Appendix

Table 1

The following variables were included in the linear regression model for predicting Resilience in the sample of individuals born 1951. The regression model included 9 variables measured from the questionnaire (Father Alcohol Consumption, Low Parental education, Parental Abuse, Disruption in family, Parental Monitoring, Move During Childhood, Urbanization, IQ, Sniffing Glue) and 4 factor scores based several questions from the same questionnaire (Drug Use Score, Alcohol Use Score, Internalizing Behavior, Externalizing Behavior)

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| --- | --- |
| **Variable** | **Definition** |
| Father Alcohol Consumption | How often has your father used alcoholic beverages? Never; Occasionally; Sometimes; Often. Coding: 2=Often (3.9%); 1=Occasionally, Sometimes (76.1%); 0=Never (19.9%) |
| Low Parental education | Highest education achieved by either parent.Coding: 1=Low (<=9 years, 59.5%); 2=Mid (10-11 years, 29.9%); 3=High (>=12 years, 10.6%). |
| Parental Abuse | How often was corporal punishment used in your upbringing? Often; Sometimes; Occasionally; Never. Coding: 4=Often (1.2%); 3=Occasionally (10.6%); 2=Sometimes (48.7%); 1=Never (39.5%) |
| Disruption in family | Are both your parents alive? (Q1) Yes, NoAre your parents divorced? (Q2) Yes, NoCoding: 1=No (Q1), Yes (Q2) (17.2%); 0=Yes (Q1), No (Q2) (82.8%) |
| Parental Monitoring | Do you tell your parents what you do in your spare time?Often, Sometimes, Rarely, NeverCoding: 4=Never (2.9%), 3=Rarely (14.1%), 2=Sometimes (51.9%), 1=Often (31.1%) |
| Move During Childhood | How many places have you resided in during your childhood?Coding: 1=1 place (59.1%); 2= 2places (22.9%); 3=3 places (9.9%); 4=4 places (8.0%) |
| Urbanization | Where have you mainly been residing during you childhood? Greater-Stockholm, Göteborg or Malmö; Other city with more than 50,000 inhabitants; Other city with less than 50,000; In the countryside; AbroadCoding: 1= Greater-Stockholm, Göteborg or Malmö (20.8%), 0=Else (79.2%) |
| Internalizing Behavior | Factor analysis based on the following variables:How is your health status at the moment? 1=Very Well; 2=Ok; 3=Neither good or bad; 4=Not so good; 4=BadDoes it happen that you have a headache? 1=Yes, often; 2=Yes, sometime; 3=Yes, rarely; 4=No, neverDo you have trouble sleeping? 1=Yes, often; 2=Yes, sometime; 3=Yes, rarely; 4=No, neverDo you often have an upset stomach? 1=Yes, often; 2=Yes, sometime; 3=Yes, rarely; 4=No, neverAre you often nervous? 1=Yes, often; 2=Yes, sometime; 3=Yes, rarely; 4=No, neverHave you ever taken medication for your nerves? 1=Yes, often; 2=Yes, sometime; 3=No, neverDo you often feel low? 1=Yes, often; 2=Yes, sometime; 3=Yes, rarely; 4=No, neverDo you feel uncertain when you are together with others? 1=Yes, often; 2=Yes, sometime; 3=Yes, rarely; 4=No, neverDo you think you are more sensitive than others? 1=Yes, a lot; 2=Yes, slightly; 3=Like others; 4=No, slightly less; 5=No, a lot lessDo you easily get anxious and restless? 1=Yes, very easy; 2=Yes, rather easy; 3=Like others; 4=No, rarely; 5=No, neverDo you easily get anxious and restless? 1=Yes, very easy; 2=Yes, rather easy; 3=Like others; 4=No, rarely; 5=No, neverDo you get irritated when things are supposed to go quickly? 1=Yes, often; 2=Yes, sometimes; 3=Yes, once in a while; 4=No, never |
| Externalizing Behavior | Factor analysis based on the following variables:How did you get along with your teachers in school? 1=Very Well; 2=Ok; 3=Not so good; 4=BadHave you ever been treated unfairly in school? 1=Yes, several times; 2=Yes, sometime; 3=No, neverHow often did you skip school? 1=Once a week; 2=Once a month; 3=Once every semester; 4=Few timesHave your ever have bad grades in order and conduct? 1=Yes, several times; 2=Yes, once; 3=No, neverHave you ever been in contact with the police or child welfare committee? 1=Yes, several times; 2=Yes, sometime; 3=No, neverHave you ever quit a work due to unfair treatment? 1=Yes, several times; 2=Yes, once; 3=No, neverHave you ever been fired from a job? 1=Yes, several times; 2=Yes, once; 3=No, neverHave you ever run away from home?1=Yes, twice or more; 2=Yes, once; 3=No, neverHave you ever taken anything from a store without paying?1=Yes, several times; 2=Yes, sometime; 3=No, never |
| IQ | IQ is measured by four subtests representing logical, spatial, verbal, and technical abilities. The global IQ score, derived from a summation of the four subtests, was standardized to give a Gaussian distributed score between one and nine.  |
| Sniffing Glue | Have you ever sniffed glue or something similar? 1=More than 10 times; 2=Yes 2-10 times; 3=Yes, Once; 4=No.Coded into Yes (13.2%) and No (86.8%). |
| Drug Use Score | Factor analysis based on the following variables:Have you ever used narcotics? Yes/NoQ4: What type of drug have you used most often?Preludin (0.17%), Amfetamin (0.25%), Hasch/Marihuana (8.61%), Morphine (0.11%), LSD (0. 39%), Mebumal/Nembutal (0. 69%), Opium (0.11%), Meproban (0.20%), Other (0.16%)Recoded into 0=No use, 1=Hasch/Marihuana, 2=ElseHow many times have you used narcotics? 1=More than 50 times; 2=11-50 times; 3=5-10 times; 4=2-4 times; 5=once; 6=NeverHave you ever used a needle to inject narcotics? 1=Yes, several times; 2=Yes, once; 3=No, neverHow many times have you used narcotics the last 4 weeks? 1=More than 10 times; 2= 5-10 times; 3=2-4 times; 4=Once; 5=0 |
| Alcohol Score | Factor analysis based on the following variables:How often do you drink medium/strong beer? 1=Every day; 2=About once a week; 3=More rarely; 4=NeverHow much do you drink when you drink medium/strong beer? 1=3 cans or more; 2=2 cans; 3=1 can; 4=A couple of glasses; 5=Never drink beerHow often do you drink wine/strong wine? 1=Every day; 2=About once a week; 3=More rarely; 4=NeverHow much do you drink when you drink wine? 1=1 bottle or more; 2=1/2-1 bottle; 3=1/2 bottle; 4=A couple of glasses; 5=Never drink wineHow much do you drink when you drink liquor? 1=>35 cl; 2=15-35 cl; 3=5-14 cl; 4=<5 cl; 5=Never drink liquorHow often do you drink so that you feel drunk? 1=Often; 2=Quite often; 3=Sometimes; 4=NeverDo you often get a hangover?1=Yes, often; 2=Yes, sometimes; 3=No, never If you get a hangover have you ever taken a “pick-me-up”1=Yes; 2=NoHave you ever been arrested for drunkenness? 1=Yes, several times, 2=Yes, sometimes; 3=No never |

