Reviewer's report

Title: Vitamin D deficiency among Healthy Adolescents in Al Ain, United Arab Emirates

Version: 2 Date: 26 December 2012

Reviewer: Barbara J J Boucher

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Review of MS: 1927598385744969 after revision.

General. The MS is now much easier to read and most of the issues raised by this reviewer have been satisfactorily addressed. Some minor items in the text do, however, require attention, such as items missed out in the revision, an occasional typo and an occasional error, for example the Table numbers have become corrupted, but I have no other things that require attention. The items referred to are listed below, by page:-

Page 4. Line 8 reads oddly re smoking, i.e. as if a chronic medical condition might cause smoking, please adjust so as to clarify this. Last Para, line 5, should read, ‘translated into Arabic.’

Page 6. Line 5, it is odd to see inter assay CV being less than intra-assay variation, is there a typo here, maybe inter assay CV is 13.2%? Definitions, line 8, triglyceride concentrations [i.e., remove the s from triglycerides]

Page 7. Lines 1-3 the term ‘levels’ has not been changed to ‘concentrations’ – this should be done.

Page 8. Line 3, excluded would be better than removed. Line 5, had a history …..para2, line 7, ‘concentrations were…..’, or you could say ‘concentration was; line 8, males should read male; last 2 lines, say Table 3 but I think this should read Table 2?

Page 9. Line 2, vitamin D was not measured so you should say either ‘higher vitamin D status’ or ‘higher 25-(OH)vitamin D; line 5, this table number seems incorrect, I think it is Table 3, not 4; line 6, again, change ‘vitamin D concentrations’ [not what was measured] as above; line8 reads oddly, can you insert ‘, we found’ after age to make it clear exactly what was done and what was found. Discussion. Line 5, didn’t include data on the six subjects …..; line 6, a word is missing, I think this should read ‘might have had even lower’ and again, not ‘concentrations of vitamin D, but of 25(OH)vitamin D; line 7, are available…; line 8, ‘…D status’ [not levels].

Page 10. Line 10, again, ‘vitamin D concentrations’ needs correction to ‘vitamin D status’ or ‘25(OH)D concentrations’; line 12, milk is a very poor source of vitamin D unless it is fortified so please say whether this was fortified milk? In the sentence on data from Al Ain, I suggest you insert ‘for example’, after QAE; last Para, line 1, I think you could insert ‘in adults’ after existing evidence, for clarity.
Page 11. Line 2, Again, 25(OH)D…., lines 3-5 don’t tell one which country this was found in can you say ‘….., probably because, as in the USA, substantially large amounts of ….., with negligible amounts of milk, at fast food outlets? Para 2, line 1, the word ‘the’ has been omitted after ‘in’; line 2, omit ‘the’ before parathyroid; line 7, omit ‘the’ before seasonality; I suggest inserting ‘Finally,’ before our results; Conclusions. Last line, might be clearer if it read ‘exposure, as has been shown to be effective in other Arab populations.’

Ref 5, typo in name Hypönnen

Table 3; I take it that beta istandardized coefficient beta as it should be; please add this to table. ?

Figure 1, the heading is tiny and needs to be black and nearer the figure itself.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests. Barbara J Boucher