

This is a pre-publication version of the following article: Barry, J. A., Hardiman, P. J., Siddiqui, M. R., & Thomas, M. (2011). Meta-analysis of sex difference in testosterone levels in umbilical cord blood. *Journal of Obstetrics and Gynaecology*, 31(8), 697-702.

Available online

<http://www.tandfonline.com/doi/abs/10.3109/01443615.2011.614971>

DOI: <http://dx.doi.org/10.3109/01443615.2011.614971>

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## **LETTER TOTHE EDITOR**

### **Reporting the Rates of Depression in Polycystic Ovary**

#### **Syndrome (PCOS)**

Dear Dr Goldstein,

Morotti et al. (*JSM*, August 23, 2013) assessed depression in lean women with polycystic ovary syndrome (PCOS). They concluded that BMI accounted for some of the depression in PCOS and noted that this finding was in accord with the meta-analysis of anxiety and depression in PCOS by Barry et al. [1]. They also noted that this finding contrasts with the findings of Barnard et al. [2] and offered the explanation that “the Zung scale [3] used

by Barnard et al. may have partly overestimated the incidence of depression in PCOS patients” (Morotti et al., p. 7 [4]). We believe that if there was an overestimate, it is more likely because of two features of the Barnard et al. article—self-report of PCOS diagnosis and not reporting the clinical significance of findings in the abstract—rather than a problem with the Zung scale [3].

A meta-analysis by Dokras et al. [5] reported prevalence rates of depression in PCOS ranging from 14% to 67%, thus the Barnard et al. rate of 67% is relatively high though not unreasonably so. However, we should note that Dokras et al. excluded the Barnard et al. study from their meta-analysis because the Barnard et al. study—being an internet survey—relied on self-reported diagnosis of PCOS. Thus, if the Barnard et al. rate of 67% is an overestimate of the true rate of depression in PCOS, this may reflect the influence of bias because of diagnosis of PCOS by self-report rather than a problem with the Zung scale.

Furthermore, although the Barnard et al. [2] abstract states that 67% of the women with PCOS in their sample were depressed, the Results section shows that this rate was based on the cutoff for “minimal to mild depression” (a Zung score of 50–59). Identifying depression in the abstract by using the lowest possible cutoff may leave someone who does not read the whole article with an impression which overestimates the *degree* of depression being reported, if not the rate of depression. In later parts of the article, it can be seen that the rate was much lower when higher cutoffs were applied. For example, between 10%

and 18% of the PCOS group were in the “extreme depression” category (a Zung score of over 70). Thus, it seems that the particular cutoff used, rather than the Zung scale itself, may have caused the apparent overestimate of the degree of depression in PCOS.

We recommend that a clear sense of the clinical significance of the findings of any given study should be reported in the abstract of an article, because this will minimize potential for ambiguity regarding rates and severity of clinical findings. Thus, although the Barnard et al. [2] article was clear in later sections of their article that the 67% rate was of minimal to mild depression, it would have been helpful to specify the clinical meaning of the findings in the abstract because many busy readers may not have time to read the full text of the article, nor perhaps have ready access to the full text of the article.

In conclusion, it is unlikely that the Zung scale was to blame for any overestimate of depression in the Barnard et al. 2007 [2] article. However, the issues raised by Morotti et al. [4] are very useful in drawing our attention to a subtle but important point regarding what might be considered best practice in the reporting of statistics: the clinical significance of results should be highlighted clearly in the abstract.

Yours sincerely,

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*Conflict of Interest:* The authors report no conflicts of interest.

## **Statement of Authorship**

### *Category 1*

#### **(a) Conception and Design**

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#### **(b) Acquisition of Data**

John A. Barry

#### **(c) Analysis and Interpretation of Data**

John A. Barry

### *Category 2*

#### **(a) Drafting the Article**

John A. Barry

#### **(b) Revising It for Intellectual Content**

John A. Barry; Andrzej R. Kuczmierczyk; Paul J. Hardiman

### *Category 3*

#### **(a) Final Approval of the Completed Article**

John A. Barry; Andrzej R. Kuczmierczyk; Paul J. Hardiman

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*J Sex Med* 2014;11:1882–1883 © 2014 International Society for Sexual Medicine

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