

PREVALENCE OF DIETARY SUPPLEMENT USE AMONG THE MILITARY POPULATION: A SYSTEMATIC REVIEW AND META-ANALYSIS

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S Table 1. Prevalence and adverse effects of dietary supplement use among the military population

| Database (search conducted up to September 2023) | Search terms ^a | Number of studies searched |
|--|---|---|
| PubMed | ((((((((((("dietary supplement"[MeSH Terms]) OR (dietary supplementation[MeSH Terms]) OR (food supplement[MeSH Terms]) OR (food supplementation[MeSH Terms]) OR (dietary supplement, sport[MeSH Terms]) OR (food, supplemented[MeSH Terms]) OR (supplement[Title/Abstract]) OR (supplementation[Title/Abstract]) OR (multivitamin[Title/Abstract]) OR (vitamin[Title/Abstract]) OR (mineral[Title/Abstract]) OR ("sport drink"[Title/Abstract]) OR (nutraceutical[Title/Abstract]) OR (neutraceutical[Title/Abstract]) AND (((((((((((military[Title/Abstract]) OR (soldier[Title/Abstract]) OR (sailor[Title/Abstract]) OR (airmen[Title/Abstract]) OR (marine[Title/Abstract]) OR ("armed force"[Title/Abstract]) OR ("air force"[Title/Abstract]) OR ("coast guard"[Title/Abstract]) OR (submariners[Title/Abstract]) OR (navy[Title/Abstract]) OR (military personnel[MeSH Terms])))))))))))))) | 4,188 |
| SCOPUS | (((TITLE-ABS-KEY (supplement) OR TITLE-ABS-KEY (supplementation) OR TITLE-ABS-KEY (multivitamin) OR TITLE-ABS-KEY (vitamin) OR TITLE-ABS-KEY (mineral) OR TITLE-ABS-KEY ("sport drink") OR TITLE-ABS-KEY (nutraceutical) OR TITLE-ABS-KEY (neutraceutical))) AND ((TITLE-ABS-KEY (military) OR TITLE-ABS-KEY (soldier) OR TITLE-ABS-KEY (sailor) OR TITLE-ABS-KEY (airmen) OR TITLE-ABS-KEY (marine) OR TITLE-ABS-KEY ("armed force") OR TITLE-ABS-KEY ("coast guard") OR TITLE-ABS-KEY (submariners) OR TITLE-ABS-KEY (navy) OR TITLE-ABS-KEY ("air force"))) AND PUBYEAR > 2013 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (SRCTYPE , "j"))) | 10,601 |
| Google Scholar | allintitle: military AND supplement allintitle: military AND supplementation allintitle: military AND multivitamin allintitle: military AND vitamin allintitle: military AND mineral allintitle: military AND "sport drink" allintitle: military AND nutraceutical allintitle: military AND neutraceutical allintitle: armed force AND supplement allintitle: soldier AND supplement allintitle: air force AND supplement N= | 98 66 3 61 50 0 2 0 2 4 24 310 |
| Web of Science | (TS=("supplement" or "supplementation" or "multivitamin" or "vitamin" or "mineral" or "sport drink" or "nutraceutical" or "neutraceutical")) AND TS=("military" or "soldier" or "sailor" or "airmen" or "marine" or "armed force" or "coast guard" or "submariners" or "Navy" or "air force") and Article (Document Types) and English (Languages) | 1,169 |
| Total | | 25,851 |

