Original

RESP

Access to healthcare in Chilean prisons: an inmates' perspective

Sanhueza GE[1], Candia J[2]

[1]Social Work Department. Faculty of Social Sciences. University of Chile.
[2]San Sebastián University. Concepción. Chile.

ABSTRACT

Objectives: To analyze the perception of access to Chilean prisons in a representative national sample of persons deprived of liberty as well as to examine the most important covariates of such access.
Materials and methods: This study uses secondary data from the First National Survey on the Quality of Prison Life (2014), which investigated inmates' perceptions regarding access to health services inside the prisons. To do this, it uses descriptive statistics and a logistic regression model.
Results: Descriptive results at the national level show that access to health services in prisons tends to be "difficult" (44.7% of cases in this category). Multivariate logistic regression results indicate that men (OR=0.43) and those who reported better infrastructure (OR=0.70) were less likely to report "difficult access to health services". On the other hand, prison inmates (OR=1.61) and those who had reported higher levels of mistreatment (OR=1.26) were associated with a higher probability of reporting "difficult access to health services".
Discussion: Our study suggests that access to health care is dynamically linked to other aspects of life within prisons such as the composition of the prison population (gender), some of the material aspects of prisons (infrastructure, type of facility), and even some relational aspects (level of mistreatment/abuse). Future studies could further extend the debate on healthcare in prisons, incorporating more complex both variables and analyses.

Keywords: prisons, Chile, perception, inmates, health care.

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INTRODUCTION

A health situation depends on social determinants of health (SDH) that consist of factors and mechanisms through which social conditions affect the level of health. When there are differences in access to this service for a segment of the population, a situation of inequality arises, which in turn leads to a situation of injustice, since such a state of affairs can be avoided and remedied[1]. It is therefore important for prison inmates of both genders to know about ease of access to healthcare since they represent a population in a vulnerable situation and at risk of social exclusion, especially in terms of their situation as persons deprived of freedom.

It is assumed that the only right of inmates that is infringed for the duration of their sentence is that of freedom, but that their other fundamental rights[2] established in the *Universal Declaration of Human Rights of 1948*, including the right to health in article 25 remain in force. Therefore, regardless of their situation as prisoners, such inmates, to enjoy equality in health, should firstly have access to it, and it is therefore necessary to identify any barriers to access to healthcare[3] for the entire population of persons deprived of their freedom.

Møller et al.[4] comment that there are two important reasons for providing healthcare in prison. The first concerns the importance that health in prison has for the general public, since inmates run a high risk of diseases and, when they are released, may take health problems with them and so represent a health hazard in the community. The second is the commitment that must be made by society to social justice, especially with regard to reducing inequalities in marginalised groups.

Healthcare in prisons has particular characteristics that differentiates it from health in the general population, firstly because of a context determined by the situation of confinement; facilities that are less well equipped and prepared for more complex treatments; the greater vulnerability of the population being treated (it has been demonstrated that the prison population presents higher rates of suicide and attempted suicide than the rest of the population[5]); the addictive disorders that they suffer from[4], which are aggravated by the deficient and at times non-existent access to specialised mental healthcare[6,7]; the greater risk of contracting communicable diseases due to the ease with which they are transmitted caused by the overcrowding in some prisons: particularly infectious diseases such as the human immunodeficiency virus (HIV), the hepatitis C virus (HCV), tuberculosis[8], hepatitis B and C (which are from two to times and in some cases even 50 times greater than amongst the rest of the population)[9].

Although there are a number of studies on health inside Chilean prisons, their focus tends to be based on one of health-disease, investigating "specific diseases" such as tuberculosis[10,11], HIV and others[12]. Few previous studies have used national samples to consider issues relating to a fundamental issue in terms of social inclusion: the prisoners' own perception of ease of access to health inside prisons. Thus, this study has made use of the data from the *First Survey of Quality of Life in Prison* (*Primera Encuesta de Calidad de Vida Penitenciaria*)[13], and analyses the perception of male and female Chilean inmates of ease of access to healthcare in prisons, identifying some relevant covariates that may be associated with said perceptions, such as the gender of the person answering the survey, the type of prison where they are confined (publicly or privately managed), the perception of the prison infrastructure, access to programmes and the level of abuse reported by the inmate (committed by other inmates or by prison officers).

