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| **Supplementary Table S1. World Mental Health (WMH) sample characteristics by World Bank income categories, and sample for psychotic experiences (PEs)** | | | | | | |
| **Country by income category** | **Sample characteristicsa** | **Field dates** | **Age range** | **Sample size** | | **Response rate**b |
| **Part I** | **PEs sample** |
| **Low and lower middle income countries** | | | | | | |
| Colombia | All urban areas of the country | 2003 | 18-65 | 4426 | 722 | 87.7 |
| Iraq | Nationally representative | 2006-7 | 18-96 | 4332 | 4329 | 95.2 |
| Nigeria | 21 of the 36 states in the country | 2002-3 | 18-100 | 6752 | 1417 | 79.3 |
| Peru | All urban areas of the country | 2004-5 | 18-65 | 3930 | 530 | 90.2 |
| PRCc  - Shenzhend | Shenzhen metropolitan area | 2006-7 | 18-88 | 7132 | 2468 | 80.0 |
|  |  |  |  |  |  |  |
| **Upper-middle income countries** | |  |  |  |  |  |
| Brazil - São Paulo | São Paulo metropolitan area | 2005-7 | 18-93 | 5037 | 2922 | 81.3 |
| Lebanon | Nationally representative | 2002-3 | 18-94 | 2857 | 1029 | 70.0 |
| Mexico | All urban areas of the country | 2001-2 | 18-65 | 5782 | 715 | 76.6 |
| Romania | Nationally representative | 2005-6 | 18-96 | 2357 | 2357 | 70.9 |
|  |  |  |  |  |  |  |
| **High-income countries** | |  |  |  |  |  |
| Belgium | Nationally representative | 2001-2 | 18-95 | 2419 | 319 | 50.6 |
| France | Nationally representative | 2001-2 | 18-97 | 2894 | 301 | 45.9 |
| Germany | Nationally representative | 2002-3 | 18-95 | 3555 | 408 | 57.8 |
| Italy | Nationally representative | 2001-2 | 18-100 | 4712 | 617 | 71.3 |
| Portugal | Nationally representative | 2008-9 | 18-81 | 3849 | 2053 | 57.3 |
| Spain | Nationally representative | 2001-2 | 18-98 | 5473 | 1159 | 78.6 |
| The Netherlands | Nationally representative | 2002-3 | 18-95 | 2372 | 348 | 56.4 |
| The United States | Nationally representative | 2002-3 | 18-99 | 9282 | 2304 | 70.9 |
|  |  |  |  |  |  |  |
| **All countries combined** |  |  |  | **77161** | **23998** | **71.9** |
| a NSMH (The Colombian National Study of Mental Health); IMHS (Iraq Mental Health Survey); NSMHW (The Nigerian Survey of Mental Health and Wellbeing); EMSMP (La Encuesta Mundial de Salud Mental en el Peru); LEBANON (Lebanese Evaluation of the Burden of Ailments and Needs of the Nation); M-NCS (The Mexico National Comorbidity Survey); RMHS (Romania Mental Health Survey); ESEMeD (The European Study of The Epidemiology of Mental Disorders); NMHS (Portugal National Mental Health Survey); NCS-R (The US National Comorbidity Survey Replication). | | | | | | |
| b The response rate is calculated as the ratio of the number of households in which an interview was completed to the number of households originally sampled, excluding from the denominator households known not to be eligible either because of being vacant at the time of initial contact or because the residents were unable to speak the designated languages of the survey. The weighted average response rate is 71.9%. | | | | | | |
| c People's Republic of China. |  |  |  |  |  |  |
| d For the purposes of cross-national comparisons we limit the sample to those 18+. | | | | | | |

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| **Supplementary Table S2a. Six CIDI Psychotic experiences types in six European (ESEMed1) sites (Belgium, France, Germany, Italy, Netherlands, Spain)** |
| Type 1. (Saw a vision) Did you ever see something that wasn’t really there that other people could not see? Please do not include any times when you were dreaming or half-asleep or under the influence of alcohol or drugs. |
| Type 2. (Heard voices) Did you ever hear things that other people said did not exist, like strange voices coming from inside your head talking to you or about you, or voices coming out of the air when there was no one around. Please do not include any times when you were dreaming or half-asleep or under the influence of alcohol or drugs. |
| Type 3. (Thought insertion) Did you ever believe that some mysterious force was inserting many different strange thoughts -- that were definitely not your own thoughts – directly into your head by means of x-rays or laser beams or other methods? |
| Type 4. (Mind control/passivity) Did you ever feel that your mind had been taken over by strange forces with laser beams or other methods that were making you do things you did not choose to do. Again, do not include times when you were dreaming or under the influence of alcohol or drugs. |
| Type 5. (Ideas of reference) Did you ever believe that some strange force was trying to communicate directly with you by sending special signs or signals that you could understand but that no one else could understand. Sometimes this happens by special signs coming through the radio or television. |
| Type 6. (Plot to harm /follow) Did you ever believe that there was an unjust plot going on to harm you or to have people follow you that your family and friends did not believe existed? |
| 1 ESEMeD = European Study of the Epidemiology of Mental Disorders |

