

The Impact of Incarceration on Greek Female Prisoners' Self-reported Health Status

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Abstract

Objective: Studies attempting to investigate issues around detainees' health status is limited in Greece and it is mainly focusing on specific prisons. The scope of this research was to investigate the impact of incarceration on health status of the Greek female prisoners' population.

Methods: A cross-sectional survey was conducted to both female correctional institutions existing in Greece during the years 2014 and 2015. A semi-structured questionnaire was given to incarcerated women who voluntarily accepted to take part. Data were collected via personal interviews and were anonymized. Statistical analysis was performed through descriptive statistics, bivariate analysis and multiple regression analysis with the use of SPSS 20.

Results: Out of 524 female prisoners, 397 met the inclusion criteria and participated in the study. 66.3% reported a moderate or poor health status, while the respective rate before detention was 23.4%. Health status deterioration and poor mental health were referred by more than half of the participants. The access to health services and the quality of provided healthcare during imprisonment were considered as poor/very poor by 44.8% and 46.1% respectively. Almost half of the respondents expressed their dissatisfaction with the accommodation, the cleanliness, the nutrition as well as with the overall prison environment. Furthermore, the access to health services, the quality of provided healthcare and the experienced detention conditions affect female prisoners' self-reported general and mental health status.

Conclusion: Female imprisonment impacts negatively prisoners' self-reported health status. Our findings give a cue for additional explore with the specific end goal to meet the health needs of this vulnerable population as well as to improve everyday life in prison and life after release.

Keywords: Prisoners; Women health; Risk factors; Health services; Health care

Introduction

Prison population has increased by almost 20% in the last 15 years [1]. In 2015, more than 10.35 million people were incarcerated throughout the world, either as pre-trial prisoners or having been sentenced [1]. The female inmates have grown by 50% the same period, while the respective rate for the male prison population was 18% [1,2]. The expanding detainment rates directly affect inmates' overall health status [3]. The high commonness of prisoners' health related problems seems to be ascribed to various socio-economic characteristics for example destitution, low wage and low training level [4-7].

Additionally, previous studies uncover that inmates have difficulty in the access to health services and do not receive the appropriate care like people in the community [8-10]. The jail conditions are described by seclusion, mutual life, viciousness, uncertainty and congestion [10-12]. Imprisonment is for the most part connected with unhealthy lifestyle such as smoking, lack of physical activity and inappropriate nutrition that prompt the expanding rates of physical and mental ailments [10-12]. Health status is also worsening by unhealthy conditions of incarceration such as absence of clean facilities or means

of personal hygiene [13]. Gender is considered to be an important factor in assessing the health status of the prison population [14-16].

Incarcerated women often come from an economically and socially disadvantaged environment, experience greater physical and mental health problems and have more needs in contrast to male detainees as well as to the general population [17-23]. Furthermore, women in prison have been found to be mostly dependent on alcohol or drugs [24], 10 times at greater risk of harming themselves than men [25] and three times more likely to have suffered physical or sexual abuse before their detainment in comparison with people in the community [26-29]. As far as sex and gender as a variable in healthcare utilization, it has been found that female prisoners report higher rates of demand health services than incarcerated men [30].

In Greece, research in the field of evaluating prisoners' self-reported health status is limited with few existing studies focusing on male prison population and on male detention facilities [31-38]. Only three studies focusing on female incarceration conditions and self-reported health status have been published recently from the female prison in Attica that highlighted this issue in the country [39-41]. Against this background, a study focusing on the whole Greek female prison population was necessary, given that imprisonment effect prisoners' overall health status, everyday life, as well as their future after release. Thus, the purpose of this study was to explore the influence of

incarceration on Greek female prisoners' self-reported health status in relation to the provided healthcare and the experienced detention conditions during incarceration.

