Comparing parent and teacher reports of child mental health: Evidence from BCS70 and MCS

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Measurement of child mental health

- Accurate measurement of child mental health is central to any research in the field (e.g. prevalence, prognosis, risk and protective factors).
- Adult informants are often relied upon for measuring child symptoms, usually parents or teachers who know the children well. Children are deemed too young to report on their own mental health until later in childhood.
- Use of *both* observers combined regarded as a more robust or valid measure of child mental health

Lack of agreement between parent and teacher reporters

- Agreement between parent and teacher reporters of child mental health tend to be low to modest. Shown in meta-analysis, externalising: r=.28, internalising: r=.21 (De Los Reyes et al. 2015).
- Some disagreement would be expected due to individual biases in perceptions. Even same reporters differ in their responses as evident in test-retest reliability tests.
- 'Situational specificity' (Achenbach et al. 1987). Some child behavioural symptoms are specific to the home, whilst other behaviours are exhibited in the school context. Some behaviours are stabile across settings reflected in reporter agreement.
- Situational specificity supported empirically; much higher agreement between observers in the same settings than across settings. Mother and father agreement on externalising r=.59 and internalising r=.48 (De Los Reyes et al. 2015).

Other measurement comparisons between parent and teacher reports

- What level of child symptoms are most reliably assessed by teachers and which are best assessed by parents?
  - Lack of evidence as far as we know
- Do parent or teacher reports have different predictive validity?
  - Using an independent criterion (often at later time point), e.g. clinical diagnostic assessment, referrals to mental health services, self-reported mental health, school suspension, criminal justice involvement, candidate genes.
  - Results from studies have been mixed, some show parent reports having better predictive validity, other indicate teachers. Other studies suggest that predictive validity is outcome specific.

Current study

- Comparison of parent and teacher reports of child mental health (conduct problems/externalising and emotional problems/internalising)
- Using two birth cohort studies born 30 years apart (BCS70 and MCS)
- Examination of:
  - Agreement between parent and teacher reports on child mental health
  - Reliability/precision of parent and teacher measures at levels of symptoms
  - Predictive validity of parent and teacher reports in terms of later adolescent self-reported mental health
- Within study harmonised measures of parent and teacher reports
- Between study harmonised response scales

Data

- BCS70 (N=4,953)
- Parent and teacher Rutter scale at age 10
    - Externalising (5 items): ‘destroys belongings’ , ‘fights with other children’, ‘often disobedient’, ‘bullies other children’, ‘displays outbursts of temper, explosive or unpredictable behaviour*’
    - Internalising (5 items): ‘worried’, ‘rather solitary’, ‘miserable or distressed’, ‘afraid of new things/situations’, ‘fussy or over particular’.
  - Self-reported at age 16
    - Internalising symptoms (Malaise scale, 22 items)
    - Externalising symptoms (Antisocial behaviour, 18 items)
  - Self-reported age 26
    - Internalising symptoms (Malaise scale, 22 items)
  - Controls:
    - Gender, birthweight, age, ability, BMI, oldest child, number of siblings, maternal smoking, maternal mental health, maternal age, single parent, SES, mother education, father education

- MCS (N=5,927)
- Parent and teacher Strengths and Difficulties Questionnaire (SDQ) at age 11
  - Externalising (Conduct problems subscale, 5 items): 'often has temper tantrums' , 'is generally disobedient', 'often lies or cheats', 'fights with or bullies other children', 'steals from home, school, elsewhere'
  - Internalising (Emotional problems subscale, 5 items): 'often complains of headaches/sickness', 'has many worries', 'often unhappy, downhearted, tearful', 'nervous/clingy in new situations', 'has many fears, easily scared'.
- Self-reported at age 14
  - Internalising symptoms (Short Moods and Feelings Questionnaire (SMFQ), 13 items)
  - Externalising symptoms (Antisocial behaviour, 11 items)
  - Self-harm (in the last year, one item)
- Controls:
  - Gender, birthweight, age, ability, BMI, oldest child, number of siblings, maternal smoking, maternal mental health, maternal age, single parent, SES, mother education, father education

Analysis

- Agreement between parent and teacher reporters (correlations)
- Reliability/precision of parent and teacher scales (scale information functions)
- Predictive validity of parent and teacher reports (regressions)
  - Multiple imputations for missing data
  - In MCS sampling and attrition weights used

RESULTS

Agreement between parents and teachers

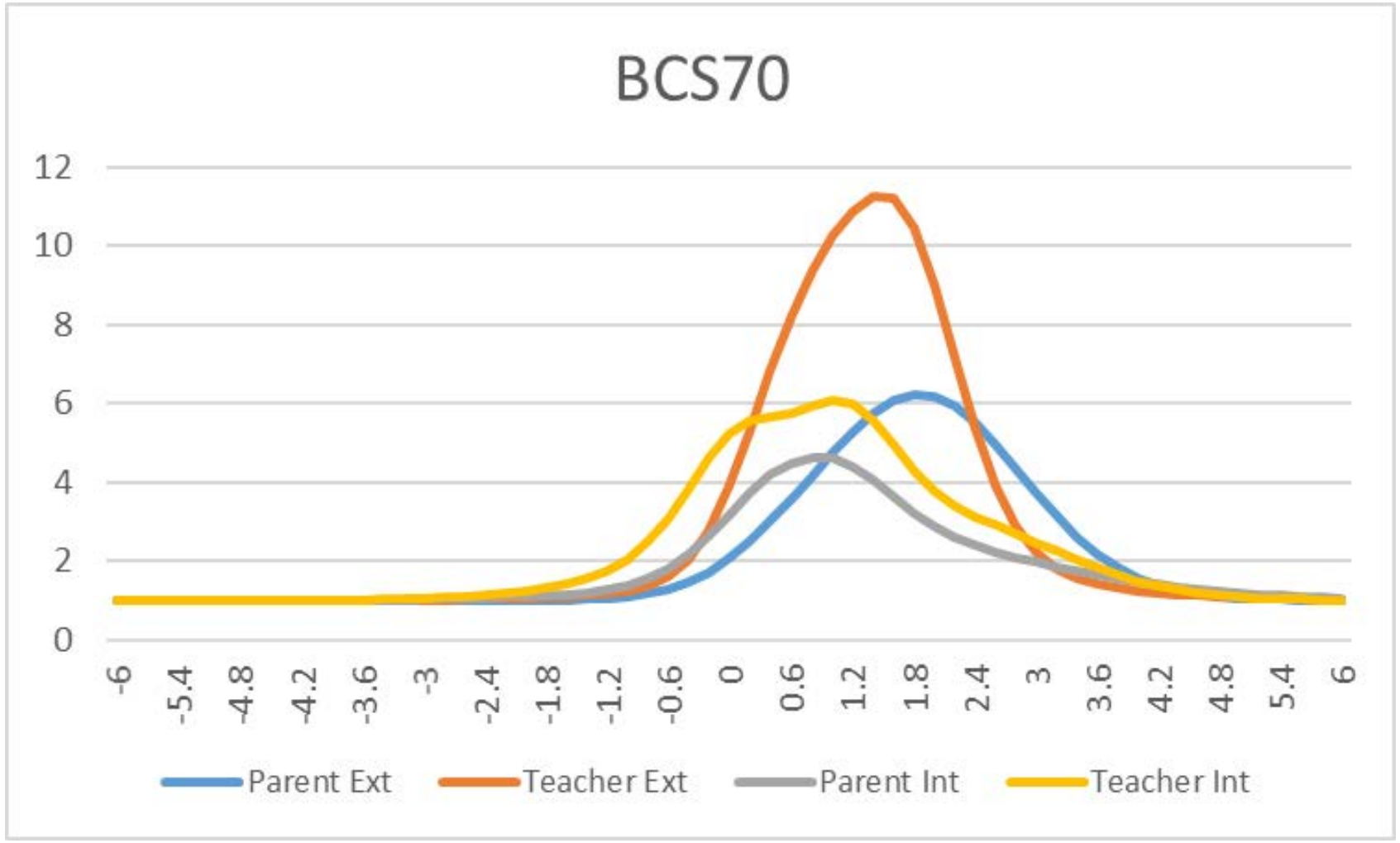
BCS70	Parent INT	Teacher INT
Parent INT	1	
Teacher INT	.17	1

