

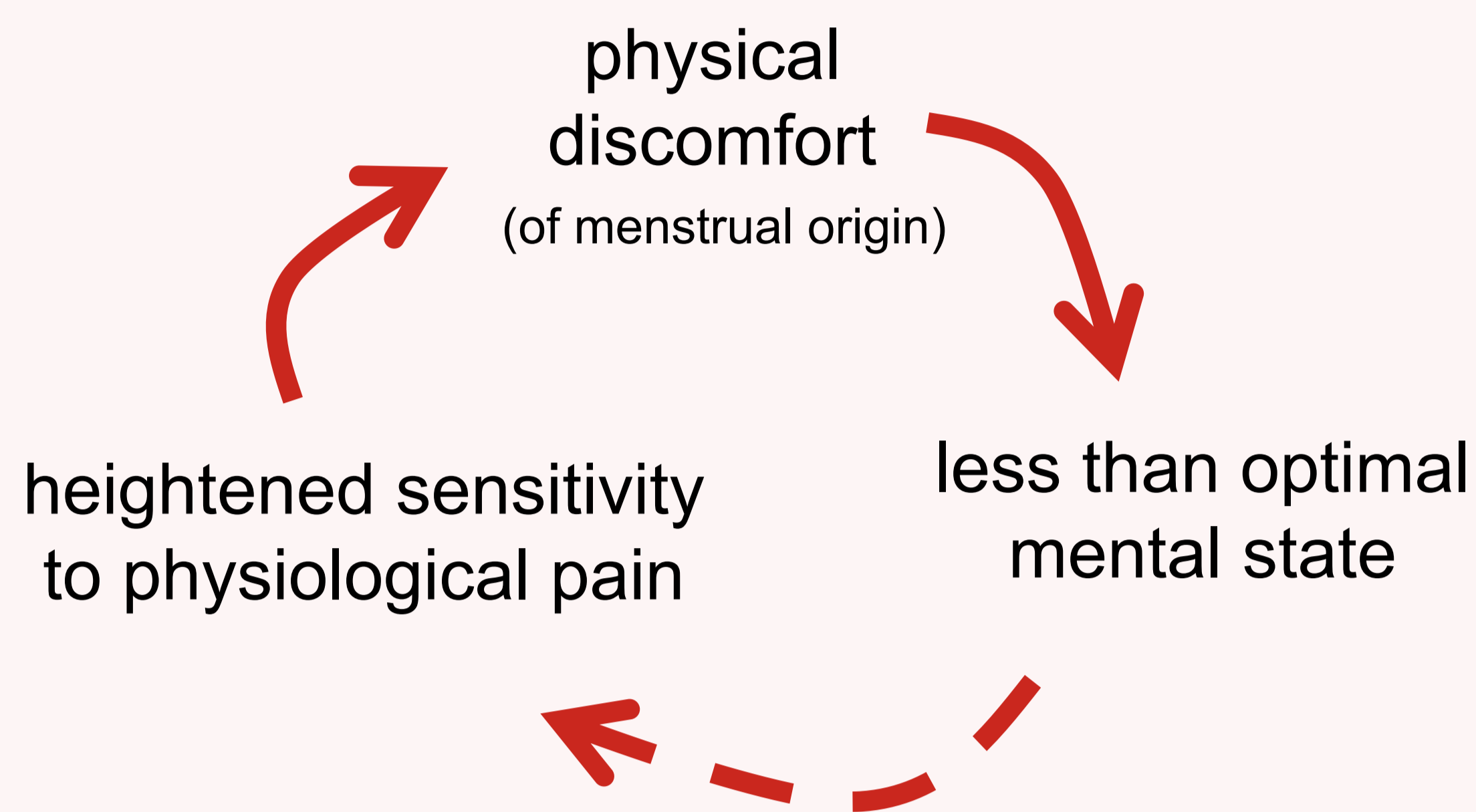
Exploring the role of emotional wellbeing in menstrual health

Catherine Martins

Natural Sciences MSci: Majoring in Neuroscience and Psychology
Supervisor: Dr Jo Blodgett, Institute of Sport Exercise and Health



What is the association between the *psychological distress (PD)* at adolescence (age 16) and the *menstrual symptoms* experienced across women's life (ages 16, 30 and 42)?



Can we weaken the feedback loop to alleviate discomfort and reduce lifestyle impacts?

METHODS

A cohort of 2'584 females were surveyed at ages 16, 30 and 42. Data on psychological distress and menstrual symptoms was collected from the 1970 British Cohort Study – a study of individuals born within 1 week in 1970.

Psychological distress was measured using the 12-item General Health Questionnaire at age 16. Three categories were considered:

- no/mild psychological distress (GHQ<11)
- moderate psychological distress (GHQ 11-15)
- severe psychological distress (GHQ score>15)

Five menstrual symptoms were self-reported at ages 16, 30 and 42 years. Binomial logistic regressions, with multiple imputation by chained events, examined associations between PD at age 16 and each individual symptom.