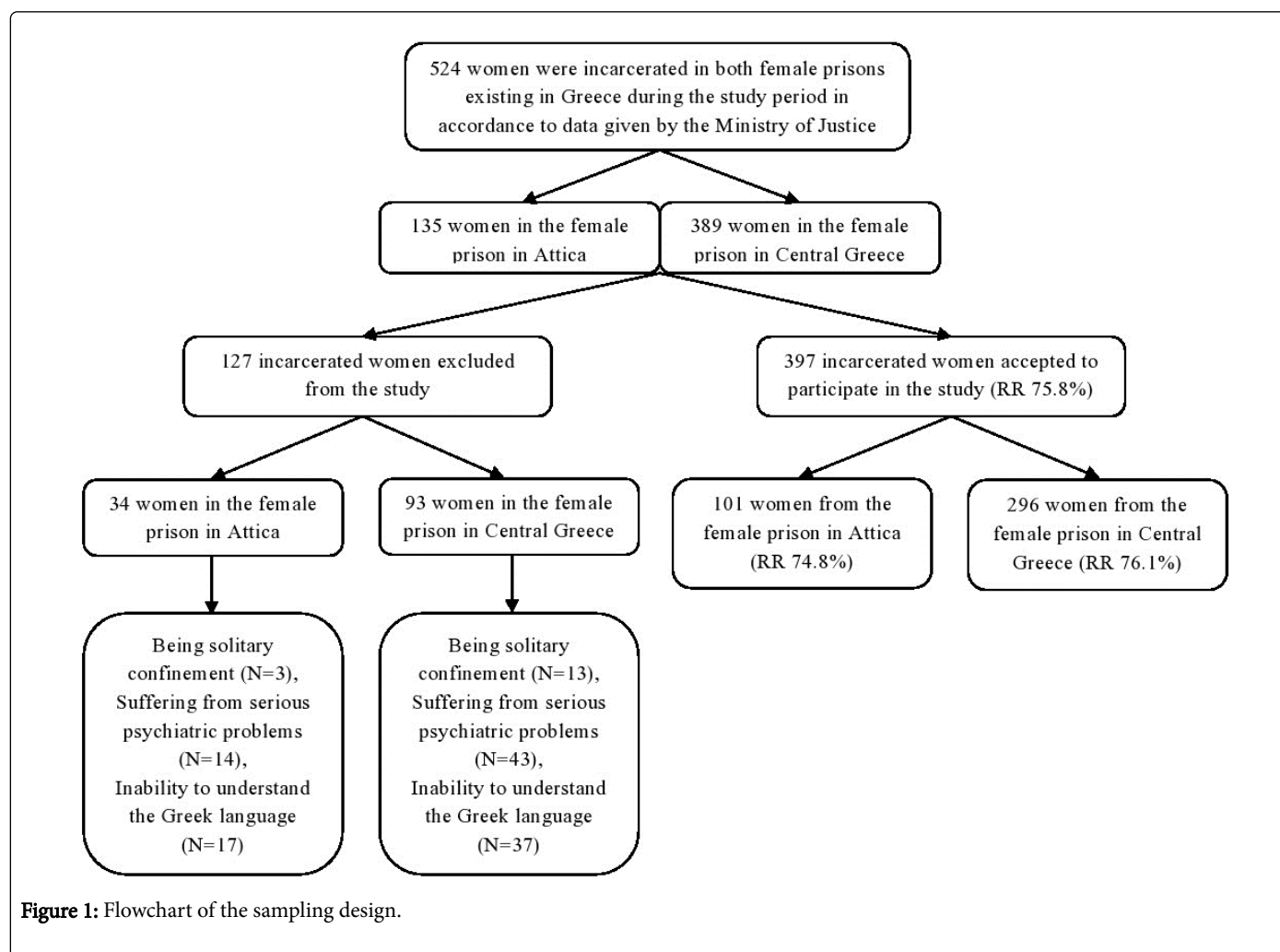
Methodology

Study design and sample selection

Given that women in Greek penal institutions reach approximately 4.9% of the total prison population [2], there are only two female prisons in the country, one in the prefecture of Attica and one in Central Greece. A cross-sectional survey was conducted to both female

detention centers between January 2014 and December 2015 by the University of Peloponnese which was given an entry permit by the Ministry of Justice [40,41]. The study was also approved by School of Social Sciences Ethics Committee [40,41].

