**SUPPLEMENT**

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**Supplementary Appendix B. Search Strategies**

**PubMed (MEDLINE, CINHAL): 2708 (25/05/2020)**

(“depressive disorder” OR “major depressive disorder” OR depress\* OR “depression”) AND (“physical activity” OR “exercise” OR “fitness” OR “Sport” OR “leisure activities”) AND (prevent\* OR incidence) AND ("effectiveness" OR “trial” OR “controlled trial” OR “randomi\*” OR “intervention” OR "efficacy")

**The Cochrane Central Register of Controlled Trials (CENTRAL): 1186 (25/05/2020)**

("depression":ti,ab,kw or "depressive disorder":ti,ab,kw or “major depressive disorder”:ti,ab,kw or depress\*:ti,ab,kw) AND (physical activity:ti,ab,kw or exercise:ti,ab,kw or fitness:ti,ab,kw or Sport:ti,ab,kw or leisure activities:ti,ab,kw) AND (prevent\*:ti,ab,kw or incidence:ti,ab,kw) AND (effectiveness:ti,ab,kw or trial:ti,ab,kw or controlled trial:ti,ab,kw or randomi\*:ti,ab,kw or intervention:ti,ab,kw or efficacy:ti,ab,kw)

**Embase: 777 (25/05/2020)**

('depression'/exp OR 'depression' OR 'depressive disorder'/exp OR 'depressive disorder' OR 'major depressive disorder'/exp OR 'major depressive disorder' OR 'depress\*') AND ('physical activity'/exp OR 'physical activity' OR 'exercise'/exp OR 'exercise' OR 'fitness'/exp OR 'fitness' OR 'Sport'/exp OR 'sport' OR leisure activities/exp OR 'leisure activities') AND (prevent\* OR incidence) AND ('effectiveness' OR 'trial' OR 'controlled trial' OR 'randomi\*' OR 'intervention' OR 'efficacy')

**Web of Science: 4106 (25/05/2020)**

TS= ((depressive disorder OR (depressive AND disorder) OR depression OR major depressive disorder)) AND TS= ((physical activity OR exercise OR fitness OR Sport OR leisure activities)) AND TS= ((prevent\* OR incidence)) AND TS= ((effectiveness OR trial OR (controlled AND trial) OR randomi\* OR intervention OR efficacy))

**PsycINFO: 1788 (25/05/2020)**

(TX depression OR TX depressive disorder OR (TX depressive AND TX disorder) OR TX depress\* OR TX major depressive disorder) AND (TX physical activity OR TX exercise OR TX fitness OR TX Sport OR TX leisure activities) AND (prevent\* OR incidence) AND (effectiveness OR trial OR (controlled AND trial) OR randomi\* OR intervention OR efficacy)

**Open Grey: 8 (25/05/2020)**

(depression OR depressive disorder OR major depressive disorder OR depress\*) AND (prevent\*) AND (physical activity OR exercise OR fitness OR Sport OR leisure activities)

**SPORTdiscus**: **202 (25/05/2020)**  
(“depressive disorder” OR “ major depressive disorder” OR depress\* OR “depression”) AND (“physical activity” OR “exercise” OR “fitness” OR “Sport” OR “leisure activities”) AND (prevent\* OR incidence) AND ("effectiveness" OR “trial” OR “controlled trial” OR “randomi\*” OR “intervention” OR "efficacy")

