

Assortative Mating

Mary V. Seeman, M.D.

Psychosocial programs that introduce young people with psychosis to each other encourage bonding and, perhaps, marriage. By providing such programs, are we unwittingly promoting assortative mating, with ill effects for offspring? Or, on the other hand, are we ensuring better health for young people with psychosis and perhaps laying the groundwork for stronger marital unions than they would otherwise have formed? Instead of steering young people with psychosis into specialized services, should we be “mainstreaming” them, equipping them in situ with the skills necessary to navigate the larger social world? Should we even be considering the welfare of future generations, or is this beyond psychiatry’s ken? (*Psychiatric Services* 63:174–175, 2012; doi: 10.1176/appi.ps.201100164)

Are we doing young people with psychosis a service by providing social programs where they meet, get to know one another, discover commonalities, develop attractions, eventually mate, and together conceive future generations?

Homogamy and mental illness

Men and women tend to marry those whom they resemble physically, psychologically, and socially. This has been called homogamy, and it was first statistically noted early in the 20th century (1). Likeness between spouses has been found to occur on a large variety of characteristics, such as intelligence, personality, physical

characteristics, and sociocultural traits. Empirical studies have found homogamy for both psychological and sociocultural characteristics, although there is more evidence for the latter. Sociological theories best explain the likelihood of two people encountering each other, and psychological theories have described how mutual longer-term attraction can lead to marriage (2).

In 1944, Penrose (3) reported that 22 husband-wife pairs had been admitted to a provincial hospital in London, Ontario, between 1924 and 1942; in eight cases, both spouses were admitted in the same calendar year. He calculated that by chance alone, only one couple in 22 should have been hospitalized in that region in any one year. Furthermore, in eight of the 22 couples, both partners had the same diagnosis and both were of the same age upon first admission.

After considering “infection” via identification, suggestion, and unconscious imitation, Penrose concluded that there was reason to believe that the phenomenon of assortative mating held true for mental illness—that marital partners chose one another on the basis of hereditary factors that could predict mental illness (such as a tendency toward isolation), on the basis of shared environments that predispose to mental illness (such as poor neighborhoods), or because of shared activities that might trigger mental illness (such as drug taking) or shared interests that could lead to mental illness (such as mysticism). Shared environments, such as age-related venues (for example, summer camps, colleges, and clubs), allow young people to meet and get to know each other, and shared values and needs (4) create the spark that draws young people together.

Some years after Penrose, Gregory (5) studied assortative mating in the

same London, Ontario, hospital and confirmed the fact that marital partners were hospitalized with similar diagnoses more often than would be expected by chance alone. As evidence for concordant diagnoses between spouses continued to mount, Merikangas (6) reviewed the literature and concluded that although marriage partners choose each other on the basis of personality traits, such traits play a lesser role in their choices than other factors, such as physical traits, sociodemographic characteristics, intelligence, attitudes, and values. Others later suggested that spouses could “drive each other crazy” by mutual violence or psychological abuse (7), that caring for a psychotic spouse could place intolerable stress on a previously well partner (7), and that homogamy could be the result of exposure of spouses to common pathogens, vitamin-deficient diets, or toxic elements or to economic hardship (8).

It is interesting to speculate why a husband and wife might both be affected by psychiatric illness more often than would be expected by chance. However, more important is the fact that parental concordance for mental illness has a direct impact on children, for whom such concordance creates severe disadvantages (9). The children of two parents with serious mental illness are four times as likely to become ill as children with one parent with mental illness. A recent study in Denmark examined the risk of schizophrenia among 270 offspring of 196 parent couples; in each couple, both partners had been previously admitted to a psychiatric facility with a diagnosis of schizophrenia (10). The risk for the offspring of developing schizophrenia was 27.3% (39.2% when schizophrenia-related disorders were included), which represented a fourfold risk compared with offspring

Dr. Seeman is affiliated with the Centre for Addiction and Mental Health, University of Toronto, 250 College St., Toronto M5T 1R8, Canada (e-mail: mary.seeman@utoronto.ca).

who had only one parent with a previous admission for schizophrenia and a 30-fold risk compared with children whose parents had never had an inpatient psychiatric admission.

The questions

Since the development of programs around the world for people who have experienced a first episode of psychosis, social programming for individuals with a diagnosis of early schizophrenia has grown, making it inevitable that young people with psychosis meet and develop romantic relationships—relationships that are critically important to their recovery (11). Because psychosocial programs for young people with psychosis broaden their shared environment, augment their shared interests, and provide the opportunity for youths with similar psychological traits to socialize, are we inadvertently causing misery to a future generation? Psychosocial programs help young people with psychosis (12,13), but do they also increase the chances that two people predisposed to psychosis will marry each other? Do they increase the number of children whose parents' ability to nurture them is undermined by serious mental illness? The answers to these questions are not known and deserve study. One could argue that psychosocial programs promote health and enhance

functioning among people with psychosis and perhaps lay the groundwork for stronger marital unions than they would otherwise have formed, creating a more nurturing environment for their offspring. Or one could argue that psychiatry should not concern itself with the health of future generations and that to do so would be to reintroduce eugenic thinking.

Instead of social programming that encourages pairings between individuals with psychosis, should we be making greater attempts to integrate patients into a more inclusive society (14) and to provide them, in the real world, with the tools they will require to navigate that society? These questions are posed in the hope that they will provoke discussion.

Acknowledgments and disclosures

The author reports no competing interests.

References

1. Pearson K: Assortative mating in man. *Biometrika* 2:481–498, 1903
2. Rammstedt B, Schupp J: Only the congruent survive: personality similarities in couples. *Personality and Individual Differences* 45:533–535, 2008
3. Penrose LS: Mental illness in husband and wife. *Psychiatric Quarterly Supplement* 18:161–166, 1944
4. Kerckhoff AC, Davis KE: Value consensus and need complementarity in mate selection. *American Sociological Review* 27:295–303, 1962
5. Gregory I: Husbands and wives admitted to mental hospital. *Journal of Mental Science* 105:457–462, 1959
6. Merikangas KR: Assortative mating for psychiatric disorders and psychological traits. *Archives of General Psychiatry* 39:1173–1180, 1982
7. Van den Broucke S, Vandereycken W: Ill health in spouses of psychiatric patients: cause or consequence? *Journal of Psychosocial Nursing and Mental Health Services* 32:43–45, 1994
8. McLeod JD: Social and psychological bases of homogamy for common psychiatric disorders. *Journal of Marriage and the Family* 57:201–214, 1995
9. Dierker LC, Merikangas KR, Szatmari P: Influence of parental concordance for psychiatric disorders on psychopathology in offspring. *Journal of the American Academy of Child and Adolescent Psychiatry* 38:280–288, 1999
10. Gottesman II, Laursen TM, Bertelsen A, et al: Severe mental disorders in offspring with 2 psychiatrically ill parents. *Archives of General Psychiatry* 67:252–257, 2010
11. Schön U-K, Denhov A, Topor A: Social relationships as a decisive factor in recovering from severe mental illness. *International Journal of Social Psychiatry* 55:336–349, 2009
12. MacDonald E, Sauer K, Howie L, et al: What happens to social relationships in early psychosis? A phenomenological study of young people's experiences. *Journal of Mental Health* 14:129–143, 2005
13. Redmond C, Larkin M, Harrop C: The personal meaning of romantic relationships for young people with psychosis. *Clinical Child Psychology and Psychiatry* 15:151–170, 2010
14. Sayce L: Social inclusion and mental health. *Psychiatrist* 25:121–123, 2001