Supplementary Materials to:

Tarricone I, D’Andrea G, Jongsma HE, Tosato S, Gayer-Anderson C, Stilo SA, … Morgan C (2020) Migration history and risk of psychosis: results from the multinational EUGEI study. *Psychological Medicine.*

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**Bologna Migration History and Social Integration Interview - Core2**

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**BOLOGNA MIGRATION HISTORY AND SOCIAL INTEGRATION (FOR FIRST GENERATION MIGRANTS) CORE Interview**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **STUDIE: EU GEI Date of Birth**  **Subject number:** | | EU | | |- | | | | | | | |-| | |-| **1** | **9** | | | | | | | |
| **Time interval:** | **Period – Replicat** | | **0** | |-| **0** | |  | | |
| **Interviewer: …………………………………………** | **Date** | | |-| | | |-| **2** | **0** | | | | |  |

# A - Before migration

1. **Who did you live with in your country of origin, immediately prior to migrating?**

|  |  |  |  |
| --- | --- | --- | --- |
| O1 Alone | O2 Alone, with children | O3 Partner/Spouse | O4 Partner/Spouse, with children |
| O5 Parents | O6 Other family | O7 Friends | O8 Other (specify): …………… |

1. **Were you ever employed in your country of origin?** O0 No O1 Yes
2. **What was your employment in your country of origin, immediately prior to migrating?**

|  |  |
| --- | --- |
| O1 Unemployed | O2 House person |
| O3 Physical-illness disability | O4 Retired |
| O5 Carer | O6 Student |
| O7 Employed | O8 Part-time employee |
| O9 Full-time employee | O10 Self-employed |

1. **Social class**

|  |  |  |
| --- | --- | --- |
| (provide descriptions only) |  | **Main (In your country of origin)** |
| **a. Job Title** |  | |
| **b. What did you mainly do?** |  | |
| **c. What did organization make?** |  | |
| **d. Social class subject** |  |  |
| O1 Higher grade Professional |  | O2 Lower grade Professional |
| O3 Intermediate occupations |  | O4 Small Employer and self employed occupations |
| O5 Self employed occupations |  | O6 Lower supervisory and lower technician occupations |
| O7 Lower services, sales and clerical occupations | | O8 Lower technical occupations |
| O9 Routine Occupations |  | O10 Never worked and long-term unemployed |

# B- Migration Process

**1. Date of Migration** | | |-| | |-| | | | |

1. **What’s the reason why you left your country?**

|  |  |
| --- | --- |
| O1. Working | O2 Studying |
| O3 Wedding | O4 Family Reunion |
| O5 Asylum seeking | O6 Other political reason |
| O7 Tourism | O8 Health |
| O9 Other |  |

**2.1** Please specify other: ..........................................................................................................................................

1. **Have you ever been detained because you did not have a residence permit**

**or leave to remain in this country** O0 No O1 Yes

1. **If yes, how long?** | | | Months
2. **Do you consider this country the last step of migration?** O0 No O1 Yes
   1. **If no, please specify why (if several options are satisfied, please indicate the main):**

|  |
| --- |
| O1 Economic reasons (e.g. low incomes, high cost of living, can't find a job …) |
| O2 Family reasons (e.g. want to join a member of my family living somewhere else, want to walk off from a family member living here …) |
| O3 Socio-environmental factors (e.g. don’t fit in the new environment, unsuccessful integration, low quality of life, discrimination …) |
| O4 Expulsion/Residence permit expired |
| O5 In trouble/need to escape (e.g. from someone, from law …) |
| O6 Never meant to stay in this country / always considered as a “passage country” |
| O7 Other |

**5.2** Please specify other: ....................................................................................................... ................................

1. **Do you plan to permanently return to your country of origin one day?** O0 No O1 Yes
   1. **If no, please specify why (if several options are satisfied, please indicate the most important):**

|  |  |
| --- | --- |
| O1 There is no family/home anymore | O2 No prospects in country of origin (i.e., no work) |
| O3 Risks in country of origin (e.g., war, persecution) | O4 Cost is too high |
| O5 disowned by family/ashamed of going back | O6 doesn’t want to see certain people |
| O7 wants to see other places | O8 doesn’t want to go back to old lifestyle |
| O10 His/her life is here | O11 Other |

**6.2** Please specify other:...........................................................................................................................................

