Reviewer’s report

Title: Refining caregiver vulnerability for clinical practice: Determinants of self-rated health in spousal dementia caregivers

Version: 0 Date: 14 May 2018

Reviewer: Isabela Marques

Reviewer's report:

Assessing caregiver burden in the clinical setting is needed, and so is ensuring caregivers undertake appropriate care after screening. The manuscript was very well written; however, terminologies are not consistent throughout the manuscript. Below some comments to improve clarity for readers:

Terms used interchangeably:

Perceived caregiver burden (p.2 line 32) vs Subjective caregiver burden (p.8 line 43)
Caregiving-specific stressor (p.2 line29) vs Stress total (p.9 line 1)
Emotional function (p.2 line 54) and Positive and Negative affect (p.2 line 46)
Functional impairment (p.8 line 6) vs functional abilities (p.8 line 33)
Alzheimer caregiver (p. 22 line 22) vs dementia caregiver (title)

Caregiving-specific stressor was described both as a separate determinate and also as part of health characteristics. When citing health characteristics, please clarify what is being cited.

P. 2 line 27: List health characteristics: (...) SRH on demographic, and health characteristics (health behaviors, physical health indicators, psychosocial factors), AND caregiving-specific stressor

P. 2 lines 51-59: The conclusion does not sound innovative. List the subcategories of physical health and emotional functioning, and objective caregiver burden that were worse in caregivers with poor/fair SRH

P. 4 line 43: Include in parenthesis the subcategories of demographic, health characteristics, and caregiving-specific stressors that were analyzed
P. 5 line 12: Add more information about the intervention as it can provide the reader with a better sense of the population targeted and services provided. How long was the intervention? In person sessions?

P. 5 line 17: Please describe/detail the baseline visit. How long was it? Questionnaires and interviews were administered? Content and duration of interviews. Or no interviews were conducted, but questionnaires were administered in interview-style? Were participants compensated for their time for baseline testing?

P. 5 line 34: Dementia or Alzheimer's was the inclusion criteria?

P. 6 line 18: Please list the factors (subcategories) of each determinant before describing the measures in detail:

Determinants of SRH analyzed: Demographics (age, sex, educational level); Health characteristics (health behaviors, physical health indicators, psychosocial factors); Health behaviors (BMI, physical activity, smoking, and alcohol consumption); Physical health indicators (Physical health problems*, and caregiver physical function); Psychosocial factors (emotional function [positive and negative affect] and social support); Caregiving-specific stressors (objective caregiving burden: total years of caregiving, dementia severity, care recipient's functional impairment; subjective: perceived caregiving burden)

P. 6 line 22: Was an interview conducted or just demographic questionnaire asked interview-style?

P. 6 line 25: Provide a rationale for not using income as a measure of socioeconomic status.

P. 6 line 27: Provide a rationale for the stratification of education into two wide ranges of educational level. Including "no formal education" and "high school diploma" in the same educational level is highly discouraged. I recommend to have more categories of educational level even if the results significance do not change

P. 6 line 44: Please provide an explanation on why BMI was self-reported. Use "self-disclosed BMI" throughout the manuscript

P. 6 line 51: Describe the RAPA score, 6 = more active?

P. 7 line 2: Could: "Health history" be replace as a most appropriate terminology than Physical health problems?

P. 8 line 9: Include "specific" in Caregiver-SPECIFIC stressor. Be consistent with terminologies
Describe functional abilities with the previous paragraph, and describe Subjective caregiver burden (line 43) as a new paragraph

Sentence might need revision

Is the term "literally" necessary?

Sentence should be moved to line 27 after "specific treatment" to better link the clinical setting with interventions.

The first sentence does not describe much. It sounds as presenting expected results. Please briefly summarize the main determinants (subcategories) so that clinicians and practitioners have a specific list of SRH determinants

Please comment on why post intervention data was not included in the analysis

SUBJECTIVE caregiver burden

Include below the table the scales, values, and ranges for determinants (line 35 physical activity, line 52 clinical dementia rating, line 54 functional impairment, and line 55 caregiver burden)

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

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Please indicate the quality of language in the manuscript:

Acceptable

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