MATERIALS AND METHODS

The information used is secondary quantitative data obtained, with the author's permission, from the *First Survey of Quality of Life in Prison*, conducted in 2013[13]. This study was cross-sectional, descriptive and representative of the prison population of the country, since it employed a random sample, stratified by gender and time of sentence (accused; short sentences; long sentences). The data was compiled from April to September 2013 in 75 prisons nationwide (out of a total of 83 that were operating at that time), with a total sample size of 2,093 cases (from a total number of just over 47,000). The response rate was 78%.

The questionnaire used (from the larger study) consisted of a survey of the quality of prison life, which investigated different aspects of life inside prison, including inmates' perception of the prison infrastructure, access to social rehabilitation programmes, situations of violence between inmates, abuse by prison officers and perceptions of ease of access to healthcare inside prisons.

For the purposes of this study on access to prison healthcare, the breakdown of the variables is as follows:

– Dependent variable: perceived access to healthcare services: ordinal variable of three categories: 1 = easy access; 2 = more or less; 3 = difficult access.
– Independent variables:
  - Gender: binary variable codified as 0 = woman; and 1 = man. Type of prison: binary variable codified as 0 = inmate of public prison; and 1 = inmate of private prison. Imprisoned in the same region: binary variable codified as 0 = inmate from other region; and 1 = from the same region.
  - Infrastructure: index ranging from 0-9; higher scores indicate a better perception of the prison infrastructure. Level of abuse: index ranging from 0-4; higher scores indicate greater perceived abuse; generated from four binary variables (0-1).
  - Access to programmes: index that ranges from 0-6; higher scores indicate better access to programmes; generated from six binary variables (0-1).

For the purposes of validity and reliability, a number of measures were taken to ensure that the questions were relevant, coherent and understandable. Firstly, the validity of the content of the questionnaire was submitted for consultation by a group of international experts, Chilean academics and staff of the Chilean Prison Service (professionals, officers and guards); two focus groups were carried out with a primary draft version on inmates of prisons in Santiago; then a pilot survey was conducted, which was answered by 50 inmates; and finally reliability was checked using the Cronbach alpha value calculation (the values of which fluctuated between 0.67 and 0.84) for the different dimensions examined (infrastructure, abuse and violence; treatment of prison officers and guards; access to health services; access to social rehabilitation programmes). The reliability value for the dimension "access to health services" was 0.84. The outcome of the validation measures was a valid and

reliable questionnaire that also covered all the elements that make up prison life in Chile.

As regard the ethical issues, the parent study was approved by the Ethics Committee of the University of Michigan (HUM00085125), after prior approval from the Chilean Prison Service. The confidentiality and anonymity of the participants was safeguarded, and special care was taken to not expose any respondent to possible reprisals from the prison administration, and to this end, measures included special efforts to ensure that there were never any uniformed staff (guards) present during the questionnaire session.

The statistics were analysed using the software *Stata IC 13.0* and basically included two types of techniques: univariate analysis, such as frequency tables, descriptive statistical data, averages and percentages; and a logistic ordered regression procedure, which is useful when the dependent variable is categorical and also in cases where it is necessary to establish which variables increase (or decrease) the probabilities that the respondent answers a certain category of the dependent variable, in comparison to those who respond to the other categories.

RESULTS

Descriptive data of the participants

Table contains the descriptive data of the sample used in this study, according to which most of the respondents were men (66.7%), were confined in public prisons (89.2%) and were confined in prisons in the same region as the one they came from (72.3%). Due to the fact that the parent study was the first one in Chile to investigate sensitive issues of life inside prisons (such as violent guards and abuse amongst inmates, etc.), and at the time, from an organisational perspective, the institution was not yet prepared to deal with self-observation, it was decided that once the inmates had completed the survey the identifiers were deleted from the final data base to safeguard their anonymity and their physical and psychological wellbeing.

Ease of access to prison health services: descriptive statistical data

The perception of the inmates regarding ease of access to medical or nursing care inside prison is mostly a negative one. The results on a national scale show that 44.7% of inmates reported "difficult access" to medical or nursing care and only 20.6% reported "easy access". Table 2 shows the descriptive data for the selected variables.