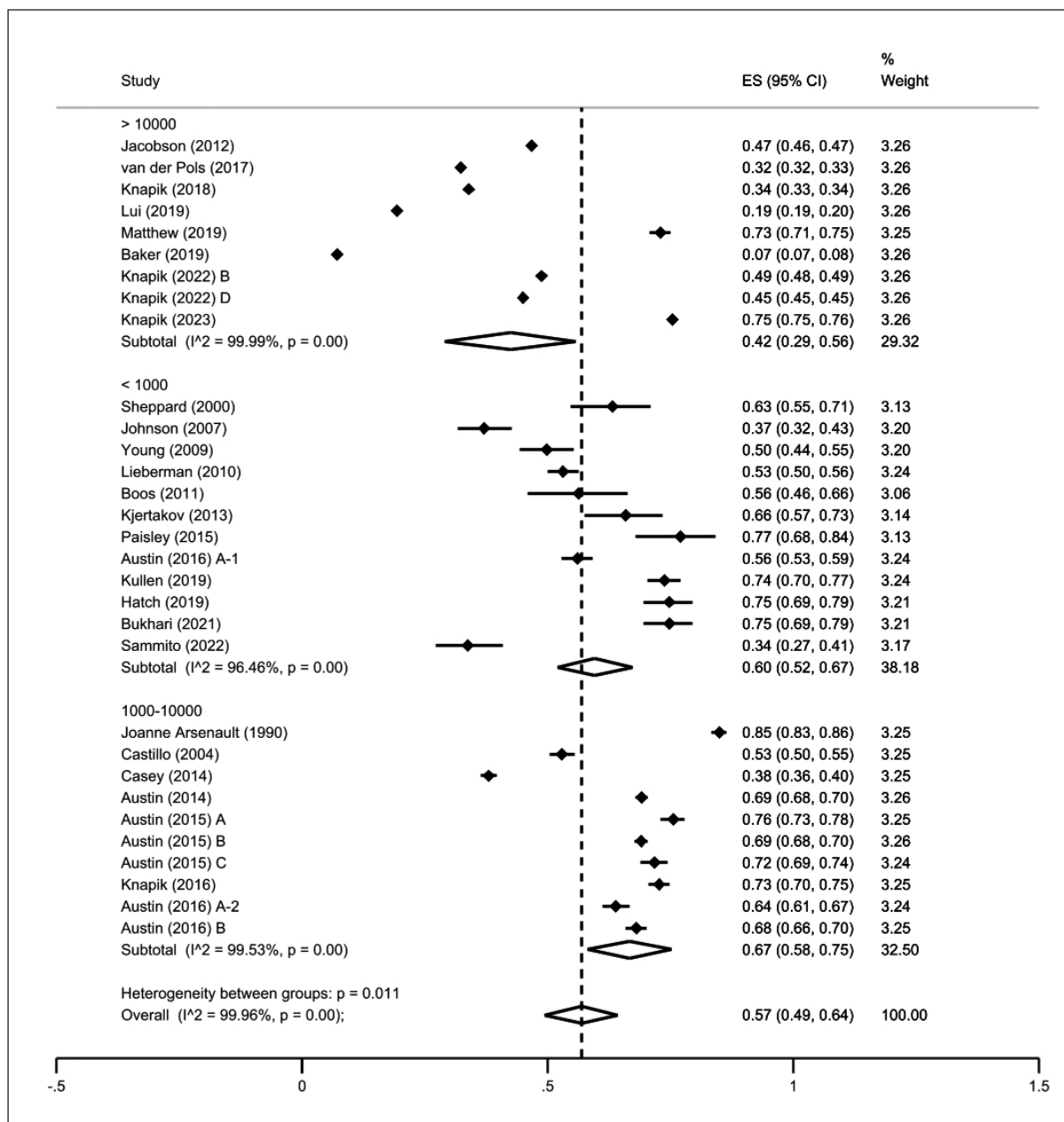
A systematic review and meta-analysis: method of the database search strategy using PubMed, Scopus, Google Scholar, and Web of Science

^aSearches were limited to original articles and studies published in the English language using appropriate filters and/or search terms depending on the database.

