# Lifetime and current depression in the German National Cohort (NAKO)

# Supplementary Material

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## Supplementary Material

Supplementary Table S 1. Raw Percentiles of the PHQ-9 Sum Score by Sex and Age Group in the NAKO

|  |  |
| --- | --- |
| **Sex** | **Percentile** |
|  **Age group N** | **2.5th** | **10th** | **25th** | **50th** | **75th** | **90th** | **97.5th** |
| Men |  |  |  |  |  |  |  |
|  20-29 2,938 | 0 | 0 | 2 | 3 | 6 | 9 | 15 |
|  30-39 4,151 | 0 | 0 | 1 | 3 | 5 | 8 | 14 |
|  40-49 9,324 | 0 | 0 | 1 | 3 | 5 | 8 | 13 |
|  50-59 12,423 | 0 | 0 | 1 | 3 | 5 | 8 | 14 |
|  60-72 14,799 | 0 | 0 | 1 | 2 | 4 | 7 | 11 |
| Women |  |  |  |  |  |  |  |
|  20-29 3,885 | 0 | 1 | 2 | 4 | 6 | 10 | 15 |
|  30-39 4,982 | 0 | 1 | 2 | 4 | 6 | 9 | 15 |
|  40-49 11,457 | 0 | 0 | 2 | 3 | 6 | 9 | 15 |
|  50-59 14,716 | 0 | 1 | 2 | 4 | 6 | 10 | 16 |
|  60-72 14,567 | 0 | 0 | 1 | 3 | 5 | 8 | 13 |

Note. NAKO = German National Cohort. PHQ-9 = Depression Scale of the Patient Health Questionnaire (PHQ-9). Based on (NAKO data freeze 100.000; application NAKO-399).

Supplementary Table S 2. Frequency of PHQ-9 Severity Groups by Sex and Age Group in the NAKO

|  |  |
| --- | --- |
| **Sex** | **Severity group** |
|  **Age group N** | **minimal****(0–4)** | **mild****(0–9)** | **moderate (10–14)** | **moderately severe****(15–19)** | **severe****(20–27)** |
| Men |  |  |  |  |  |
|  20–29 2,938 | 66.0% | 25.6% | 5.7% | 2.2% | 0.5% |
|  30–39 4,151 | 70.9% | 21.9% | 5.0% | 1.6% | 0.6% |
|  40–49 9,324 | 72.9% | 20.8% | 4.4% | 1.4% | 0.5% |
|  50–59 12,423 | 71.6% | 21.4% | 4.7% | 1.7% | 0.7% |
|  60–72 14,799 | 78.1% | 17.6% | 3.2% | 0.8% | 0.3% |
| Women |  |  |  |  |  |
|  20–29 3,885 | 57.6% | 31.1% | 8.2% | 2.4% | 0.7% |
|  30–39 4,982 | 61.6% | 28.8% | 7.0% | 1.8% | 0.7% |
|  40–49 11,457 | 61.8% | 28.6% | 6.5% | 2.4% | 0.8% |
|  50–59 14,716 | 59.1% | 29.6% | 7.9% | 2.4% | 1.0% |
|  60–72 14,567 | 69.3% | 24.1% | 5.0% | 1.3% | 0.4% |

Note. NAKO = German National Cohort. PHQ-9 = Depression Scale of the Patient Health Questionnaire (PHQ-9). Based on (NAKO data freeze 100.000; application NAKO-399).

