

**Evidence for an adolescent sensitive period to family experiences influencing adult male testosterone production**

Gettler et al.

\*Codebook

Gettler et al. PNAS codebook

**Variables in file “Dataset S1 gettler et al data sharing\_fathers.xlsx”**

id: participant identifier

testoz: testosterone data (SD units)

year: 1 = 2005; 2 = 2009; 3 = 2014

AMPM: identifies the relevant testosterone data point as from evening (AMPM = 0) or waking (AMPM = 1)

g1fathering8386: variable for g1 fathers' co-residence and care in 1983-86

father always co-resident, some care = 0

father not co-resident, no care when present = 1

father not co-resident, some care when present = 2

father always co-resident, no care = 3

g1fathering94: variable for g1 fathers' co-residence and care in 1994

father co-resident and caregiver = 0

father co-resident, non-caregiver = 1

father not co-resident = 2

g1fathering94: variable for g1 fathers' co-residence and care in 1994

father co-resident and caregiver = 0

father co-resident, non-caregiver = 1

father not co-resident = 2

g1fathering98: variable for g1 fathers' co-residence and care in 1998-99

father co-resident and caregiver = 0

father co-resident, non-caregiver = 1

father not co-resident = 2

g2upbringing98: variable for g1 fathers' co-residence and g2 upbringing attributions

father co-resident, upbringing by both parents = 1

father not co-resident, upbringing by both parents = 2

father co-resident, upbringing by father = 3

father co-resident, upbringing by others = 5

father not co-resident, upbringing by others = 6

g1momin1994: variable for g1 maternal co-residence in 1994

mother not co-resident = 0

mother co-resident = 1

g1momin1998: variable for g1 maternal co-residence in 1998

mother not co-resident = 0

mother co-resident = 1

g1medz: g1 mothers' educational attainment during g2 development (SD units)

g1dhincz: g1 household income, adjusted for inflation, during g2 development (SD units)

femalekin83: average number of co-resident female kin for 1983-86 waves

malekin83: average number of co-resident male kin for 1983-86 waves

femalekin94: number of co-resident female kin in 1994

malekin94: number of co-resident male kin in 1994

femalekin98: number of co-resident female kin in 1998

malekin98: number of co-resident male kin in 1998

g2sexualdebut: g2 age at first sexual intercourse

g2separated: g2 separation status

0 = not separated

1 = separated from marital or cohabiting partner

g2coresident: g2 fathers' co-residence with their children

0 = not co-resident with any of their children

1 = co-resident with child(ren)

g2hrscarez: g2 weekly hours of childcare (SD units)

wfh1994z: g2 weight-for-height in 1994 (SD units)

wfh1998z: g2 weight-for-height in 1998 (SD units)

bmi\_adultz: g2 adult body mass index (BMI) (SD units)

## **Tables 2 and 3; Models 2 or 3 in Tables S1 and S2**

The analyses in the Tables and models listed above are linear mixed models with maximum-likelihood estimation (Stata's 'mixed' command). In each model, we included a random intercept effect for each individual participant to account for the structure of the data, with individuals having multiple T observations. In models that had data from multiple waves between 2005-2014, we also included a random slope effect for the survey year. We also used bootstrapping (1000 replicates with bias-correction and acceleration) to calculate confidence intervals (Stata's 'bootstrap, bca' command). In follow-up analyses to statistically significant interaction terms, we then used Stata's margins and dydx command to test for the relevant group comparisons.

In each model, "testoz" is the dependent variable. We include an example of code for Model 2 in Table 3, which focuses on G2 upbringing and includes covariates.

```
bootstrap, bca reps(1000): mixed testoz i.g2upbringing98##i.AMPM g1momin1998  
femalekin98 malekin98 g1medz g1dhincz g2sexualdebut g2separated g2coresident  
g2hrscarez i.year || id:year  
margins, dydx(g2upbringing98) at(AMPM=(0) )  
margins, dydx(g2upbringing98) at(AMPM=(1) )
```

[continues on next page]

Gettler et al. PNAS codebook

**Variables in file “Dataset S2 gettler et al data sharing\_nonfathers.xlsx”**

idnf: participant identifier

testoz: testosterone data (SD units)

AMPM: identifies the relevant testosterone data point as from evening (AMPM = 0) or waking (AMPM = 1)

g1fathering8386: variable for g1 fathers’ co-residence and care in 1983-86

father always co-resident, some care = 0

father not co-resident, no care when present = 1

father not co-resident, some care when present = 2

father always co-resident, no care = 3

g1fathering94: variable for g1 fathers’ co-residence and care in 1994

father co-resident and caregiver = 0

father co-resident, non-caregiver = 1

father not co-resident = 2

g1fathering94: variable for g1 fathers’ co-residence and care in 1994

father co-resident and caregiver = 0

father co-resident, non-caregiver = 1

father not co-resident = 2

g1fathering98: variable for g1 fathers’ co-residence and care in 1998-99

father co-resident and caregiver = 0

father co-resident, non-caregiver = 1

father not co-resident = 2

g2upbringing98: variable for g1 fathers’ co-residence and g2 upbringing attributions

father co-resident, upbringing by both parents = 1

father not co-resident, upbringing by both parents = 2

father co-resident, upbringing by father = 3

father co-resident, upbringing by others = 5

father not co-resident, upbringing by others = 6

g1momin1994: variable for g1 maternal co-residence in 1994

mother not co-resident = 0

mother co-resident = 1

g1momin1998: variable for g1 maternal co-residence in 1998

mother not co-resident = 0  
 mother co-resident = 1  
 g1medz: g1 mothers' educational attainment during g2 development (SD units)  
 g1dhincz: g1 household income, adjusted for inflation, during g2 development (SD units)  
 femalekin83: average number of co-resident female kin for 1983-86 waves  
 malekin83: average number of co-resident male kin for 1983-86 waves  
 femalekin94: number of co-resident female kin in 1994  
 malekin94: number of co-resident male kin in 1994  
 femalekin98: number of co-resident female kin in 1998  
 malekin98: number of co-resident male kin in 1998  
 g2hadsexby05: had the g2 participant engaged in sexual intercourse by 2005  
     no sexual intercourse by age 21-22 = 0  
     had engaged in sexual intercourse by age 21-22 = 1  
 wfh1994z: g2 weight-for-height in 1994 (SD units)  
 wfh1998z: g2 weight-for-height in 1998 (SD units)  
 bmi05z: g2 adult body mass index (BMI) in 2005 (SD units)

### **Model 1 in Tables S1 and S2; Tables S3 and S4**

The analyses in the Tables and models listed above are linear mixed models with maximum-likelihood estimation (Stata's 'mixed' command). In each model, we included a random intercept effect for each individual participant to account for the structure of the data, with individuals having multiple T observations. We also used bootstrapping (1000 replicates with bias-correction and acceleration) to calculate confidence intervals (Stata's 'bootstrap, bca' command). In follow-up analyses to statistically significant interaction terms, we then used Stata's margins and dydx command to test for the relevant group comparisons.

In each model, "testoz" is the dependent variable. We include an example of code for the model in Table S4, which focuses on G2 upbringing and includes covariates.

```

bootstrap, bca reps(1000): mixed testoz i.g2upbringing98##i.AMPM g1momin1998
femalekin98 malekin98 g1medz g1dhincz i.g2hadsexby05 || idnf:
  
```

```

margins, dydx(g2upbringing98) at(AMPM=(0) )
  
```

```

margins, dydx(g2upbringing98) at(AMPM=(1) )
  
```