

## LETTERS TO THE EDITOR

# Regarding the article: “Mental disorder prevalence and associated risk factors in three prisons of Spain”

Reading the study by Zabala-Baños et al<sup>1</sup> on the prevalence of mental disorders and associated risk factors in three correctional facilities in Spain is of great interest since it addresses one of the first-magnitude healthcare issues in prisons in our country. However, I would like to comment on some aspects of its design, since these may have an impact on the validity of its conclusions.

First, the discrepancy between sociodemographic features of the individuals included in this study and those observed in the last 2014 General Report of the Secretariat of Penitentiary Institutions<sup>2</sup> on overall data obtained from all Spanish prisons is remarkable. The aforementioned study excluded women (they account for 7.8% of the imprisoned population), preventive detainees (13%), foreigners with language difficulties (28% of the imprisoned population, yet it is unclear what criteria have been followed to assess such difficulties).

On the other hand, statistical analysis. Authors say that a  $p < 0.05$  level of significance has been assumed. Yet, this consideration can lead to type I errors (false associations) motivated by multiple comparisons: when statistical contrast is carried out within data analysis, the probability of some being randomly statistically significant becomes larger. Nominal sig-

nificance value, which conventionally is  $< 0.05$  must then be adjusted according to the number of executed hypothesis.

Therefore, while they deserve congratulations for their effort I believe that no definitive conclusions should be made upon a study with a reduced sample size and some bias regarding the selection of individuals.

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## *RESPONSE TO THE LETTER TO THE EDITOR:* **About the “Prevalence of mental disorders and associated risk factors in three correctional facilities in Spain”**

In response to the Letter to the Editor that Dr. Velasco Montes addresses in the Spanish Journal on Prison Health (*Revista Española de Sanidad Penitenciaria*) with regard to the article published by Zabala-Baños et al.<sup>1</sup> titled *Prevalence of mental disorders and associated risk factors in three correctional facilities in Spain* we would like to acknowledge our gratitude for your congratulations and this opportunity for discussion on such an important yet unknown issue as the presence of people with mental disorders in Spanish prisons, this being one of the main public health concerns in these facilities<sup>2</sup>.

In fact, our study is limited to male inmates, thus existing differences regarding sociodemographic profiles of the whole imprisoned population in Spain.

However, it has never been in the mind of the authors to generalize the results to all prisons in Spain. In fact, the title itself specifies that the study has been carried out in three facilities, more specifically in *Madrid VI*, *Ocaña* and *Ocaña II* where the imprisoned population consists exclusively of male inmates.

With regard to the difficulties that its application on groups unfamiliar with the Spanish language would entail, this mainly relates to the complexity of the tool used. The provision of the SCID scale<sup>3</sup> implied an average duration of over two hours. Including individuals unfamiliar with Spanish, using translators and adapting the scale to each different language would imply a load of work that largely exceeded the limits of this study.

We firmly believe that these two circumstances, which were already expressed in the limitations of the study<sup>2</sup>, should not detract from the main objective of the paper, which intended to shed light on a rarely addressed issue in our country such as the presence of mental disorders in prisons. Instead, we believe that this entails future research areas to further focus on different groups (female inmates, preventive detention, etc.) by means of the same methodology<sup>4</sup>. Therefore, we could approach the true magnitude of the problem that the prevalence of Mental Disorders in Spanish prisons entails.

On the other hand, we agree with Dr. Velasco with regard to the fact that when more than one hy-

pothesis are contrasted in a study, especially when comparisons between subgroups are made after ANOVA or ANCOVA for example, a corrected level of significance is required, for example in accordance with the Bonferroni criterion, which states that the new level of significance would be  $0.05/N$ ,  $N$  being the number of contrasted hypothesis. This is a most discussed issue and not all authors agree on the need of doing so, especially with regard to “exploratory non-confirmatory” studies<sup>5,6</sup>. Nevertheless, ours is a descriptive study. It has not been designed to contrast hypothesis. In fact, tables do not depict contrasts or  $P$  values. Multivariate models have been developed only to estimate adjusted OR. We thus consider that given the features of the study, it would not be necessary to implement multiple comparison adjustment methods. We could even remove from the text the references to the level of significance.

Last, the conclusions mainly regard this study<sup>2</sup>, we have never pretended to generalize these to the whole imprisoned population. Moreover, we consider that the sample size, which could have been larger, has enough statistical power to respond the main objective of our investigation. To conclude, although the results can only be extrapolated to the groups and the facilities under study, it seems appropriate to highlight the evidence on the presence of people suffering from mental disorders in prisons as a public health issue which should be addressed, not only by the penitentiary department but by the corresponding health authorities in each Autonomous Community<sup>7</sup>.

**MC Zabala-Baños, A Segura,  
C Maestre-Miquel, M Martínez-Lorca,  
B Rodríguez-Martín, D Romero, M Rodríguez**

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