**Supplementary Table 1. Characteristics of Included Randomized Controlled Trials of Depression Prevention**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author / Year /  Country | Target  population /  Type of  prevention a | Depression  exclusion at  baseline | Sample  (intervention / control) | Conditions  intervention –  control | Characteristics of exercise-based intervention:  a) intervention duration  b) session duration  c) format  d) frequency  e) intensity  f) type  g) supervision | Verification  of physical  activity  (objective  / subjective) | Type of  outcome on  depression  (primary /  secondary) | Follow-up | Depression  Outcomes  (standardized  interview /  symptoms  scale) |
| * **Brenes et al.** * **2007** * **United States** | * Older adults * Mean age: 73.7; standard deviation: 6.8 * Indicated | * No major depression DSM-IV (PHQ-9 algorithm) | 26 (14/12) | **1**. Aerobic and resistance trainingd  **2**. Usual care | a) 16 weeks  b) 60 minutes  c) Group  d) 3 sessions/week  e) Moderate  f) Warm up, aerobic phase, resistance training phase, aerobic phase, cool down  g) Supervised | Objective: distance walked in 6 minutes, time to walk 4 meters, and time to sit and stand from a chair 5 times | Primary | 4 months | * Symptoms scale (HADS-D and GDS) |
| * **Chen et al.** * **2015** * **Taiwan** | * Patients with lung cancer * 37–88 years (mean age: 64.16; standard deviation: 10.89) * Selective | * No depression   (HADS-D ≥8) | 84 (40/44)c | **1**.Walking  **2.** Usual care | a) 12 weeks  b) 40 minutes  c) Individually  d) 3 sessions/week  e) Moderate  f) Walking  g) Unsupervised | Objective: heart rate monitor + training diary  Subjective: Borg Rating of Perceived Exertion scale | Primary | 6 months | * Symptoms scale (HADS-D) |
| * **de Zeeuw et al.** * **2010** * **Netherlands** | * Employees of a   company   * Mean age: 41.2   years   * Indicated | * No depression   (PHQ-9 ≥10) | 30 (15/15) | **1**. Fitness program  **2**. Usual care | a) 10 weeks  b) 50 minutes  c) Group  d) 2 sessions/week  e) Moderate  f) Cardiovascular and stretching exercises/ training/cycling/jogging/  walking/climbing/sit-ups/relaxation  g) Supervised | Objective: heart  rate monitored | Primary | 2.5 months | * Symptoms scale (PHQ-9) |
| * **DiLorenzo et al.** * **1999** * **Colombia** | * Healthy adults * 18-39 years * Mean age: 31.5 * Universal | * No depression   (BDI >19) | 111 (82/29) | **1**. Aerobic fitness  **2**. No intervention | a) 12 weeks  b) 24 minutes  c) Group  d) 4 sessions/week  e) Moderate  f) Bicycle  g) Supervised | Objective: heart rate  monitored and  bicycle ergometer test (not validated) | Primary | 12 months | * Symptoms scale (BDI) |
| * **Lewis et al.** * **2014** * **United States** | * Healthy postpartum women * Mean age: 31.54; standard deviation: 4.95 * Selective | * No major depression   DSM -IV (SCID) | 130 (66/64) | **1.** Exercise intervention  **2**. General wellness topics support contact by telephone | a) 24 weeks  b) 30 minutes  c) Individually  d) 5 sessions/week+11 telephone sessions  e) Moderate to vigorous  f) Varied exercises (types of exercise they preferred)  g) Unsupervised | Objective: device that measures movement and intensity of physical activity (ActiGraph)  Subjective: 7-Day Physical Activity Recall Interview | Primary | 6 months | * Incidence (SCID-I) * Symptoms scale (PHQ-9; EPDS) |
| * **Mohammadi et al.** * **2015** * **Iran** | * Pregnant women   at 26-32 weeks of pregnancy   * 25.3 years * Selective | * No depression   (EPDS ≥15)b | 127 (43/42/42) | **1**. Home-based  antenatal exercise  **2**. Home-based  antenatal plus  postnatal exercise  **3**. Usual care | a) 11 weeks (antenatal) and 15 weeks (antenatal + postnatal)  b) 25 minutes  c) Individually  d) 3 sessions/week  e) Low  f) Stretching and breathing practices  g) Unsupervised | Subjective: telephone calls | Primary | 5 months | * Symptoms scale (EPDS) |
| * **Osei-tutu et al.** * **2005** * **Canada** | * Healthy sedentary volunteers * 20-40 years * Mean age: 34 * Universal | * No depression (POMS) | 40 (15/15/10) | **1**. 30 min walking  **2**. 3 x 10 min walking with minimum 2h rest intervals  **3**. Non-exercise control | a) 8 weeks  b) 30 minutes  c) Individually  d) 5 sessions/week  e) Moderate  f) Walking  g) Unsupervised | Objective: heart rate monitored | Primary | 2 months | * Symptoms scale (POMS) |
