

Marginalization and Health Outcomes in Female Sex Workers: The Mediating Role of Resource Accessibility

Stavroula Triantafyllidou¹, Anna Apostolidou¹, Despoina Theodoropoulou^{1,2},
Georgia Malfa², Semina Drolapa², Vefi Valsami¹, Melina Antonopoulou¹,
Chrysa Kalogeraki¹, Konstantina Papastefanaki¹, Vaggelis Tsiaras¹,
Clara Vlachodimitropoulos Rodriguez¹, Anna Kouroupou¹, Antonios Poullos^{1,2}

¹Greek Association of People Living with HIV, Positive Voice, Athens, Greece

²Department of Psychology, University of Crete, Rethymno, Greece

Email: stavroulatriantafyllidou@gmail.com, apost.anna.91@gmail.com, des.theodorop@gmail.com, georgiamalfa@gmail.com, asimnadrolapa@gmail.com, valsamivefi@gmail.com, melina.ant9@gmail.com, xrusakal06@gmail.com, kpapastefanaki@hotmail.com, vaggelistsiaras2@gmail.com, claravlrod@yahoo.com, kour.anna49@gmail.com, antpls@yahoo.gr

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Abstract

Introduction: The study examines accessibility to resources as a key determinant mediating the relationship between female sex workers' (FSWs) multiple marginalized identities and their health. **Methods:** We gathered data from 81 cis and trans FSWs, beneficiaries of the community day center for sex workers "Red Umbrella Athens". The tools used measured general health perceptions, generalized anxiety and depression, PTSD, and accessibility to resources. **Results:** The results of this study provide supporting evidence that FSWs with multiple marginalized identities report lower mental and physical health. Additionally, results show that accessing essential resources is related to mental (anxiety, depression, and PTSD symptoms) and physical health. Finally, FSWs' health relation to multiple marginalized identities was found to be mediated by access to comprehensive support. **Discussion:** The results indicate that the challenges FSWs face are built into the system itself. The barriers to comprehensive support explain how multiple marginalized identities affect their health. **Conclusion:** Public health policy and practice need to focus on adopting more inclusive and intersectional approaches aiming to reduce health disparities. Equal access to healthcare and social services can be improved with decriminalization, mitigating the health inequalities faced by marginalized FSWs.

Keywords

Female Sex Workers, Resource Accessibility, Health Disparities,

1. Introduction

Female sex workers worldwide face difficulties accessing psychosocial and health-care services (Argento et al., 2020; Potter et al., 2022) due to stigma, discrimination, and legal constraints (Lyons et al., 2020; Shannon et al., 2018), that are often related to the multiple stigmatized intersecting identities they bear (NSWP, 2018). Restricted access to those services can negatively affect sex workers' lives and well-being (Martín-Romo et al., 2023). In the present study, we aim to explore how multiple marginalized identities, sex workers' health, and accessibility to resources relate to each other, applying the social model for disability (Oliver, 2013). Namely, our goal is to examine accessibility to resources as a mediator and a key determinant, accounting for the effect multiple identities have on sex workers' physical state.

1.1. Multiple Identities and Health

We use the term identity to refer to socially constructed representations mediating the individual and the social (Chrysochoou, 2003). It has been argued that a higher number of identities can negatively affect people's well-being when those are conflicting (Brook et al., 2008) or marginalized (Robards et al., 2020; Sanders et al., 2004). Sex worker identity, in particular, is associated with negative connotations, being socially perceived as a "spoiled identity" (Goffman, 1963), a defining, totalizing lens through which society perceives sex workers (Link & Phelan, 2001; Poullos, 2018). Female sex workers, however, are a heterogeneous group (NSWP, 2018), as they come from diverse backgrounds, and their experiences are shaped by multiple identities related to the intersections of socioeconomic class, migration status, type of sex work, and gender identity, to name a few (Benoit et al., 2017; Capous-Desyllas & Loy, 2020; Shannon et al., 2015; Triantafyllidou et al., 2024). According to the theory of intersectionality, those multiple identities and the related oppressions interact to produce unique experiences of marginalization, which cannot be studied focusing solely or even selectively on just one identity (Crenshaw, 1989).