Out of a total of 524 incarcerated women in the two female prisons existing in Greece, 397 met the inclusion criteria and accepted to participate in the study. Being in solitary confinement, suffering from serious psychiatric problems and inability to understand the Greek language constituted the exclusion criteria. Analytical information on the sampling design is presented in Figure 1.



The recruitment process was undertaken by prison's social workers, specially trained for the purpose of the study by the university research team. The prisoners were informed on the study objectives and scope and asked if they wanted to take part after a verbal consent. The list of participants was subsequently given to the University research team and the interviews were scheduled.

Study instrument

A questionnaire was developed based on international literature review [42-44]. A pilot research was carried out in January 2014 on a convenience sample of 20 female prisoners from the target population

in order to evaluate its clarity, comprehensiveness and content validity [45] and feedback was incorporated into the final version which included four sections. The first section consisted of questions regarding prisoners' socio-demographic and detention characteristics. Self-reported health status and health risk behavior related questions were investigated in the second section. The third section included questions with regard to the access and utilization of health services as well as with the quality of the provided healthcare.

Questions relevant to the incarceration conditions such as accommodation, cleanliness, nutrition and the overall satisfaction with the prison environment were referred to the fourth section. The questionnaire included several close-ended questions with a five-point

scale, where responses ranged from "very poor" to "very good" in order to evaluate female prisoners' general/ mental health status, their access to health services, the quality of provided healthcare and their satisfaction on the experienced detention conditions.

The rates of expressed negative feelings such as sadness, anxiety or discomfort and their affect in inmates' everyday life were also investigated with a five-point scale from "very little" to "very much". Closed-ended questions were also included to explore the use of tobacco and drugs. Data collected via face to face interviews with the inmates in Greek language by a researcher of the University of Peloponnese, with more than five years' experience in managing vulnerable population groups, without the prison's personnel presence. All information received was anonymized to ensure confidentiality.

Statistical Analysis

Statistical analysis was performed through descriptive statistics and bivariate analysis. The results are presented as absolute (n) and relative (%) frequencies for the nominal and ordinal variables and as mean values for the quantitative variables. The proportions of answers poor/very poor or good/very good were presented as a cumulative result. When variables were not normally distributed, nonparametric tests were performed. In particular, in order to investigate the difference

between general health status before and during detention, the Wilcoxon test was used.

Multiple regression analysis with backward method was also used to determine the factors which effect on self-reported general and mental health status, and then the proportion of total variation for general and mental health status were explained with the selected independent variables. The statistical analyses were conducted on S.P.S.S. 20 (Statistical Package for Social Sciences).

Results

Out of a total of 524 incarcerated women in Greece, 397 were met the inclusion criteria and accepted to participate in the survey, reaching a 75.8% response rate. The majority (76.1%) of the study population was Greek with a mean age of 44.3 years (Table 1). 33.8% was unmarried and 68.8% reported having children. 36.8% had secondary education and 68.5% was employed before their incarceration. The main reasons of imprisonment were financial reasons (33.3%), drug trafficking (31.7%) and theft/robbery (19.4%). The rates were lower for murders (7.6%) and other reasons (8%). It should also be noted that only 29.2% of the participants were pre-trial prisoners. For the vast majority (82.4%) of the respondents, this was the first time being in prison (Table 1).

