667\(20\)30053-0](https://doi.org/10.1016/S2468-2667(20)30053-0)
- Wampold, B. E. (2015). How important are the common factors in psychotherapy? an update. *World Psychiatry*, 14(3), 270–277. <https://doi.org/10.1002/wps.20238>
- Wechsberg, W. M., Luseno, W. K., Lam, W. K. K., Parry, C. D. H., & Morojele, N. K. (2006). Substance use, sexual risk, and violence: HIV prevention intervention with sex workers in Pretoria. *AIDS and Behavior*, 10(2), 131–137. <https://doi.org/10.1007/s10461-005-9036-8>

Annex 1. Information sheets for participants

Recruitment sheet by NGOs

PREVICT-SW Project: Preventing Violence Against People Who Engage in Sex Work University of Fribourg – in partnership with Grisélidis and Thays programmes

Hello, I'm Lorena. I work as a criminologist at the University of Fribourg. In collaboration with the Grisélidis (Fribourg) and Thays (Neuchâtel) programs, I am carrying out a 4-year project to prevent violence against people who engage in sex work.

Photograph of the PI

We want sex work to be safer. Together, we will:

- ✓ Talk about safety and violence at work
- ✓ Share legal information and knowledge about your rights
- ✓ Learn protection strategies
- ✓ Create spaces for support and solidarity

If you take part in the project, you will be able to:

- Participate in workshops and support groups on prevention, rights, and safety
- Complete 5 questionnaires (about 45 minutes each)
- Take part in interviews (in person or by phone, with an interpreter if needed)

What you will receive

- Useful information about your rights and safety
- Access to workshops and support activities
- 50 CHF in cash after each questionnaire (up to 250 CHF in total) over the 4 years of the project

Your confidentiality: Your personal information is kept securely and separately from the research data, and the study results will be published only in anonymous form.

Interested?

- You must be 18 years old or older
- Participation is voluntary – you can withdraw from the project at any time, without any consequence

Contact

email

WhatsApp/Phone: XXX

Would you like to take part? Write your pseudonym and phone number on the list below!

The project will start in January 2026, and we will contact you as soon as possible to inform you about the proposed activities.

✂ Cut here _____

I would like to take part in the project

Pseudonym (or name you prefer to use): _____

Phone/WhatsApp: _____

City where you work: _____

Main place of work (check what applies):

On the street

In a salon

Both

Name of the salon where you work (if applicable): _____

Information and Consent Form

PREVICT-SW Study – Prevention of Violence Against Sex Workers

Purpose of the study

This study will collect information about the experiences of sex workers in relation to safety and violence at work. It will also organize a program that includes workshops and support activities.

Who is organizing the study?

The study is organized by the University of Fribourg.

What does participation involve? If you agree to participate, you may:

Take part in workshops on prevention, legal rights, and safety strategies, as well as in optional support groups or individual therapy.

Lorena and Yuji may attend some workshops to check that the program is being implemented as planned and to take notes on the sessions.

Complete five questionnaires (approximately 45–60 minutes each: one at the beginning and then one every 6 months).

Be invited to 2–4 interviews with Lorena or Yuji, in person or by phone. If necessary and with your agreement, interpreters may be present. In that case, the interviews will be recorded and treated confidentially. If you do not wish them to be recorded, you can let us know.

Possible risks

Some questions or activities may bring up unpleasant or distressing memories. You may pause or stop at any time. If needed, we can provide you with contact information for professional support services.

Possible benefits

You will receive information about rights, safety strategies, and available services.

Who can participate?

Only adults aged 18 or older may participate.

Your rights as a participant

Your right to information

You may ask questions at any time, before, during, or after your participation.

You may request clarification about any part of the study or the proposed activities.

Your right to decide freely

Participation in the study is completely voluntary.

You may choose which activities you wish to take part in (questionnaires, interviews, workshops, counseling), without having to give any explanation.

Your right to withdraw

You may stop participating at any time, without negative consequences.

Leaving the study will not affect your access to support services provided by Grisélidis, Thays, or other NGOs or institutions.

Your right to anonymity and privacy

Your name will never appear on any document; a code will be used instead.

Your contact details will be stored separately and securely.

Only the research team can link your name to your code.

Interpreters, trainers, and psychologists will not have access to your personal data.

Your responses will not be shared with the police or migration authorities, except in the case of a serious and immediate danger to a person's life or safety.

Information that could identify you (names, photos, addresses, etc.) will never be published.

Your right to safety and support

If at any time you feel uncomfortable or distressed, you may pause or stop the activity.

You may request support resources or crisis contact information at any time.

Your right to the results

You may request to receive a summary of the study results when the project ends.

Only aggregated results will be shared, never individual information.

Compensation

You will receive 50 Swiss francs in cash (or via Twint) after completing each questionnaire. The maximum total is 250 Swiss francs if you complete all five questionnaires. If you leave the study before it ends, you will keep the money you have already received.

Contact

If you have questions or concerns, you can contact: XXX

Optional role in the Advisory Committee

In addition to participating in the study, an Advisory Committee will be created, made up of 5–6 sex workers and social professionals. The committee will meet once a year to provide feedback on the project and help guide its development.

Participation in the Advisory Committee is completely optional.

Your decision to participate or not will not affect your participation in the study or your access to services.

If you are interested, please inform the research team.

Oral consent

- I have read and understood the information above.
- I know that participation is voluntary and that I can withdraw at any time without consequences.
- I agree to participate in this study.
- I would like to be contacted to participate in the Advisory Committee.

Name or code: _____

Date: _____

Researcher's signature: _____

- I, _____ (researcher's name), certify that I provided the participant with complete information about the study, read the entire consent document aloud, ensured that they understood its content, and answered all their questions before obtaining their oral consent.