

What is already known on this topic

Onset of psychiatric disorders and risky sexual behaviour both peak in young adulthood

What this study adds

A disproportionate burden of risk and disease associated with sexual behaviour is borne by young people with psychiatric problems

Depression, substance dependence, antisocial personality, mania, and schizophrenia spectrum are associated with risky sexual behaviour and sexually transmitted diseases

Psychiatric comorbidity increases the likelihood of sexual risk taking

found among young adults in the United States and United Kingdom,¹²⁻²⁰ thereby lending confidence to the generalisability of the data. The results show that the most common psychiatric disorders in young people (substance dependence and depression) are the disorders that are linked to sociosexual problems. The findings highlight the need to coordinate sexual medicine with mental health services in the treatment of young people. Awareness of this potential comorbidity may also assist with prevention strategies. Moreover, early detection will be facilitated if practitioners are aware that risky sexual behaviour may be associated with mental health problems.

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Contributors: SR participated in the study design, analysed and interpreted the data, and wrote the first draft of the paper. AC coordinated the collection of the mental health data, participated in the study design, and assisted with the analysis and interpretation of the data and writing of the paper. ND coordinated the collection of the sexual health data, participated in the study design, and critically edited the paper. TEM coordinated the collection of the mental health data, participated in the study design, and assisted with the interpretation of the data and writing of the paper. CP participated in the design of the study, provided advice on interpretation of the results, and revised the paper. SR, AC, and ND are guarantors of the study.

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- 1 Institute of Medicine, Committee on Prevention of Mental Disorders, Division of Biobehavioral Sciences and Mental Disorders. *Reducing risk for mental disorders: frontiers for preventive research*. Washington, DC: National Academy Press, 1994.
- 2 Centers for Disease Control and Prevention. Trends in sexual risk behaviour among high school students—United States, 1991-1997. *MMWR* 1998;47:749-52.
- 3 World Health Organization. *The world health report 1998: life in the 21st century. A vision for all. Report of the Director General*. Geneva: World Health Organization, 1998.
- 4 Murray CJ, Lopez AD, eds. *The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990 and projected to 2020*. Cambridge, MA: Harvard University Press, 1996.
- 5 Baker DG, Mossman D. Potential HIV exposure in psychiatrically hospitalized adolescent girls. *Am J Psychiatry* 1991;148:4:528-30.
- 6 Bardone AM, Moffitt TE, Caspi A, Dickson N, Silva PA. Adult mental health and social outcomes of adolescent girls with depression and conduct disorder. *Dev Psychopathol* 1996;8:811-29.
- 7 Cooper ML, Peirce RS, Huselid RF. Substance use and sexual risk taking among black adolescents and white adolescents. *Health Psychol* 1994;13:251-62.
- 8 Lowry R, Holzman D, Truman BI, Kann L, Collins JL, Kolbe LJ. Substance use and HIV-related sexual behaviour among US high school students: are they related? *Am J Public Health* 1994;84:1116-20.

- 9 Adcock AG, Nagy S, Simpson JA. Selected risk factors in adolescent suicide attempts. *Adolescence* 1991;104:817-28.
- 10 Silva PA, Stanton WR, eds. *From child to adult: the Dunedin multidisciplinary health and development study*. Auckland: Oxford University Press, 1996.
- 11 Robins LN, Helzer JE, Coughan J, Ratcliff KS. National Institute of Mental Health diagnostic interview schedule: its history, characteristics, and validity. *Arch Gen Psychiatry* 1981;38:381-9.
- 12 Newman DL, Moffitt TE, Caspi A, Magdol L, Silva PA, Stanton WR. Psychiatric disorder in a birth cohort of young adults: prevalence, comorbidity, clinical significance, and new case incidence from ages 11 to 21. *J Consult Clin Psychol* 1996;64:552-62.
- 13 American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (3rd ed, rev)*. Washington, DC: American Psychiatric Association, 1987.
- 14 Kendler KS, Gallagher TJ, Ableson JM, Kessler RC. Lifetime prevalence, demographic risk factors and diagnostic validity of nonaffective psychosis as assessed in a community sample. *Arch Gen Psychiatry* 1996;53:1022-31.
- 15 Johnson AM, Wadsworth J, Wellings K, Field J. *Sexual attitudes and lifestyle*. Oxford: Blackwell, 1994.
- 16 Centers for Disease Control and Prevention. Update: barrier protection against HIV infection and other sexually transmitted diseases. *MMWR* 1993;42:589-91.
- 17 Dickson N, Paul C, Herbison P, McNoe B, Silva PA. The lifetime occurrence of sexually transmitted diseases among a cohort aged 21. *N Z Med J* 1996;109:308-12.
- 18 Paul C, Fitzjohn J, Herbison P, Dickson N. The determinants of sexual intercourse before age 16 in a birth cohort. *J Adolesc Health* 2000;27:136-47.
- 19 Elley WB, Irving JC. A socioeconomic index for New Zealand based on levels of education and income from the 1966 census. *N Z J Educational Studies* 1972;7:153-67.
- 20 Dickson N, Paul C, Herbison P, Silva PA. First sexual experience: age, coercion, and later regrets reported by a birth cohort. *BMJ* 1998;316:29-33.
- 21 Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, et al. Lifetime and 12 month prevalence of DSM-III-R psychiatric disorders in the United States: results from the national comorbidity study. *Arch Gen Psychiatry* 1994;51:8-19.
- 22 Newman DB, Moffitt TE, Caspi A, Silva PA. Comorbid mental disorders: implications for treatment and sample selection. *J Abnormal Psychol* 1998;107:305-11.
- 23 Hankin BL, Abramson LY, Moffitt TE, Silva PA, McGee R, Angell KE. Development of depression from preadolescence to young adulthood: emerging gender differences in a 10-year longitudinal study. *J Abnormal Psychol* 1998;107:128-40.
- 24 Üstün TB, Sartorius N. *Mental illness in general health care: an international study*. Chichester: World Health Organization, 1995.

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Corrections and clarifications

Prospective investigation of transfusion transmitted infection in recipients of over 20 000 units of blood

In this article by Fiona A M Regan and colleagues (12 February, pp 403-6), the time span of the study was not clear. In the second sentence of the Methods section, the dates given should have included the years (1 August 1991 to 31 May 1996).

ABC of arterial and venous disease: swollen lower limb (part 1—general assessment and deep vein thrombosis)

Two errors occurred in this article by W Peter Gorman and colleagues (27 May, pp 1453-6). In the algorithm (p 1454), a small but important word (“or”) was missing: the right hand arrow from the box “Consider clinical probability” should go to “Moderate or high” (not just “High”). Under the section on treatment (p 1455) the fifth sentence of the second paragraph should read: “The activated partial thromboplastin time should be checked six hourly until the target is reached and then daily to maintain the ratio [not the international normalised ratio] of activated partial thromboplastin time to control at 1.5 to 2.5.”

Measuring performance in the NHS: what really matters?

A small typographical error crept into this article by John Appleby and Andrew Thomas (27 May, pp 1464-7). In the second paragraph in the box entitled “Healthcare resource groups” the second sentence should have started: “For example, category H17 is ‘soft tissue or other bone procedures . . .’” (not “soft tissue for bone procedures”).