**Supplementary Table 1.** Search strategy Ovid Medline <1946 to March 15, 2021>

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1 [Population: Cardiac Rehab Patients]

2 exp Heart Diseases/ and rehab\*.tw,kw. (9059)

3 Cardiac Rehabilitation/ (2680)

4 ((cardiac adj3 patient\*) and rehab\*).tw,kw. (2428)

5 (rehab\* adj3 (cardiac or cardiovascular or coronary or heart)).tw,kw. (8055)

6 or/2-5 (12984)

7 [Intervention: Diet/Nutrition]

8 exp Diet/ (289798)

9 Dietetics/ (7846)

10 Dietary Services/ (1410)

11 exp Feeding Behavior/ (174967)

12 exp Nutrition Therapy/ (103750)

13 ((diet\* or nutrition\*) adj4 (therap\* or counsel\* or advice or service\* or guidance or regimen\* or intervention\*)).tw,kw. (55684)

14 ((behavior\* or behaviour\* or pattern\* or chang\* or habit\*) adj3 (feeding or eating or diet\* or food\* or nutrition\*)).tw,kw. (105933)

15 ((heart\* or health\* or unhealth\*) adj4 (diet\* or eating or food\* or nutrition\*)).tw,kw. (88580)

16 (intake\* adj3 (food\* or diet\* or caloric\* or nutrition\*)).tw,kw. (111275)

17 (("barriers to healthy eating" or BHE) adj2 scale).mp,kw. (4)

18 ((diet\* or nutrition\* or healthy eating) adj4 (scale\* or instrument\*)).mp,kw. (1954)

19 or/8-18 (639957)

20 [Outcomes: Compliance]

21 Patient Compliance/ (58650)

22 (adher\* or non-adher\* or non adher\* or nonadher\* or complian\* or non-complian\* or noncomplian\* or non complian\* or perception\* or attitude\*).tw,kw. (730051)

23 barrier\*.mp,kw. (331338)

24 (factor\* or challeng\* or obstacle\* or problem\* or hurdle\* or difficult\* or imped\* or hindrance\* or hinder or hamper or disparit\* or depriv\* or non-access\* or unavailab\* or enabl\* or facilitat\* or encourag\* or motivat\* or influenc\* or reinforc\* or determin\* or access\* or reason\* or availab\*).tw,kw. (11099431)

25 or/21-24 (11520539)

26 6 and 19 and 25 (422)

**Supplementary Table 2.** Critical Appraisal Skills Program (CASP) for assessing quality of qualitative researches (n=9)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Astin et al. 200837 | Fletcher et al. 201450 | Galdas et al. 201038 | Galdas et al. 201245 | Karner et al. 199651 | Reid et al. 198448 | Rowland et al. 201849 | Meyer et al. 201447 | Koikkalainen et al. 199646 |
| Was there a clear statement of the aims of the research? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Is a qualitative methodology appropriate? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Was the research design appropriate to address the aims of the research? | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Was the data collected in a way that addressed the research issue? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Has the relationship between researcher and participants been adequately considered? | No | No | Yes | Yes | Yes | No | Yes | Yes | No |
| Have ethical issues been taken into consideration?  | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | NR |
| Was the data analysis sufficiently rigorous? | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Is there a clear statement of findings? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| How valuable is the research? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Score/10 | 9/10 | 9/10 | 10/10 | 10/10 | 10/10 | 5/5 | 10/10 | 10/10 | 8/10 |

**Quality Assessment Score (Classification)** Scores ranged from 0-10 (Poor: 0-4; Fair: 5-7; Good: 8-10). Abbreviations: NR = Not reported.

**Supplementary Table 3**. Modified Downs and Black checklist for the assessment of the methodological quality of both randomized and non-randomized studies (n=6)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cannon et al. 201440 | Franklin et al. 199541 | Hamailainen et al. 200042 | Lappailanen et al. 199843 | Sharp et al. 201252 | Leong et al. 200444 | Koikkalainen et al. 199939 |
| Is the hypothesis/aim/objective of the study clearly described?\* | No | No | No | No | No | No | Yes |
| Are the main outcomes to be measured clearly described in the Introduction or Methods section?\* | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Are the characteristics of the patients included in the study clearly described?\* | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Are the interventions of interest clearly described?\* | No | No | No | No | Yes | Yes | Yes |
| Are the main findings of the study clearly described?\* | Yes |  | Yes | Yes | Yes | Yes | Yes |
| Have the characteristics of patients lost to follow-up been described? | No | No | Yes | No | No | No | No |
| Have actual probability values been reported | No | No | No | No | Yes | Yes | Yes |
| Were the subjects asked to participate in the study representative of the entire population from which they were recruited?\* | NR | NR | NR | NR | NR | Yes | Yes |
| Were those subjects who were prepared to participate representative of the entire population from which they were recruited?\* | NR | NR | NR | NR | NR | Yes | Yes |
| Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive? | NR | NR | NR | NR | Yes | NR | NR |
| In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls?\* | NR | NR | NR | NR | Yes | Yes | NR |
| Were the statistical tests used to assess the main outcomes appropriate?\* | Yes | No | Yes | Yes | Yes | Yes | Yes |
| Was compliance with the intervention/s reliable? | Yes | Yes | NR | Yes | Yes | Yes | Yes |
| Were the main outcome measures used accurate (valid and reliable)?\* | No | Yes | No | Yes | Yes | Yes | Yes |
| Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?\* | Yes | Yes | Yes | NR | Yes | Yes | Yes |
| Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?\* | Yes | Yes | Yes | NR | NR | Yes | Yes |
| Was there adequate adjustment for confounding in the analyses from which the main findings were drawn? | No | No | No | NR | Yes | NR | NR |
| Were losses of patients to follow-up taken into account? | No | No | Yes | NR | No | Yes | NR |
| Scores: achieved/considered  | 5/18 | 6/18 | 8/18 | 6/18 | 12/18 | 14/18 | 12/18 |

**Quality Assessment Score (Classification)** Scores ranges from 0-18 (Good = 13-18; fair 7-12; Poor = 0-6). Abbreviation: NR = Non reported.