

Hospital costs associated with perinatal mental health diagnoses for Australian women

Mary Lou Chatterton¹, Cathrine Mihalopoulos¹, Jolie Hutchinson², Maxine Croft³, Vera Morgan³, Georgina Chambers², Elizabeth Sullivan⁴, Nicole Highet⁵, Marie-Paul Austin²

¹ Deakin University, Melbourne, Australia

² University of New South Wales, Sydney, Australia

³ University of Western Australia, Perth, Australia

⁴ University of Technology Sydney, Sydney, Australia

⁵ Centre of Perinatal Excellence, Melbourne, Australia

Background: Previous studies reported hospital admission rates and length of stay related to depression in the perinatal period, but have not evaluated cost.^{1,2} This analysis aims to measure hospital-related costs in women presenting with mental health morbidity in the perinatal period using available administrative databases.

Methods: NSW & WA birth and hospital admission data collections for women giving birth between July 2000 and December 2009 were analysed. The cohort was divided into three groups: Case women had ≥ 1 psychiatric admission within a perinatal period; Comparison 1 women had ≥ 1 psychiatric admission outside of any perinatal period; Comparison 2 women had no psychiatric admissions. Hospital separations were costed using national hospital cost data for 2009-2010 based on diagnosis-related group codes. Hospital costs were summed over the study period and analysed with a Generalised Linear Model with gamma distribution adjusted for covariates.

Results: Total mean hospital costs for Cases were significantly higher ($P < 0.001$) than Comparison 2 with the difference in mean costs estimated at \$15,223 [\$15,049, \$15,395]. Significant interactions were found with unmarried Cases having significantly higher costs (\$7000) than married Cases. Cases without private insurance also had significantly higher costs than Cases with insurance.

Conclusion: Women with perinatal mental health diagnoses incurred significantly greater hospital costs than women without any mental health diagnosis. Lack of private insurance and unmarried status was associated with increased costs.

1. Xu F, Austin MP, Reilly N, Hilder L, Sullivan EA. Major depressive disorder in the perinatal period: using data linkage to inform perinatal mental health policy. *Archives of women's mental health* 2012; 15(5): 333-41.

2. Xu F, Austin MP, Reilly N, Hilder L, Sullivan EA. Length of stay for mental and behavioural disorders postpartum in primiparous mothers: a cohort study. *International journal of environmental research and public health* 2014; 11(4): 3540-52.