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We write on behalf of Postpartum Support International (PSI), the leading organization dedicated to helping women suffering from perinatal mood disorders, and its clinical member group, the Reproductive Psychiatry Group. As a group, we are deeply concerned by the harmful repercussions of Boukhris et al.'s study '*Antidepressant Use During Pregnancy and the Risk of Autism Spectrum Disorder in Children*', just published in *JAMA Pediatrics*. (Boukhris 2015)¹. This study and the resulting media fervor may frighten women who may previously, currently or in the future need antidepressants during pregnancy for their mental health and wellbeing.

We hope to highlight serious methodologic errors in this study. First, epidemiologic studies such as this one fall short of identifying unique risks related to antidepressants during pregnancy. There is already strong evidence that mothers with untreated depression are more likely to have a child with autism.² The genetic heritability of autism was found to be more than 90%, and the genes found to be involved in depression overlap with those playing a role in autism.³ Despite these clear genetic links, the authors failed to control for family history of both parents when designing this recent study.

In terms of results, the findings of an association between prenatal exposure to antidepressants and offspring with autism were no longer significant once autism diagnosis was made only by a neurologist or by a psychiatrist. Furthermore, the risk of autism was significantly decreased after controlling for maternal history of depression.

Finally, the authors frame the main finding as an '87% increase' in offspring of mothers who took antidepressants during pregnancy, while in fact the absolute risk increase was less than 1%.

Many studies have explored this topic, yet unfortunately the media focuses on papers with positive findings, regardless of the veracity of the work. Two large well-controlled epidemiological studies in 2013 (one including up to 630 000 Danish children) failed to find an association between prenatal exposure to antidepressant medication and autism spectrum disorders.⁴ We implore the mainstream media to present the negative studies to help women feel more secure, not just the positive studies that feed into their greatest fears.

A risk versus benefit analysis occurs daily among women, their partners, and clinicians involved in reproductive psychiatry. Alarmist headlines, such as those we are seeing worldwide in response to this study, cause many women with a history of depression to stop their antidepressant medication, increasing their chance of relapsing to

¹ Boukhris T, Sheehy O, Mottron L, Bérard A. Antidepressant Use During Pregnancy and the Risk of Autism Spectrum Disorder in Children. *JAMA Pediatr*. Published online December 14, 2015. doi:10.1001/jamapediatrics.2015.3356.

² Daniels JL, Forssen U, Hultman CM, Cnattingius S, Savitz DA, Feychting M, et al. Parental psychiatric disorders associated with autism spectrum disorders in the offspring. *Pediatrics* 2008;121:e1357-62. Larsson HJ, Eaton WW, Madsen KM, Vestergaard M, Olesen AV, Agerbo E, et al. Risk factors for autism: perinatal factors, parental psych history, and socioeconomic status. *Am J Epidemiol* 2005;161:916-25. Rai D, Lee BK, Dalman C, Golding J, Lewis G, Magnusson (2013) Parental depression, maternal antidepressant use during pregnancy, and risk of autism spectrum disorders: population based case-control study. *BMJ* 346-361.

³ Cross-Disorder Group of the Psychiatric Genomics Consortium <<http://www.nature.com/ng/journal/v45/n9/abs/ng.2711.html#group-1>> Genetic relationship between five psychiatric disorders estimated from genome-wide SNPs *Nature Genetics* 45, 984–994, 2013

⁴ Sørensen MJ, Grønberg TK, Christensen J, et al. Antidepressant exposure in pregnancy and risk of autism spectrum disorders. *Clinical Epidemiology*. 2013;5:449-459. doi:10.2147/CLEP.S53009.

Anders Hviid, Dr.Med.Sci., Mads Melbye, M.D., Dr.Med.Sci., and Björn Pasternak, M.D., Ph.D. *N Engl J Med* 2013; 369:2406-2415 December 19, 2013 DOI: 10.1056/NEJMoa1301449

more than 50%. Both antenatal and postnatal depression have known and quantifiable risks to mother and child, and every treatment decision for a pregnant woman must balance those known risks against any risks of medication. As a society, we must be very cautious about understanding the risks and benefits associated with psychiatric treatment. PSI, the Reproductive Psychiatry Group, and its members support well-designed research, and thoughtful publication to help families and providers make well-informed decisions regarding the use of psychotropic medication during pregnancy.

Signed:

Postpartum Support International and the Reproductive Psychiatry Group

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