

Data supplement to Sharifi et al. Psychotic experiences and risk of death in the general population: 24–27 year follow-up of the Epidemiologic Catchment Area study. *Br J Psychiatry* doi: 10.1192/bjp.bp.113.143198

**Table DS1** Fit indices from five different parametric models for association of lifetime psychotic experiences with death based on data from 15,049 participants of the Epidemiologic Catchment Area Study

| Model             | LL (null)  | df (null) | LL (model) | df (model) | AIC         |
|-------------------|------------|-----------|------------|------------|-------------|
| Exponential       | -385,315   | 1         | -306,624   | 18         | 613,283.8   |
| Weibull           | -182,188   | 2         | -167,308   | 19         | 334,653.7   |
| Loglogistic       | -1,192,377 | 2         | -1,172,421 | 19         | 2,344,879.0 |
| Generalized Gamma | -173,625   | 3         | -162,920   | 20         | 325,878.9   |
| Gompertz          | -1,154,396 | 2         | -1,141,724 | 19         | 2,283,486.0 |

Abbreviations: LL: log likelihood; df: degrees of freedom; AIC: Akaike Information Criterion

**Table DS2** Characteristics of individuals with lifetime psychotic experiences (PE) compared with individuals with any psychiatric disorder at baseline in 15,049 participants of the Epidemiologic Catchment Area Study

|  | <b>PE with or without psychiatric disorders (N=855)</b> |                   | <b>Any psychiatric disorder with or without PE (N=4560)</b> |                   |
|--|---|-------------------|---|-------------------|
|  | <b>Weighted mean (95% CI)</b>                           |                   | <b>Weighted mean (95% CI)</b>                               |                   |
| Age (mean, SD)   | 40.0 (38.8-41.2)  |                   | 39.3 (38.8-39.8)  |                   |
| Education  | 10.8 (10.5-11.1)  |                   | 11.6 (11.5-11.7)  |                   |
| Occupational status percentile                             | 37.3 (35.1-39.4)  |                   | 31.3 (27.7-34.8)  |                   |
|  | <b>N</b>  | <b>Weighted %</b> | <b>N</b>  | <b>Weighted %</b> |
| Female   | 592   | 63.3 (58.9-67.4)  | 2644  | 49.5 (47.6-51.4)  |
| Married  | 297   | 43.6 (39.4-48.0)  | 1946  | 52.3 (50.5-54.2)  |
| Racial minority <sup>a</sup>                               | 397   | 40.5 (36.5-44.6)  | 1585  | 29.1 (27.6-30.8)  |
| Number of comorbid disorders                               |   |                   |   |                   |
| 0  | 226   | 24.5(21.0-28.3)   | 0   | 0                 |
| 1  | 260   | 27.9 (24.3-31.8)  | 3108  | 66.5 (64.7-68.3)  |
| 2  | 172   | 20.6 (17.4-24.2)  | 953   | 21.4 (19.9-23.0)  |
| >=3  | 197   | 27.0 (23.3-31.1)  | 499   | 12.1 (10.9-13.4)  |
| Any lifetime psychiatric disorder <sup>b</sup>             | 629   | 76.0 (72.1-79.5)  | 4560  | 100               |
| Any lifetime psychiatric hospitalization                   | 158   | 20.4 (17.1-24.1)  | 440   | 10.4 (9.2-11.7)   |
| Any lifetime <sup>c</sup> schizophrenia spectrum disorders | 186   | 27.5 (23.7-31.7)  |   |                   |
| PE count <sup>c,d</sup>                                    |   |                   |   |                   |
| 1  | 520   | 61.9 (57.6-66.0)  |   |                   |
| 2  | 172   | 20.4 (17.1-24.1)  |   |                   |
| >=3  | 141   | 17.7 (14.6-21.3)  |   |                   |

Abbreviations: PE: psychotic experiences; SD: standard deviation; CI: confidence interval

<sup>a</sup> Includes all racial/ethnic backgrounds other than non-Hispanic white

<sup>b</sup> Having any of psychiatric disorders, including schizophrenia spectrum disorders, depressive disorders, bipolar disorder, phobic disorders, obsessive-compulsive disorder, panic disorder, alcohol use disorders, other substance use disorders, and antisocial personality disorder

<sup>c</sup> Prevalence of schizophrenia and PE count are only reported for the PE group

<sup>d</sup> Total number of individuals with known PE count is not equal to total number of individuals with PE because of missing values for some symptoms.

