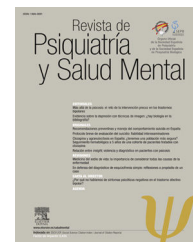




# Revista de Psiquiatría y Salud Mental

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## LETTERS TO THE EDITOR

### About conditions of application of logistic regression<sup>☆</sup>



### Sobre condiciones de aplicación de regresión logística

Dear Editor,

We read the paper entitled “Depression and associated variables in people over the age of 50 years old in Spain”<sup>1</sup> with great interest. We would like to underline the importance of this study, as it elucidates the factors which are associated with suffering depression. It also covers a very large sample. Nevertheless, we would like to express some observations and questions.

Was the possibility of multiple colinearity evaluated? Several independent variables may be associated with each other, such as perceived physical health, ELA difficulties and chronic diseases, or marital status and household unit. This could affect the supposition of independence in logistic regression.<sup>2</sup>

It would also be good to know why the weighting was not considered for the analysis.

Likewise, the transverse analytical study used the odd ratio (OR) to measure association. As using the OR in a transverse analytical study overestimates the strength of association when there is a high prevalence of the result (the outcome),<sup>3–5</sup> as in the study by Portellano which shows a prevalence of depression in Spain that is higher than 25%. Due to this, it would be ideal to use the prevalence ratio (PR).<sup>3–5</sup>

On the other hand, in Table 4 does it make sense to cross emotional disorders with depression?

Lastly, other published studies find a strong association between a history of alcohol consumption and depression.<sup>6</sup> It may therefore be of interest to study this variable. Other important variables are patient history and negative events in their lives.<sup>7,8</sup> In this case it would have been optimum to refer to these lacks as a limitation.

### References

1. Portellano-Ortiza C, Garre-Olmob J, Calvó-Perxasby L, Conde-Sala JL. Depresión y variables asociadas en personas mayores de 50 años en España. *Rev Psiquiatr Salud Ment*. 2016, <http://dx.doi.org/10.1016/j.rpsm.2016.10.003>
2. Kleinbaum D, Klein M. Logistic regression a self-learning text. 3rd rev. Ed. Atlanta: Springer; 2010. p. 709. Rihl E. Contributor.
3. Tamhane AR, Westfall AO, Burkholder GA, Cutter GR. Prevalence odds ratio versus prevalence ratio: choice comes with consequences. *Stat. Med*. 2016;35:5730–5.
4. Barros AJ, Hirakata VN. Alternatives for logistic regression in cross-sectional studies: an empirical comparison of models that directly estimate the prevalence ratio. *BMC Med Res Methodol*. 2003;3:21.
5. Thompson ML, Myers JE, Kriebel D. Prevalence odds ratio or prevalence ratio in the analysis of cross sectional data: what is to be done? *Occup. Environ. Med*. 1998;55: 272–7.
6. Grant BF, Harford TC. Comorbidity between DSM-IV alcohol use disorders and major depression: results of a national survey. *Drug Alcohol Depend*. 1995;39:197–206.
7. Cole MG, Dendukuri N. Risk factors for depression among elderly community subjects: a systematic review and meta-analysis. *Am. J. Psychiatry*. 2003;160:1147–56.
8. Kraaij V, Arensman E, Spinhoven P. Negative life events and depression in elderly persons: a meta-analysis. *J. Gerontol. B. Psychol. Sci. Soc. Sci*. 2002;57:87–94.

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