Variables	N	%
Mean Age=44.3 (SD. 12.5)		
Citizenship		
Greek	302	76.1
Other	95	23.9
Marital status		
Unmarried	134	33.8
Married	116	29.2
Divorced	96	24.2
Widow	51	12.8
Children		
Yes	273	68.8
Occupation before detention		
Employee	272	68.5
Student	6	1.5
Unemployed	56	14.1
Pensioner	22	5.6
Housework	33	8.3
Other	8	2
Education level		
Compulsory	125	31.5
Secondary	146	36.8

Tertiary	79	19.9
Postgraduate	47	11.8

Table 1: Socio-demographic characteristics of the sample.

Health status and high risk behavior

Health deterioration during imprisonment was reported by 68.3% of the participants. More specifically, female prisoners were asked about their general health as well as their mental health status (Table 2). About 66.3% described their current general health as moderate or poor/very poor, in contrast to the 23.4% before incarceration. 50.7% rated their mental health as poor/very poor. The latter is further supported by the fact that 74.1% reported that they have been feeling “much/very much” sadness, anxiety or discomfort during the detention. About 73.8% also mentioned that these feelings affected negatively their everyday life in prison (Table 2).

Health status	General health	Mental health
Good/very good	33.70%	20.60%
Moderate	37.30%	28.70%
Poor/very poor	29.00%	50.70%

Table 2: Self-reported general and mental health status during incarceration.

With regard to high risk behavior prior to and during their detention, 68.3% of the participants were smokers. 36.4% used to smoke more than 21 cigarettes per day before, whereas this percentage increased to 57.2% during detention. 27% and 10.6% of the participants admitted that they had used drugs or injected drugs before the entrance to prison. These rates decreased to 13.9% and 1% respectively during detention.

Access to and utilization of health services

Female prisoners were asked to assess their access to health services as well as the quality of the health care provided during their imprisonment. The access to health services both inside and outside the prison, as well as the quality of provided healthcare in prison were described as poor/ very poor by 44.8% and 46.1% of the sample, respectively (Figure 2). Furthermore, 45.5% stated that it was easy to reach a hospital in an emergency, 34.6% answered negatively, while 19.9% said that they did not know.

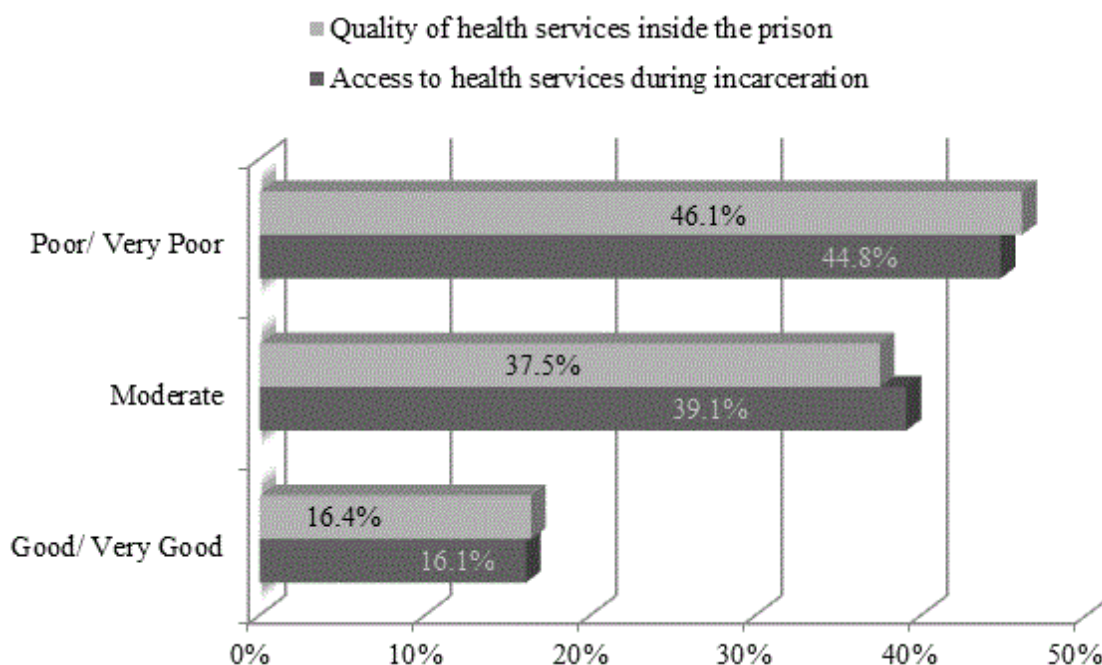


Figure 2: Access to and Quality of health services during incarceration.