Multivariate analysis: logistic ordered regression

A second question related to access was linked to the establishment of some covariates that had an influence on the variations of their perception. Such covariates included "gender", "type of prison" (public or private), "infrastructure", "abuse" and "access to programmes". The logic behind including gender consists of the known variations expected between men and women with regard to perceived access to health services[14,15]; the type of prison was also included, given that the organisational context (and results in terms of functioning and operations) would be different for both systems[16]; the perception of infrastructure was included because the quality of life in prison and the "pain of imprisonment" suffered by inmates would to an extent be determined by the degree of deprivation they may be subject to in a particular prison[17]; the "level of abuse" was included as a variable that measured aspects related to life inside the prison, which may have an influence on the fact that inmates may seek a kind of "refuge" or "escape" from prison routines by looking for access to healthcare[18]; finally "access to programmes was included because it refers to the importance of prison management[19] in reducing conflicts and creating an environment that favours social rehabilitation[20].

The logistic ordered regression assumes the scenario of "proportionality of the probabilities between the categories of response": in principle it is assumed that the distance between marking 3 with regard to 1 and 2 shall be the same as marking 1 with regard to 2 and 3 combined. To put this scenario to the test, an "approximate likelihood-ratio test of proportionality of odds across response categories" was applied, where chi squared is the significant value (chi squared = 19.83; $p<0.01$). This means that the scenario of "proportionality between the categories" was broken and, and therefore what is required is to run a generalized ordered logit model. Table 3 shows the outcomes of the multivariate logistic ordered regression.

Table 3 can be interpreted by looking at row number 2. What can be seen there are the probabilities of respondents marking 1 ("easy access") or 2 ("more or less"), in comparison with the likelihood of marking 3 ("reporting difficult healthcare"). The outcome of the logistic ordered regression of the second panel (or "large row 2") show that men (OR=0.43) and those who reported better prison infrastructure (OR=0.70) had fewer probabilities (in OR times) of reporting "difficult access to health services" (value 3 of the questionnaire), in comparison to the likelihood of reporting "easy access" (value 1) or the intermediate category "more or less" (value 2). On the other

Table 1. Descriptive statistical data of respondents

Variable	Categories	Percentage distribution	Confidence interval 95%	Standard error	N
Gender	Women (0) Men (1)	33.3% women 66.7% men	[64.7-68.8]	0.010	2.093
Type of prison	Public (0) Private (1)	89.2% public 10.8% private	[9.55-12.2]	0.006	2.093
Imprisoned in the same region	No (0) Yes (1)	72.3% from the same region 27.7% from another region	[70.3-74.2]	0.009	2.041

hand, the inmates of private prisons (OR=1.61) and those who reported higher levels of aggregated abuse (from other inmates and prison officers) (OR=1,26) were associated with higher probabilities of reporting "difficult access to health services" (value 3) inside prisons, in comparison to the probabilities of reporting easy (value 1) or intermediate access (value 2). Access to programmes was not a significant predictor.

DISCUSSION AND CONCLUSIONS

Using data from the *First Survey of Perceived Quality of Life in Prison*[13], this study was the first in Chile to analyse the perception of access to and quality of healthcare inside Chilean prisons. The data compiled showed a perception of access to healthcare that was predominantly "difficult" in Chilean prisons, with 44.7% of inmates stating this preference nationwide. Likewise, the data suggested that access to health is perceived as more difficult for female inmates; by those reporting a more deficient prison infrastructure; by inmates of a private prison and those reporting higher levels of abuse.

The difficulties in access to healthcare within Chilean prisons reported in this article has implications in terms of ethics, social justice and public health, which should be responded to[1,2,4]. As far as priorities are concerned, the data from this study suggest that efforts to facilitate access to healthcare inside private prisons and in units where women are incarcerated may be prioritised. At the same time, perceived ease of access to health (measured via perceived access to healthcare services) is related to other variables of prison life and in this regard, just like the concept of health outside prison, if a "healthier environment" could be generated, it may be hoped that prison health services may not be so necessary; this may have something to do with more indirect mechanisms, such as improving the prison infrastructure (especially spaces for productive activities and for leisure), reducing levels of abuse and violence (both between inmates and between guards and inmates) and providing more access to programmes for the prison population.