# C- Post Migration

1. **Do you have a residence permit or permanent leave to remain?** O0 No O1 Yes
2. **What is your migrant status?**

|  |  |
| --- | --- |
| O1 Undocumented | O2 Asylum seekers |
| O3 Refugee | O4 Temporary resident |
| O5 European Citizen | O6 Citizen of this country |
| O7 Stateless | O8 Other |

**2.1** Please specify other:............................................................................................................................ ................

1. **Do you have family or friends in this country?** O0 No O1 Yes
   1. **If yes, who:**

|  |  |  |
| --- | --- | --- |
| O1 Alone, with children | O2Partner/Spouse | O3 Partner/Spouse, with children |
| O4Parents | O5 Other family | O6Friends |

**3.2** Please specify other family: …………………………………………………………………………………...

1. **Do you have family in your country of origin?** O0 No O1 Yes
   1. **If yes, who:**

|  |  |  |
| --- | --- | --- |
| O1 Children | O2 Partner/Spouse | O3 Partner/Spouse, with children |
| O4Parents | O5 Other family |  |

**4.2** Please specify other family: …………………………………………………………………………………...

1. **How often do you travel back to your country of origin?**

O1 Often (2 or more times per year) O2 Yearly (1 time per year)

O3 Infrequent (Less than once per year) O4 Never

1. **How has your work position changed since you left your country of origin**? O1 Better

O2 Worse

O3 Unchanged

1. **How has your economic position changed since you left your/your parent’s country of origin?**

O1 Better O2 Worse

O3 Unchanged

1. **Please indicate, in relation to each of the following areas, the extent to which your expectations have been achieved:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Perfectly achieved | | Partially achieved | Poorly achieved | Not achieved at all |
| **Work** | O1 | O2 | O3 | O4 |
| **Income** | O1 | O2 | O3 | O4 |
| **Family** | O1 | O2 | O3 | O4 |
| **Health** | O1 | O2 | O3 | O4 |
| **Friends and social network** | O1 | O2 | O3 | O4 |
| **Other** | O1 | O2 | O3 | O4 |

**Any problems conducting the interview?** O0 No O1 Yes

If yes, specify:

…………………………………

**Supplemental Figures.**

**Supplemental Figure 1.** Social disadvantages and adversities indexes during the 3 phases of the migration history.

Supplemental Tables.

**Supplemental Table 1.** Unadjusted and adjusted Odds Ratios for first-episode psychosis (complete cases analysis).

|  |  |  |  |
| --- | --- | --- | --- |
|  | OR | ORA | ORB |
| Pre-migration disadvantages | **1.64 (1.18-2.28) (p=0.003)** | **2.22 (1.27-3.88) (p=0.005)** | **2.19 (1.22-3.95) (p=0.009)** |
| Migration adversities | **2.09 (1.38-3.15) (p<0.001)** | 1.44 (0.777-2.66) (p=0.247) | 1.09 (0.532-2.25) (p=0.808) |
| Post-migration disadvantages | **2.70 (1.75-4.17) (p<0.001)** | **2.51 (1.42-4.42) (p=0.002)** | **2.22 (1.22-4.04) (p=0.009)** |
| Expectations/Achievements Mismatch | **1.29 (1.18-1.43) (p<0.001)** | **1.20 (1.07-1.35) (p=0.002)** | **1.17 (1.03-1.32) (p=0.013)** |

Complete data were available for 209 (44.7%) individuals, including 82 (32.9%) cases and 127 (57.9%) controls.