Studies have demonstrated that individuals with multiple marginalized identities often face structural barriers, which can impact their physical and mental health (Hankivsky et al., 2014; Veenstra, 2011). Female sex workers usually report health problems, such as asthma, cancer, sexually transmitted infections (STIs), and cardiovascular diseases (Perdue et al., 2012; Willis et al., 2022). Female street-based sex workers, who often belong to multiple marginalized groups, such as refugees, people experiencing homelessness, trans women, and/or substance users, seem to be more vulnerable to medical conditions (Drydak, 2021; Triantafyllidou et al., 2024). Additionally, sex workers report experiencing mental health

issues such as anxiety, depression, psychological distress, and post-traumatic stress disorder (PTSD) (Beattie et al., 2020). It has been found that variables related to marginalized identities, such as stigma, criminalization, discrimination, and the violence to which sex workers are exposed negatively affect their health (Apostolidou et al., 2023; ESWA, 2024; Platt et al., 2018), by imposing barriers to healthcare, and support from social services (Martín-Romo et al., 2023; Platt et al., 2018).

1.2. Accessibility as a Structural Issue

For female sex workers, access to services such as healthcare, housing, and welfare is essential for maintaining health and safety (Benoit et al., 2016, 2017; Platt et al., 2018; Shannon et al., 2015). However, these women often face structural barriers due to their marginalized position in society (Deering et al., 2014). According to the social exclusion framework (Levitas et al., 2007), sex workers are frequently excluded from mainstream healthcare and social services due to stigma, lack of access to justice (ESWA, 2024), and the criminalization of their work (Amnesty International, 2016; Lazarus et al., 2012; Shannon et al., 2009). The fact that sex work remains illegal means that sex workers lack health insurance (Oliveira et al., 2023), which limits their access to public health services, while at the same time, their reduced financial earnings (Drydakis, 2021; Kimani et al., 2020) do not allow them to utilize private healthcare services. Apart from that, they may often experience whorephobia, transphobia, racial and gender racism, and other judgmental and stigmatizing behaviors from healthcare personnel who are unaware of sex work issues or/and gender identity, which can deter them from seeking help in the future (Jeal et al., 2017; Potter et al., 2022). Finally, the language itself can be a significant barrier and hindrance to the above, when it comes to migrant and refugee sex workers (Oliveira et al., 2023).

The barriers sex workers face are not merely personal but the result of broader societal and legal structures as well as societal norms and policies that exclude them from essential services (Benoit et al., 2017; Grittner & Walsh, 2020) and place them at a higher risk for worse health conditions (Drydakis, 2021; Triantafyllidou et al., 2024). This aligns with the social model of disability (Oliver, 2013), which shifts the focus from individual limitations to societal barriers. Similarly, for sex workers, it is not their occupation that inherently limits their well-being but rather the societal exclusion and criminalization they experience (Abel & Fitzgerald, 2010; ESWA, 2024; Kinnell, 2008). Structural barriers deprive sex workers of access to health and psychosocial services (Drydakis, 2021; Oliveira et al., 2023; Platt et al., 2018) and, as a result, leave their needs unmet and preserve a vicious cycle of marginalization and discrimination.

In Greece, sex workers are in a vulnerable position due to the current legal framework of regulation (ESWA, 2024; Jahnsen & Wagenaar, 2019; Law 2734/1999, 1999), the stigma surrounding sex work, and the social exclusion they face on the front of the multiple marginalized identities (Triantafyllidou et al., 2024),

which expose them to violence, and professional and economic insecurity (Apostolidou et al., 2023; Drydakakis, 2021). Specifically, in regulated legal systems some aspects of sex work, like street-based or private sex work, are still illegal (Jahnsen & Wagenaar, 2019), and even for the aspects that are regulated the regulations are impossible to uphold in the capital (Commonspace, 2024)—in Athens a licensed brothel must be 200 meters away from schools, churches, squares, 3-star hotels, etc. (Law 2734/1999, 1999)—so the vast majority of sex workers in the city work without a license. This affects their general health and access to healthcare services as they have no health insurance. A previous study in Greece (Drydakakis, 2021) has shown that sex workers reported worsened physical and mental health status—especially when unregistered—legal prosecutions as well as difficulty accessing health services.

The present study aims to examine sex workers' health perception related to the multiple intersecting identities they bear while exploring the mediating role of access to comprehensive support. Our goal is to provide important insights into sex workers' health by exploring accessibility to supportive resources as an explanation for the relationship between the multiple marginalized identities they carry and their state of health.

