PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Prevalence of dyslipidaemia and awareness of blood cholesterol levels among community-living people: Results from the Longevity check-up 7+ (Lookup 7+) cross-sectional survey
AUTHORS	Marzetti, Emanuele; Calvani, Riccardo; Picca, Anna; Sisto, Alex; Tosato, Matteo; Martone, Anna Maria; Ortolani, Elena; Salini, Sara; Pafundi, Teodosio; Santoliquido, Angelo; Santoro, Luca; Bernabei, Roberto; Landi, Francesco

VERSION 1 – REVIEW

REVIEWER	Empana INSERM-France, Research Director
REVIEW RETURNED	19-Feb-2018

GENERAL COMMENTS	This is a cross-sectional study on 3040 participants aiming to "investigate the prevalence of abnormal cholesterol levels and to explore awareness of cholesterol levels in an unselected sample of community-living adults". While the topic is of importance, to the reviewer's view, the current paper suffers from the following major concerns. A first main issue deals with the studied population for which we lack data to appraise to which extent it is representative of the general Italian population and the consequences on the prevalence and awareness estimates. This is a major point when the aims are to evaluate "prevalence". A second main issue relates to the lack of psycho (i.e. depression) and social factors (education, occupation) that are major contributors to health in general, access to care and awareness of risk factors. As these factors were not investigated, the conclusions of the present study are difficult to be interpreted A third point relates to the discussion that is too much factual (i.e descriptive) and does not put these results in the context of the existing literature, does not elaborate enough on what should be done...

REVIEWER	Stefano Omboni Italian Institute of Telemedicine, Italy
REVIEW RETURNED	26-Feb-2018

GENERAL COMMENTS	The major study limitations are addressed by authors. In particular, an important limitation is related to the fact that only total cholesterol was assessed, whereas LDL cholesterol is commonly used for targeting possible treatment and HDL cholesterol and triglycerides to diagnose atherogenic dyslipidemia / metabolic syndrome. Authors may try to better discuss this point.

	In the discussion I recommend to add a section where authors compare the prevalence they found in their population with that of other relatively recent studies in unselected Italian population [e.g. Grassi G et al. Acta Cardiol. 2009 Dec;64(6):771-8; Omboni S et al. Vasc Health Risk Manag. 2013;9:177-85]. Authors must indicate the type (brand and model) of BP monitor used to measure BP and whether it is clinically validated or not. Apparently, authors did not assess alcohol and coffee drinking which may affect BP and blood lipids. They also did not assess waist circumference which bears a stronger relationship with cholesterol / dyslipidemia than BMI.

VERSION 1 – AUTHOR RESPONSE

The following response addresses the Reviewer comments point-by-point (Reviewer comments in bold, author responses unbolded):

Reviewer #1

A first main issue deals with the studied population for which we lack data to appraise to which extent it is representative of the general Italian population and the consequences on the prevalence and awareness estimates. This is a major point when the aims are to evaluate "prevalence".

We thank the Reviewer for raising this point. Lookup 7+ study was developed under the auspices of a national campaign for the promotion of the awareness on cardiovascular risk factors "in real life settings". To this aim, our study population was composed of unselected people visiting malls, expositions, shopping centres, exhibition halls in different cities all around Italy. Yet, the prevalence of cardiovascular risk factors reported was in agreement with larger scale studies with unselected persons as well as small studies with selected participants (Grassi G et al. Acta Cardiol. 2009, Omboni et al. Vasc Health Risk Manag. 2013;9:177-85, Ford ES Vasc Health Risk Manag. 2013;9:177-85). Furthermore, to avoid possible misinterpretations, we have refrained from referring to the general Italian population. Instead, we have specified that prevalence data refer to our study sample.

A second main issue relates to the lack of psycho (i.e. depression) and social factors (education, occupation) that are major contributors to health in general, access to care and awareness of risk factors. As these factors were not investigated, the conclusions of the present study are difficult to be interpreted.

As explained in a response to Reviewer 2, the unconventional setting in which our investigation was conducted forced us to limit the number of questions/assessments in order to keep participant evaluation within a reasonable time range. We are aware that socioeconomic, psychological and educational factors have an influence on health behaviours as well as on health literacy and we have acknowledged this point in the limitations section.

A third point relates to the discussion that is too much factual (i.e descriptive) and does not put these results in the context of the existing literature, does not elaborate enough on what should be done.

We thank the Reviewer for this remark. Following your suggestion, we have expanded the discussion including comparisons with other studies and public health implications of our findings.

Reviewer #2

An important limitation is related to the fact that only total cholesterol was assessed, whereas LDL cholesterol is commonly used for targeting possible treatment and HDL cholesterol and triglycerides to diagnose atherogenic dyslipidemia/metabolic syndrome. Authors may try to better discuss this point.

