

SHORT COMMUNICATION

THE SEX RATIO OF OFFSPRING BORN TO STATE HOSPITALIZED SCHIZOPHRENIC WOMEN

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IN THE process of conducting a broad range exploratory study of children born to women in state psychiatric hospitals, our data showed there were 343 babies born to schizophrenic women patients in Michigan's six state hospitals between 1925 and 1964. It was somewhat surprising to find that of these, 148 were male and 186 were female. There were nine whose sex was unrecorded and could not be learned at the time of our study. However, when the date of onset of schizophrenic symptoms of the mothers was correlated with the presumed date of conception (assuming all deliveries were full-term), the data revealed the far more remarkable finding that there were NO MALES and fourteen females delivered to women who had onset of schizophrenic symptoms within 1 month (before or after) of the theoretical date of conception. See Table 1. This difference is significant at the 0.001 level ($\chi^2 = 12.1$, with the Yates correction for continuity).

The onset of symptoms was taken as the date or statement (and date computed) entered in the blank on patients' face sheets 'duration of symptoms prior to admission'. The column 'more than 3 months prior to conception' is somewhat misleading, for 'all' of these women conceived while on trial visits out of the state hospitals; therefore, exacerbation of symptoms is not distinguished, only re-admission after discharge. While acknowledging the methodological problems inherent in establishing definitive data for such a variable as onset/duration of symptoms, there was no conceivable manner in which the coding of such data could have tilted it in the direction of such sharp sex differences.

Although the state hospital records were adequate in regard to the psychiatric disorder, they were unable to answer the questions which arise in regard to possible abortion of male embryos or fetus. No menstrual records were kept. No abortions were coded on face sheets; in fact, frequently the pregnancy and delivery itself were not recorded on the face sheets.

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TABLE 1. ONSET OF SCHIZOPHRENIC SYMPTOMS IN RELATIONSHIP TO CONCEPTION

2nd or 3rd trimester		2nd or 3rd month of gestation		Within 1 month before or after conception		2nd or 3rd months prior to conception		More than 3 months prior to conception		Date of first symptoms unknown		
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Unknown	Male	Female
12	13	2	5	0	14	11	6	98	112	9	25	36

(Our entry into the records was from the legally required hospital copy of the birth certificates.) There were seven stillbirths (five males and two of unrecorded sex). All but one, a male, were conceived well after the onset of the mother's schizophrenic symptoms. The other was conceived four months prior to the onset of the mother's symptoms.

CONCLUSIONS

These findings were not expected nor do they fit any current theory of schizophrenia. To assess whether these findings be spurious or artifact, an immediate effort should be made in other state hospitals to refute or substantiate these findings.

Should they be substantiated, it would seem to indicate that some substance (chemical) interfered with the viability development of the Y chromosome carrying sperm or fertilized ovum, but that this substance was not lethal at a later stage of gestation. It would seem to indicate the search for a chemical mediator (or cause) of the schizophrenic symptoms be concentrated within 1 month of the onset or exacerbation of acute symptoms.