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Journal Name:	European Journal of Nutrition & Food Safety
Manuscript Number:	Ms_EJNFS_84317
Title of the Manuscript:	Virgin Olive Oil: a rich source of functional bioactive compounds in the promotion of human health-An overview
Type of the Article	Minireview Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>The authors start by the introduction and, after a brief methodology description, jumps straight to the discussion. The current scientific methods didn't use descriptive reviews, even for explanations about a disease. If them are exploring effects of an intervention (virgin olive oil diet), the most appropriate way is written a systematic review.</p> <p>The topics "Introduction", "fatty acids", "phenolic compounds" and all other topics can be used for a high introduction or contextualization for the theme. Then, the authors start the search mechanism and follow some recommendation to build the results, discussion and conclusion of the manuscript. These steps can improve the present review manuscript and give better results about diet for cardiovascular health.</p> <p>Abstract:</p> <p>- The abstract is very short, should be better explored, even for a part II of an review.</p> <p>Methods:</p> <p>- There are no explanations about the PROSPERO registration, search mechanism or reference recommendations to build the review. Please, register this review at: https://www.crd.york.ac.uk/prospero/ for better evaluation of the manuscript. Besides, the authors should use some recommendation for the structure of the review, checklists and search methods, like Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (http://www.prisma-statement.org/) or Cochrane Handbook for Systematic Reviews of Interventions (https://training.cochrane.org/handbook). Thus, we can avoid wrong conclusions about the issue addressed on the manuscript, as the positive effects of chromium or effects on blood glucose of diabetic people.</p>	<p>We would like to thank the reviewer for their thoughtful review of the manuscript. The comments were very helpful for improving the manuscript. The corresponding changes made in the revised paper were marked in yellow and summarized in our response below. We hope that the reviewer will find our responses to the comments satisfactory, and we are ready for any further suggestions that the reviewer may have.</p> <p>The structure of the manuscript has been revised as suggested (please see the revised version). The topics "introduction," "fatty acids," and "phenolic compounds" have been used for the introduction and contextualization of the theme, as suggested by the reviewer. The search mechanism has been explained in the methodology part (please see 2. Methodology in the revised manuscript). Some recommendations to build the data synthetis are explained in the results and discussion parts (please see 3. Results and discussion).</p> <p>The abstract was developed as recommended by the reviewer (please see abstract part in the revised manuscript). "In vitro studies and in vivo intervention trials were selected and included in the study after conducting literature searches through "PubMed" and "Web of Science." In the majority of investigations, the ability of VOO phytochemicals to prevent the oxidation process at both the initiation and promotion/progression phases of several pathologies has been verified. The health benefits discussed in this article support the prospective health benefits acquired from VOO as a possible candidate in developing pharmaceutical preparations and nutraceutical or functional foods for a variety of pathological disorders. This idea could pave the way for future in vivo research and, eventually, clinical trials. In addition, greater research into the mechanisms of action and efficacy is needed to clarify the real biological potential of VOO phytochemicals on humans by performing intervention studies on populations at high disorder risk."</p> <p>Thanks to the reviewer's comments, we realized that there was missing information and the methodology was not clear enough in the former version of the manuscript (please see 2. Methodology and 3. Results and discussion in the revised manuscript).</p> <p>The current study was based on literature that is already available on various scientific databases and highlighted the health benefits of VOO. It compiles, critically interprets, and presents the data gathered from these various sources. A systematic electronic literature search was conducted using PubMed and Web of Science. The search included articles written in English. Studies related to VOO as a rich source of functional bioactive compounds in the promotion of human health were selected, including data available from organizations and books. The following search key terms were used to find</p>

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		<p>original studies addressing the biological activities of VOO and its phytochemicals: "hydroxytyrosol" OR "<i>p</i>-hydroxyphenyl-ethanol" OR "<i>p</i>-HPEA" OR "tyrosol" OR "secoiridoid" OR "oleuropein" OR "oleocanthal" OR "olive oil phenolics" OR "tocopherols" OR "phytosterols" OR "triterpenic acids" AND biological potential OR "bioavailability" Additional relevant publications were found by looking through the reference lists of included articles and recent noteworthy reviews. Published data on the <i>in vitro</i> effects of VOO and its phytochemicals were considered. <i>In vivo</i> trials were also taken into account if they revealed outcomes directly related to oxidative stress, essentially referring to neurodegenerative disorders, cardiovascular disease, or type 2 diabetes. From the <i>in vitro</i> studies, the first author's last name, the year of publication, the damage agent, the tested VOO or its phytochemicals, dose, and effects are retrieved. Further information was gathered from the <i>in vivo</i> investigations as follows: VOO or its phytochemical exposure duration and mechanisms in tested model systems. All authors participated in the literature search, data extraction, and synthesis. An initial screening was conducted on the basis of the abstract and title. Exclusions were made, taking into consideration the exclusion criteria and in order to avoid redundancy of cited material. Exclusion criteria are the application of bioactive compounds extracted from VOO as food antioxidants, olive byproducts and their bioactive compounds, and the effect of processing technology and storage conditions on VOO phytochemicals with biological significance. The Critical Appraisal Skills Programme (2018) CASP Checklist was used to critically appraise and assess the quality of each included study. After deleting duplicates (n = 35) from the original literature search using PubMed and Web of Science databases (n = 405) and other sources (n = 26), 120 records were omitted based on the title, abstract, or exclusion criteria. To reduce duplicates of the mentioned content, 87 items were eliminated. The reference list includes the eligible reports for analysis (n = 93) based on the PRISMA flowchart for the report selection process (Fig. 5). The main features of eligible reports are summarized in Table 3. Single phytochemicals, such as oleuropein, hydroxytyrosol, and oleocanthal, were evaluated in several scientific studies. Phenolic extracts derived from VOO or VOO have also been investigated in other research. The effects of VOO enriched with naringenin, diallyl sulfide, and camel milk have been documented in several studies. This review was registered in the PROSPERO International Prospective Register of Systematic Reviews, identified under ID313430.</p>
Minor REVISION comments	No.	
Optional/General comments	No.	

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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	