In this regard, comparisons can be made with other management models for prison health, such as the one existing in Argentine prisons that form part of the Federal Prison Service, where steps have been taken to develop comprehensive management systems to improve prison health that include (but are not limited to) a healthcare infrastructure inside prisons; a modern health management model, based on a pers-

Table 2. Perception of ease of access to prison health services and covariates

Variable	Category	Mean (or percentage)	N
Perception of access to healthcare services	Easy access (1) More or less (2) Difficult access (3)	20.6% 34.7% 44.7%	2.047
Infraestructure	Index from 0-9 (highest scores indicate better infrastructure)	5.40	1.871
Level of abuse	Index from 0-4 (highest scores indicate greater perceived abuse)	1.37	1.988
Access to programmes	Index from 0-6 (highest scores indicate better access to programmes)	1.77	1.945

pective of rights; and an institutional commitment for what is called "dynamic security", where every aspect of prison life is used to anticipate conflicts and by doing so improve the prison environment and favour reinsertion.

The findings of this study reflect in some ways how certain older dynamics in society are repeated in prison. In this respect the results of this study do not differ much from the ones carried out amongst the general public[21], in terms of difficulties in accessing healthcare services and the evaluation of quality by the most disadvantaged sectors of society. However, prisons are special moral locations, where feelings of justice. legitimacy and order are most keenly felt by those inside them[17,20,22].

One of the strengths of this study is the fact that data was taken from a national survey, where the vast majority of the prisons in the country were visited; likewise, a questionnaire fully validated by a number of important stakeholders of the prison system was used (including inmates of both sexes); and a stratified random sample was used that enable results for a large portion of the Chilean prison population to be extrapolated. However, the findings of this study should be understood within the context of its limitations:

- The first of these is the cross-sectional nature of the data: in this regard future studies could examine the changes over time of perceptions of access and quality of prison healthcare.
- Likewise, the principal variable used (perception of ease of access to prison health services) constitutes just one aspect of health in prison, and future studies could extend the discussion toward the issue of health and prison, and possibly incorporate more sophisticated variables.

To sum up, the hope is that this first article with national data about perceptions of access to prison health services, with all the limitations involved in a first attempt of this nature, can contribute towards improving this issue in Chilean prisons. To this end some recommendations were made that would enable advances in reducing the social breaches existing in a highly vulnerable population, which also presents higher demands for healthcare than the general public[3] and which has to bear the social stigma caused by living in a prison.

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Table 3. Logistic ordered regression: covariates of access to health services

Access to prison health services (doctor or nurse)					Number of observations 1.708	
1. Likelihood of reporting "easy access" with regard to reporting "more or less" or "difficult"						
	Odds ratio	Standard error	Z	P>|Z|	[Confidence interval 95%]	
Man	0.418	0.066	-5.47	0.000	0.306	0.572
Private prison	2.554	0.702	3.41	0.001	1.489	4.379
Infrastructure score	0.655	0.024	-11.5	0.000	0.609	0.704
Abuse score	1.514	0.099	6.35	0.000	1.332	1.722
Programme access score	0.904	0.036	-2.45	0.014	0.835	0.980
Constant	72.34	21.50	14.40	0.000	40.399	129.5
2. Likelihood or reporting "easy access" or "more or less" with regard to "difficult access"						
	Odds ratio	Standard error	Z	P>|Z|	[Confidence interval 95%]	
Man	0.437	0.052	-6.93	0.000	0.346	0.552
Private prison	1.618	0.277	2.80	0.005	1.156	2.265
Infrastructure score	0.700	0.018	-13.62	0.000	0.665	0.737
Abuse score	1.262	0.057	5.10	0.000	1.154	1.381
Programme access score	0.949	0.032	-1.50	0.134	0.887	1.016
Constant	6.956	1.317	10.24	0.000	4.798	10.08

CORRESPONDENCE

Guillermo Enrique Sanhueza
Social Work Department. Faculty of Social Sciences. University of Chile.
Ignacio Carrera Pinto 1045, Ñuñoa, Santiago
E-mail: guillermo.sanhueza@uchile.cl

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