Detention conditions

As far as prison conditions, 48.6% and 47.1% reported the accommodation and nutrition during the detention was bad/ very bad respectively. Similar were the results about cleanliness in sanitary areas and cleanliness in communal areas and in cell, where 47.1% and 44.4% of the sample respectively was dissatisfied. The overall prison environment was described as bad/very bad (49.9%), moderate (37.3%) and only 12.8% of prisoners rated it as good/very good.

Multiple regression analysis

In order to determine which factors affect the self-reported general health status of female prisoners, a multiple linear regression analysis was performed (Table 3).

The model showed that:

- If increase the age of prisoners by 1 year then the self-reported general health status will decrease by 0.017.
- If increase the score of self-reported mental health status, then the self-reported general health status will increase by 0.536.
- If prisoners are smokers, then the self-reported general health status will decrease by 0.283.
- If increase the score of nutrition conditions during detention then the self-reported general health status will increase by 0.148.
- If increase the score of cleanliness in communal areas and in cell, then the self-reported general health status will increase by 0.160.
- If increase the score of general satisfaction on detentions conditions, then the self-reported general health status will increase by 0.168.

Variables	Unstandardized Coefficients		Sig.	95% Confidence Interval for B	
	B	Std. Error	Lower Bound	Upper Bound	
Constant	2.14	0.233	0	0.682	2.598
Age	-0.017	0.004	0	-0.024	-0.01
Self-reported mental health status	0.536	0.04	0	0.457	0.616
Smoking	-0.283	0.098	0.004	-0.475	-0.092
Nutrition conditions during detention	0.148	0.051	0.004	0.049	0.248
Cleanliness in communal areas and in cell	0.16	0.048	0.001	-0.255	-0.065
Overall satisfaction on detention conditions	0.168	0.065	0.01	0.04	0.297

Table 3: Female prisoners' self-reported general health.

Variables	Unstandardized Coefficients		Sig.	95% Confidence Interval for B	
	B	Std. Error	Lower Bound	Upper Bound	
Constant	1.487	0.306	0	0.885	2.089
Age	0.009	0.003	0.007	0.003	0.016
Current self-reported general health status	0.506	0.039	0	0.429	0.584
Feelings of anxiety, sadness or discomfort	-0.344	0.043	0	-0.429	-0.259
Access to health services	0.145	0.044	0.001	0.058	0.232
Accommodation conditions during detention	0.113	0.062	0.071	-0.01	0.235
Nutrition conditions during detention	0.145	0.055	0.008	-0.252	-0.037
Cleanliness in sanitary areas	0.094	0.045	0.036	0.006	0.182

Table 4: Female prisoners' self-reported mental health status.

Also a linear model was performed in order to determine the factors which affect the self-reported mental health status (Table 4).

The model showed that:

- If increase the age of prisoners by 1 year then the self-reported mental health status will decrease by 0.009.
- If increase the score of current self-reported general health status, then the self-reported mental health status will increase by 0.506.
- If increase the feelings of sadness, anxiety or discomfort, then the self-reported mental health status will decrease by 0.344.

- If prisoners have access to health services, then the self-reported mental health status will increase by 0.145.
- If increase the score of accommodation conditions during detention, then the self-reported mental health status will increase by 0.113.
- If increase the score of nutrition conditions, then the self-reported mental health status will increase by 0.145.
- If increase the score of cleanliness in sanitary areas, then the self-reported mental health status will increase by 0.094.