**Table DS3** Results of the generalized gamma (GG) survival analysis of the association of lifetime psychotic experiences (PE) with all-cause mortality in 15,049 participants of the Epidemiologic Catchment Area Study.

| Covariates                                       | GG model adjusted for sex and race |        | GG model adjusted for all covariates |        |
|--|------------------------------------|--------|--------------------------------------|--------|
|  | $\beta$ (SE)                       | P      | $\beta$ (SE)                         | P      |
| PE   | -0.07 (0.02)                       | < .001 | -0.05 (0.02)                         | .031   |
| Female sex                                       | 0.08 (0.01)                        | < .001 | 0.08 (0.01)                          | < .001 |
| Racial minority <sup>a</sup>                     | -0.002 (0.01)                      | .886   | 0.01 (0.01)                          | .241   |
| Marital status: widowed <sup>b</sup>             |                                    |        | -0.04 (0.01)                         | < .001 |
| Marital status: divorced /separated <sup>b</sup> |                                    |        | -0.04 (0.01)                         | .001   |
| Marital status: never-married <sup>b</sup>       |                                    |        | 0.001 (0.02)                         | .811   |
| Education (12 years or more)                     |                                    |        | 0.07 (0.01)                          | < .001 |
| Schizophrenia spectrum disorders                 |                                    |        | 0.01 (0.05)                          | .809   |
| Lifetime psychiatric hospitalization             |                                    |        | -0.03 (0.03)                         | .301   |
| Depressive disorders                             |                                    |        | 0.02 (0.02)                          | .325   |
| Bipolar disorder                                 |                                    |        | -0.01 (0.02)                         | .820   |
| Obsessive compulsive disorder                    |                                    |        | 0.06 (0.05)                          | .089   |
| Phobic disorders                                 |                                    |        | -0.04 (0.03)                         | .048   |
| Panic disorder                                   |                                    |        | -0.04 (0.05)                         | .394   |
| Alcohol use disorders                            |                                    |        | -0.05 (0.02)                         | .008   |
| Other substance use disorders                    |                                    |        | -0.09 (0.04)                         | .040   |
| Antisocial Personality disorder                  |                                    |        | -0.12 (0.04)                         | .004   |
| Constant   | 4.11 (0.01)                        | < .001 | 4.07 (0.01)                          | < .001 |
| <b>Ln Sigma<sup>c</sup></b>                      |                                    |        |                                      |        |
| PE   | 0.22 (0.07)                        | .002   | 0.11 (0.07)                          | .097   |
| Female sex                                       | -0.18 (0.04)                       | < .001 | -0.08 (0.04)                         | .044   |
| Racial minority <sup>a</sup>                     | 0.36 (0.04)                        | < .001 | 0.29 (0.04)                          | < .001 |
| Education (12 years or more)                     |                                    |        | -0.28 (0.05)                         | < .001 |
| Phobic disorders                                 |                                    |        | 0.14 (0.06)                          | .032   |
| Alcohol use disorders                            |                                    |        | 0.11 (0.05)                          | .053   |
| Constant   | -1.70 (0.03)                       | < .001 | -1.59 (0.04)                         | < .001 |
| <b>Kappa<sup>c</sup></b>                         |                                    |        |                                      |        |
| Marital status: never married <sup>b</sup>       |                                    |        | 0.57 (0.16)                          | < .001 |
| Education (12 years or more)                     |                                    |        | 0.24 (0.13)                          | .057   |
| Phobic disorders                                 |                                    |        | -0.36 (0.16)                         | .021   |
| Constant   | 1.64 (0.08)                        | < .001 | 1.38 (0.11)                          | < .001 |

Abbreviations: PE: psychotic experiences; GG: generalized gamma; SE: standard error.

<sup>a</sup> Includes all racial/ethnic backgrounds other than non-Hispanic white; reference group is non-Hispanic white

<sup>b</sup> Reference group is the married

<sup>c</sup> Sigma and kappa are the ancillary parameters of the GG distribution that were allowed to be modified by the covariates; only those covariates that significantly changed the log pseudo-likelihood of the models were kept in the final models.

**Table DS4.** Results of the generalized gamma (GG) survival analysis of the association of the number of lifetime psychotic experiences (PE count) with all-cause mortality in 15,049 participants of the Epidemiologic Catchment Area Study.

