

Supplementary Appendix

(A) Crime-related questions asked at each age (highlighted questions are those used to measure serious violence)

Study clinic at 17.5 years

During the last year, how often have you:

Bought something that you knew or suspected was stolen?

Stolen something from a shop or store?

Hurt or injured animals or birds on purpose?

Damaged or destroyed property that did not belong to you?

Hit or picked on someone because of their race or skin colour?

Broke into a car or van to try and steal something out of it?

Took or drove a vehicle without the owner's permission?

Sold an illegal drug to someone?

Broke into a house or building to try and steal something?

Hit, kicked, punched or attacked someone with the intention of really hurting them?

Started a fight?

[Separate questions about injuries caused, if any]

Sold something that didn't belong to them or knew was stolen

Stole money or property that someone was holding, carrying or wearing at the time?

Used threats or actual force or violence against the other person when stole money or property?

Set fire or tried to set fire to something on purpose?

Claimed social security benefits or housing benefits not entitled to?

Carried a knife or other weapon for protection or in case it was needed in a fight?

Actually used a weapon against somebody?

[Separate questions about injuries caused, if any]

Sold something that didn't belong to you or knew was stolen

Been loud, rowdy or unruly in a public place so that people complained or you got into trouble?

Used a cheque book, credit card or cash point card they knew or suspected to be stolen to get money out of a bank account or to purchase something?

In the past year have you been:

Told off or told to move on by a police officer?

Stopped by the police and asked to empty your pockets or bag?

Stopped by the police and asked questions about something you have done?

Picked up by the police and taken home?

Picked up by the police and taken to a police station?

Given a fixed penalty notice by the police?

Charged by the police for committing a crime?

Had contact with the police for another reason?

Been in trouble with the police?

Been on trial in court for something you have done?

Received an official police caution?

Received a fine from the court?

Been given a Community Service Order?

Been given an ASBO?

Spent some time in a secure unit?

Spent some time in a young offenders Institution or in prison?

Taken part in a mediation process as an offender?

Questionnaire at 18 years

In the past year, how often have you:

Been rowdy or rude in public place so that people complained or you got into trouble?

Stolen something from shop or store?

Bought something that you knew or suspected was stolen?

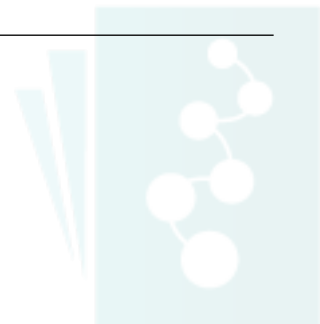
Broke into a car or van to try and steal something out of it?

Taken and/or driven vehicle without owner's permission?

Broke into a house or building to try and steal something?

Stolen money or property that someone was holding, carrying or wearing at the time?

Hit, kicked or punched someone else on purpose with the intention of really hurting them?



Deliberately damaged or destroyed property that did not belong to you?
 Hurt or injured animals or birds on purpose?
 Carried a knife or other weapon for protection or in case it was needed in a fight?
 Used cheque book, credit card or cash point card which you knew or suspected was stolen to get money out of a bank or buy something?

Questionnaire at 20 years

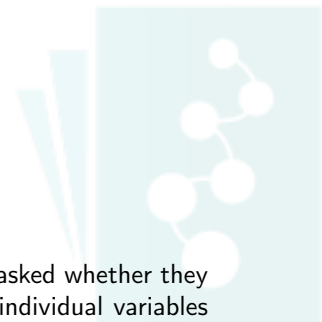
In the past year, how often have you:
 Been rowdy or rude in public place so that people complained or you got into trouble?
 Stolen something from shop or store?
 Bought something that you knew or suspected was stolen?
 Broken into a car or van to try and steal something out of it?
 Taken and/or driven vehicle without owner's permission?
 Broken into a house or building to try and steal something?
 Stolen money or property that someone was holding, carrying or wearing at the time?
 Hit, kicked or punched someone else on purpose with the intention of really hurting them?
 Deliberately damaged or destroyed property that did not belong to you?
 Hurt or injured animals or birds on purpose?
 Carried a knife or other weapon for protection or in case it was needed in a fight?
 Used cheque book, credit card or cash point card which you knew or suspected was stolen to get money out of a bank or buy something?