We thank the Reviewer for the remarks. Indeed, this aspect has been included in the limitation section. “Only total cholesterol was analysed and no information on LDL- and HDL-cholesterol was available”. However, as routinely done when compiling risk estimation charts, we relied on total cholesterol measure as an index of cardiovascular risk.

In the discussion I recommend to add a section where authors compare the prevalence they found in their population with that of other relatively recent studies in unselected Italian population [e.g. Grassi G et al. Acta Cardiol. 2009 Dec;64(6):771-8; Omboni S et al. Vasc Health Risk Manag. 2013;9:177-85].

We thank the Reviewer for this suggestion. We have now discussed our findings in comparison with those of the suggested papers.

Authors must indicate the type (brand and model) of BP monitor used to measure BP and whether it is clinically validated or not.

As recommended, we have specified the model, maker and clinical validation of the sphygmomanometer used.

Apparently, authors did not assess alcohol and coffee drinking which may affect BP and blood lipids. They also did not assess waist circumference which bears a stronger relationship with cholesterol/dyslipidemia than BMI.

We thank the Reviewer for this comments. We have now included the lack of information on alcohol and coffee drinking in the limitation section. As for the lack of measurement of waist circumference, while we agree that it more closely related to dyslipidaemia than BMI, we would like to point out that BMI is routinely used for cardiovascular risk prediction (e.g., Framingham Heart Study chart).

Furthermore, given the purpose of the survey and the unconventional setting in which the research was carried out, we had to limit our assessments to a reasonable number of parameters not to overburden the participants. We have acknowledged this in the limitations section.

VERSION 2 – REVIEW

REVIEWER	Stefano Omboni Italian Institute of Telemedicine, Italy
REVIEW RETURNED	06-Apr-2018

GENERAL COMMENTS	The authors adequately replied to my remarks and modified the manuscript accordingly. I have no further remarks.

REVIEWER	EMPANA INSERM, France
REVIEW RETURNED	13-Apr-2018

GENERAL COMMENTS	The authors adequately answered to the major comments of the reviewer but could only address them as limitations as the required data (socioeconomic factors) were unfortunately not available. While the reviewer recognizes the relevance and easy approach proposed by the authors for health promotion, he is doubtful about the novelty of the study. In addition, the authors chose to specifically work on total cholesterol while a more global approach based on ideal cardiovascular health using the AHA 7 metrics tool could have been possible and more innovative. Last, a publication to a more specialized journal promoting health promotion might be more appropriate

VERSION 2 – AUTHOR RESPONSE

Editor's comments

1. Please revise the title of your manuscript to indicate the research question, study design, and setting. This is the preferred format for the journal.

The title has amended as requested.

2. Please revise the ‘Strengths and limitations’ section of your manuscript (after the abstract). This section should contain five short bullet points, no longer than one sentence each, that relate specifically to the methods.

The "Strengths and limitation" section has been modified as recommended.

Reviewer 1

The authors adequately answered to the major comments of the reviewer but could only address them as limitations as the required data (socioeconomic factors) were unfortunately not available.

While the reviewer recognizes the relevance and easy approach proposed by the authors for health promotion, he is doubtful about the novelty of the study.

We respectfully disagree with this remark. Although the subject was explored in other studies, none of the available reports attempted to evaluate the prevalence of dyslipidaemia and cholesterol awareness in an unselected cohort of community-living adults. We believe this is a major plus of our study.

In addition, the authors chose to specifically work on total cholesterol while a more global approach based on ideal cardiovascular health using the AHA 7 metrics tool could have been possible and more innovative.

While we acknowledge that the "My Life Check" by the AHA is a well-established instrument for cardiovascular risk evaluation, the development of the Lookup 7+ assessment tool took advantage from previous experiences in similar surveys conducted by our group. As specified in the "Participant and public involvement" section, the rationale that guided the development of this tool is described previous publications (Landi et al., Eur J Public Health. 2018. doi: 10.1093/eurpub/cky034; Vetrano et al., Eur J Public Health 2013;23:858-62; Landi et al., J Am Med Dir Assoc 2017;18:88.e17-88.e24; Landi et al., J Nutr Health Aging 2017;21:1050-6; Marzetti et al., Exp Gerontol 2017;102:76-80).

Last, a publication to a more specialized journal promoting health promotion might be more appropriate.

We respectfully disagree with this comment. As also pointed out by the Editor, public health promotion is one of the areas covered by BMJ Open (http://bmjopen.bmj.com/collection/public-health-1).

Reviewer 2
The authors adequately replied to my remarks and modified the manuscript accordingly. I have no further remarks.

We thank the Reviewer for the positive evaluation.

Reviewer: 1
Reviewer Name: Jean-Philippe Empana
Institution and Country: INSERM, France

Please state any competing interests or state ‘None declared’: None declared

Please leave your comments for the authors below