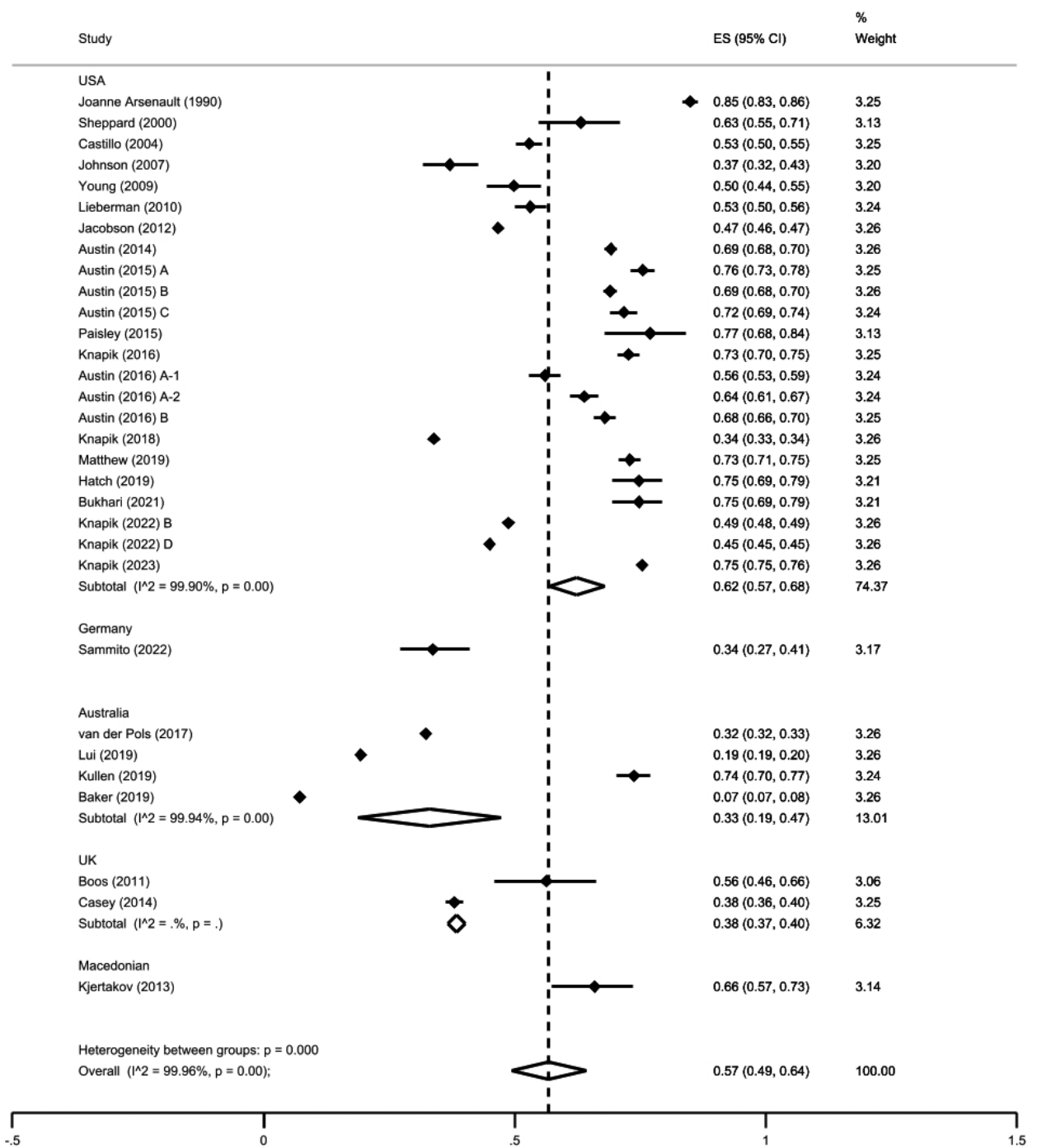
S Table 2. Assessment of methodological quality of included cross-sectional studies

| Reference | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 |
|----------------------------|---------|-----|---------|-----|---------|-----|-------------|---------|---------|
| Knapik et al. 2023 | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Sammuto et al. 2022 | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Knapik et al. 2022 A | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes | Yes | Yes |
| Knapik et al. 2022 B | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Knapik et al. 2022 C | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Knapik et al. 2022 D | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Bukhari et al. 2021 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Kullen et al. 2019 | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Humphreys et al. 2019 | Yes | Yes | Yes | Yes | Unclear | Yes | Partial yes | Yes | Yes |
| Hatch et al. 2019 | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Baker et al. 2019 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Knapik et al. 2018 | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| van der Pols et al. 2017 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Knapik et al. 2016 | Yes | Yes | Yes | Yes | Unclear | Yes | Yes | Yes | Yes |
| Austin et al. 2016 A | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Austin et al. 2016 B | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Austin et al. 2015 A | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Austin et al. 2015 B | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Austin et al. 2015 C | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Paisley 2015 | Yes | Yes | No | Yes | Unclear | Yes | Unclear | Unclear | Yes |
| Casey et al. 2014 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Unclear |
| Austin et al. 2014 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Kjertakov et al. 2013 | Unclear | Yes | No | Yes | Unclear | Yes | Unclear | Yes | Unclear |
| Boos et al. 2011 | Unclear | Yes | No | Yes | Unclear | Yes | Unclear | Yes | Unclear |
| Jacobson et al. 2012 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Unclear |
| Lieberman et al. 2010 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes |
| Young and Stephens 2009 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Unclear |
| Johnson et al. 2007 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Unclear | Unclear |
| Castillo et al. 2004 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Unclear |
| Sheppard et al. 2000 | Unclear | Yes | No | Yes | Unclear | Yes | Unclear | Yes | Unclear |
| Arsenault and Kennedy 1990 | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Unclear | Unclear |