MCS	Parent INT	Teacher INT
Parent INT	1.0	
Teacher INT	.33	1.0

BCS70	Parent EXT	Teacher EXT
Parent EXT	1	
Teacher EXT	.22	1

MCS	Parent EXT	Teacher EXT
Parent EXT	1.0	
Teacher EXT	.39	1.0

Precision/reliability – scale information curves



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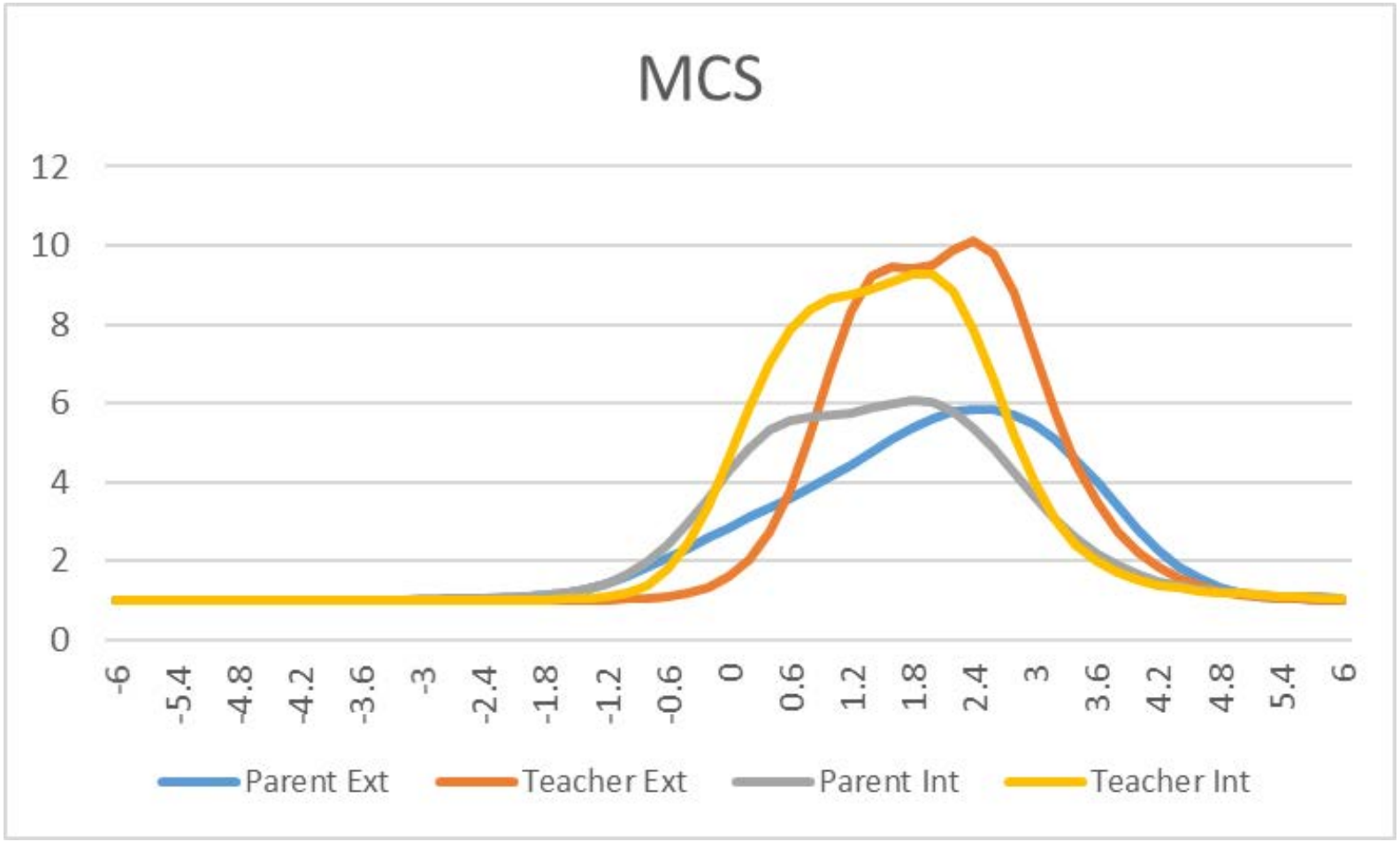

