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1-1-2013

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Recommended Citation

Vella, S and Pai, N, "False positives and false negatives: is the answer relatively simple?" (2013). *Faculty of Science, Medicine and Health - Papers: part A*. 151.
<https://ro.uow.edu.au/smhpapers/151>

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False positives and false negatives: is the answer relatively simple?

Abstract

As we await the release of the forthcoming DSM-5 and the development of the ICD-11, issues pertaining to the classification and diagnosis of mental disorders have become more prominent. With criticism and anticipation abounding, pertaining to the modification, or lack of, of the diagnostic criteria of mental disorders, have we become overly focused upon the diagnostic criteria to the detriment of 'good' clinical practice?

Keywords

simple, false, answer, positives, negatives, relatively

Disciplines

Medicine and Health Sciences | Social and Behavioral Sciences

Publication Details

Vella, S. & Pai, N. (2013). False positives and false negatives: is the answer relatively simple?. *Acta Psychiatrica Scandinavica*, 127 (1), 83-84.

False Positives & False Negatives:

Is the answer relatively simple?

As we await the release of the forthcoming DSM-5 and the development of the ICD-11, issues pertaining to the classification and diagnosis of mental disorders have become more prominent. With criticism and anticipation abounding, pertaining to the modification, or lack of, of the diagnostic criteria of mental disorders; have we become overly focused upon the diagnostic criteria to the detriment of 'good' clinical practice?

Phelps and Ghaemi's [1] recent article highlighted the necessity of 'good' clinical practice. Their article provided a good succinct review of some of the concepts underlying manualised diagnostic criteria and their statistical relationship to low prevalence disorders, specifically bipolar disorder. Whether or not you concede with their conclusion that bipolar disorder is not overdiagnosed as commonly claimed, their [1] article highlights the necessity for pragmatic and often neglected steps in the diagnostic encounter.

The reality is that wherever the diagnostic threshold is set, diagnostic errors will still occur, with both false positive and negative diagnoses having detrimental consequences. However, it can be argued that false positives are far more harmful than false negatives [2] as the apparent diminution of symptoms validates the diagnosis and efficacy of the treatment (albeit unnecessary and incorrect), thereby minimising the chance that the false diagnosis will ever be corrected. Whereas false negatives on the other hand also have detrimental impacts however false negative diagnoses are more amenable to correction over time [2].

Specifically, Phelps and Ghaemi [1] advocate for the necessity of taking a comprehensive history coupled with clinician's having a thorough understanding of factors associated with the different mental disorders. Although this notion may seem somewhat simplistic as well as being key components of 'good' clinical practice, the necessity of such

endeavours seem to have been overlooked in favour of a predominant focus upon the diagnostic criteria. Rather the 'reworking' of the diagnostic criteria either through tightening to minimise false positives or through loosening to minimise false negatives has taken favour. However, the ongoing re-modelling of the diagnostic criteria as opponents have pointed out is creating more harm than good [3, 4], with frequent changes hindering advancement, resulting in non-comparable research as well as rendering the translation of research into clinical practice problematic [3].

Further changes to the diagnostic criteria can also bring with them unintended consequences such as a significant rise in the diagnosis of some disorders [3, 4]. Thus, highlighting the efficacy of Phelps and Ghaemi's assertion that moderate diagnostic criteria, coupled with a comprehensive history and a clinically relevant knowledge of factors associated with the different mental disorders, is the most effective mode through which both false positives and false negatives can be minimised [1].

Returning to Phelps and Ghaemi's [1] example of bipolar disorder, the DSM-5 is set to lower the diagnostic threshold for

hypomania [5]; such a reduction in the threshold may result in individuals with brief periods of symptoms that are characteristic of cluster B personality pathology being misdiagnosed (false positives) as having bipolar disorder. However, the notion of overdiagnosis needs to be contrasted against the possible underdiagnosis in accordance with the current system, with the consequences of each taken into consideration.

The misdiagnosis of cluster B personality pathology as a hypomanic state will lead to inappropriate treatment and unnecessary side effects, whereas those that suffer with recurrent transient periods of hypomania that do not currently meet the threshold for caseness will ultimately be diagnosed with bipolar and treated accordingly.

Hence all though Phelps and Ghaemi's [1] recommendations may seem simplistic if they were followed, both false positive and false negative diagnoses could be minimised. Their recommendations are in accordance with best practice highlighting the crucial need to focus upon understanding the patient in the context of his or her presentation. Further, such an approach could assist with overcoming

the prognostic pessimism inherent in some of the DSM classifications.

References

1. PHELPS J, GHAEMI SN. The mistaken claim of bipolar 'overdiagnosis': solving the false positives problem for DSM-5/ICD-11. *Acta Psychiatrica Scandinavica* 2012; In Press.
2. FRANCES A, JONES KD. Bipolar disorder type II revisited. *Bipolar Disorders* 2012; 14: 474-477.
3. FRANCES A. A warning sign on the road to DSM-V: Beware of its unintended consequences. *Psychiatric Times* 2009; XXVI: 8.
4. FRANCES A. Whither DSM-V? *British Journal of Psychiatry* 2009; 195: 391-392.
5. AMERICAN PSYCHIATRIC ASSOCIATION. DSM-5 Development 2012; www.dsm5.org