2. Methodology

2.1. Procedure & Participants

The recruitment process was conducted from April to July 2024 in the community center for sex workers, Red Umbrella Athens, operated by the Greek Association of People Living with HIV “Positive Voice”. The day center offers psychosocial support, advocacy, and resources for the health, safety, and well-being of sex workers. Female visitors of the center were asked to participate in the study and upon agreement, called to fill out the questionnaire in a designated private room on the premises in the presence of a trained research assistant. They were all verbally and in writing informed that the study was voluntary, anonymous, and without compensation. The bioethics committee of the University of Crete approved the research (approval code: ΕΗΔΕ 61/08.04.2022), designed in line with the Helsinki Declaration guidelines.

As you can see below, the sample size was limited due to the recruitment process that focused on Red Umbrella Athens visitors. Although this may limit the generalizability of the findings, it provides valuable insights into the health and resource accessibility of multiply marginalized female sex workers in Athens who access community-based services. Also, considering this particular population is highly stigmatized hard to reach, and often not in a position to disclose their work identity, the community center was the only appropriate and ethically sound recruitment setting. Their work environments were excluded based on concerns about safety, confidentiality, and the risk of further stigmatization.

A total of 81, cis (82.7%, $n = 67$) and trans (17.3%, $n = 14$) female sex workers provided consent and valid answers to the questionnaire. The participants' mean

age was 43 years ($Mdn = 42$, $SD = 12.58$) and most participants (69.1%, $n = 56$) were mothers. Our sample was comprised of migrants 48.1% ($n = 39$), and refugees (11.1%, $n = 9$) from Eastern Europe and the Balkans (42%, $n = 34$), Africa, Middle East, South America and Central Asia (17.3%, $n = 14$), and local-born (40.7%, $n = 33$). The percentage of the participants who completed primary education was 27.2% ($n = 22$), 35.8% ($n = 29$) completed secondary education, 12.3% ($n = 10$) graduated from the university. The rest either finished elementary school (16%, $n = 13$) or did not receive any education (8.6%, $n = 7$). In regards to health perception, 53.1% reported having health issues ($n = 43$), cardiovascular and respiratory issues being the most common (12.3%, $n = 10$), followed by HIV and Hepatitis B (8.6%, $n = 7$), autoimmune diseases (6.2%, $n = 5$), gynecological and endocrine disorders (6.2%, $n = 5$), psychiatric issues (4.9%, $n = 4$), musculoskeletal disorders (4.9%, $n = 4$), and neurological disorders (4.9%, $n = 4$), while the rest reported ophthalmological issues (4.9%, $n = 4$). Finally, concerning their living conditions, 19.8% ($n = 16$) reported a total lack of income, with only 11.1% ($n = 9$) receiving welfare benefits. In general, regarding intersectionality, 88.9% ($n = 72$) of our sample reported multiple intersecting marginalized identities or states/experiences that face discrimination, namely migration (46.9%, $n = 38$) and refugee (11.1%, $n = 9$) status, trans identity (17.3%, $n = 14$), homelessness (16%, $n = 13$), living with HIV (9.9%, $n = 8$), substance use (9.9%, $n = 8$), and a history of incarceration (11.1%, $n = 9$).

2.2. Measures

To assess the state of the general physical health of the participants, we administered the General Health Perceptions subscale of Short Form Health Survey SF-36 (Pappa et al., 2005). The participants were asked to answer questions 1 (In general, would you say your health is), 33 (I seem to get sick a little easier than other people), 34 (I am as healthy as anybody I know), 35 (I expect my health to get worse), and 36 (My health is excellent) of the SF-36 scale for the overall beliefs and perceptions about personal health, including current health and future health outlook.

An improvised “Resources Accessibility scale” was also administered, the construction of which was based on the “Vulnerability Index-Service Prioritization Decision Assistance Tool”, VI-SPDAT (OrgCode Consulting, Inc. and Community Solutions, 2015) and the study of Jackson et al. (2016). In more detail, participants were asked to answer 7 questions about the level of accessibility to: i) health services, ii) welfare benefits, iii) housing, iv) employment, and v) meeting essential daily needs and maintaining social connections with vi) friends and vii) family on a scale from 1 (not at all) to 5 (completely), with lower score meaning less accessibility to the resources mentioned above. Finally, participants were asked to identify their primary concern regarding access to the resources above at the present moment. The scale’s internal consistency was found acceptable as Cronbach’s alpha was 0.73.