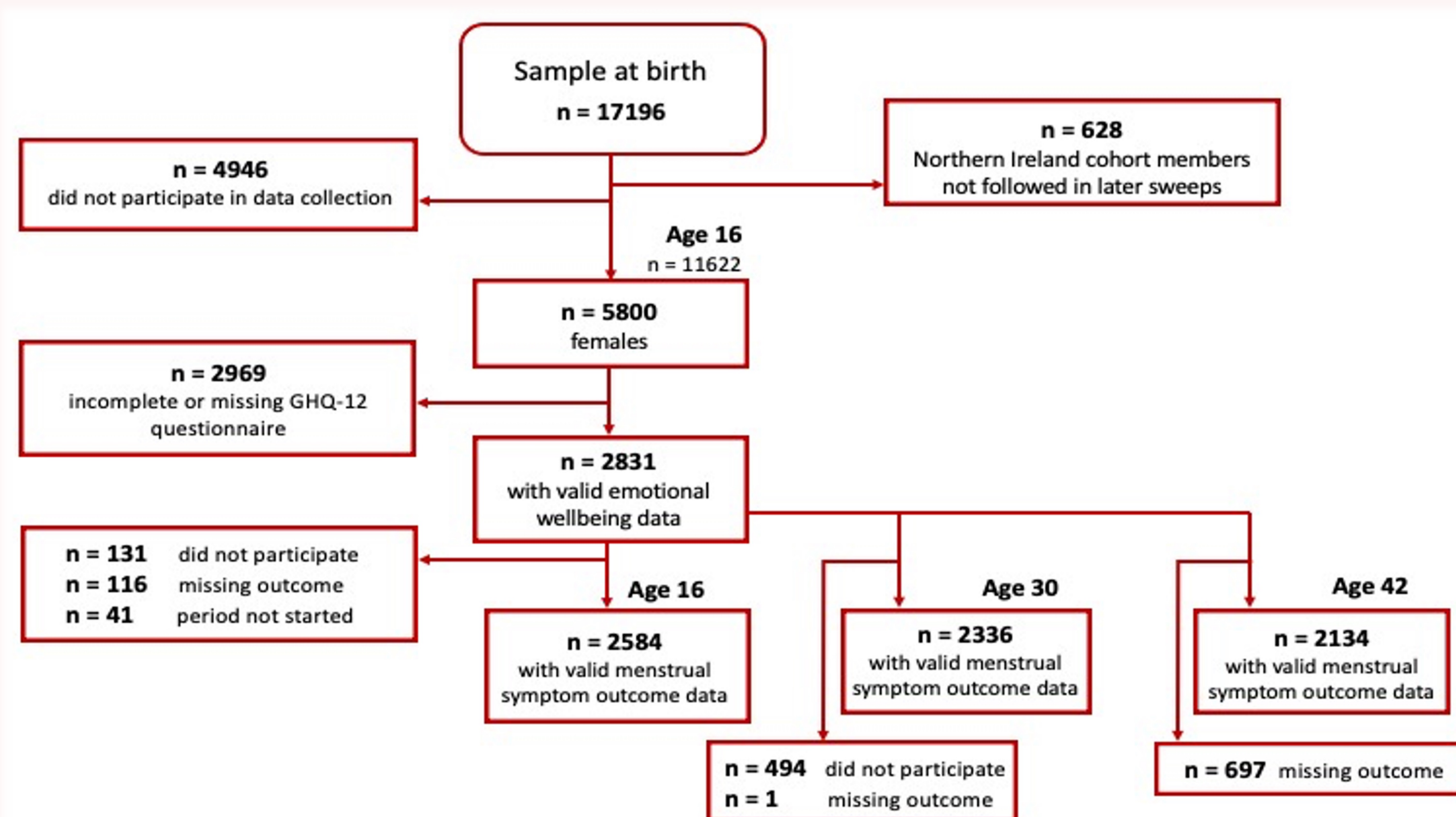


Figure 1. Flowchart presenting the derivation of sample study

INTRODUCTION

Most menstruating girls and women experience unpleasant menstrual symptoms that not only cause physical discomfort but interfere with their personal and professional lives.

- 1 in 3 women discontinue daily activities owing to menstrual symptoms
- 5-14% of women are absent from the workplace on a regular basis
- Over 14% of girls miss school for 1-2 days each month due to physical discomfort caused by menstruation

There is evidence to suggest that emotional wellbeing is both affecting and affected by menstrual health. Yet, many questions remain regarding the nature, the extent, and the mechanisms feeding the association.