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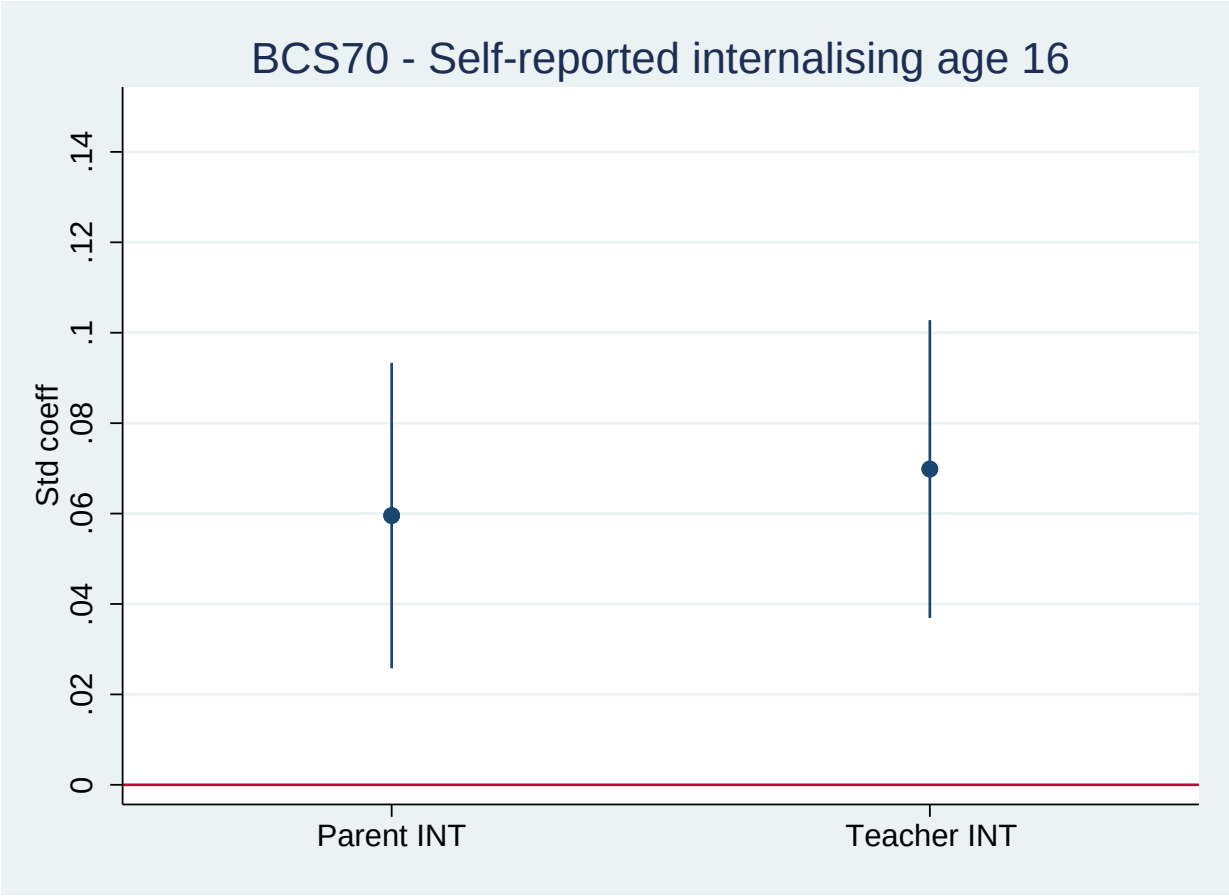
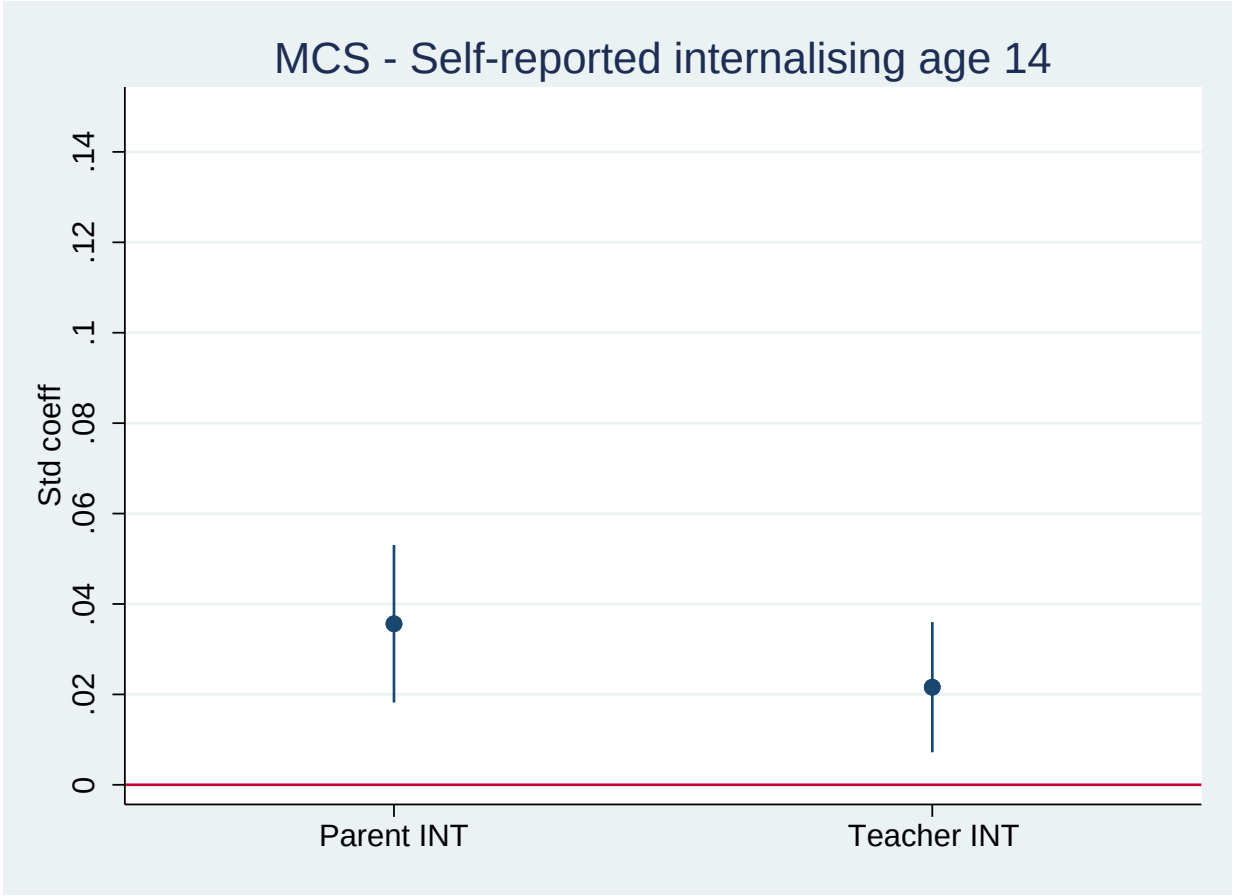
Predictive validity