Supplementary Table S 3. *Descriptive Statistics of Depression Measures by Age Group by sex in the NAKO*

|  |  |
| --- | --- |
| A) Women | Age group |
|  | **20-29** | **30-39** | **40-49** | **50-59** | **60-72** |
| N | 4048 | 5247 | 12193 | 15969 | 17006 |
| MINI Screen | 23.2% | 26.9% | 32.1% | 36.6% | 30.3% |
| NAKO MINI Classificationa | 13.8% | 15.2% | 19.5% | 23.7% | 17.5% |
| Physician’s Diagnosis | 9.9% | 14.5% | 18.3% | 22.2% | 20.0% |
| Treatment last 12 months | 5.5% | 7.5% | 9.0% | 11.8% | 8.5% |
| Family history |  |  |  |  |  |
|  One Parent  | 16.8% | 19.6% | 18.4% | 19.7% | 16.8% |
|  Both Parents | 3.0% | 2.2% | 2.7% | 2.7% | 2.0% |
| PHQ-9 ≥ 10 | 11.3% | 9.6% | 9.6% | 11.3% | 6.7% |
| PHQ-9 sum score | 4.8 (4.0) | 4.5 (3.8) | 4.4 (3.9) | 4.7 (4.1) | 3.8 (3.5) |
| PHQ-Stress sum score | 4.0 (3.0) | 4.2 (3.2) | 4.3 (3.4) | 4.5 (3.5) | 3.5 (3.0) |
| GAD-7 sum score | 3.9 (3.5) | 3.8 (3.4) | 3.8 (3.4) | 3.8 (3.5) | 3.1 (3.1) |
| B) Men | **Age group** |
|  | **20-29** | **30-39** | **40-49** | **50-59** | **60-72** |
| N | 3,032 | 4,344 | 9,853 | 13,394 | 16,581 |
| MINI Screen | 19.9% | 21.7% | 22.7% | 26.3% | 20.0% |
| NAKO MINI Classificationa | 9.3% | 12.1% | 11.8% | 14.7% | 10.7% |
| Physician’s Diagnosis | 5.5% | 8.4% | 9.4% | 12.3% | 10.7% |
| Treatment last 12 months | 3.1% | 3.9% | 4.7% | 6.0% | 4.1% |
| Family history |  |  |  |  |  |
|  One Parent  | 13.1% | 15.6% | 14.6% | 14.5% | 12.6% |
|  Both Parents | 1.6% | 1.4% | 1.5% | 1.7% | 1.5% |
| PHQ-9 ≥ 10 | 8.4% | 7.3% | 6.3% | 7.0% | 4.3% |
| PHQ-9 sum score | 4.1 (3.7) | 3.8 (3.7) | 3.5 (3.5) | 3.6 (3.7) | 2.9 (3.2) |
| PHQ-Stress sum score | 2.9 (2.7) | 3.2 (2.9) | 3.3 (3.0) | 3.3 (3.1) | 2.8 (2.7) |
| GAD-7 sum score | 3.0 (3.1) | 3.1 (3.1) | 2.9 (3.1) | 2.9 (3.1) | 2.2 (2.6) |

Note. For continuous measures mean and standard deviation (SD) is given for categorical variables, the frequency is given in percent. n = number of participants in the respective age group. a = variable only available in / reported for L2 subset. MINI = Mini-International Neuropsychiatric Interview. NAKO = German National Cohort. PHQ-9 = Depression Scale of the Patient Health Questionnaire. GAD-7 = Generalized Anxiety Disorder 7 scale. Based on (NAKO data freeze 100.000; application NAKO-399).

Supplementary Table S 4. Descriptive Statistics of Depression Measures by ISCED-97 Education Level by sex in the NAKO.

