**Table S1. Search strategy**

**1a. PubMed, searched 08/03/2022, 203 results**

|  |  |  |
| --- | --- | --- |
| Population Group | Prognostic Factor | Limits |
| 1. “Schizophrenia Spectrum and Other Psychotic Disorders”[MeSH Terms]
2. “Bipolar and Related Disorders”[MeSH Terms]
3. “mental illness\*”
4. “mental disord\*”
5. Bipolar
6. schizophr\*
7. psychosis
8. psychotic
9. “Antipsychotic Agents”[MeSH Terms]
10. antipsychotic\*
11. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10
 | 1. "Basal Metabolism"[Mesh]
2. “Calorimetry, Indirect”[MeSH]
3. “metabolic rate”
4. “energy expenditure”
5. 12 OR 13 OR 14 OR 15
6. 11 AND 16
 | 1. Humans only
 |
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**1b. Embase via Ovid, searched 08/03/2022, 407 results**

|  |  |  |
| --- | --- | --- |
| Population Group | Prognostic Factor | Limits |
| 1. exp schizophrenia/
2. exp bipolar disorder/
3. exp psychosis/
4. mental illness\*.ti,ab.
5. mental disord\*.ti,ab.
6. schizophr\*.ti,ab.
7. bipolar.ti,ab.
8. psychosis.ti,ab.
9. psychotic.ti,ab.
10. antipsychotic\*.ti,ab.
11. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10
 | 1. exp basal metabolic rate/
2. exp indirect calorimetry/
3. metabolic rate.ti,ab.
4. energy expenditure.ti,ab.
5. indirect calorimetry.ti,ab.
6. 12 OR 13 OR 14 OR 15 OR 16
7. 11 AND 17
 | 1. Humans only
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**1c. CENTRAL via Ovid, searched 08/03/2022, 60 results**

|  |  |  |
| --- | --- | --- |
| Population Group | Prognostic Factor | Limits |
| 1. exp schizophrenia/
2. exp bipolar disorder/
3. exp psychosis/
4. mental illness\*.ti,ab.
5. mental disord\*.ti,ab.
6. schizophr\*.ti,ab.
7. bipolar.ti,ab.
8. psychosis.ti,ab.
9. psychotic.ti,ab.
10. exp antipsychotic/
11. antipsychotic\*.ti,ab.
12. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11
 | 1. exp basal metabolic rate/
2. indirect calorimetry.ti,ab.
3. metabolic rate.ti,ab.
4. energy expenditure.ti,ab.
5. 13 OR 14 OR 15 OR 16
6. 12 AND 17
 |  |
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**1d. CINAHL via EBSCO*host*, searched 08/03/2022, 28 results**

|  |  |  |
| --- | --- | --- |
| Population Group | Prognostic Factor | Limits |
| 1. TI schizophr\*
2. AB schizophr\*
3. TI bipolar
4. AB bipolar
5. TI psychosis
6. AB psychosis
7. TI psychotic
8. AB psychotic
9. TI “mental illness\*”
10. AB “mental illness\*”
11. TI “mental disord\*”
12. AB “mental disord\*”
13. TI antipsychotic\*
14. AB antipsychotic\*
15. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14
 | 1. TI “metabolic rate”
2. AB “metabolic rate”
3. TI “energy expenditure”
4. AB “energy expenditure”
5. TI “indirect calorimetry”
6. AB “indirect calorimetry”
7. 16 OR 17 OR 18 OR 19 OR 20 OR 21
8. 15 AND 22
 | 1. Humans only
 |
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**1e. PsycINFO via Ovid, searched 08/03/2022, 131 results**