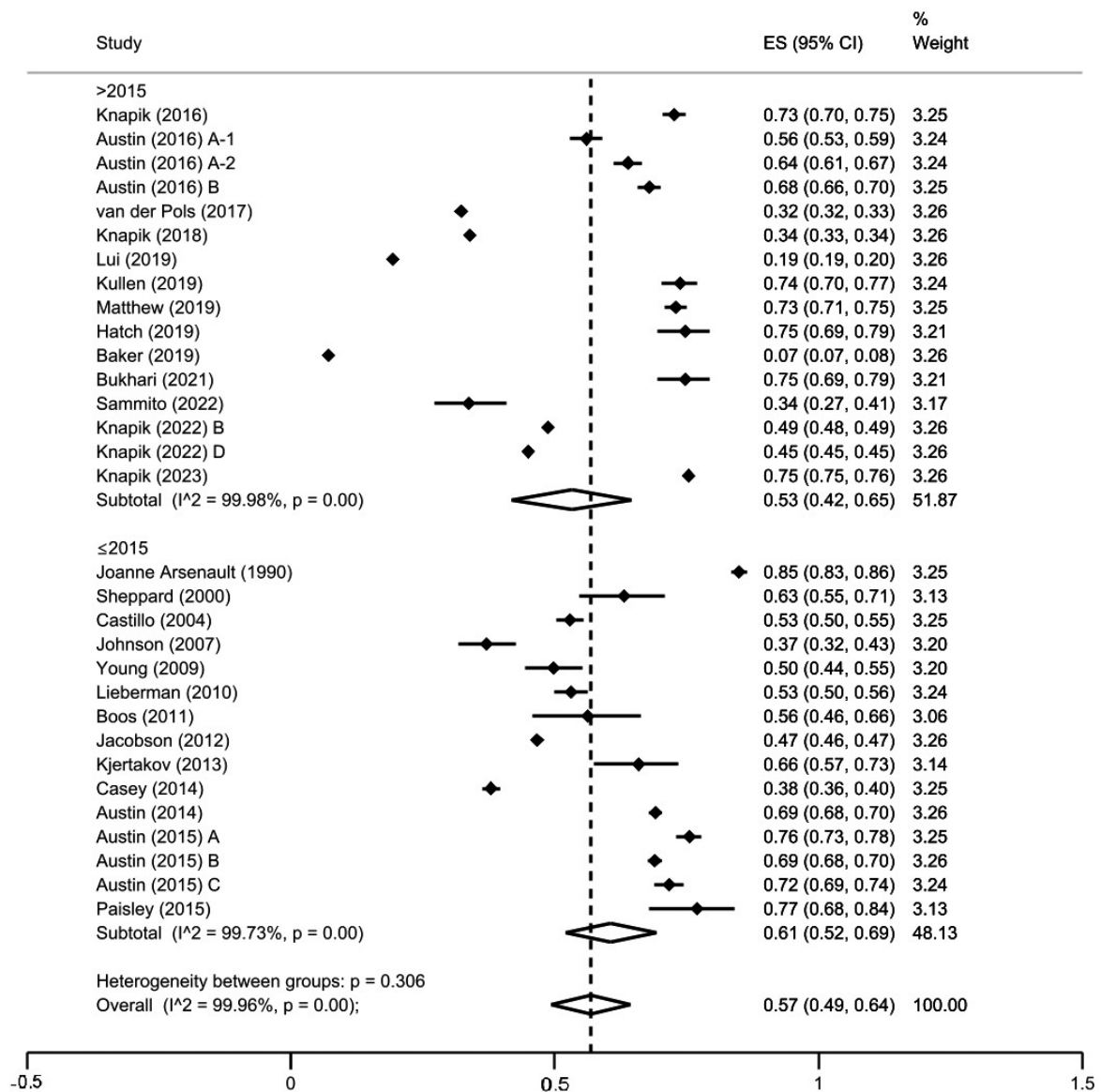
Q1 – Was the sample frame appropriate to address the target population?; Q2 – Were the study participants sampled in an appropriate way?; Q3 – Was the sample size adequate?; Q4 – Were the study subjects and the setting described in detail?; Q5 – Was the data analysis conducted with sufficient coverage of the identified sample?; Q6 – Were valid methods used for the identification of the condition?; Q7 – Was the condition measured in a standard, reliable way for all participants?; Q8 – Was there appropriate statistical analysis?; Q9 – Was the response rate adequate, and if not, was the low response rate managed appropriately?



