

# Population health surveys and screening tools for depressive disorders: aims and uses

Jorge Arias de la Torre <sup>1,2,3</sup>, Amy Ronaldson <sup>4</sup>, Antoni Serrano-Blanco,<sup>2,5</sup> Vicente Martín,<sup>2,3</sup> Juan Ángel Bellón,<sup>6,7,8,9,10</sup> Jose M Valderas,<sup>11,12,13</sup> Jordi Alonso<sup>2,14,15</sup>

For numbered affiliations see end of article.

## Correspondence to

Dr Jorge Arias de la Torre, King's College London, London, SE1 8WA, UK; [jorge.arias\\_de\\_la\\_torre@kcl.ac.uk](mailto:jorge.arias_de_la_torre@kcl.ac.uk)

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The article by Fischer and colleagues,<sup>1</sup> based on data from the second wave of the European Health Interview Survey (EHIS-2), proposes the use of a Bayesian framework to account for the 'imperfect diagnostic accuracy' of the eight-item version of the Patient Health Questionnaire (PHQ-8), and to improve estimations of the prevalence of major depressive disorder (MDD).

It is well-known that estimating the prevalence of specific mental disorders directly using the results from screening tools (ie, without attending at the possible false positives and negatives) could lead to overestimations.<sup>2</sup> It should also be noted that the term 'depression' is used in the literature for describing a broad spectrum of conditions, from MDD to a range of other mental health conditions and symptoms, and that clarity is essential to avoid misunderstandings. In our own study,<sup>3</sup> we used a broad definition of depression (including MDD, dysthymia and depressive symptoms) under the label 'current depressive disorder', which we acknowledge might lead to misunderstandings. Also, it should not be forgotten that population health surveys, such as the EHIS-2, aim to identify and compare vulnerable groups and associated factors rather than make clinical diagnoses. Furthermore, screening tools, such as the PHQ-8, are not designed for diagnosis but to detect 'probable cases' of depressive disorders.<sup>2</sup> While the detection of actual depressive disorder cases could be relevant from a clinical perspective, it may be more relevant from a public health perspective to identify vulnerable population groups and differences between them. This identification could be a key element to inform the development of primary prevention measures and public health policies.

Considering the Bayesian methods proposed for estimating the prevalence of depressive disorders,<sup>1</sup> they resulted in substantially lower prevalence estimations than those observed in previous studies,<sup>4</sup> even lower than in studies using clinical interviews.<sup>1</sup> It should be highlighted that other more parsimonious and easily replicable methods have been previously proposed for this purpose, such as the use of two-step approaches or different cut-off scores,<sup>5</sup> which would also have the added benefit of facilitating comparability with other studies worldwide. Besides, due to the lower precision of the estimations obtained using the Bayesian approach (with wider CIs),<sup>1</sup> there is

high uncertainty to establish possible differences by country based on them. Country differences have been consistently pointed out by previous research,<sup>3,4</sup> and their clear identification could be a helpful resource to inform and implement effective and targeted public health interventions to reduce the burden of depression.

The inclusion of the PHQ-8 in population health surveys represents an efficient approach for estimating, comparing and monitoring the number of individuals and groups with probable depressive disorders. Bearing in mind that the aim of health surveys is not clinical diagnosis at individual level, and that depression screening tools are designed to identify individuals and groups with probable depression rather than making clinical diagnosis, while promising, new evidence is needed to confirm the suitability of the Bayesian approach for estimating and comparing the prevalence of specific depressive disorders using this type of data. Furthermore, using a clear definition of the term 'depression' could be helpful to be as accurate as possible when reporting prevalence estimations, for example, considering specific depressive disorders just when using clinical interviews, and depressive symptoms or probable depressive disorders when using screening tools.

## Author affiliations

<sup>1</sup>Care in Long Term Conditions Research Division, King's College London, London, UK

<sup>2</sup>CIBER Epidemiology and Public Health, CIBERESP, Barcelona, Spain

<sup>3</sup>Universidad de León, Leon, Spain

<sup>4</sup>Health Services and Policy Research Department, King's College London, London, UK

<sup>5</sup>Institut de Recerca Sant Joan de Déu, Parc Sanitari Sant Joan de Déu, Barcelona, Spain

<sup>6</sup>Network for Research on Chronicity, Primary Care, and Health Promotion (RICAPPS), Madrid, Spain

<sup>7</sup>Prevention and Health Promotion Research Network (rediAPP), Madrid, Spain

<sup>8</sup>Biomedical Research Institute of Málaga (IBIMA-Bionand platform), Malaga, Spain

<sup>9</sup>El Palo Health Centre, Andalusian Health Service (SAS), Málaga, Spain

<sup>10</sup>Department of Public Health and Psychiatry, Universidad de Malaga, Malaga, Spain

<sup>11</sup>Department of Medicine, National University of Singapore, Singapore

<sup>12</sup>Department of Family Medicine, National University Health System, Singapore

<sup>13</sup>Centre for Research in Health Systems Performance (CRIHSP), National University Health System, Singapore

<sup>14</sup>Health Services Research Group, Hospital del Mar Medical Research Institute (IMIM), Barcelona, Spain

<sup>15</sup>Dept. of Medicine and Life Sciences, Pompeu Fabra University (UPF), Barcelona, Spain

**Twitter** Amy Ronaldson @DrRonaldson



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#### ORCID iDs

Jorge Arias de la Torre <http://orcid.org/0000-0001-6908-9611>

Amy Ronaldson <http://orcid.org/0000-0001-8369-9168>

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