|  |  |  |
| --- | --- | --- |
| Population Group | Prognostic Factor | Limits |
| 1. exp schizophrenia/
2. exp bipolar disorder/
3. exp psychosis/
4. mental illness\*.ti,ab.
5. mental disord\*.ti,ab.
6. schizophr\*.ti,ab.
7. bipolar.ti,ab.
8. psychosis.ti,ab.
9. psychotic.ti,ab.
10. exp antipsychotic/
11. antipsychotic\*.ti,ab.
12. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11
 | 1. exp basal metabolic rate/
2. indirect calorimetry.ti,ab.
3. metabolic rate.ti,ab.
4. energy expenditure.ti,ab.
5. 13 OR 14 OR 15 OR 16
6. 12 AND 17
 | 1. Humans only
 |
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**Table S2. Quality assessment using the JBI Critical Appraisal Checklist for Cohort Studies.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | 1. Were the two groups similar and recruited from the same population? | 2. Were the exposures measured similarly to assign people to both exposed and unexposed groups? | 3. Was the exposure measured in a valid and reliable way? | 4. Were confounding factors identified? | 5. Were strategies to deal with confounding factors stated? | 6. Were the groups/ participants free of the outcome at the start of the study (or at the moment of exposure)? | 7. Were the outcomes measured in a valid and reliable way? | 8. Was the follow up time reported and sufficient to be long enough for outcomes to occur? | 9. Was follow up complete, and if not, were the reasons to loss to follow up described and explored? | 10. Were strategies to address incomplete follow up utilised? | 11. Was appropriate statistical analysis used? | Score\* |
| Cuerda et al, 2011 | Y | NA | Y | Y | Y | UC | NA | Y | Y | N | Y | 7/9 |
| Graham et al, 2005 | NA | NA | Y | Y | N | N | NA | Y | Y | N | Y | 5/8 |

\* Final score did not account for criterions rated as ‘NA’

Abbreviations: N: No, NA: Not applicable, UC: Unclear, Y: Yes

**Table S3. Quality assessment using the JBI Critical Appraisal Checklist for Cross-sectional Studies.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | 1. Were the criteria for inclusion in the sample clearly defined? | 2. Were the study subjects and the setting described in detail? | 3. Was the exposure measured in a valid and reliable way? | 4. Were objective, standard criteria used for measurement of the condition? | 5. Were confounding factors identified? | 6. Were strategies to deal with confounding factors stated? | 7. Were the outcomes measured in a valid and reliable way?  | 8. Was appropriate statistical analysis used? | Score\* |
| Caliyurt et al. 2009 | N | Y | Y | Y | Y | Y | NA | Y | 6/7 |
| Fleet-Michaliszyn et al. 2008 | Y | Y | Y | Y | Y | Y | NA | Y | 7/7 |
| Miniati et al. 2015 | Y | Y | UC | Y | Y | N | NA | Y | 4/7 |
| Nilsson et al. 2006 | Y | Y | Y | Y | Y | Y | NA | Y | 7/7 |
| Sharpe et al. 2005 | Y | Y | Y | UC | N | N | NA | Y | 4/7 |
| Sharpe et al. 2010 | Y | Y | Y | UC | N | N | NA | Y | 4/7 |
| Sharpe et al. 2009 | Y | Y | Y | Y | Y | Y | NA | Y | 7/7 |
| Skouroliakou et al. 2009 | Y | Y | Y | Y | N | N | NA | Y | 5/7 |
| Soreca et al. 2007 | Y | N | Y | N | Y | N | NA | Y | 4/7 |
| Sugawara et al. 2014 | Y | Y | UC | Y | Y | N | NA | Y | 5/7 |

\* Final score did not account for criterions rated as ‘NA’

Abbreviations: N: No, NA: Not applicable, UC: Unclear, Y: Yes

**Table S4. Quality assessment using the Cochrane ROB tool for randomised trials**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Sequence generation  | Allocation concealment  | Blinding of participants and personnel  | Blinding of outcome assessment | Incomplete data outcome | Selective reporting | Other sources of bias | Score |
| Park et al. 2013 | High risk | High risk | High risk | High risk | Low risk | Low risk | Low risk | 3/7 |