Additionally, the short version of the “Generalized Anxiety Disorder Scale” (2-Items) (Kroenke et al., 2007) with two questions about anxiety and the difficulty of controlling it, as well as the “Patient Health Questionnaire 2” (Kroenke et al., 2003), with two items investigating the presence of depressed mood and anhedonia were administered. The Generalized Anxiety Disorder Scale (GAD-2) and the Patient Health Questionnaire 2 (PHQ-2) were combined into a single measure of anxiety-depression symptoms due to the stronger internal consistency of the combined items (Cronbach’s alpha = 0.76). This combined scale reflects general psychological distress, incorporating both anxiety and depressive symptoms. We also administered the Primary Care PTSD Screen for DSM-5 (PC-PTSD-5), a validated tool designed to assess the presence of post-traumatic stress disorder (PTSD) symptoms in individuals (Prins et al., 2016). It consists of five items that measure whether participants have experienced the following in the past month as a result of a traumatic event (a) repeated, disturbing, and unwanted memories of the event, (b) repeated, disturbing dreams of the event, (c) feeling very upset when reminded of the event, (d) trying to avoid memories, thoughts, or feelings related to the event, (e) feeling distant or cut off from other people. The internal consistency of the scale was found to be acceptable (Cronbach’s alpha = 0.72).

Finally, the demographic data and identity-related information collected were age, ethnicity, migration status, gender identity, education level, motherhood, living conditions, incarceration history, substance use, and health issues. Data was gathered using self-identified, closed-ended questions with response options of “yes,” “no,” or “no response.”

2.3. Statistical Analyses

We measured absolute and relevant frequencies and descriptives of the demographic variables and the multiple identities participants bear. Furthermore, we created a marginalized identities/states cumulative score variable by assigning a point to each of the aforementioned social identities and calculating a combined score that reflects the number of marginalized identities a person holds. We used this score instead of intersections of specific marginalized identities and/or states due to the limited sample size and the high number of marginalized identities/states. Then we measured the improvised Resources Accessibility scale’s internal consistency using Cronbach’s Alpha and conducted an Exploratory Factor Analysis to identify its underlying structure. Additionally, we investigated significant correlations between the reliable factor that emerged from the previous analysis of the Resources Accessibility scale, General Health Perception, Anxiety-Depression symptoms, PTSD, and the Marginalized Identities Score using Pearson’s *r*. No significant relations emerged between demographic variables and resource accessibility and health perception. Finally, having established statistically significant correlations between the Resources Accessibility scale, General Health Perception, and Marginalized Identities/States Score, in line with

our theoretical framework, we conducted a mediation analysis using PROCESS Model 4 to examine whether Access to Comprehensive Support mediates the relationship between Marginalized Identities/States Score and General Health Perception.

The statistical significance threshold was set at 0.05 and the IBM SPSS Statistics software, version 25 was used for analyses.

3. Results

3.1. Resources Accessibility Scale

Regarding the Resources Accessibility scale, the data's suitability for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure, which was found adequate at 0.81. Bartlett's test of sphericity was significant ($\chi^2(21) = 113.72, p < 0.001$), suggesting that the correlation matrix was appropriate for factor analysis. Factor extraction was performed using Principal Component Analysis with Oblimin rotation as we assumed that there were potential correlations between the factors representing different aspects of accessibility (e.g., healthcare, housing, and welfare). **Table 1** shows the two factors that emerged with eigenvalues greater than 1, explaining 57.22% of the variance. Items related to Comprehensive Support Access (housing, healthcare, welfare, and work) loaded strongly on Factor 1 (loadings ranging from 0.66 to 0.77), and items related to Social Connectivity (relations with family and friends) loaded on Factor 2 (loadings 0.41 and 0.92). The two factors together explained 57.22% of the total variance in the dataset, with Factor 1 explaining 41.15%, and Factor 2 explaining 16.07%. The internal consistency (Cronbach's alpha) of Comprehensive Support Access was acceptable at 0.78, however, the Social Connectivity subscale had a Cronbach's alpha of 0.32, indicating unacceptable internal consistency. Due to the poor reliability of Factor 2, we decided not to use this factor in further analyses. Instead, we focused on Factor 1, which aligns with our theoretical framework and has acceptable psychometric properties.

