**Supplementary Table 2.** The characteristics of studies included in this meta-analysis (the correlation between vitamin D and the prognosis of depression).

| Author, year       | Trial registration number | Mean age, year | BMI (kg/m²) | Baseline 25 (OH) D (nmol/L) | Terminal 25 (OH) D (nmol/L) |
|--------------------|---------------------------|----------------|-------------|-----------------------------|-------------------------------|
|                    |                           | Experiment    | Control     | Experiment                  | Control                      | Experiment                  | Control                      |
| Yalamanchili, 2012 | NA                        | 71.4; 71.8    | 71.4; 71.1  | 26.7 (4.3); 26.7 (5.4)      | 27.22 (5.0)                  | 80.0 (29.0); 75.75 (23.5)   | 77.25 (24.75); 79.25 (27.5) | NA                           | NA                           |
| Khoraminya, 2013   | IRCT201201072394N6         | 38.1          | 39.65       | 28.32 (5.43)                | 29.00 (6.82)                 | 58.8 (10.1)                  | 57.5 (11.0)                  | 117.1(35.4)                  | NA                           |
| Mozaffari-Khosravi, | NA                        | 32.1; 32.7    | 33.0        | 26.2 (4.8); 26.3 (5.1)      | 25.9 (3.8)                   | 21.3; 23.0                   | 25.4                         | 60.2; 54.6                   | 28.2                         |
| 2013               |                           | 32.1; 32.7    | 33.0        | 26.2 (4.8); 26.3 (5.1)      | 25.9 (3.8)                   | 21.3; 23.0                   | 25.4                         | 60.2; 54.6                   | 28.2                         |
| Wang, 2016         | 2014058                   | NA            | NA          | 23.7(10.6)                  | 24.2(9.8)                    | 54.8 (10.2)                  | 58 (14.5)                    | 98.8(34.1)                   | 55.3(18.7)                   |
| Mozaffari-Khosravi, | IRCT201412065523N29       | 36.5          | 36.1        | 25.8(5.2)                   | 26.9(3.8)                    | 34 (19.7)                    | 23.0 (15.0)                  | 85(22.7)                     | 20.7(10)                     |
| 2016               |                           | 36.5          | 36.1        | 25.8(5.2)                   | 26.9(3.8)                    | 34 (19.7)                    | 23.0 (15.0)                  | 85(22.7)                     | 20.7(10)                     |
| Hansen, 2019       | NCT01390662               | 39.6          | 38.7        | NA                         | NA                           | 43.2 (24.6)                  | 44.3 (24.1)                  | 44.3 (24.1)                  | 52.0 (33.5)                  |
| Alavi, 2019        | IRCT201604252758N1        | 68.7          | 67.0        | NA                         | NA                           | 58.6 (16.1)                  | 55.1 (15.1)                  | 112.9 (24.7)                 | 67.3 (39.7)                  |
| Zhang, 2018        | 20150126                  | 38.3          | 40.2        | 21.2 (3.8)                  | 20.7 (4.1)                   | 57.3 (17.7)                  | 61.3 (11.5)                  | 67.7 (20.7)                  | 59.0 (20.3)                  |
| Amini, 2020        | IRCT2016091416123N9       | 29.25; 26.88  | 28.92       | 26.62 (0.84); 27.59 (0.54)  | 27.69 (0.86)                 | 39.83 (31.94,47.69); 36.56 (28.67,46.72) | 36.74 (28.40,45.05) | 58.03 (45.17,70.91); 51.39 (39.73,63.04) | 42.90 (33.77,52.04) |
| Libuda, 2020       | DRKS00009758              | 16.1          | 15.8        | 23.8 (5.9)                  | 22.8 (5.5)                   | 22.49 (5.12)                 | 22.23 (5.32)                 | 62.1 (15.87)                 | 27.0 (11.19)                 |
| Abiri, 2021        | IRCT2009082202365N23      | 34.40; 34.15  | 34.30; 34.36| 33.00 (1.93); 33.47 (1.82)  | 33.18 (1.92); 33.40 (1.93)  | 42.47 (22.49); 42.81 (21.43) | 42.81 (22.10); 42.41 (25.12) | 99.48 (18.39); 98.75 (15.53) | 38.18 (20.78); 38.13 (20.65) |

NA, no available; BMI, body mass index.