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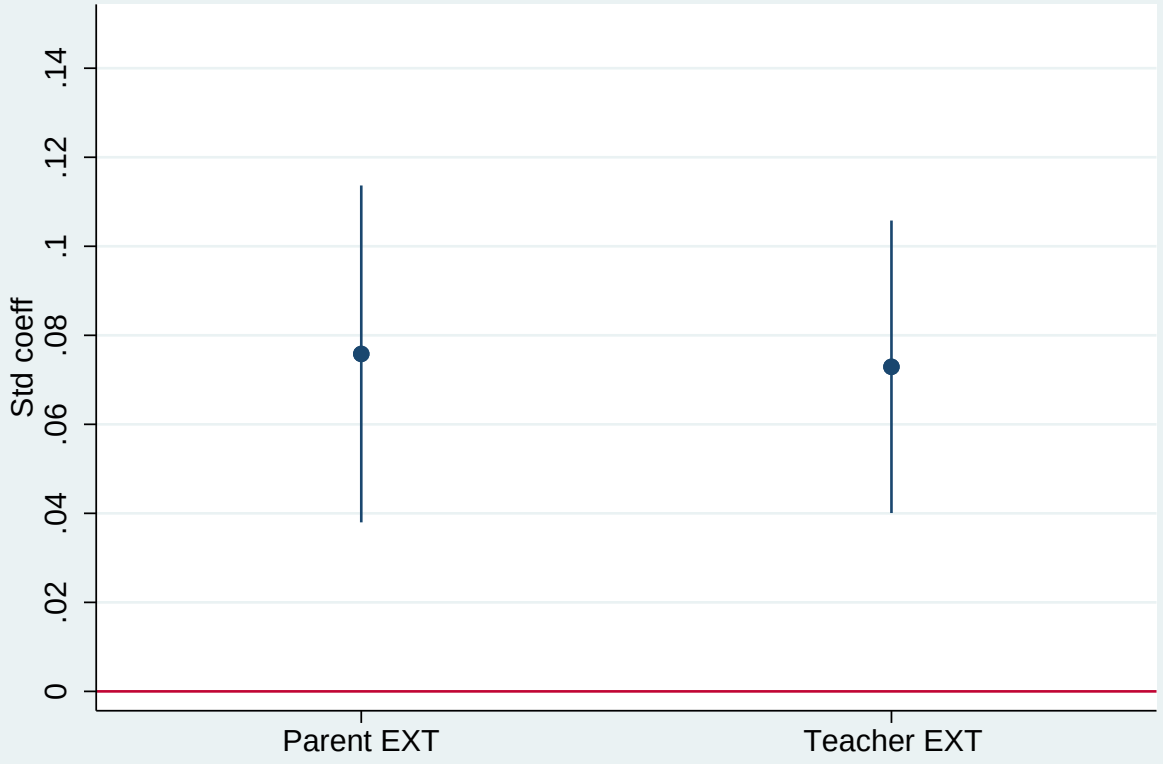
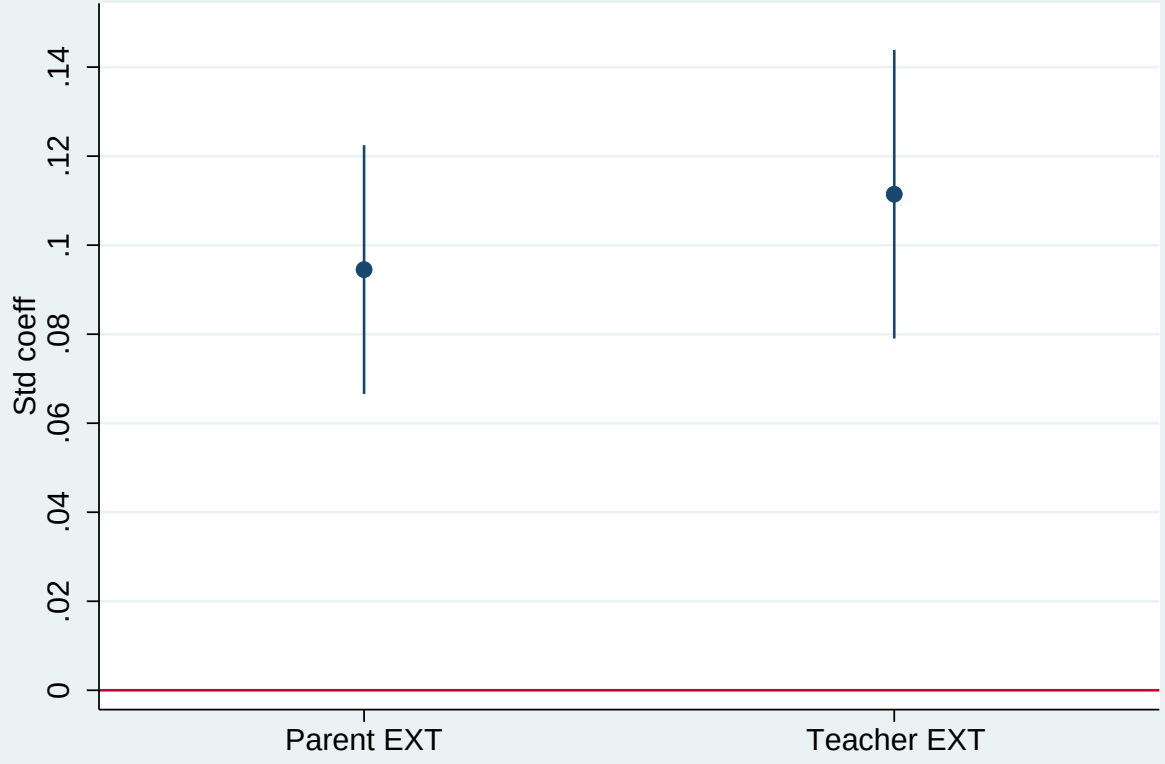
BCS70 - Self-reported antisocial behaviour age 16