| Covariates                                       | GG model adjusted for sex and race |        | GG model adjusted for all covariates |        |
|--|------------------------------------|--------|--------------------------------------|--------|
|  | $\beta$ (SE)                       | P      | $\beta$ (SE)                         | P      |
| PE count   | -0.04 (0.01)                       | < .001 | -0.03 (0.01)                         | .009   |
| Female sex                                       | 0.08 (0.01)                        | < .001 | 0.08 (0.01)                          | < .001 |
| Racial minority <sup>a</sup>                     | -0.001 (0.01)                      | .869   | 0.01 (0.01)                          | .245   |
| Marital status: widowed <sup>b</sup>             |                                    |        | -0.04 (0.01)                         | < .001 |
| Marital status: divorced /separated <sup>b</sup> |                                    |        | -0.05 (0.01)                         | .001   |
| Marital status: never-married <sup>b</sup>       |                                    |        | -0.01 (0.02)                         | .791   |
| Education (12 years or more)                     |                                    |        | 0.07 (0.01)                          | < .001 |
| Schizophrenia spectrum disorders                 |                                    |        | 0.05 (0.06)                          | .427   |
| Lifetime psychiatric hospitalization             |                                    |        | -0.02 (0.03)                         | .342   |
| Depressive disorders                             |                                    |        | 0.02 (0.02)                          | .296   |
| Bipolar disorder                                 |                                    |        | -0.01 (0.02)                         | .777   |
| Obsessive compulsive disorder                    |                                    |        | 0.06 (0.05)                          | .078   |
| Phobic disorders                                 |                                    |        | -0.04 (0.03)                         | .037   |
| Panic disorder                                   |                                    |        | -0.05 (0.05)                         | .332   |
| Alcohol use disorders                            |                                    |        | -0.05 (0.02)                         | .007   |
| Other substance use disorders                    |                                    |        | -0.09 (0.04)                         | .042   |
| Antisocial Personality disorder                  |                                    |        | -0.13 (0.04)                         | .004   |
| Constant   | 4.11 (0.01)                        | < .001 | 4.07 (0.01)                          | < .001 |
| <b>Ln Sigma <sup>c</sup></b>                     |                                    |        |                                      |        |
| PE count   | 0.11 (0.03)                        | 0.001  | 0.07(0.03)                           | .016   |
| Female sex                                       | -0.17 (0.04)                       | < .001 | -0.08(0.04)                          | .053   |
| Racial minority <sup>a</sup>                     | 0.36 (0.04)                        | < .001 | 0.29 (0.04)                          | < .001 |
| Education (12 years or more)                     |                                    |        | -0.28(0.05)                          | < .001 |
| Phobic disorders                                 |                                    |        | 0.13 (0.06)                          | .036   |
| Alcohol use disorders                            |                                    |        | 0.10 (0.05)                          | .058   |
| Constant   | -1.70 (0.03)                       | < .001 | -1.59 (0.04)                         | < .001 |
| <b>Kappa <sup>c</sup></b>                        |                                    |        |                                      |        |
| Marital status: never married <sup>b</sup>       |                                    |        | 0.56 (0.16)                          | < .001 |
| Education (12 years or more)                     |                                    |        | 0.26 ((0.13)                         | .041   |
| Phobic disorders                                 |                                    |        | -0.39 (0.15)                         | .011   |
| Constant   | 1.63 (0.08)                        | < .001 | 1.38 (0.11)                          | < .001 |

Abbreviations: PE: psychotic experiences; GG: generalized gamma; SE: standard error.

<sup>a</sup> Includes all racial/ethnic backgrounds other than non-Hispanic white; reference group is non-Hispanic white

<sup>b</sup> Reference group is the married

<sup>c</sup> Sigma and kappa are the ancillary parameters of the GG distribution that were allowed to be modified by the covariates; only those covariates that significantly changed the log pseudo-likelihood of the models were kept in the final models.

**Table DS5.** Association of any lifetime psychotic experiences (PE) in the absence of a psychotic disorder and any primary or secondary PE with all-cause mortality adjusted for the covariates examined by Cox proportional hazard and generalized gamma (GG) models in the participants of the Epidemiologic Catchment Area Study.

|  | <b>Cox model<br/>adjusted for sex<br/>and<br/>race/ethnicity</b> | <b>Cox model<br/>adjusted for all<br/>covariates<sup>a</sup></b> | <b>GG model<br/>adjusted for sex<br/>and<br/>race/ethnicity</b> | <b>GG model<br/>adjusted for all<br/>covariates<sup>a</sup></b> |
|--|--|--|---|---|
|  | <b>HR (95% CI)</b>   | <b>HR (95% CI)</b>   | <b>β (SE)</b>   | <b>β (SE)</b>   |
| Any lifetime PE (in<br>the absence of a<br>psychotic disorder) | 1.37 ***(1.15-1.63)  | 1.22* (1.02-1.46)  | -0.05** (0.02)  | -0.04* (0.02)   |
| Any primary or<br>secondary PE                                 | 1.42*** (1.21-1.67)  | 1.20 ( 1.00-1.43)  | -0.06** (0.02)  | -0.03 (0.02)  |

Abbreviations: PE: psychotic experiences; GG: generalized gamma; SE: standard error.

<sup>a</sup> including sex, race, marital status, education, depressive disorders, bipolar disorder, phobic disorders, obsessive-compulsive disorder, panic disorder, alcohol use disorders, other substance use disorders, antisocial personality disorder and any psychiatric hospitalization.

\* $P < .05$ ; \*\*  $P < .01$ ; \*\*\*  $P < .001$

**Fig. DS1** Kaplan-Meier survival curves for the groups with and without lifetime psychotic experiences (PE) in 15,049 participants of the Epidemiologic Catchment Area Study, excluding subjects with a history of a psychotic disorder