| * **Pakkala et al.** * **2008** * **Finland** | * Elderly * 75-81 years * Mean age: 77.6 * Selective | * No depression * Sub-sample excluding people with CES-D≥16 | 501 (253/248) | 1. Physical activity counseling  2. Usual care | a) Not specified  b) 60 minutes  c) Individually  d) 7 sessions/week  e) Low  f) Home calisthenics exercised, walking, performing every day activities and recommendation to do inexpensive exercise classes organized by the municipality  g) Unsupervised | Subjective: standardized physical activity questionnaire [Grimby, 1986] | Primary | 24 months | * Symptoms scale (CES-D) |
| * **Penninx et al.** * **2002** * **United States** | * Adults with knee osteoarthritis * 68.8 years (standard deviation: 5.6) * Selective | * No depression * Sub-sample excluding people with CES-D short form ≥5 | 340 (115/112/113) | **1.** Aerobic exercise program  **2.** Resistance exercise program  **3.** Health education related to arthritis management | a) 72 weeks  b) 60 minutes  c) Group  d) 3 sessions/week  e) Moderate  f) Walking  g) Supervised  --------------------  a) 72 weeks  b) 60 minutes  c) Group  d) 3 sessions/week  e) Moderate  f) Upper and lower body exercises using dumbbells and cuff weights  g) Supervised | Objective: 6-minute walking speed test | Primary | 18 months | * Symptoms scale (CES-D) |
| * **Sadeghi-Bahmani et al.** * **2019** * **Iran** | * Women with multiple sclerosis * 18-65 years (mean age: 37.36 years) * Selective | * No major depressive disorders (MINI) | 83 (27/30/26) | **1**. Coordinative training  **2**. Endurance training  **3.** Active control condition | a) 8 weeks  b) 30-45 minutes  c) Group  d) 3 sessions/week  e) Moderate  f) Warming up, coordinative training (e.g. balancing on small bar, balancing balls, mirroring and imitating instructors’ movements), cooling down  g) Supervised  --------------------  a) 8 weeks  b) 30-45 minutes  c) Group  d) 3 sessions/week  e) Moderate  f) Warming-up, stretching, exercises on treadmill/ bicycles/walking/jogging, cooling down  g) Supervised | Subjective | Primary | 2 months | * Symptoms scale (BDI-FS) |
| * **Taglietti et al.** * **2018** * **Brazil** | * Adults with knee osteoarthritis * 68.3 years (standard deviation: 4.8) * Selective | * No depression * Sub-sample excluding people with GDS ≥ 6 | 47 (27/20)c | **1.** Aquatic mixed exercise    **2.** Educational program (‘how to deal with chronic pain’) | a) 8 weeks  b) 60 minutes  c) Individually  d) 2 sessions/week  e) Low-moderate  f) Warm-up, stretching the leg muscles, knee and hip isometric and dynamic exercises with elastic bands, aerobic exercises, step training and proprioceptive exercises, cool down with massage and relaxation  g) Supervised | Subjective | Secondary | 3 months | * Symptoms scale (GDS) |
| * **Vargas-Terrones et al.** * **2018** * **Spain** | * Pregnant women <16 weeks pregnant * 32.8 years (standard deviation: 3.95) * Selective | * No depression * Sub-sample excluding people with CES-D ≥16 | 100 (56/44)c | 1. Specific mixed exercise  program  2. Usual care | a) 29 weeks  b) 60 minutes  c) Group  d) 3 sessions/week  e) Moderate (intensity of 55%- 60% of heart rate reserve)  f) Warm-up, aerobic exercise, muscle strengthening exercises, coordination and balance, pelvic floor exercises, stretching and relaxation.  g) Supervised | Objective: Polar FT7 heart rate monitor  Subjective: Borg Rating of Perceived Exertion scale | Primary | 8.5 months | * Symptoms scale (CES-D) |
| * **Williams et al.** * **2009**   **United States** | * Adults with chronic low back pain * 18-70 years * Mean age:48   Selective | No depression (BDI-II ≥20) | 90 (43/47) | **1**. Iyengar yoga  **2**. Usual care | a) 24 weeks  b) 90 min classes and 30 minutes at home  c) Group (classes) and individually (at home)  d) Classes: 2 sessions/week; at home: 3 sessions /week  e) Low  f) Yoga exercises  g) Supervised | Subjective: reports on duration and frequency of the home practice | Primary | 12 months | * Symptoms scale (BDI-II) |
| * Woolery et al. * 2004   United States | * Adults * 18-29 years * Mean age 21.5 (sd: 3.23)   Indicated | No depression (BDI >15) | 28 (13/15) | 1. Iyengar yoga  2. Waiting list | a) 5 weeks  b) 60 minutes  c) Group  d) 2 sessions/week  e) Low  f) Yoga  g) Supervised | Subjective | Primary | 1,25 months | * Symptoms scale (BDI) |

