

Researchers find link between premature births and severe mental disorders

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Credit: CDC.gov

(Medical Xpress) -- Last month the United Nations backed a study that produced among other things the statistic that 15 million babies were born prematurely in 2010, a number that represents how far medical science has come in saving babies that are born early; unfortunately, it might also signal a coming rise in the number of people that develop severe mental disorders as a team of researchers from Britain and Sweden, with lead Chiara Nosarti, of King's College, has found that babies born at less than 32 weeks into a pregnancy have a three times greater chance of developing a severe mental disorder in adulthood. The team has published the results of their findings in the *Archives of General Psychiatry*.

Nosarti et al looked at the [health records](#) of almost a million and a half people born in Sweden between the years 1983 and 1985 and found that

approximately 10,000 of them had been admitted to a hospital for a severe [mental illness](#) at some point prior to 2002. Severe mental illnesses are those that include psychosis (which includes schizophrenia), bipolar disorder and [severe depression](#). The team found that babies born between 32 and 37 weeks also had a higher incidence of severe mental disorders in later life but at much lower rates than for those born earlier.

Earlier studies have shown that [premature babies](#) tend to be at risk for more health and development problems and other research has shown that babies that experience hypoxia and some other common birth problems during delivery were found to be at higher risk of developing schizophrenia, but until now, no correlation between [premature birth](#) and severe mental disorders had been made.

In all the team found babies delivered before 32 weeks gestation were 7.4 times as likely to have a [bipolar disorder](#) as an adult than the general populace and were 2.9 times as likely to find themselves with severe depression and 2.4 times as likely to wind up with severe psychosis.

The team points out that while these numbers may appear alarming, they are by no means high enough to warrant panic in expectant mothers as the vast majority of babies delivered prematurely are no more likely to develop a mental disorder than babies carried to term. On the other hand, they also point out that their study counted only those people that were admitted to a hospital for a mental illness, which means that it's likely many more suffer from such illnesses that never get treatment. It also doesn't take into account less serious forms of mental illnesses that might result from premature delivery as well.

In a [press release announcing the results](#) of the study Christina Hultman of the Karolinska Institutet in Sweden, said that the team suspects that the greater incidence of severe mental disorders that result with babies delivered prematurely is likely the result of alterations in brain development during a critical stage in the baby's life. Though how or

why that happens is still not clear.

More information: Preterm Birth and Psychiatric Disorders in Young Adult Life, *Arch Gen Psychiatry*. 2012;():610-617.

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ABSTRACT

Context. Preterm birth, intrauterine growth restriction, and delivery-related hypoxia have been associated with schizophrenia. It is unclear whether these associations pertain to other adult-onset psychiatric disorders and whether these perinatal events are independent.

Objective. To investigate the relationships among gestational age, nonoptimal fetal growth, Apgar score, and various psychiatric disorders in young adult life.

Design. Historical population-based cohort study.

Setting. Identification of adult-onset psychiatric admissions using data from the National Board of Health and Welfare, Stockholm, Sweden.

Participants. All live-born individuals registered in the nationwide Swedish Medical Birth Register between 1973 and 1985 and living in Sweden at age 16 years by December 2002 (n = 1 301 522).

Main Outcome Measures. Psychiatric hospitalization with nonaffective psychosis, bipolar affective disorder, depressive disorder, eating disorder, drug dependency, or alcohol dependency, diagnosed according to the International Classification of Diseases codes for 8 through 10.

Cox proportional hazards regression models were used to estimate hazard ratios and 95% CIs.

Results. Preterm birth was significantly associated with increased risk of psychiatric hospitalization in adulthood (defined as ≥ 16 years of age) in a monotonic manner across a range of psychiatric disorders.

Compared with term births (37-41 weeks), those born at 32 to 36 weeks' gestation were 1.6 (95% CI, 1.1-2.3) times more likely to have nonaffective psychosis, 1.3 (95% CI, 1.1-1.7) times more likely to have depressive disorder, and 2.7 (95% CI, 1.6-4.5) times more likely to have

bipolar affective disorder. Those born at less than 32 weeks' gestation were 2.5 (95% CI, 1.0-6.0) times more likely to have nonaffective psychosis, 2.9 (95% CI, 1.8-4.6) times more likely to have depressive disorder, and 7.4 (95% CI, 2.7-20.6) times more likely to have bipolar affective disorder.

Conclusions. The vulnerability for hospitalization with a range of psychiatric diagnoses may increase with younger gestational age. Similar associations were not observed for nonoptimal fetal growth and low Apgar score.

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