MCS - Self-reported antisocial behaviour age 14



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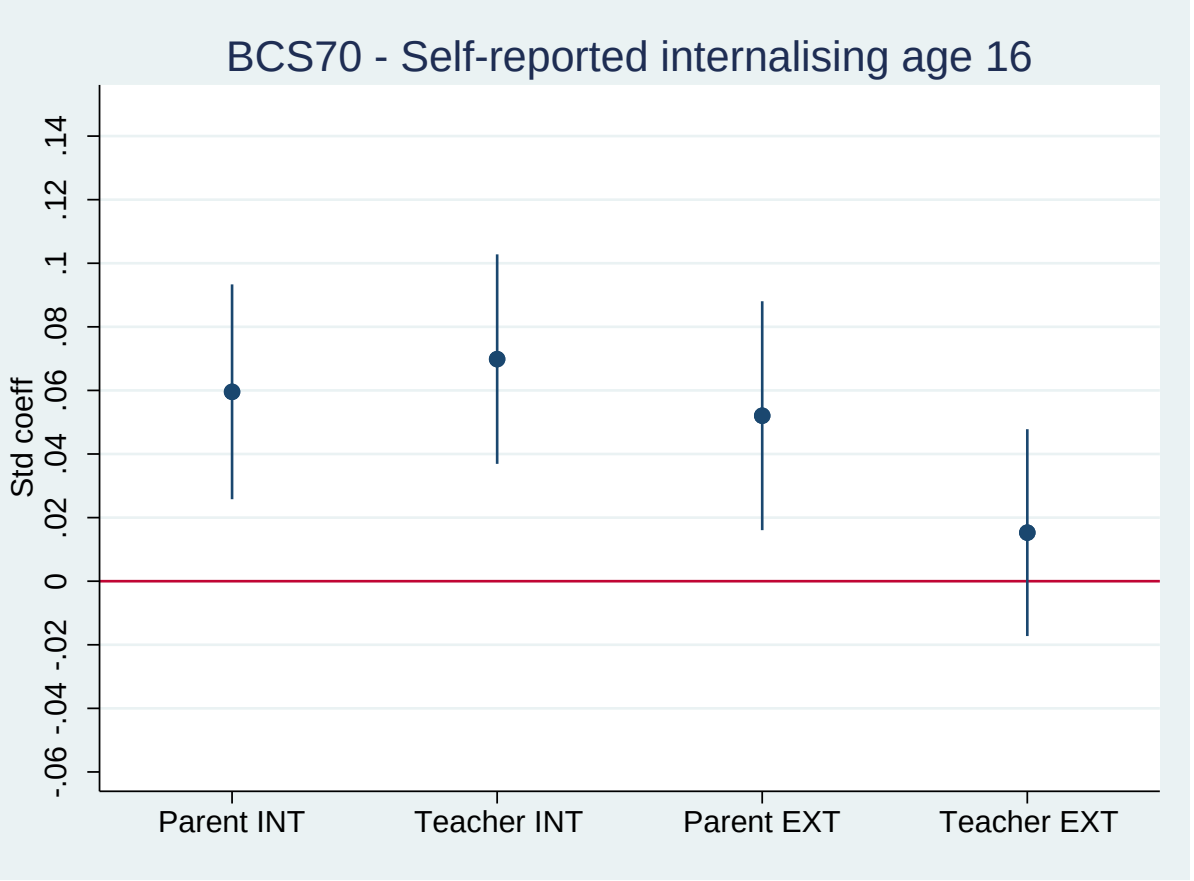

