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## **Keywords**

impulsivity, long-active reversible contraceptives, pregnancy intention, unplanned pregnancy

## **Comments**

Prachi Godiwala participated in this study as a medical student as part of the Senior Scholars research program at the University of Massachusetts Medical School. This poster was presented on Senior Scholars Program Poster Presentation Day at the University of Massachusetts Medical School, Worcester, MA, on April 29, 2015.

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# Pregnancy Intention in Relation to Nonplanning Impulsivity



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## Introduction

Half of pregnancies in the United States are unintended.

We examine a novel risk factor for unintended pregnancies, impulsivity.

We hypothesize that women with higher nonplanning impulsivity will be more likely to have an unplanned pregnancy.

## Methods

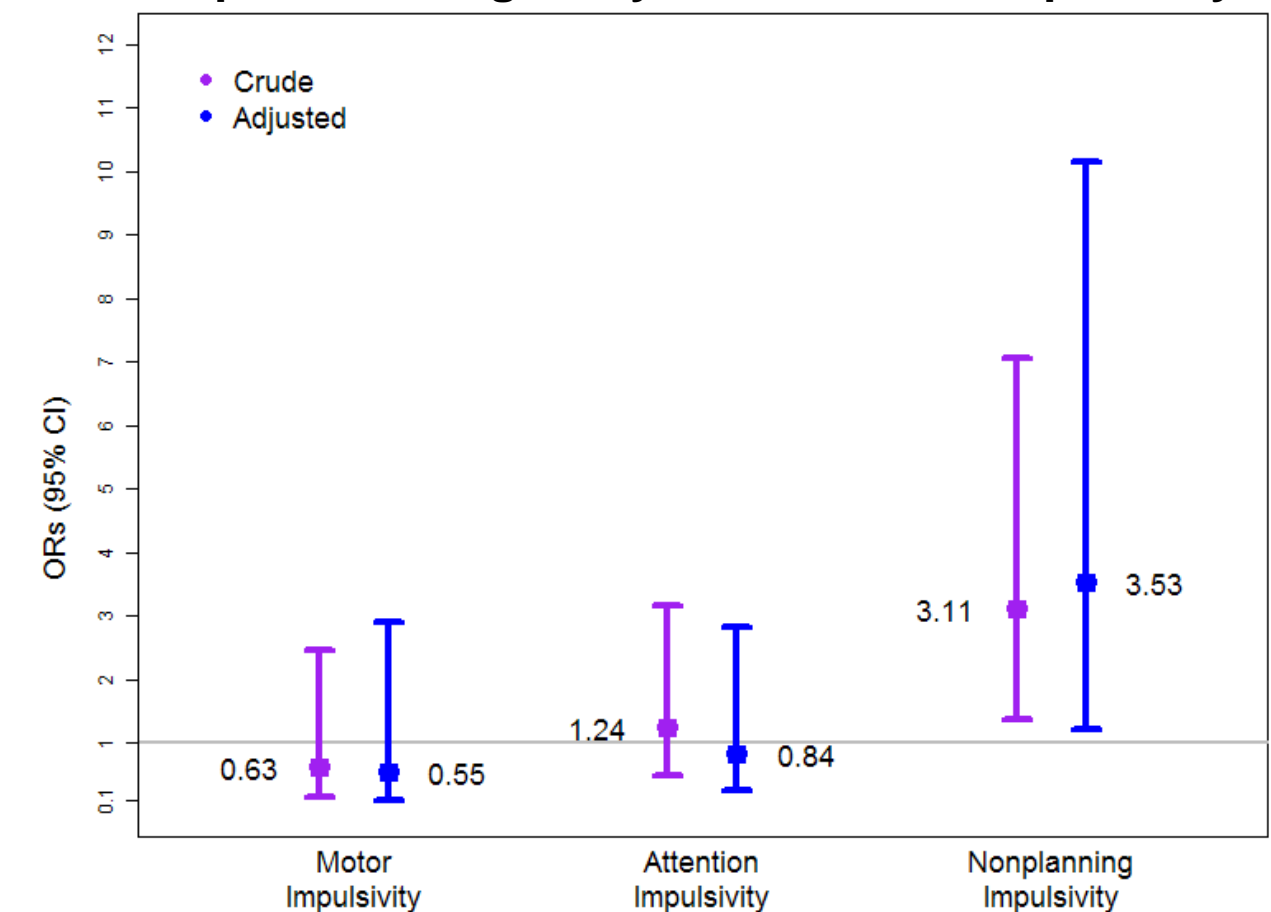
The parent study was a prospective cohort study of 125 pregnant women examining the association between impulsivity and weight gain during pregnancy. At an in-person study visit, women completed self-report measures via a secure web form.

The 15-item Barratt Impulsiveness Scale (BIS-15) measures impulsivity using subjective statements about the respondent's behavior with 4 response options: rarely/never, occasionally, often, and almost always/always.<sup>5,6</sup> Three subscales with 5 questions each measure attention, motor, and nonplanning impulsivity. We categorized women as being less impulsive (subscale score of 5-10) versus more impulsive (11-20). We chose this cutoff as a score of 10 indicates responses of "never/rarely" or "occasionally", representing lower impulsivity.