Questionnaire at 22 years

In the past year, how often have you:
 Been rowdy or rude in public place so that people complained or you got into trouble?
 Stolen something from shop or store?
 Bought something that you knew or suspected was stolen?
 Broken into a car or van to try and steal something out of it?
 Taken and/or driven vehicle without owner's permission?
 Broken into a house or building to try and steal something?
 Stolen money or property that someone was holding, carrying or wearing at the time?
 Hit, kicked or punched someone else on purpose with the intention of really hurting them?
 Deliberately damaged or destroyed property that did not belong to you?
 Hurt or injured animals or birds on purpose?
 Carried a knife or other weapon for protection or in case it was needed in a fight?
 Used cheque book, credit card or cash point card which you knew or suspected was stolen to get money out of a bank or buy something?
 Derived variables:
 Frequency score for all ASB (anti-social behaviour) items at age 22
 Seriousness score for all ASB (anti-social behaviour) items at age 22

Clinic at 24 years

In the past year how often have you:
 Been told off or to move on by police officer?
 Been stopped by the police and searched?
 Been stopped by the police regarding your behaviour?
 Been picked up by the police and taken home?
 Been picked up and taken to police station?
 Been given a fixed penalty notice by the police?
 Been charged by the police for committing a crime?
 Had contact with the police for another reason?
 Been in trouble with police?
 Received an official police caution?
 Received a fine from the court?
 Spent some time in a secure unit?
 Been on trial for something you have done?
 Derived variables:
 (Note that the normal set of 12 questions about specific behaviours were asked and, for each, they were asked whether they were under the influence of alcohol at the time. These were used to derive the variables below but the individual variables were not released because of the potential disclosure risk.)
 Total score for all anti-social behaviour items at age 24



Seriousness score for all anti-social behaviour items at age 24

In past 12 months, any violent crime under influence of alcohol? (includes category: violent crime but not under influence of alcohol)

In past 12 months, any non-violent crime under influence of alcohol?

In past 12 months, any crime under influence of alcohol?

Questionnaire at 25 years

In the last year how often have you:

Been loud, rowdy or unruly in a public place so that people complained or you got into trouble?

Stolen something from a shop?

Bought something that you knew or suspected was stolen?

Broken into car or van to try to steal something out of it?

Taken or driven a vehicle without the owner's permission?

Broken into a house or building to try to steal something?

Stolen money or property that the person was holding or carrying?

Hit, kicked, punched or attacked someone with the intention of really hurting them?

Hurt or injured animals or birds on purpose?

Damaged or destroyed property didn't belong to you?

Carried knife or other weapon for protection in case it was needed in a fight?

Used a cheque or card that you knew or suspected was stolen to get money or buy something?



(B) Social support score statements:

1. I have no one to share my feelings with.
2. My partner provides the emotional support I need.
3. There are other pregnant women with whom I can share my experiences.
4. I believe that in moments of difficulty my neighbours would help me.
5. I'm worried that my partner might leave me.
6. There is always someone with whom I can share my happiness and excitement about my pregnancy.

7. If I feel tired I can rely on my partner to take over.
8. If I was in financial difficulty I know my family would help if they could.
9. If I was in financial difficulty I know my friends would help if they could.

Answers were: Exactly feel, often feel, sometimes feel, never feel this, scored 3 to 0 respectively and summed to give the total score.



(C) Supplementary Tables

Supplementary Table S1: Variables used in the multiple imputation models (sample size = 10,983 individuals not living outside the Avon and Somerset area for the period from aged 16 to 20)

Variable	Type of variable (number of categories, if categorical)	Number (%) with missing data	Regression model using to predict missing data in this variable
Outcomes – participation at:			
18 months (mother questionnaire)	Binary	0	N/A
9 years (child questionnaire)	Binary	0	N/A
17 years (clinic attendance by adolescent)	Binary	0	N/A
25 years (young adult questionnaire)	Binary	0	N/A
Exposure			
Police-recorded serious violence before 20 years	Binary	0	N/A
Covariates			
Maternal age	Numerical	734 (7%)	Linear regression
Maternal ethnicity	Binary	1,877 (17%)	Logistic
Maternal smoking status	Categorical (3)	1,365 (12%)	Multinomial logistic
Maternal education	Categorical (4)	1,817 (17%)	Multinomial logistic
Paternal education	Categorical (4)	3,106 (28%)	Multinomial logistic
Parity	Categorical (3)	1,481 (13%)	Multinomial logistic
Housing tenure	Categorical (3)	1,435 (13%)	Multinomial logistic
Family occupational social class	Binary	2,503 (23%)	Logistic
Number of rooms in house	Numerical	1,526 (14%)	PMM ¹
Social support score	Numerical	2,555 (23%)	PMM ¹
Child sex ²	Binary	0	N/A

1. Predictive mean matching.

2. Separate imputation models for males and females.



Supplementary Table S2: Participation in ALSPAC at selected time points according to whether or not an individual had/ended up having a police record relating to serious violence before age 20 years: complete case analysis

Time point	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
18 months ¹	0.54 (0.43, 0.67)	1.04 (0.70, 1.55)
9 years ²	0.39 (0.32, 0.49)	0.90 (0.65, 1.25)
Males		
17 years ³	0.23 (0.15, 0.33)	0.35 (0.21, 0.60)
25 years ²	0.15 (0.08, 0.27)	0.19 (0.08, 0.48)
Females		
17 years ³	0.24 (0.13, 0.42)	0.45 (0.23, 0.88)
25 years ²	0.33 (0.19, 0.56)	0.55 (0.29, 1.07)

1. Mother-completed questionnaire; 2. Child-completed questionnaire; 3. Study clinic.