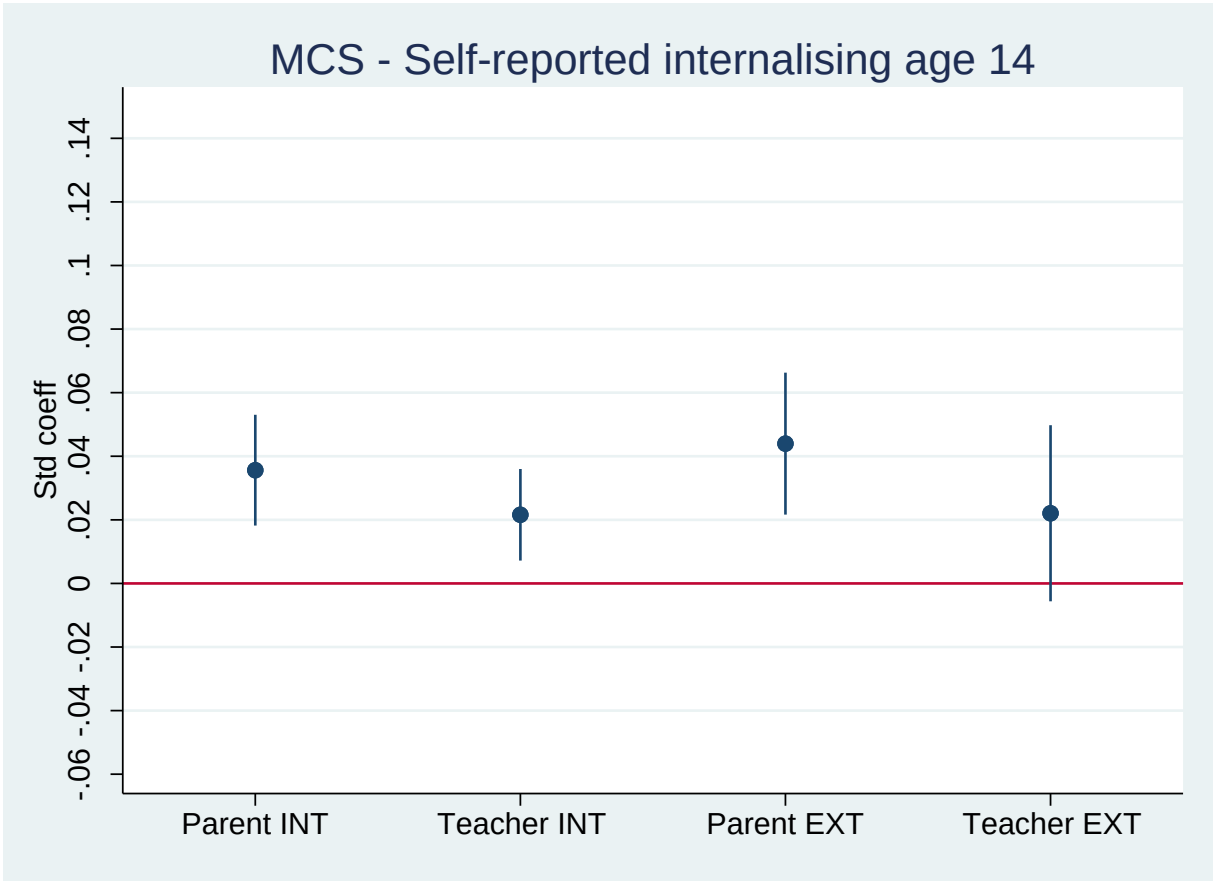

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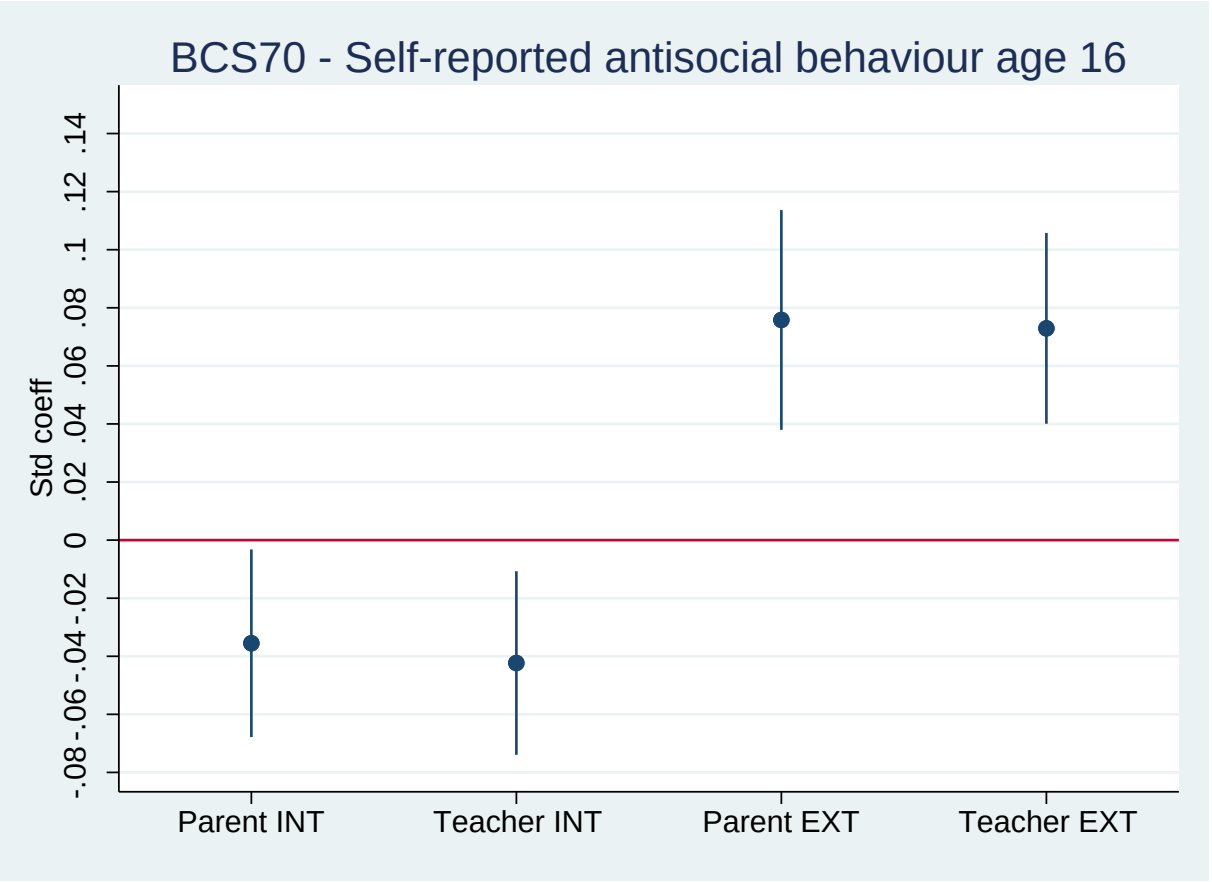