BDI= Beck Depression Inventory; BDI-II: Beck Depression Inventory version 2; BDI-FS: Beck Depression Inventory Fast Screen; DSM-IV= Diagnostic and Statistical Manual of Mental Disorders; SCID= Structured Clinical Interview for DSM; MINI= Mini-International Neuropsychiatric Interview; PHQ-9= Patient Health Questionnaire-9; EPDS= Edinburgh Postnatal Depression Scale; CES-D= Center for Epidemiologic Studies of Depression; HADS= Hospital Anxiety and Depression Scale; GDS= Geriatric Depression Scale; POMS= Profile of Mood States.

**a** Type of prevention: Indicated: patients with subthreshold depression; Selective: patients with a risk factor for depression; Universal: general population.

**b** Validated cut-off antenatal depression 15 or more (Matthey, S., Henshaw, C., Elliott, S., Barnett, B. Variability in use of cut-off scores and formats on the Edinburgh Postnatal Depression Scale – implications for clinical and research practice. Arch Womens Ment Health (2006) 9: 309–315)

**c** Data on non-depressed people were provided by the authors.

**d** Medication group was excluded in this meta-analysis.

**Supplementary Table 2. Risk of Bias**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Sequence generation** | **Allocation concealment** | **Blinding participants** | **Blinding Assessors** | **Incomplete outcome data addressed** | **Free of selective reporting** |
| Brenes et al., 2007 |  |  |  |  |  |  |
| Chen et al., 2015 |  |  |  |  |  |  |
| de Zeeuw et al., 2010 |  |  |  |  |  |  |
| DiLorenzo et al., 1999 |  |  |  |  |  |  |
| Lewis et al., 2014 |  |  |  |  |  |  |
| Mohammadi et al., 2015 |  |  |  |  |  |  |
| Osei-tutu et al., 2005 |  |  |  |  |  |  |
| Pakkala et al., 2008 |  |  |  |  |  |  |
| Penninx et al., 2002 |  |  |  |  |  |  |
| Sadeghi-Bahmani et al., 2019 |  |  |  |  |  |  |
| Taglietti et al., 2018 |  |  |  |  |  |  |
| Vargas-Terrones et al., 2018 |  |  |  |  |  |  |
| Williams et al., 2009 |  |  |  |  |  |  |
| Woolery et al., 2004 |  |  |  |  |  |  |