Table 1. Results from a factor analysis of the resources accessibility questionnaire.

Resources Accessibility Scale Item	Factor loading	
	1	2
3.3. How easy is it for you to find a home?	0.81	
3.5. How easy is it for you to find a job?	0.77	
3.4. How easy is it for you to meet your basic daily needs (food, clothing, housing, hygiene)?	0.73	
3.1. How easy is it for you to access healthcare services?	0.63	
3.2. How easy is it for you to access welfare benefits (supplemental income, housing, food, etc.)?	0.58	
3.7. How easy is it for you to build or maintain friendships?	-0.14	0.86
3.6. How easy is it for you to keep in touch with your family?	-0.21	0.57

Note. $N = 81$. The extraction method was principal component analysis with an oblimin rotation. Factor loadings above 0.30 are in bold.

Regarding prioritization of resources, 61.7% of the sample ($n = 50$) at the time of the research prioritized health, 12.3% ($n = 10$) housing, 11.1% ($n = 9$) work and 4.9% welfare assistance and covering basic needs ($n = 4$).

3.2. Marginalized Identities/States Score, Health and Comprehensive Support Access

The Marginalized Identities/States Score was found to have a significant negative correlation with both General Health Perception and Comprehensive Support Access. Specifically, a higher Marginalized Identities/States Score (indicating more marginalized identities) was associated with poorer perceptions of general health ($r = -0.25$, $p < 0.05$) and reduced access to comprehensive support services ($r = -0.27$, $p < 0.05$) as shown in **Table 2**. These findings suggest that individuals with more marginalized identities/states tend to report worse health perceptions and face greater barriers in accessing essential welfare, healthcare, and housing services.

Table 2. Descriptive Statistics and correlations for comprehensive support access, general health perception, everyday discrimination, anxiety & depression, marginalized identities score, PTSD.

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Comprehensive Support Access	81	2.64	1.14	-	0.28*	-0.30**	-0.50**	-0.27*	-0.31*
2. General Health Perception	81	71.24	21.19	0.28*	-	-0.28*	-0.19	-0.25*	0.01
3. Everyday Discrimination	81	2.23	0.86	-0.30**	-0.28*	-	0.43**	0.03	0.25
4. Anxiety & Depression	81	2.51	0.89	-0.50**	-0.19	0.43**	-	0.05	0.48**
5. Marginalized Identities Score	81	2.28	0.95	-0.27*	-0.25*	0.03	0.05	-	0.13
6. PTSD	41	0.59	0.33	-0.31*	0.01	0.25	0.48**	0.13	-

* $p < 0.05$, ** $p < 0.01$.

3.3. Comprehensive Support Access and General and Mental Health

A significant positive correlation was found between Access to Comprehensive Support and General Health Perception ($r = 0.28$, $p < 0.05$). This indicates that individuals who report better general health perceptions tend to have better access to comprehensive support services (such as welfare, healthcare, and housing). Additionally, there were significant negative correlations between Access to Comprehensive Support and psychological variables. Specifically, reduced access to comprehensive support services (including welfare, healthcare, and housing) was associated with higher levels of depression and anxiety symptoms ($r = -0.50$, $p < 0.001$) and higher PTSD symptoms ($r = -0.31$, $p < 0.05$). These negative correlations suggest that individuals who report higher levels of mental health challenges tend to have less access to comprehensive support.

3.4. Access to Comprehensive Support as a Mediator between Intersectionality and General Health Perception

A mediation analysis (**Figure 1**) was conducted to examine whether Access to

Comprehensive Support (M) mediates the relationship between Marginalized Identities/States Score (X) and General Health Perception (Y).

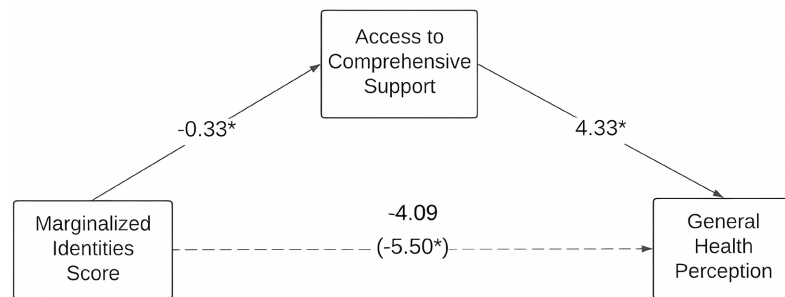


Figure 1. The mediating effect of access to comprehensive support in the relationship between marginalized identities and general health perception.