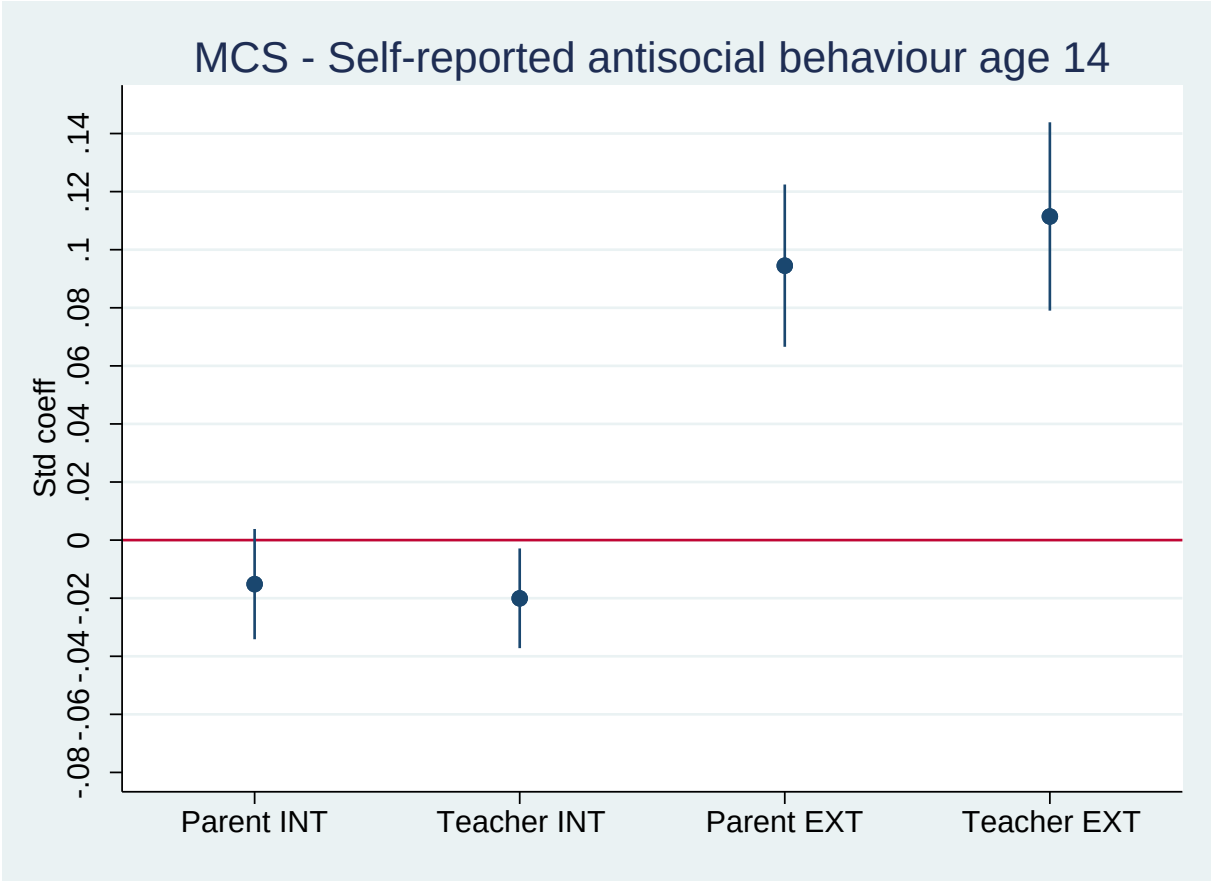

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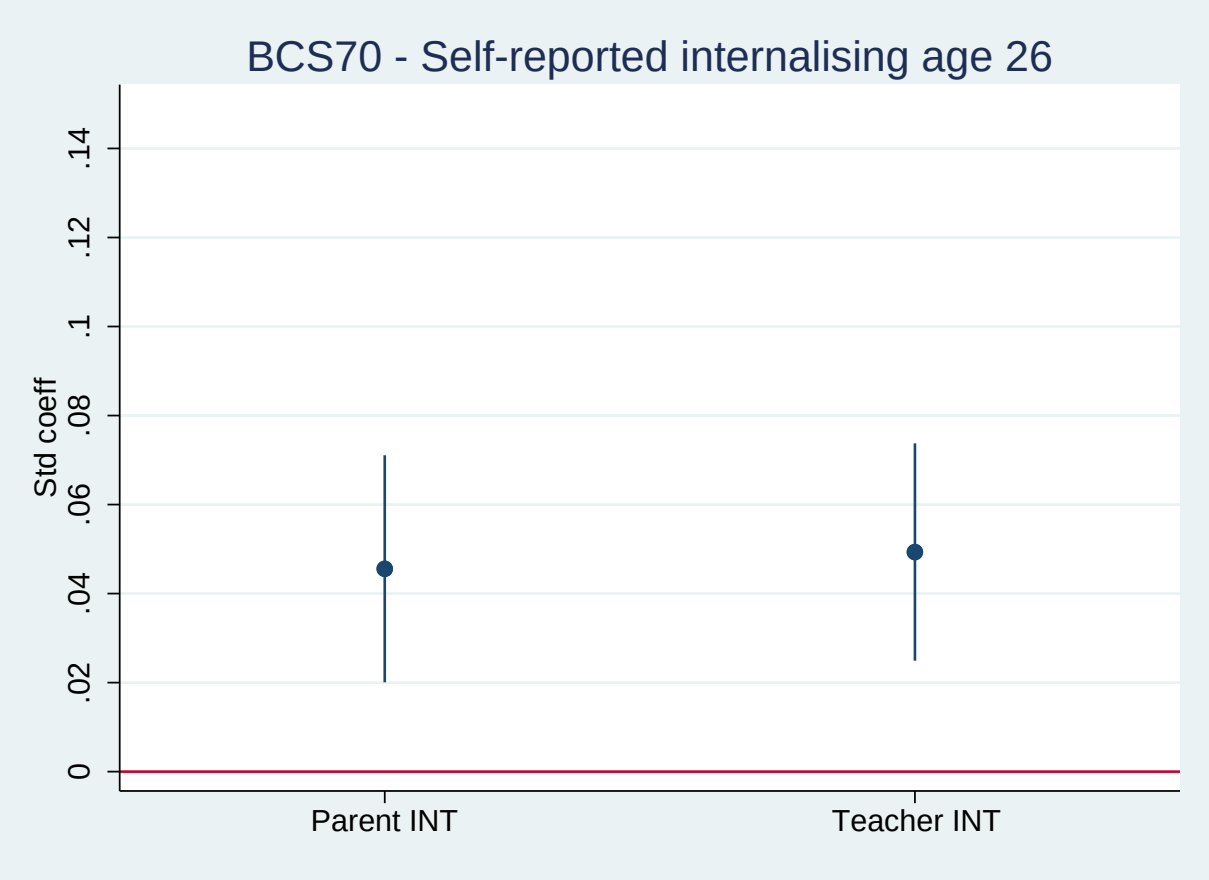