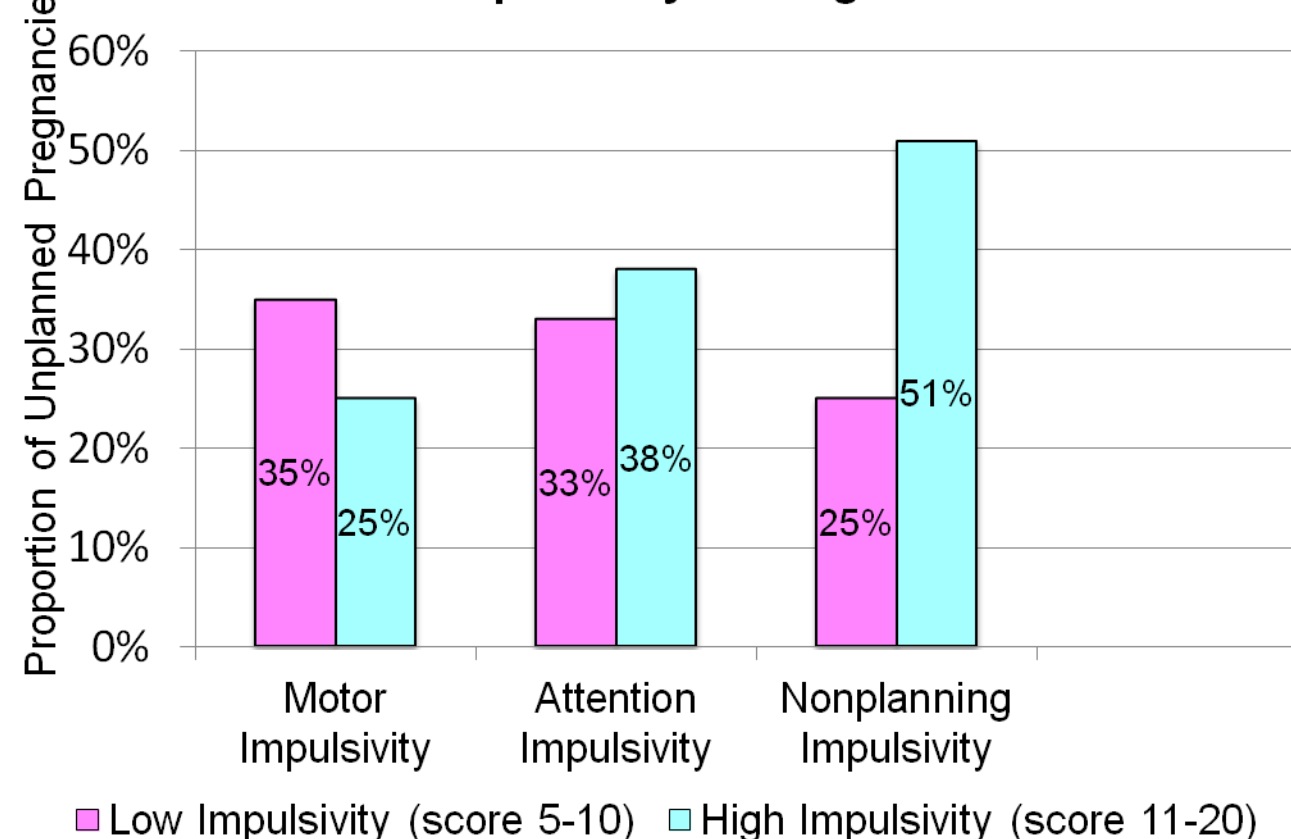
Pregnancy intention was measured by asking women "When you got pregnant, were you trying to get pregnant?" (yes or no).

## Results Unplanned Pregnancy in Relation to Impulsivity

- Cohort included 116 women; 59% non-Hispanic White; average age of 29.1 (SD: 4.7) years; average gestational age 24.9 (SD: 6.6) weeks at enrollment
- The majority of women were aged 30-34 (44%), of normal weight (53%), married (59%), highly educated (34%), had no difficulty paying for basics (65%) and multigravid (65%)
- 34% reported that the current pregnancy was unplanned
- 10% of women had high motor impulsivity, 21% high attention impulsivity, and 32% high nonplanning impulsivity



### Proportion of Unplanned Pregnancies In Relation to Impulsivity in Pregnant Women



- Women who were aged 18-24, obese, less educated, not married, of a lower socioeconomic status, and multigravid were more likely to have higher nonplanning impulsivity
- 51% with high nonplanning impulsivity reported unplanned pregnancy compared to 25% (low nonplanning impulsivity)
- Women with high nonplanning impulsivity had 3.53 times the odds of unplanned pregnancy compared to women with low nonplanning impulsivity (adjusted for other 2 subscales and confounders; 95% CI: 1.23-10.14)
- Neither motor nor attention impulsivity was associated with pregnancy intention

## Conclusions

- Women with higher levels of nonplanning impulsivity are at higher risk of having unplanned pregnancies
- The 5-item nonplanning subscale of the BIS-15 may help to identify women with high nonplanning impulsivity clinically; Women could complete this brief measure prior to office visits, and these scores could direct contraception counseling
- Contraception that requires little maintenance and no decision-making at the time of sexual encounters, such as long-acting reversible contraceptives (LARCs), may potentially lower unplanned pregnancy rates among more impulsive women
- Further research should focus on creating a framework to identify these women, implementing a screening tool in the clinical setting, and to explore whether increasing LARC use in this population can lower unplanned pregnancy rates