Reviewer’s report

Title: Identifying common impairments in frail and dependent older people: Validation of the COPE assessment for non-specialised health workers in low resource primary health care settings

Version: 2 Date: 5 June 2015

Reviewer: Rónán O’Caoimh

Reviewer’s report:

Manuscript:

“Identifying common impairments in frail and dependent older people: Validation of the COPE assessment for non-specialised health workers in low resource primary health care settings”

This paper presents an initial exploration of a battery of established and well-validated short assessment instruments coupled together and designed to be used by community nurses to assess older people in their home in an Indian population (the COPE). The results of the COPE are correlated with an assessment scale (EASY-CARE), scored by non-specialised physicians, blinded to the results of the community assessment. While clearly showing the potential of a battery of valid instruments in this setting, the lack of a clear gold standard creates uncertainty as to the significance of the modest agreement between the two scales.

Abstract

Major Compulsory Revisions

The type of older patient should be described, even briefly, in either the methods or results section of the abstract. Perhaps include median age, sex, percentage living alone and country/city studied. The abstract gives the reader no idea about the sample included or how it was sampled. Further, “local physicians” should be clarified. It seems they were as the CHWs were described in the title also “non-specialised”. The conclusion of the abstract should include some mention of the limitations later highlighted in the discussion in the main text, namely that the neither the COPE nor EASY-CARE scale are gold standards, limiting the ability to draw conclusions about the utility of the instrument and thereby necessitating the need for further validation.

Minor Compulsory Revisions

“Modest” agreement should be defined by a range in the results section of the abstract. From my reading of the results later in the main text, “weak-modest” would be more accurate. Whether differences in the prevalence of impairments were significantly different should also be included.

In the conclusion, I’m not sure that effective is the right word to use. I agree that it
is feasible.

Discretionary Revisions
The title of the paper and the thrust of the work refer to non-specialised health workers. In my opinion “Auxillary Nurse Midwives” are specialized and while their primary skills appear to lie in the management of obstetric and maternal and child health issues, they do not appear to warrant the title non-specialised. Perhaps this should be rephrased to refer to their lack of specialization in the care of older people.

Introduction
Major Compulsory Revisions
The introduction is well written and clear.

Minor Compulsory Revisions
The tone of the introduction is a little too general. Some facts and figures about the demographics and if known, the prevalence of co-morbidities, of older adults in Goa & India should be provided. This will improve the accessibility of the manuscript to international readers not familiar with the region.

Discretionary Revisions
I suggest including in the text that CHWs are also known as public health nurses, community nurses or district nurses in other countries to help the readers understand the term. It is clear that while not specialised in the care of the older adults they are not without significant training.

While the authors correctly point out that few instruments are available/validated for healthcare workers to assess community dwellers in resource-poor settings a large number of frailty scales and risk-prediction instruments are available for use by community healthcare workers to assess community dwelling older adults, most of which are non-specific and could be adapted for use in this setting. Several studies have been published recently showing that public health nurses can use these to identify frail and at risk populations.

Methods
Major Compulsory Revisions
The methods are described in great detail. While it is very well written, it is overly long, distracting and perhaps arguably unnecessary as these instruments are commonly used in geriatric practice. I suggest shortening the description of the individual components of the COPE and the evidence behind them. This could be provided in an appendix.

Please clarify in detail who the clinicians were and what level of experience/training they had.

Was any attempt made to assess inter-rater reliability or test-retest reliability?

How was the sample size calculated, was a power calculation performed?
Minor Compulsory Revisions

Clarify why an interval of two weeks was selected between the COPE and EASY-CARE assessments or was this the median duration to follow-up?

Please state when the study took place.

The methods used to analyse the qualitative data should be included. Were categories & codes developed. These are not included in the appendix either. The numbers of CHWs and participants who responded and how these were selected for inclusion in the qualitative analysis should be described.

Results

Major Compulsory Revisions

Describe how sub-health centres were sampled/selected. Define “consulted”. Were there any other inclusion or exclusion criteria? Define family record. If sampling included “recollections of family visits” were any systematic approaches to sampling conducted? Were records selected consecutively or randomly using a defined method. If not, this should be included as a limitation and a potential source of bias (recall bias at the least). How were patients defined as frail? There is no consensus on a definition of frailty so without using a validated frailty or dependency instrument it is difficult to suggest the sample was frail or dependent a priori. Why were these the main target?

The results suggest that this was indeed a very frail population. Would it not have been important to include some subjects representing a cross-sectional “snap-shot” of the older adult population to more accurately assess if the COPE battery was able to identify people with deficits from those without? Again this is a potential limitation of the study.

How long did the COPE assessment take compared to the EASY-CARE/physician assessment? Were the times presented for the COPE recorded in practice or estimates based upon pre-testing?

Please clarify if the other aspect of the COPE, section 4, was assessed and if not why not.

Minor Compulsory Revisions

The results note that 82% had care needs (line 334). Please clarify how/who determined this. Similarly, it is suggested that 35.5% needed care much of the time. Again, please clarify what this refers to.

I would suggest that in line 385 in the section exploring the concurrent validity of the COPE that the correlations are “weak to moderate” at best.

Discretionary Revisions

Clarify what was meant by fatalistic view (line 428).

Discussion and Conclusion

The discussion is balance but many of the potential limitations relating to the
methods, as described above, are not considered.

Minor Compulsory Revisions

I think some of the domains of the EASY-CARE/Clinician assessment were not comparable to the COPE assessment. In particular, I think the use of a standardised cognitive screen versus a selection of short questions seems unbalanced. I think this might account for differences in the prevalence of cognitive impairment between the two assessments and should be considered as a limitation. Were the clinicians allow do any cognitive screening test, if so could the results of this be obtained and compared to the CHWs scores. This sample includes those with high levels of multi-morbidity and apparent high levels of dependency and frailty. It should be considered in the discussion that the results of this study suggest that in such a population there is little advantage to pre-assessing patients, particularly given the at best modest correlation/agreement between CHWs and physicians, albeit neither are specialised/sufficiently trained to assess frail older adults. While conflicting with the hypothesis it is nevertheless a potentially valuable observation. Instead it could be argued that the COPE assessment could be performed after a short pre-screen in those unlikely to be benefit from more detailed assessment but still requiring some basic assessment/screening. A frailty screen or a risk-prediction instrument used in conjunction with the COPE might therefore be more productive/targeted. Otherwise I suggest that if used in this fashion, it will only duplicate work as some of the CHWs may have alluded to. This could be included as a direction of further study. This model has been used elsewhere e.g. the InterRAI assessment in the community and more recently the CARTS project which uses the RISC screen (BMC Geriatrics 2014).

Level of interest: An article whose findings are important to those with closely related research interests

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