OR = unadjusted

ORA = adjusted for site, age, gender, ethnicity, education, family history of psychosis, childhood trauma, cannabis use, fluency, years after migration

ORB = adjusted for all above variables plus pre-migration and post-migration disadvantages, migration adversities and expectations/achievements mismatch when applicable

ORs in **bold** are significant (p<.05)

**Supplemental Table 2.** Dose-response effect of cumulative exposure to disadvantages/adversities (complete cases analysis).

|  |  |  |  |
| --- | --- | --- | --- |
| N. of disadvantages/adversities | N. (%) cases vs N. (%) controls | OR (95%CI) | ORA (95%CI) |
| 0 | 3 (3.7%) vs 20 (15.7%) | 1.00 (-) | 1.00 (-) |
| 1 | 8 (9.8%) vs 35 (27.6%) | 1.52 (0.362-6.41) (p=0.565) | 1.30 (0.207-8.19) (p=0.780) |
| 2 | 18 (22.0%) vs 25 (19.7%) | **4.80 (1.24-18.63) (p=0.023)** | 3.14 (0.473-20.88) (p=0.236) |
| 3 | 13 (15.9%) vs 21 (16.5%) | **4.13 (1.02-16.68) (p=0.047)** | 3.15 (0.423-23.44) (p=0.262) |
| 4 | 19 (23.2%) vs 14 (11.0%) | **9.05 (2.24-36.55) (p=0.002)** | **14.28 (1.69-120.3) (p=0.014)** |
| 5 | 14 (17.1%) vs 10 (7.9%) | **9.33 (2.17-40.18) (p=0.003)** | **13.21 (1.27-136.6) (p=0.031)** |
| ≥6 | 7 (8.5%) vs 2 (1.6%) | **23.33 (3.20-169.9) (p=0.002)** | **45.69 (1.37-1.526) (p=0.033)** |

Complete data were available for 209 (44.7%) individuals, including 82 (32.9%) cases and 127 (57.9%) controls.

ORA = adjusted for site, age, gender, ethnicity, education, family history of psychosis, childhood trauma, cannabis use, fluency, years after migration, and achievements/expectations mismatch

ORs in **bold** are significant (p<.05)

**Supplemental Table 3.** Correlation matrix.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | 1. | 2. | 3. | 4. | 5. | 6. | | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. |
| 1. | 1 |  |  |  |  |  | |  |  |  |  |  |  |  |  |
| 2. | .122 | 1 |  |  |  |  | |  |  |  |  |  |  |  |  |
| 3. | .076 | -.137 | 1 |  |  |  | |  |  |  |  |  |  |  |  |
| 4. | .262 | -.061 | .086 | 1 |  |  | |  |  |  |  |  |  |  |  |
| 5. | .167 | -.161 | .125 | .158 | 1 |  | |  |  |  |  |  |  |  |  |
| 6. | .236 | -.017 | .019 | .030 | .095 | 1 | |  |  |  |  |  |  |  |  |
| 7. | -.095 | -.101 | -.026 | .112 | .202 | .075 | | 1 |  |  |  |  |  |  |  |
| 8. | .300 | -.224 | .264 | -.128 | .093 | .049 | | .109 | 1 |  |  |  |  |  |  |
| 9. | -.067 | .061 | -.043 | .003 | -.064 | .047 | | -.028 | .057 | 1 |  |  |  |  |  |
| 10. | -.033 | .454 | -.043 | .014 | -.010 | .065 | | .050 | .080 | .369 | 1 |  |  |  |  |
| 11. | .035 | -.215 | .068 | .181 | .193 | .100 | | .156 | .123 | .153 | .277 | 1 |  |  |  |
| 12. | -.047 | -.204 | .146 | .171 | .181 | .123 | | .224 | .184 | .196 | .285 | .297 | 1 |  |  |
| 13. | .076 | -.172 | .071 | .048 | .207 | .045 | | .106 | .086 | .080 | .113 | .216 | .390 | 1 |  |
| 14. | .118 | -.095 | .064 | .187 | .152 | .109 | | .285 | .023 | -.171 | -.219 | .000 | .193 | .192 | 1 |
| 1. Country  2. Age  3. Gender  4. Ethnicity  5. Education  6. Family history of psychosis  7. Childhood trauma | | | | | | | 8. Cannabis use  9. Language fluency  10. Years after migration  11. Pre-migration social disadvantages  12. Migration adversities  13. Post-migration social disadvantages  14. Expectations/achievements mismatch | | | | | | |  |  |

Correlations between variables were estimated using Cramer’s V, Pearson, Phi, or Spearman’s coefficient as appropriate.