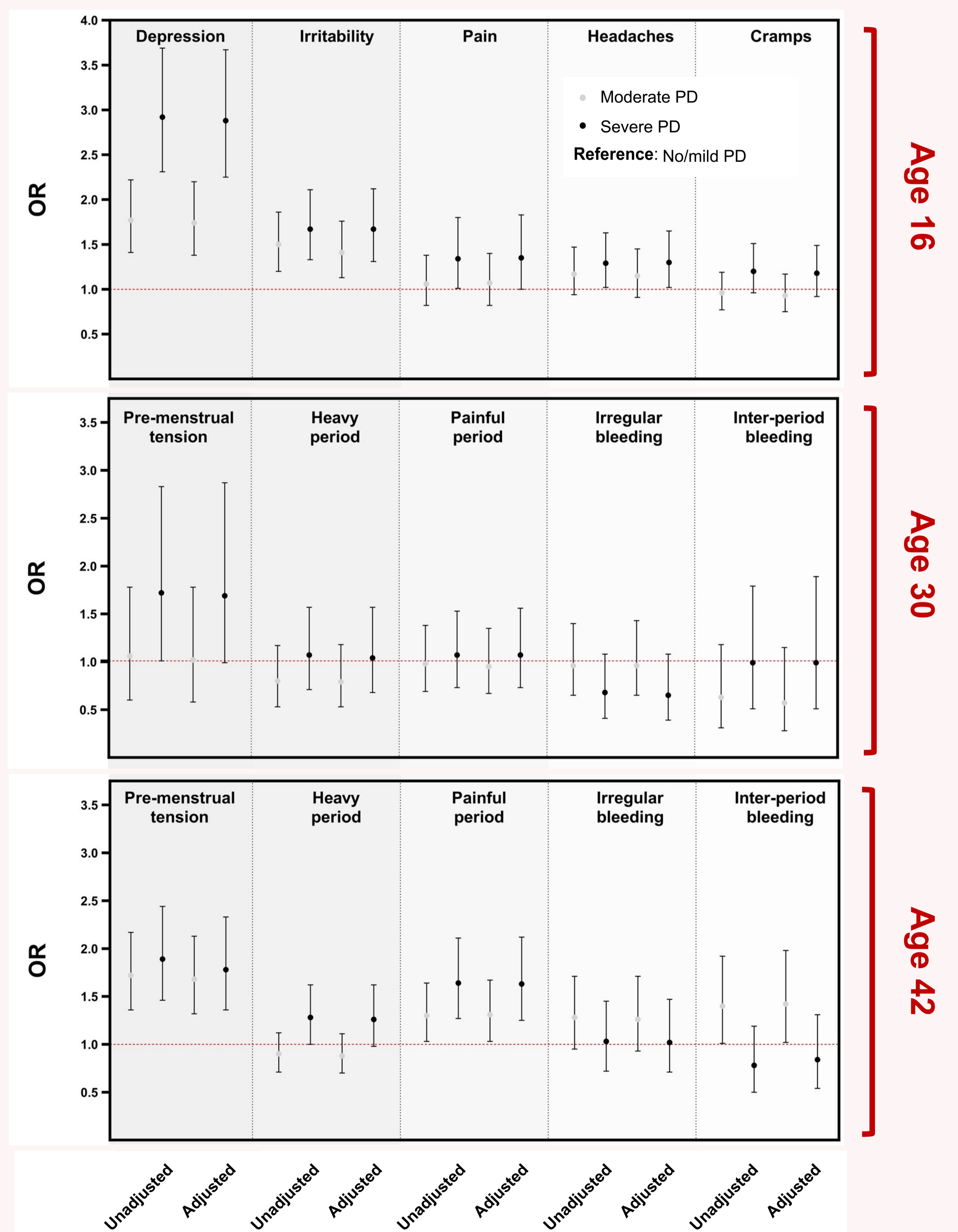


Figure 2. Forest plot portraying menstrual symptoms present at age 16, 30 and 42 with respect to PD groups [OR = odds ratio]

RESULTS

Range of menstrual symptom prevalence: 3 - 61%

Most prevalent symptom:

- Age 16 – pain (61%)
- Age 30 – painful period (10%)
- Age 42 – heavy period (33%)

PMT = pre-menstrual tension

Reference: no/mild PD

Strongest associations were observed between severe psychological distress and mood-related menstrual symptoms:

Age	Symptom	Odds Ratio	95% C.I.
16	Depression	2.92	2.31 - 3.70
	Irritability	1.67	1.33 - 2.11
30	PMT	1.72	1.01 - 2.83
42	PMT	1.89	1.46 - 2.44

CONCLUSION

Menstruating females with poorer emotional wellbeing at adolescence have an increased risk of unpleasant menstrual symptoms at age 16 and in midlife.



Early-life psychological interventions have the potential to improve women's menstrual experiences and the myriad of ways it affects women's and society's quality of life.