

HIV infection and associated risk factors among Female (Cis & Trans) and Male Sex Workers in Greece: Innovative evidence by "Red Umbrella Athens"

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Greece: Sex workers & HIV

Sex workers (SW) are widely considered at high risk for sexually transmitted infections (STI) and disproportionately affected by the HIV epidemic¹. Sex workers in Greece face multiple challenges living and working stigmatized, marginalized and criminalized. Nationally there are no available data concerning HIV prevalence among sex workers but only for MSM, injecting drug users (IDUs) and heterosexuals. Furthermore, there is scarce and not updated data concerning seropositivity and risk factors associated with sex work in Greece.

Hellenic Association of People Living with HIV "Positive Voice"

The Athens and Thessaloniki "Checkpoint" (prevention centers) and Red Umbrella Athens (RUA – 1st community-based primary care center for SW) are projects of a joint partnership of "Positive Voice", the Hellenic Association of PLWHA with the AHF Europe. The strong collaboration with the SW community has enabled "Checkpoints" and RUA to gather data and develop interventions concerning awareness-raising, sexual health and harm reduction. The "Checkpoint" is a non-clinical, community-based HIV, HBV, HCV and Syphilis prevention, peer-to-peer counseling and rapid testing facility operating in Athens and Thessaloniki. It is designed for both the general and the most at risk populations, i.e. MSM, SW, IDUs, Refugees, Transgender people etc. Also, the "Checkpoints" coordinates and facilitates the linkage procedure to health care in case of reactive results.

Red Umbrella Athens Mission and Interventions

Red Umbrella Athens mission is to promote and ensure sex workers' health and human rights so that all sex workers are equal and socially integrated Greek citizens at all levels. Since 2015, RUA primarily offers a wide range of services (i.e., legal support, empowerment activities, psychosocial support, testing for sexually transmitted infections (STIs) etc.) to sex workers (cis and trans female and male) at the first Greek drop-in center and secondly advocates for sex workers' rights at all levels. Also, RUA implements outreach interventions during the night (condom distribution, referrals and accompaniment to health services etc.). So far, RUA has provided services to 729 sex workers, 3,400 counselling sessions and 678 HIV/HBV/HCV tests. Additionally, more than 50,000 condoms and approximately 1,250 safe injection kits have been distributed. At policy level, RUA advocates for the decriminalization of sex work, and against the stigma and discrimination on sex workers (whorephobia, transphobia, etc.).

Research Methodology

This study aims at presenting data concerning sexual health of SW and risk factors for HIV seroconversion, for the first time to our knowledge, in Greece. In total, 520 SW (312 Cis women, 119 Cis men, 83 Trans women and 6 Trans men), were reached through the activities of "Checkpoint", RUA and outreach interventions in Athens and Thessaloniki during 2016-2017. Each SW participated through a structured interview, using a questionnaire addressing demographic and sexual health data². Absolute and relevant frequencies were estimated. Risk factors were estimated through chi-square tests with Monte Carlo correction.

Results

The 13.7% (N=4) out of 29 participants who reported injecting substances were found HIV+, while only 1.2% (N=6) were HIV+ out of 491 who are not injecting ($\chi^2 = 22.9$, $p < 0.001$; see Table 2). The 4.8% (N=6) out of 125 participants who use psychoactive substances (incl. alcohol) during sex were HIV+ compared to the 1.2% (N=4) out of 329 participants who do not ($\chi^2 = 7.6$, $p = 0.02$). HIV infection is significantly correlated with intravenous drug use and use of psychoactive substances (including alcohol) during sex.

Conclusions

Sex workers are found to be at risk of HIV infection due to psychoactive substance use, especially injecting drug use and use during sex. These findings are in line with similar studies^{3,4} showing that sex workers who use drugs are vulnerable to HIV and other bloodborne and sexually transmitted infections, due to unprotected sex or syringe sharing. Other factors, (e.g. condom use) related to sex work found not to be risks themselves, in contrast to stigmatizing beliefs of a majority of the society. Probably, sex workers are informed by their own initiative as well as by interventions such as those of "Positive Voice" concerning prevention and safer sex practices. HIV prevention programs for SW who use drugs should consider their unique needs for harm reduction and voluntary drug treatment (e.g. OST).

Limitations & Future Research

There is need of a structured and validated questionnaire in line with specific needs of SW and cultural background. Also, SW are changing often working places due to criminalization and thus it is hard to implement repeated measurements. Sex workers remain underserved by the global HIV response and future research should investigate the complex issues regarding social, legal and economic injustices faced by sex workers contributing to their high risk of acquiring HIV.

Descriptive Statistics

Table 1. Descriptive statistics of sex workers/participants of the study (N=520)

		N	%
Gender	Cis women	312	60
	Trans Women	83	16
	Cis Men	119	23
	Trans Men	6	1
Age	13-20	44	8,5
	21-30	20	38,5
	31-40	146	28,1
	41-50	78	14,9
	>50	52	10
Country of origins	Greece	227	43,7
	EECA	137	26,3
	Central Europe	40	7,7
	North Africa	44	8,5
	South Africa	55	10,6
	Middle East	12	2,3
	Other	5	0,9
Refugee/ Asylum seeker		29	5,6
Education level	None	11	2,1
	Primary	219	42,1
	Secondary	239	46
	Higher	48	9,2
	Master Degree	3	0,6
Sex work full-time job		103	19,8
HBV vaccination	Yes	179	34,4
	No	201	38,7
	Don't now	140	26,9
Condom use in the last sexual intercourse		407	77,9
	No condom use during the last year	275	52,9
Number of sex partners during the last semester	0	6	1,2
	1	29	5,6
	2-5	23	4,4
	6-12	24	4,6
	>12	438	84,2
Sexual orientation	Heterosexual	40	7,7
	Other	45	8,6
	Don't Know	428	82,3
Intravenous drug use		29	5,6
	Use of psychoactive substances (incl. alcohol) during sex		
	Yes	152	24
No	329	63,2	
Don't Know	66	12,7	
Participation in sex parties	Yes	52	10
	No	390	75
	Don't know	78	15
HIV positive		10	1,9

Table 2. Variables significantly associated with HIV infection (Chi-square tests with Monte Carlo correction) (N=520)

Variables	HIV+		χ^2
	NO	YES	
Intravenous drug use	25 (86.3%)	4 (13.7%)	22.9***
Use of psychoactive substances (incl. alcohol) during sex	119 (95.2%)	6 (4.8%)	7.6*

Note. *p < 0.05, ** p < 0.01, *** p < 0.001

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