Effect of Marginalized Identities/States Score on Access to Comprehensive Support

The regression model predicting access to comprehensive support from the marginalized identities/states score was statistically significant, $F(1, 79) = 6.370$, $p = 0.014$, with an $R^2 = 0.075$, indicating that the marginalized identities/states score explained 7.5% of the variance in access to comprehensive support. Specifically, marginalized identities/states score had a significant negative effect on access to comprehensive support ($B = -0.326$, $SE = 0.129$, $t = -2.524$, $p = 0.014$, 95% $CI[-0.583, -0.069]$). This result suggests that individuals with higher marginalized identities/states scores reported less access to comprehensive support.

Effect of Marginalized Identities/States Score and Access to Comprehensive Support on General Health Perception

The regression model predicting general health perception from both marginalized identities/states score and access to comprehensive support was significant, $F(2, 78) = 4.862$, $p = 0.010$, with an $R^2 = 0.111$, suggesting that the predictors explained 11.1% of the variance in general health perception. While marginalized identities/states score did not have a statistically significant direct effect on general health perception ($B = -4.085$, $SE = 2.471$, $t = -1.653$, $p = 0.102$, 95% $CI[-9.005, 0.834]$), access to comprehensive support had a significant positive effect ($B = 4.332$, $SE = 2.071$, $t = 2.092$, $p = 0.040$, 95% $CI[0.209, 8.455]$). These results indicate that while marginalized identities/states score alone may not directly impact general health perception, access to comprehensive support plays a significant role in promoting better health perception.

There was no significant interaction between the marginalized identities/states score and access to comprehensive support in predicting general health perception, $F(1, 77) = 0.406$, $p = 0.526$.

Total, Direct, and Indirect Effects

The total effect of marginalized identities/states score on general health perception was significant, ($B = -5.497$, $SE = 2.427$, $t = -2.265$, $p = 0.026$, 95% $CI[-10.329, -0.666]$), indicating that a higher number of marginalized identities/states were

associated with poorer general health perception. However, the direct effect of marginalized identities/states score on general health perception became non-significant after accounting for access to comprehensive support ($B = -4.085$, $SE = 2.471$, $t = -1.653$, $p = 0.102$, 95% CI $[-9.005, 0.834]$).

The indirect effect of the marginalized identities/states score on general health perception through access to comprehensive support was significant, with a point estimate of -1.412 ($BootSE = 0.849$, 95% CI $[-3.326, -0.005]$). This finding supports the hypothesis that access to comprehensive support mediates the relationship between marginalized identities/states score and general health perception, suggesting that individuals with higher marginalized identities/states scores perceive worse health outcomes partly due to reduced access to comprehensive support, since marginalized identities/states score alone did not directly impact general health perception.

4. Discussion

The results of the present research provide supporting evidence that female sex workers who bear multiple marginalized identities perceive their general health as poorer, with cardiovascular, respiratory, and STIs being the most common, in accordance with previous research (Perdue et al., 2012; Willis et al., 2022). This finding aligns with existing literature, which shows that intersecting marginalized social identities/states in female sex workers can exacerbate experiences of discrimination and oppression (Apostolidou et al., 2023; Benoit et al., 2017; Capous-Desyllas & Loy, 2020; Poullos, 2018; Shannon et al., 2015; Triantafyllidou et al., 2024), leading to worse health outcomes (Drydakis, 2021; Triantafyllidou et al., 2024).

Additionally, we found that the relationship between the perception of health and multiple marginalized identities/states in female sex workers is mediated by the accessibility to comprehensive support. This finding is consistent with previous research suggesting that access to adequate resources is crucial in intensifying the negative health effects experienced by individuals facing multiple layers of marginalization (Amnesty International, 2016; Deering et al., 2014; ESWA, 2024). Individuals with more marginalized identities are not inherently predisposed to worse health outcomes but rather face external barriers—such as inadequate insurance, earnings, healthcare or social support (Kimani et al., 2020; Martín-Romo et al., 2023; Oliveira et al., 2023; Platt et al., 2018)—that limit their ability to maintain good health. This supports existing literature, which highlights how structural inequalities, like the criminalization of sex work and the resulting stigma, restrict access to vital services for female sex workers (Benoit et al., 2017; Grittner & Walsh, 2020), thereby worsening their health outcomes, both physical and mental (Beattie et al., 2020; Platt et al., 2018; Shannon et al., 2008). In the present study, we also obtained evidence that accessing essential resources is related to sex workers' mental health, particularly increasing anxiety, depression, and PTSD symptoms.