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| **Supplementary Table S2b: Six CIDI Psychotic experiences types in 12 non-ESEMed sites (People’s Republic of China, Colombia, Lebanon, Mexico, Brazil, Iraq, Nigeria, Peru, Portugal, Romania, USA)** |
| Type 1. (Saw a vision) Did you ever see something that other people who were there could not see. |
| Type 1a. (Saw a vision) Did this every happen when you were not dreaming, not half-asleep, and not under the influence of alcohol or drugs? |
| Type 2. (Hearing voices) Did you ever hear things that other people said did not exist, like strange voices coming from inside your head talking to you or about you, or voices coming out of the air when there was no one around. |
| Type 2a. (Hearing voices) Did this every happen when you were not dreaming, not half-asleep, and not under the influence of alcohol or drugs? |
| Type 3. (Thought insertion) Did you ever believe that some mysterious force was inserting many different strange thoughts -- that were definitely not your own thoughts – directly into your head by means of x-rays or laser beams or other methods? |
| Type 3a. (Thought insertion) Did this every happen when you were not dreaming, not half-asleep, and not under the influence of alcohol or drugs? |
| Type 4. (Mind control/passivity) Did you ever feel that your mind had been taken over by strange forces with laser beams or other methods that were making you do things you did not choose to do. |
| Type 4a. (Mind control/passivity) Did this every happen when you were not dreaming, not half-asleep, and not under the influence of alcohol or drugs? |
| Type 5. (Ideas of reference) Did you ever believe that some strange force was trying to communicate directly with you by sending special signs or signals that you could understand but that no one else could understand. Sometimes this happens by special signs coming through the radio or television. |
| Type 5a. (Ideas of reference) Did this every happen when you were not dreaming, not half-asleep, and not under the influence of alcohol or drugs? |
| Type 6. (Plot to harm /follow) Did you ever believe that there was an unjust plot going on to harm you or to have people follow you that your family and friends did not believe existed? |
| Type 6a. (Plot to harm /follow) Did this every happen when you were not dreaming, not half-asleep, and not under the influence of alcohol or drugs? |
| Note: For the assessment of psychotic experiences we included items 1a, 2a, 3a, 4a, 5a, and 6a. Similarly for the assessment of hallucinatory experiences we included types 1a and 2a, and for the assessment of delusional experiences we included types 3a, 4a, 5a, and 6a. |

**S3. Assessment and Classification of Childhood Adversity**

**Physical abuse**: Respondents were classified as having experienced physi­cal abuse when they indicated that, when they were growing up, their father or mother (includes biological, step, or adop­tive parent) slapped, hit, pushed, grabbed, shoved, or threw something at them, or that they were beaten up as a child by the persons who raised them.

**Sexual abuse**: For sexual abuse, the following questions were asked: “*The next two questions are about sexual assault. The first is about rape. We define this as someone either having sexual inter­course with you or penetrating your body with a finger or object when you did not want them to, either by threatening you or using force, or when you were so young that you didn’t know what was happening. Did this ever happen to you*?” or “*Other than rape, were you ever sexually assaulted or mo­lested*?” Sexual abuse was the only adversity where informa­tion was not collected that would distinguish whether the perpetrator was a family member or someone else. However, previous research using a similar measure but which did allow such a distinction showed that a good indirect way to distinguish family versus nonfamily sexual abuse is to ask about number of instances of victimization, with cases involving one or two instances typically perpetrated by a stranger and those involving three or more instances typi­cally perpetrated by a family member (53). In the WMH surveys, therefore, respondents who reported that any of these experiences occurred to them three times or more were coded as having experienced sexual abuse (within the family context).

**Neglect**: For the assessment of neglect, two neglect scales were created. These were based on responses to the neglect items: “*How often were you made to do chores that were too difficult or dangerous for someone your age?” “How often were you left alone or unsupervised when you were too young to be alone?” “How often did you go without things you need like clothes, shoes, or school supplies because your parents or caregivers spent the money on themselves?” “How often did your parents or caregivers make you go hungry or not prepare regular meals?” “How often did your parents or caregivers ignore or fail to get you medical treatment when you were sick or hurt?”* The serious neglect scale was the sum of the number of neglect items where the respondent replied “often” or “sometimes,” plus 1 if the respondent rated either of his/her parents as having spent little or no effort in watching over them to ensure they had a good upbringing. The severe neglect scale is the sum of the number of neglect items where respon­dents replied “often” plus 1 if the respondent rated either of his/her parents as having spent no effort in watching over them to ensure they had a good upbringing. Both the serious and severe neglect scales ranged from 0 to 6. For the final definition of neglect, the respondent had to have a score of at least 1 on the severe neglect scale and at least 2 on the serious neglect scale.