**Supplementary Figure 1. Funnel Plot**



**Supplementary Table 3: Subgroup Analysis**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Subgroup analyses** | **N** | **SMD** | **95% CI** | ***P a*** | **I2** | **Between-group**  **heterogeneity *b*** |
| ***Participant characteristics*** | | | | | | |
| **Country** |  |  |  |  |  |  |
| North America | 8 | -0.434 | -0.673 to -0.196 | <0.001 | 41% | Q=13.09; d.f.(Q)=3; *P*=0.004 |
| Europe | 3 | -0.270 | -0.746 to 0.205 | 0.228 | 75% |
| Asia | 5 | -0.161 | -0.422 to 0.101 | 0.001 | 0% |
| South America | 2 | -0.533 | -1.019 to -0.047 | 0.032 | 46% |
| **Sex** |  |  |  |  |  |  |
| Only women | 4 | -0.395 | -0.634 to -0.156 | 0.001 | 0% | Q=2.40; d.f.(Q)=1; *P*=0.121 |
| Women and men | 14 | -0.342 | -0.551 to -0.133 | 0.001 | 61% |
| **Age** |  |  |  |  |  |  |
| Elderly | 6 | -0.172 | -0.378 to 0.034 | 0.102 | 46% | Q=11.14; d.f.(Q)=1; P=0.001 |
| Adult | 12 | -0.436 | -0.645 to -0.227 | <0.001 | 34% |
| **Chronic disease** |  |  |  |  |  |  |
| Yes | 7 | -0.264 | -0.429 to -0.098 | 0.002 | 0% | Q=0.37; d.f.(Q)=1 |
| No | 11 | -0.427 | -0.716 to -0.138 | 0.004 | 71% | 0.546 |
| **Type of prevention** |  |  |  |  |  |  |
| Universal | 3 | -0.705 | -1.084 to -0.325 | <0.001 | 0% | Q=16.97; d.f.(Q)=2; |
| Selective | 12 | -0.203 | -0.350 to 0.057 | 0.007 | 35% | *P*<0.001 |
| Indicated | 3 | -0.968 | -1.527 to -0.409 | 0.001 | 26% |  |
| ***Intervention characteristics*** | | | | | | |
| **Type of exercise** |  |  |  |  |  |  |
| Aerobic | 8 | -0.387 | -0.680 to -0.094 | 0.010 | 71% | Q=1.74; d.f.(Q)=3; *P*=0.629 |
| Strength | 1 | -0.344 | -0.663 to -0.025 | 0.035 | n.a. |
| Stretching | 4 | -0.373 | -0.918 to -0.171 | 0.179 | 71% |
| Mixed | 5 | -0.302 | -0.566 to -0.038 | 0.025 | 0% |  |
| **Walking** |  |  |  |  |  |  |
| Yes | 3 | -0.470 | -0.877 to -0.062 | 0.024 | 0% | Q=1.50; d.f.(Q)=1;  *P*=0.221 |
| No | 15 | -0.323 | -0.510 to -0.137 | 0.001 | 60% |
| **Yoga** |  |  |  |  |  |  |
| Yes | 2 | -0.918 | -2.068 to 0.232 | 0.118 | 80% | Q=4.00; d.f.(Q)=1;  *P*=0.045 |
| No | 16 | -0.288 | -0.452 to -0.124 | 0.001 | 47% |
| **Type of verification** |  |  |  |  |  |  |
| Objective | 10 | -0.412 | -0.568 to -0.256 | <0.001 | 10% | Q=11.38; d.f.(Q)=1; *P*=0.001 |
| Subjective | 8 | -0.200 | -0.471 to 0.070 | 0.146 | 56% |
| **Supervised exercise** |  |  |  |  |  |  |
| Yes | 11 | -0.410 | -0.604 to -0.216 | <0.001 | 36% | Q=7.89; d.f.(Q)=1; *P*=0.005 |
| No | 7 | -0.204 | -0.479 to 0.070 | 0.144 | 56% |
| **Format** |  |  |  |  |  |  |
| Individually | 8 | -0.203 | -0.446 to 0.039 | 0.100 | 49% | Q= 7.82; d.f.(Q)=1; |
| Group | 10 | -0.431 | -0.642 to -0.219 | <0.001 | 42% | *P*=0.005 |
| **Duration of intervention** |  |  |  |  |  |  |
| Up to 12 weeks | 10 | -0.480 | -0.740 to -0.221 | <0.001 | 33% | Q=7.64; d.f.(Q)=1;  *P*=0.006 |
| >12 weeks | 8 | -0.227 | -0.424 to -0.031 | 0.023 | 57% |
| **Frequency of sessions** |  |  |  |  |  |  |
| 2-4 sessions / week | 13 | -0.349 | -0.536 to -0.162 | <0.001 | 39% | Q=4.34; d.f.(Q)=1;  *P*=0.037 |
| 5-7 sessions / week | 5 | -0.316 | -0.687 to 0.055 | 0.095 | 70% |
| **Duration of sessions** |  |  |  |  |  |  |
| <60 minutes | 10 | -0.411 | -0.585 to -0.238 | <0.001 | 7% | Q=8.25 d.f.(Q)=1;  *P*=0.004 |
| ≥60 minutes | 8 | -0.277 | -0.543 to -0.012 | 0.041 | 67% |