Table 2

Exploring the Stability of Estimates from our IV Analyses Across Cohorts, Follow-up Times and Between Subgroups of Months, Controlling for Parental Drug Abuse and Educational Status in our Instrumental Variable (IV) Analyses, and Examining the Impact of adding Buffer Periods to our Co-relative and IV Analyses

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| --- | --- | --- | --- | --- | --- |
| Model Description | First-stage F-test | First-stage R2 | Crude Estimate of the association between Resilience and DA | Predicted estimate from Co-relative models | Estimate from IV analysis |
| Different age cohorts |  |  |  |  |  |
| Cohort born 1951- 1960 | 543.6 (1./457,422) | 0.02 | 2.37 (2.32; 2.42) | 1.40 (1.29; 1.52) | 1.86 (1.16; 2.98) |
| Cohort born 1961- 1970 | 894.1 (1/.509.812) | 0.02 | 2.40 (2.36; 2.44) | 1.28 (1.19; 1.39) | 3.19 (2.21; 4.59) |
| Cohort born 1971- 1980 | 709.3 (1./425,560) | 0.02 | 2.20 (2.16; 2.23) | 1.15 (1.06; 1.25) | 5.29 (3.68; 7.59) |
|  |  |  |  |  |  |
| Different follow-up time |  |  |  |  |  |
| 4 years | - | - | 3.50 (3.38; 3.63) | 1.60 (1.38; 1.85) | 5.40 (2.60; 11.23) |
| 8 years | - | - | 2.96 (2.89; 3.02) | 1.50 (1.37; 1.65) | 3.96 (2.38; 6.32) |
| 16 years | - | - | 2.65 (2.61; 2.69) | 1.34 (1.26; 1.42) | 4.16 (3.01; 5.74) |
| 32 years | - | - | 2.39 (2.37; 2.42) | 1.33 (1.28; 1.39) | 3.32 (2.61; 4.23) |
|  |  |  |  |  |  |
| Different constructs of the IV variable |  |  |  |  |  |
| Jan-March vs April-June | 84.1 (1/741,647) | 0.00 | - | - | 0.30 (0.09; 0.98) |
| Jan-March vs July-Sept | 694.7 (1/700.146) | 0.02 | - | - | 2.28 (1.54; 3.38) |
| Jan-March vs Oct-Dec | 1,662.8 (1/674,667) | 0.02 | - | - | 2.79 (2.16; 3.59) |
| April-June vs July-Sept | 510.7 (1/718,129) | 0.01 | - | - | 4.77 (3.01; 7.53) |
| April-June vs Oct-Dec | 1,309 (1/692,650) | 0.01 | - | - | 4.60 (3.46; 6.12) |
| July-Sept vs Oct-Dec | 221.9 (1/651,149) | 0.01 | - | - | 3.57 (1.80; 7.08) |
|  |  |  |  |  |  |
| Controlled For DA and Education in Parents | - | - | - | - | 3.08 (2.45 3.88) |
|  |  |  |  |  |  |
| Buffer period |  |  |  |  |  |
| -2 years | - | - | 2.26 (2.24; 2.29) | 1.32 (1.27; 1.38) | 3.02 (2.39; 3.80) |
| -4 years | - | - | 2.22 (2.19; 2.24) | 1.32 (1.26; 1.37) | 2.91 (2.29; 3.70) |
| -8 years | - | - | 2.14 (2.12; 2.17) | 1.30 (1.24; 1.36) | 2.87 (2.21; 3.72) |
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