## Gender

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## HOW ROBUST IS THE EVIDENCE OF AN EMERGING OR INCREASING FEMALE EXCESS IN PHYSICAL MORBIDITY RATES BETWEEN CHILDHOOD AND ADOLESCENCE? RESULTS OF A SYSTEMATIC LITERATURE REVIEW

A MacLean,<sup>1</sup> K Hunt,<sup>1\*</sup> H Sweeting,<sup>1</sup> M Egan,<sup>1</sup> J Adamson<sup>2</sup> <sup>1</sup>MRC Social and Public Health Sciences Unit, Medical Research Council, Glasgow, UK; <sup>2</sup>Department of Health Sciences, University of York, York, UK

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**Background** It is widely acknowledged that higher rates of psychological morbidity found among males in childhood are replaced by an emergence of higher rates in females during the transition to adolescence. Although this pattern has also been reported for asthma prevalence, the extent to which there is evidence of an emerging/increasing female excess in relation to other forms of physical morbidity is yet to be established. Identifying and appraising evidence for this pattern is important for understanding the apparent deterioration in female health which begins in adolescence and continues into adulthood.

**Objectives** To investigate the extent to which research has found evidence that during adolescence a female excess in prevalence rates emerges/increases for a range of physical symptoms (headache, stomach ache and others) and chronic illnesses (diabetes and epilepsy).

Methods In a systematic review, five databases (Medline, Embase, CINAHL, PsycINFO, and ERIC) were searched for studies which presented physical morbidity prevalence data for both males and females and for at least two age-groups within the age-range of 4 to 17 years. Searches were limited to articles published in English between 1992 and the date of search (April 2010). A three-stage screening process (initial sifting; detailed inspection of papers; extraction of full papers) was performed, followed by appraisals of study methods and designs. Multiple reviewers quality-checked decisions. Data synthesis was performed by calculating odds ratios (OR), then graphically representing and tabulating findings by study quality to aid comparison.

Results 11,245 studies were identified and 48 were deemed relevant and of sufficient scientific quality for inclusion. Results suggest that the evidence of an emerging/increasing female excess across a range of physical health outcomes is not as consistent as for asthma and psychological symptoms. For example, only two out of nine diabetes studies and two out of seven epilepsy studies show clear evidence of an emerging/increasing female excess. However, stronger evidence of this pattern is apparent in relation to dizziness and abdominal pain, with two out of three studies and eight out of eleven studies, respectively, showing an emerging/increasing female excess.

**Conclusion** Our findings suggest that evidence of an emerging/increasing female excess is more robust for some measures of physical health than others. This raises questions about whether symptom/condition specific or more generalised social or biological explanations may explain the patterns of an emerging/increasing female excess where these are seen.