| **Volume** |  |  |  |  |  |  |
| Up to 150 minutes/week | 12 | -0.437 | -0.658 to -0.215 | <0.001 | 35% | Q=9.79; d.f.(Q)=1;  *P*=0.002 |
| >150 minutes/week | 6 | -0.195 | -0.400 to 0.011 | 0.063 | 52% |
| **Intensity** |  |  |  |  |  |  |
| Low | 6 | -0.221 | -0.557 to 0.115 | 0.198 | 68% | Q=11.08; d.f.(Q)=1;  *P*=0.001 |
| Moderate | 12 | -0.387 | -0.526 to -0.248 | <0.001 | 0% |
| ***Methodological characteristics*** | | | | | | |
| **Subgroup analyses** | **N** | **SMD** | **95% CI** | ***P* a** | **I2** | **Between-group**  **heterogeneity b** |
|  |  |  |  |  |  |  |
| **Depression exclusion at baseline** |  |  |  |  |  |  |
| Symptom scale | 15 | -0.336 | -0.529 to -0.143 | 0.001 | 57% | Q=2.10; d.f.(Q)=1; *P*=0.147 |
| Standardized diagnostic interview | 3 | -0.426 | -0.718 to -0.134 | 0.004 | 0% |
| **Outcome measure** |  |  |  |  |  |  |
| Symptom scale | 17 | -0.318 | -0.494 to -0.141 | <0.001 | 53% | Q=3.32; d.f.(Q)=1; *P*=0.069 |
| Standardized diagnostic interview | 1 | -0.543 | -0.902 to -0.184 | 0.003 | n.a. |
| **Type of outcome** |  |  |  |  |  |  |
| Primary | 17 | -0.344 | -0.523 to -0.165 | <0.001 | 57% | Q=0.01; d.f.(Q)=1;  p=0.943 |
| Secondary | 1 | -0.244 | -0.824 to 0.336 | 0.410 | n.a. |
| **Comparator** |  |  |  |  |  |  |
| Usual care | 11 | -0.327 | -0.562 to 0.093 | 0.006 | 58% | Q=9.27; d.f.(Q)=2; *P*=0.010 |
| Active control | 6 | -0.282 | -0.453 to -0.111 | 0.001 | 0% |
| Waiting list | 1 | -1.589 | -2.532 to -0.646 | <0.001 | n.a. |
| **Sample size** |  |  |  |  |  |  |
| <100 | 12 | -0.372 | -0.587 to -0.156 | 0.001 | 22% | Q=16.28; d.f.(Q)=2; *P*<0.001 |
| 100-200 | 3 | -0.535 | -0.765 to -0.304 | <0.001 | 0% |
| >200 | 3 | -0.084 | -0.328 to 0.159 | 0.497 | 60% |
| **Subsample** |  |  |  |  |  |  |
| No | 13 | -0.454 | -0.651 to -0.258 | <0.001 | 28% | Q=13.47 d.f.(Q)=1; P<0.001 |
| Yes **c** | 5 | -0.132 | -0.326 to 0.062 | 0.184 | 44% |
| **Risk of bias** (qualitative) |  |  |  |  |  |  |
| Low | 2 | -0.547 | -0.873 to 0.220 | 0.001 | 0% | Q=4.17; d.f.(Q)=1; *P*=0.041 |
| Moderate-high | 16 | -0.310 | -0.491 to -0.128 | 0.001 | 54% |
| **Risk of bias** (quantitative)  (range 0-12) |  |  |  |  |  |  |
| Low (scored 0-3) | 5 | -0.290 | -0.613 to 0.033 | 0.079 | 69% | Q= 6.53; d.f.(Q)=2; *P*=0.038 |
| Moderate (scored 4-5) | 5 | -0.161 | -0.422 to 0.101 | 0.228 | 0% |
| High (scored ≥6) | 8 | -0.508 | -0.792 to -0.225 | <0.001 | 54% |
| **Follow up** |  |  |  |  |  |  |
| <6 months | 10 | -0.377 | -0.667 to -0.086 | 0.011 | 35% | Q=8.34; d.f.(Q)=2; *P*=0.015 |
| 6 and <12 months | 4 | -0.437 | -0.643 to -0.231 | <0.001 | 0% |
| 12-24 months | 4 | -0.233 | -0.558 to 0.092 | 0.160 | 79% |

*Abbreviations:* ***N****: number of comparisons;* ***SMD****: standardized mean difference*

***a*** *Significance tests in which for each subgroup the null hypothesis is that SMD=0*

***b*** *Q values represent the comparison of subgroup means based on a chi-square distribution in which the null hypothesis is that the effect size is the same for all subgroups*

*c**Studies that include depressed and non-depressed participants at baseline but give separate outcomes for non-depressed*

***d.f.****= degree of freedom*

***n.a.=*** *not applicable.*

**Supplementary Figure 2. Normal Probability Plot of Standardized Shrunken Residuals of the final meta-regression model**