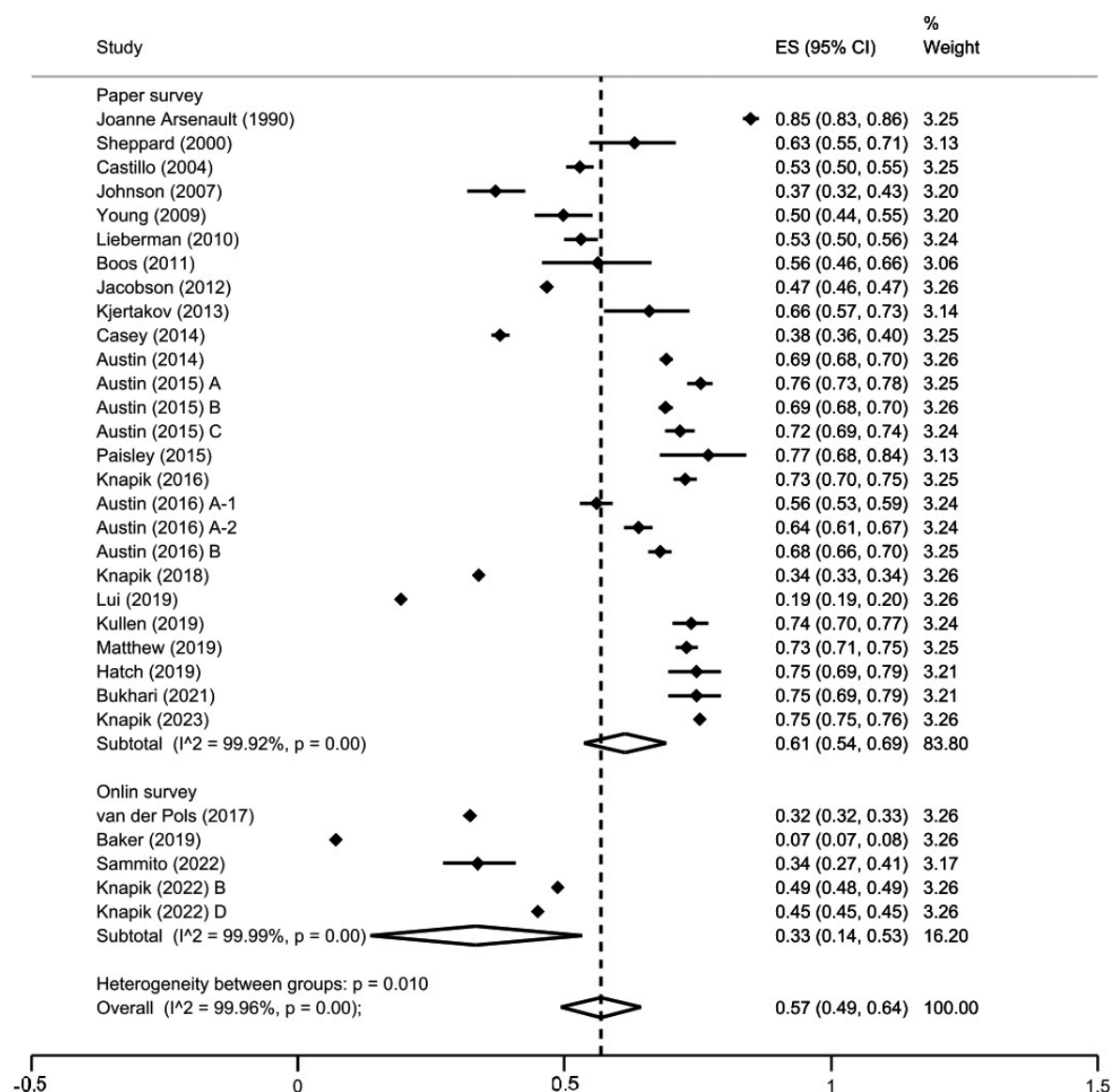
S Fig. 1. Results of sub-group analysis based on the sample size of included studies.