Discussion

To the best of our knowledge the studies attempting to assess the impact of incarceration on female prisoners' self-reported health status are limited in Greece. Three studies have been carried out assessing inmates' health status only in the female prison of Attica [39-41].

The present study focuses on the whole female prisoners' population in Greece. Our results revealed that approximately 3 out of 10 inmates rated their general health status as poor compared to that before incarceration, while more than two-thirds reported that their health status worsened during detention. The vast majority expressed negative feelings which affect their everyday habits. Nearly half of the participants reported that the access to health services and the quality of provided healthcare in prison did not meet their needs. With regards to detention conditions, one out of two of the respondents was not satisfied with the accommodation, the nutrition, the cleanliness of the facilities and the whole prison environment. Also, our results revealed that inmates' satisfaction on the detention conditions and on the access to and quality of healthcare seem to influence their self-reported general and mental health status.

Most of our findings are consistent with the international literature. In Greece and other European countries, the common reasons of female imprisonment are drug-trafficking, financial reasons and theft/robbery, while the violent crimes and murders are observed more frequently in the male prison population or in women incarcerated in USA [11,31,35,46-54].

Prisoners' poor health status as well as a high prevalence of mental disorders and mental health deprivation have been reported in various studies [3,5,8,55-59]. Furthermore, it is confirmed that prisoners report a deterioration of their health status during their detention [3,30,60-62]. The age constitutes an important factor. Older inmates report a lower level of general health compared to younger prison population [3,14,63-65]. On the contrary, younger prisoners report lower self-reported mental health status in contrast to older inmates [66]. Literature review with regard to the age-related data is consistent with our findings where it has been found that female prisoners' self-reported general and mental health status is affected by the age.

Prisoners tend to use health services more frequently than the general population [14,67]. Our study findings regarding female prisoners' views and opinions on the access to and quality of health services also seem to be consistent with other studies reporting that inmates are provided a low level of health care during incarceration, since they do not have a direct equivalent access to health services in the community and they cannot choose their health providers, compared to the general population, [13,30,32,37,59,68-71].

With regard to risk factors, two thirds of the participants said that they were using tobacco during their incarceration. Almost the same and higher rates of smokers have been reported in other Greek and

international surveys [33,34,36,38,72-77]. According to the study results, women increased their smoking habits by 20.8% during their detention period, while in previous surveys conducted in two Greek male prisons the relevant increase rates were higher (37.7% and 43.4% respectively) [33,34].

Dissatisfaction with the detention conditions was also reported in a Greek study focused on male prisoners as well as in the international literature [61,78,79]. However, the results of a survey in a male prison in Crete were different as two out of three respondents stated that the detention conditions were good or tolerated [32]. In addition, in a Scottish Prison survey the majority of prisoners expressed positive views about prison cleanliness and was generally satisfied with the provided nutrition [44,77].

There are numerous strengths in our study. The most important is that our findings can be generalizable to the country since they come from both female prisons existing in Greece, focusing on the whole female prisoners' population. Moreover, the questionnaire and was completed during face to face interviews without the presence of the prison's social workers. Consequently, prisoners could not misreport their physical and mental health status in an attempt to avoid being stigmatized or to avoid the risk of being deprived of certain privileges such as being allowed to work in prison or being allowed to leave the prison on temporary license [36].

The lack of a standardized questionnaire for assessing prisoners' health status, access to and quality of health services as well as detention conditions might be a potential limitation; however, the tool developed for data collection was based on international literature review, it was tested on a convenience sample and also it has been already used in other two published studies [40,41].

Conclusions

The findings suggest that female imprisonment is associated with deterioration of self-reported health status. Restrictions on the access to health services and bad incarceration conditions are aggravating factors. Our findings should be used for decision making purposes in order to prevent the effects of incarceration on prisoners' health and to introduce more effective interventions aiming at meeting their health needs, improving everyday life in prison and also life after release.

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