Concept Paper Form

Provisional Paper Title: Sexual assault and functional breathing disorders

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P.I. Sponsor: (if the proposing author is a student or colleague of an original PI)

Today's Date: 25/9/19

Objective of the study:
To investigate associations between reported traumatic sexual experiences – forced intercourse before age 16 and ever reported rape (age 38) and the prevalence of dysfunctional breathing/hyperventilation syndrome, adult onset asthma, and adult respiratory symptoms.

Data analysis methods:
The primary predictor variables will be Respiratory data from phase 38 and 45 – particularly the Nijmegen scores and the Asthma diagnosis variables.

Sexual assault data from various phases:
1. Unwanted sexual intercourse before age 16 (collected at age 26)
2. Reported rape ever at age 38

Analyses will be by simple cross-tabulations/chi-square tests, and logistic regression with the potential to control of confounding (mostly by SES and childhood asthma). The primary outcomes will be, Nijmegen scores, hyperventilation syndrome (=Nijmegen score >19), and asthma at ages 38 and 45. The main predictors will be unwanted sexual intercourse before age 16 and ever-reported rape at age 38.

Sexes will be analysed separately. We will test for reverse causation by checking...
whether childhood asthma or wheeze (age 9 to 13) is associated with sexual assault. We will control for (or exclude) childhood asthma in the analysis of adult asthma because it is only plausible that assault could cause late-onset asthma or respiratory symptoms (the number of pre-adolescent assaults is likely to be small and not adequately captured by our data).

**Variables needed at which ages:**

Respiratory data from phase 38 and 45 – particularly the Nijmegen scores and the Asthma diagnosis variables. Asthma diagnoses and symptoms from earlier ages will also be used.

Sexual assault data from various phases:
1. Unwanted sexual intercourse before age 16 (collected at age 26)
2. Reported rape ever at age 38

Potential confounding/mediating variables – SES, smoking

Significance of the Study (for theory, research methods or clinical practice):

**References:**

3. van Dixhoorn J, Folgering H. The nijmegen questionnaire and dysfunctional breathing. ERJ open research 2015; 1.