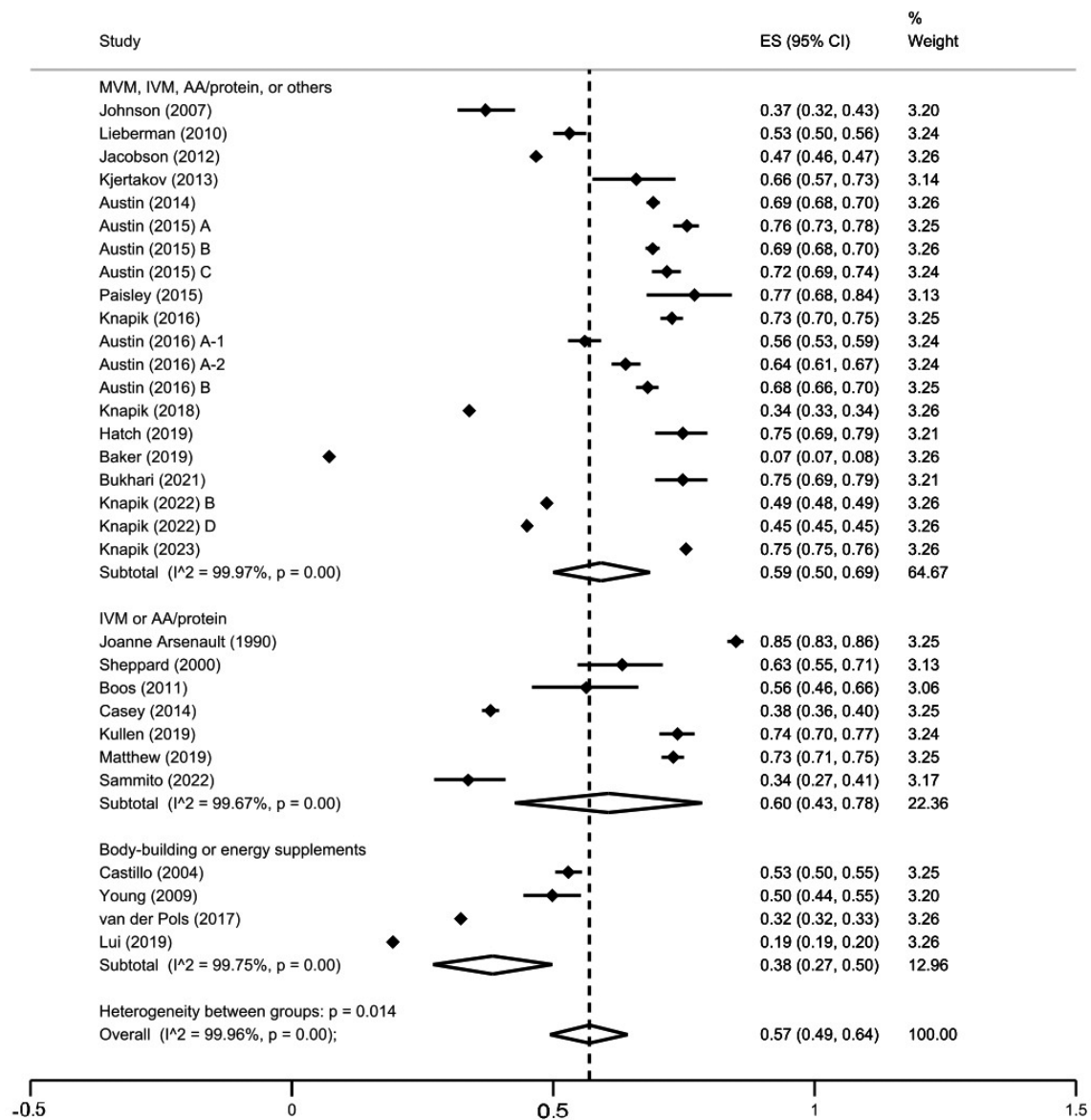
S Fig. 2. Results of sub-group analysis based on the location of included studies.