(The coding of the neglect domain was determined empir­ically on the basis of frequency distributions, to derive esti­mates in keeping with existing literature on the prevalence of these experiences in the general population).

**Parental death**: For parental death, **parental divorce**, or **other parental loss**, respondents were first asked whether they lived with both of their parents when they were brought up. If respondents re­plied in the negative, they were asked: “*Did your biological mother or father die, were they separated or divorced, or was there some other reason?*” According to their answers to these questions, respondents were classified as having experienced parental death (i.e., when they indicated that one or both parents died), parental divorce (i.e., when they indicated that their parents divorced), and other parental loss (i.e., when respondents replied that they were either adopted, went to boarding school, were in foster care, or that they left home before the age of 16).

**Parental mental illness**: For parental mental illness the following questions were asked; Parental depression was assessed by the following diagnostic items: 1) “During the years you were growing up, did (WOMAN/MAN WHO RAISED THE RESPONDENT) ever have periods lasting 2 weeks or more where she was sad or depressed most of the time?”; and 2) “During the time when [HIS/HER] depression was at its worst, did [HE/SHE] also have other symptoms like low energy, changes in sleep or appetite, and problems with concentration?” A positive response to Depression item #1 was followed up with a frequency question “Was this during all, most, some, or only a little of your child­hood?”. Parental generalized anxiety disorder (GAD) was as­sessed by the following diagnostic items: 1) “During the time you were growing up, did (WOMAN/MAN WHO RAISED THE RESPONDENT) ever have periods of a month or more when she was constantly nervous, edgy, or anxious?”; and 2) “Dur­ing the time her nervousness was at its worst, did she also have other symptoms like being restless, irritable, easily tired, and diffi­culty falling asleep?” A positive response to GAD item #1 was followed up with a frequency question “Was this during all, most, some, or only a little of your childhood?” Parental panic disorder was assessed by the following item: “Did (WOMAN/MAN WHO RAISED THE RESPONDENT) ever complain about anxiety attacks where all of a sudden she felt frightened, anxious, or panicky?” Respondents who replied positively to both diag­nostic items for depression *and* who replied “all or most of the time” to the frequency item *and* who reported that their parents got professional help for depression *or* that depression interfered a lot with their parents’ life or activities were coded as respondents with parental depression. Similar logic applied to characterizing respondents whose parents had GAD. Re­spondents who responded positively to the single parental panic disorder item were coded as having parents with panic disorder.

**Parental substance disorder**: Parental substance disorder was assessed with the following items: (criterion a) “*Did* (WOMAN/MAN WHO RAISED THE RESPONDENT) *ever have a problem with alcohol or drugs*” and (criterion b) “*Did* [HE/SHE] *have this problem during all, most, some, or only a little of your childhood?*” Respondents who replied positively on the first and “all” and “most” on the second item were then asked whether the problem interfered a lot with life or activities of the man or woman who raised the respondent (criterion c), or whether they had sought professional help for this problem (criterion d). Those respondents who replied affirmatively on criteria a) and b), and on either c) or d) were coded as having had parents with a substance disorder.

**Parental criminal behaviour**: Parental criminal behavior was assessed by the following questions: “*Was* (THE WOMAN/MAN WHO RAISED THE RESPONDENT) *ever involved in criminal activities like bur­glary or selling stolen property?*” and “*Was* (THE WOMAN/ MAN WHO RAISED THE RESPONDENT) *ever arrested or sent to prison?*” Respondents who replied positively on either question were classified as having experienced criminal be­havior in the family.

**Family violence**: Respondents were coded as having experienced family violence when they indicated that they “*were often hit, shoved, pushed, grabbed or slapped while growing up*” or “*witnessed physical fights at home, like when your father beat up your mother?*”

**Family economic adversity**: Family economic adversity was coded positive if there was a positive response to either item a) or item b). Item a) was: “*During your childhood and adolescence, was there ever a period of six months or more when your family received money from a government assistance program like Welfare, Aid to Families with Dependent Children, General Assistance, or Temporary Assistance for Needy Families?*” (This item was modified to be relevant to the welfare programs in each country where the survey was administered.) Item b) was: If there was no male head of the family and the female head did NOT work all or most of the time during respondent’s child­hood; or if there was no female head of the family and the male head did NOT work all or most of respondent’s child­hood, or if there was no female head and no male head of the family.