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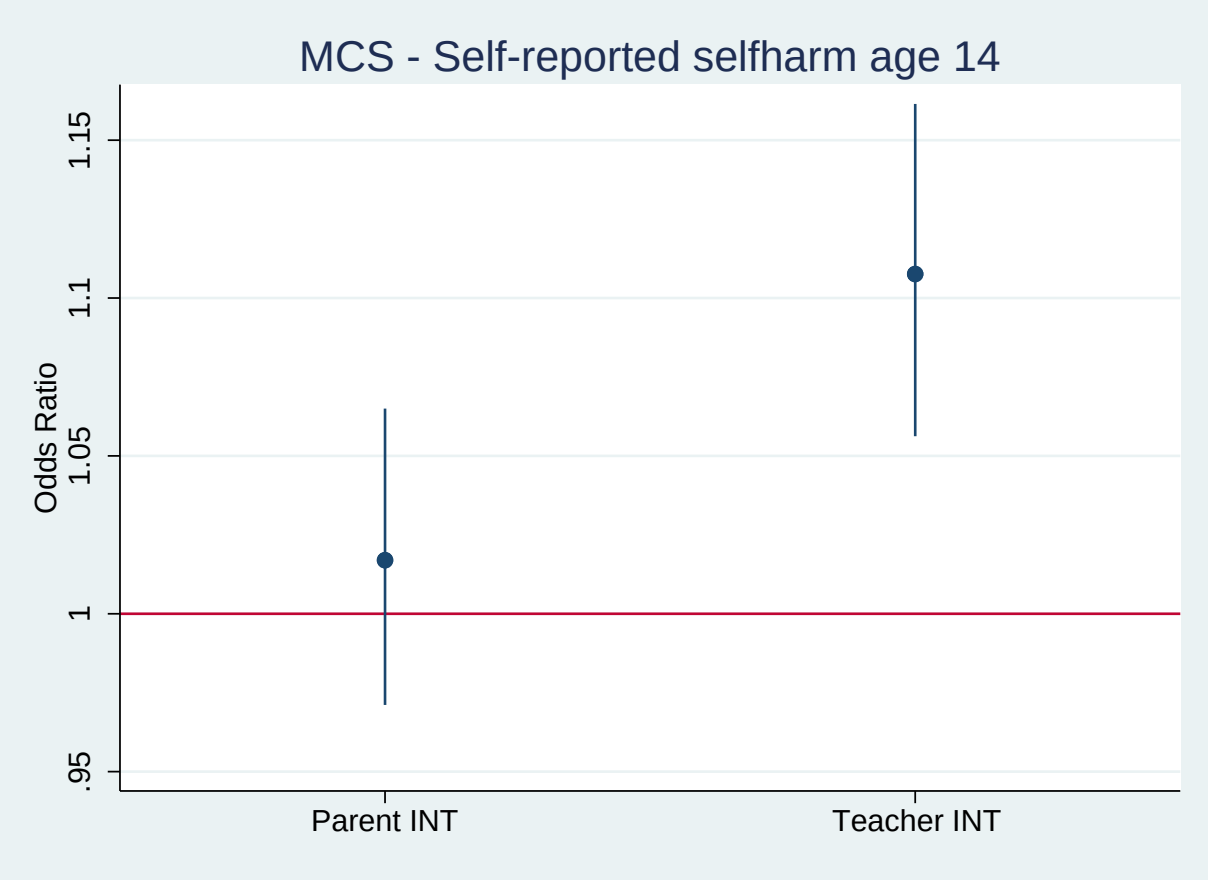

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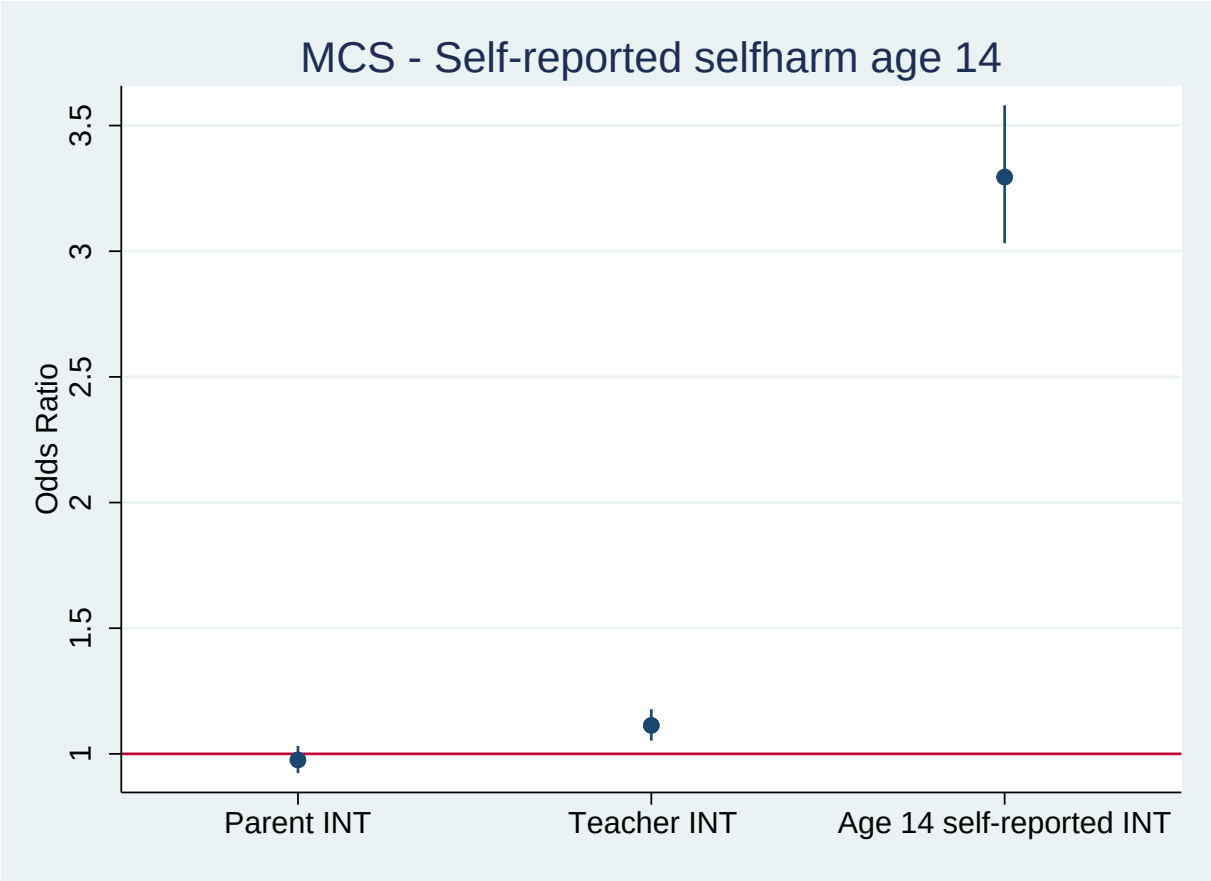

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Models R-Squared summary

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Summary

- Low to moderate agreement between parents and teachers. In younger cohort agreement is higher. Possible method effect.
- Teachers provide more reliable/precise reports on child mental health. Possible explanation is that teachers observe child in interaction with peers more than parents. More precision at higher end of externalising symptoms for both parents and teachers.
- Predictive validity generally similar for parents and teachers on self reported scales both in adolescence and in adulthood. Exception was self-harm in MCS which is predicted by teachers but not by parents.

Further work

- Bifactor (parent specific, teacher specific, general/agreement)
- Other outcomes (socioeconomic)
- Gender
- Ethnicity