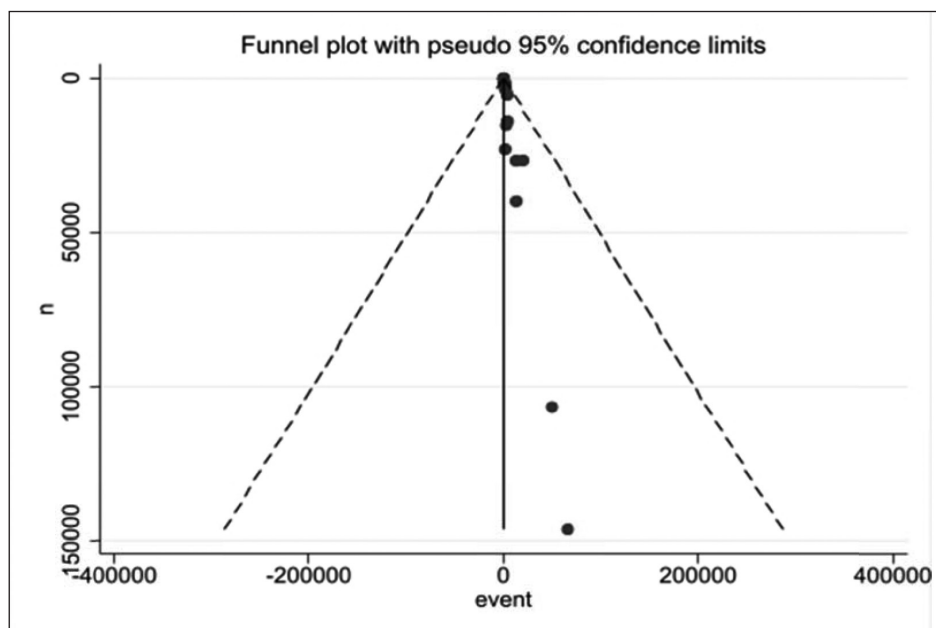
S Fig. 3. Results of sub-group analysis based on the publication year of included studies.



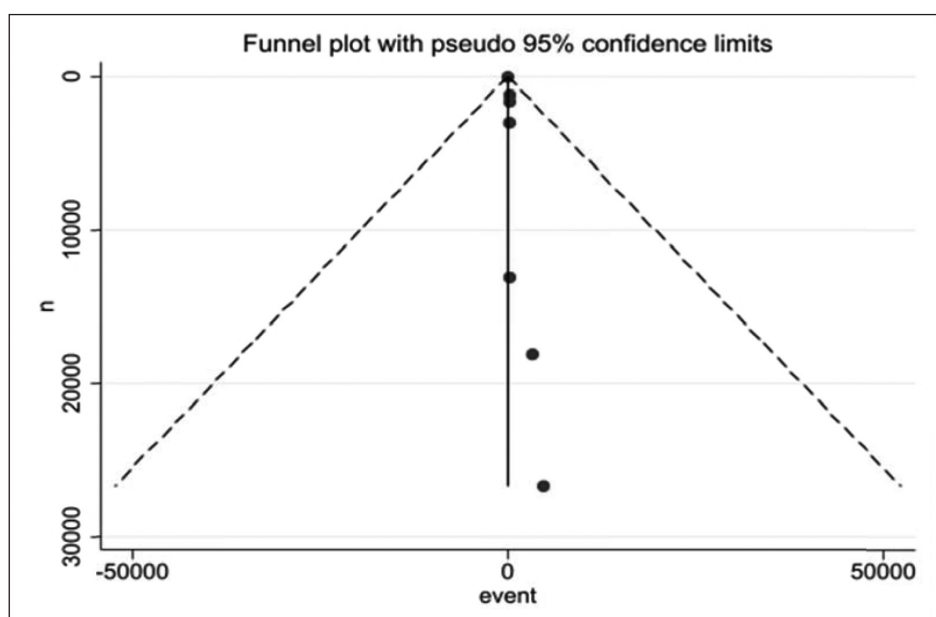
S Fig. 4. Results of sub-group analysis based on the data collection method of included studies.



S Fig. 5. Results of sub-group analysis based on the studied dietary supplements in included studies.



S Fig. 6. Funnel plot for prevalence of dietary supplements among military population.



S Fig. 7. Funnel plot for adverse effects of dietary supplements used among military population.