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| **Supplementary Table S4. Exploratory factor analysis of associations (tetrachoric correlations) among childhood adversities in the World Mental Health Surveys** | | | | | | | | | | | | | | | |
| **Item** | **Tetrachoric Correlations** | | | | | | | | | | |  | **One-Factor Solution** | **Two-Factor Solution with Promax Rotationa** | |
| **Parental death** | **Parental divorce** | **Other parental loss** | **Parental mental disorder** | **Parental substance-use disorder** | **Parental criminal behaviour** | **Family violence** | **Physical abuse** | **Sexual abuse** | **Neglect** | **Family economic adversity** |  | **First factor loading** | **First factor loading** | **Second factor loading** |
| Parental death | 1.00 |  |  |  |  |  |  |  |  |  |  |  | **0.07** | **-0.15** | **0.50** |
| Parental divorce | -0.21 | 1.00 |  |  |  |  |  |  |  |  |  |  | **0.48** | **0.38** | **0.26** |
| Other parental loss | 0.16 | 0.16 | 1.00 |  |  |  |  |  |  |  |  |  | **0.34** | **0.23** | **0.25** |
| Parental mental disorder | 0.03 | 0.13 | 0.13 | 1.00 |  |  |  |  |  |  |  |  | **0.50** | **0.52** | **-0.03** |
| Parental substance-use | 0.02 | 0.25 | 0.17 | 0.41 | 1.00 |  |  |  |  |  |  |  | **0.67** | **0.70** | **-0.05** |
| Parental criminal behaviour | -0.06 | 0.24 | 0.14 | 0.30 | 0.51 | 1.00 |  |  |  |  |  |  | **0.60** | **0.60** | **0.01** |
| Family violence | -0.03 | 0.33 | 0.23 | 0.39 | 0.59 | 0.46 | 1.00 |  |  |  |  |  | **0.75** | **0.80** | **-0.08** |
| Physical abuse | 0.04 | 0.18 | 0.27 | 0.36 | 0.38 | 0.36 | 0.59 | 1.00 |  |  |  |  | **0.66** | **0.71** | **-0.08** |
| Sexual abuse | 0.01 | 0.34 | 0.14 | 0.18 | 0.30 | 0.35 | 0.38 | 0.35 | 1.00 |  |  |  | **0.52** | **0.44** | **0.19** |
| Neglect | 0.15 | 0.36 | 0.30 | 0.40 | 0.48 | 0.39 | 0.53 | 0.59 | 0.35 | 1.00 |  |  | **0.74** | **0.70** | **0.11** |
| Family economic adversity | 0.35 | 0.44 | 0.25 | 0.16 | 0.17 | 0.25 | 0.17 | 0.08 | 0.32 | 0.21 | 1.00 |  | **0.40** | **0.09** | **0.71** |
| a The tetrachoric correlations among the 11 CAs were computed. Majority of correlations between pairs of CAs are positive. Correlations between parental maladjustment and maltreatment are quite high, generally between 0.30-0.59. Exploratory factor analysis with promax rotation was subsequently used to summarize 11 CAs into meaningful groups. The unrotated eigenvalues (λ) for the 1st, 2nd and 3rd factor are 3.4, 0.8 and 0.6 respectively. We retained the second factor despite the unrotated eigenvalue being less than 1.0 due to the substantive plausibility of promax rotated two-factor solution. The three-factor solution, in comparison, yielded a substantively implausible solution with degenerate values (i.e., standardized partial regression coefficients with out-of-range values). The correlation between factor 1 and factor 2 in the two-factor solution was 0.28. Most CAs in particular (parental maladjustment and maltreatment) have significant loading on the 1st factor of ‘Maladaptive family functioning’, with factor loading of between (0.44-0.80). Parental death, divorce, other parental loss and family economic adversity loaded onto the second factor (factor loadings, 0.25-0.71). We kept the broad labels of MFF CAs and Other CAs in our analyses to be consistent with the results from Green et al (2010). | | | | | | | | | | | | | | | |

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| **Supplementary Table S5. Population attributable risk proportions (PARPs)a of psychotic experiences due to childhood adversities** | |
| **Type of childhood adversity** | **PARP (%)** |
| **I. Maladaptive family functioning CAs** |  |
| Parental mental illness | 6.9% |
| Parental substance disorder | 0.3% |
| Parental criminal behaviour | 2.3% |
| Family violence | 2.3% |
| Physical abuse | 8.2% |
| Sexual abuse | 2.1% |
| Neglect | 1.5% |
| **Any maladaptive family functioning CAs** | **24.0%** |
|  |  |
| **II. Other CAs** |  |
| Parental death | 1.0% |
| Parental divorce | 1.5% |
| Other parental loss | 1.5% |
| Economic adversity | 1.1% |
| **Any Other CAs** | **5.7%** |
|  |  |
| **III. Any childhood adversities** | 30.9% |
| a | |