|  |  |  |
| --- | --- | --- |
| **A) Women** |  | **Education level** |
|  | **n** | **Lower** | **Intermediate** | **Higher** |
| **Number of participants** | 49,586 | 1811 | 23,219 | 24,556 |
| **MINI Screen** | 49,132 | 34.9% | 30.9% | 31.6% |
| **NAKO MINI Classificationa** | 11,944 | 20.7% | 19.2% | 19.1% |
| **Physician’s Diagnosis** | 49,231 | 26.7% | 19.4% | 17.5% |
| **Treatment last 12 months** | 49,214 | 14.5% | 9.8% | 8.1% |
| **Family History** | 33,328 |  |  |  |
|  **One Parent**  |  | 15.4% | 17.5% | 19.2% |
|  **Both Parents** |  | 3.0% | 2.4% | 2.4% |
| **PHQ-9 ≥ 10** | 45,245 | 19.5% | 10.5% | 7.4% |
| **PHQ-9 sum score** | 45,245 | 5.7 (5.1) | 4.5 (4.0) | 4.0 (3.5) |
| **PHQ-Stress sum score** | 44,977 | 4.8 (4.1) | 4.2 (3.4) | 3.9 (3.1) |
| **GAD-7 sum score** | 45,122 | 4.4 (4.24) | 3.71 (3.54) | 3.43 (3.15) |
| **B) Men** |  | **Education Level** |
|  | **n** | **Lower** | **Intermediate** | **Higher** |
| **Number of participants** | 43,156 | 912 | 16609 | 25635 |
| **MINI Screen** | 42,769 | 30.8% | 23.9% | 20.7% |
| **NAKO MINI Classificationa** | 11,603 | 20.5% | 13.3% | 10.9% |
| **Physician’s Diagnosis** | 42,956 | 16.8% | 11.1% | 9.4% |
| **Treatment last 12 months** | 42,955 | 8.2% | 5.4% | 3.9% |
| **Family History** | 29,111 |  |  |  |
|  **One Parent**  |  | 13.0% | 12.2% | 14.7% |
|  **Both Parents** |  | 3.8% | 1.5% | 1.5% |
| **PHQ-9 ≥ 10** | 39,940 | 15.7% | 7.8% | 4.4% |
| **PHQ-9 sum** **score** | 39,940 | 5.3 (5.3) | 3.7 (3.8) | 3.1 (3.2) |
| **PHQ-Stress sum score** | 39,704 | 4.4 (4.0) | 3.3 (3.1) | 2.9 (2.7) |
| **GAD-7 sum score** | 39,847 | 3.88 (4.38) | 2.86 (3.23) | 2.52 (2.71) |

Note: For continuous measures mean and standard deviation (SD) is given; for categorical variables, the frequency is given in percent. a = variable only reported for L2 subset. n = number of participants for which the valid values of respective measure were available. ISCED97 = International Standard Classification of Education 97. MINI = Mini-International Neuropsychiatric Interview. NAKO = German National Cohort. PHQ-9 = Depression Scale of the Patient Health Questionnaire. Based on (NAKO data freeze 100.000; application NAKO-399).

Supplementary Table S 5. Number of Participants with available Data for the Combination of different Depression or Psychological Measures in the NAKO.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **MINI Screen** | **NAKO MINI Classificationa** | **Physician’s Diagnosis** | **Treatment last 12 months** | **PHQ-9** | **PHQ-Stress** | **GAD-7** |
| **MINI Screen** | 100,719 | 25,626 | 100,218 | 100,202 | 92,515 | 91,987 | 92,274 |
| **NAKO MINI Classificationa** | 25,626 | 25,626 | 25,515 | 25,508 | 23,928 | 23,854 | 23,873 |
| **Physician’s Diagnosis** | 100,218 | 25,515 | 101,048 | 101,028 | 92,733 | 92,202 | 92,492 |
| **Treatment last 12 months** | 100,202 | 25,508 | 101,028 | 101,028 | 92,718 | 92,188 | 92,478 |
| **PHQ-9** | 92,515 | 23,928 | 92,733 | 92,718 | 93,242 | 92,198 | 92,995 |
| **PHQ-Stress** | 91,987 | 23,854 | 92,202 | 92,188 | 92,198 | 92,701 | 92,146 |

Note: a = variable only reported for L2 subset, MINI = Mini-International Neuropsychiatric Interview. NAKO = German National Cohort. PHQ-9 = Depression Scale of the Patient Health Questionnaire. GAD-7 = Generalized Anxiety Disorder 7 scale. Based on (NAKO data freeze 100.000; application NAKO-399).