The fact that accessibility to comprehensive resources mediates and explains

how multiple marginalized identities/states affect female sex workers' general health perception reveals that the challenges they face are built into the system itself (Abel & Fitzgerald, 2010; ESWA, 2024; Kinnell, 2008). The current legal framework, i.e. the regulation model (Law 2734/1999, 1999), perpetuates disadvantages for female sex workers, as the regulations make it either hard to get registered in densely populated cities like Athens for brothel-based sex workers, or impossible for private sex workers (Jahnsen & Wagenaar, 2019). So unregistered sex workers have no health insurance and being unable to officially report their profession and source of income they face difficulties in renting a house or even getting specific welfare aids that are available to other workers in the country (Drydakis, 2021). Under the lens of the social model for disability (Oliver, 2013), our results strongly imply that indeed female sex workers' health problems, although related to multiple marginalized identities/states, are mediated by preventable societal and systemic barriers to comprehensive support (Apostolidou et al., 2023; ESWA, 2024; Law 2734/1999, 1999; Triantafyllidou et al., 2024).

5. Conclusion

The findings of this research validate arguments from the human rights and sex worker community-led organizations that emphasize the decriminalization of sex work for all workers to have equal access to healthcare and social services without discrimination (Amnesty International, 2016; ESWA, 2024; NSWP, 2018). Among other things, decriminalization will improve accessibility to welfare, healthcare, job and housing services and mitigate the health inequalities faced by female sex workers, particularly those with multiple marginalized identities (Benoit et al., 2017; Capous-Desyllas & Loy, 2020; Drydakis, 2021; Triantafyllidou et al., 2024).

We can also infer the importance of health improvement programs to aid individuals' ability to utilize available resources effectively (Apostolidou et al., 2023; Drydakis, 2021; ESWA, 2024; Triantafyllidou et al., 2024), including sex workers facing mental health challenges (Beattie et al., 2020).

These findings have important implications for public health policy and practice. They highlight the need for intersectional approaches to healthcare and social services that account for the unique challenges faced by individuals with multiple marginalized identities (Martín-Romo et al., 2023; Platt et al., 2018). Our results suggest that equitable resource access to essential welfare, healthcare, job and housing services can reduce health disparities in female sex workers with multiple marginalized identities (Bowleg, 2012). Policymakers and healthcare providers should therefore focus on expanding access to comprehensive support services, especially for those who face intersecting disadvantages—migrants, refugees, trans women, those living with HIV, substance users, those formerly incarcerated, and/or experiencing homelessness (Drydakis, 2021; ESWA, 2024; Triantafyllidou et al., 2024).

In summary, the need for a comprehensive approach to support service provision has been underscored. Focusing on improving a more inclusive and effective

support system that meets the diverse needs of individuals (Braveman et al., 2018; Marmot, 2005) can work toward sex workers' general health.

6. Limitations & Future Research

While this study provides valuable insights into the role of intersectionality in health perception, it is not without limitations. First, the use of self-reported data on general health perception may introduce bias, as individuals' subjective evaluations of their health can be influenced by various factors, including cultural norms and personal expectations (Friedman et al., 2005). Future research could employ more objective health measures to validate these findings. Additionally, the study did not account for specific intersectional groups of identities, such as race, gender identity, migration status, or substance use, and how they uniquely affect health and accessibility. Due to the size of the sample and the large number of marginalized identities/states female sex workers in our sample bear, it was not feasible to gather a sufficient sample from all identity groups, which limited the ability to examine these intersections in detail. This limitation underscores the need for future studies to use larger samples to understand better the nuanced impacts of particular identity combinations on health outcomes.

Moreover, future research should also explore the types of support, adding the legal support (ESWA, 2024) which was omitted in the present study, that are most effective in mitigating the health disparities associated with multiple marginalized identities/states. Understanding whether specific resources—such as mental health services, financial assistance, or social networks—have differential impacts on health outcomes could inform more targeted interventions.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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