



ISSUES IN MEDICINE

Treating adolescents in South Africa: Time for adolescent medicine units?

Cristina Stefan, Pieter-Luttig van der Merwe

There are around 1.2 billion adolescents (between 10 and 19 years of age) worldwide.¹ In South Africa, the number of adolescents is estimated at 9 950 100 – almost 21% of the population.² They constitute a large fraction of society, with specific characteristics and needs.

Sexual maturation and physical growth to almost adult size are attained early in adolescence, while psychological maturation takes longer. These factors lead to characteristic behaviours that can conduce to various diseases, and even death, and which influence the sick adolescent's response to the health care process. Adolescents are generally regarded as the healthiest segment of any population and the embodiment of strength, health and beauty. However, the truth behind this idyllic view, as revealed by statistics worldwide and in South Africa, is notably different. The youth and adolescent policy of the Department of Health, published in 2001, identifies many health problems that require intervention. Adolescents' sexual health is threatened by early age at first intercourse (average age 15 years) and unprotected coitus, leading to high risk of HIV and other sexually transmitted diseases.³ Teenage pregnancy, with a rate quoted as 15% for South Africa and as high as 43% in some areas in Eastern Cape,⁴ increases the risk of maternal death, doubles 0 - 1-year mortality, and is associated with increased school dropout rates, poverty and child abuse.

The national policy assumes that 15% of adolescents will be diagnosed with a psychiatric disorder during adolescence. About 4 million adolescents worldwide attempt suicide each year, of whom more than 90 000 succeed.¹ Other typical problems include abuse of alcohol, tobacco and drugs; violence (assault, rape); road accidents; birth defects and inherited disorders; poor nutrition resulting in varying degrees of obesity or anorexia; and poor oral health.

Cristina Stefan is a paediatric consultant and oncologist in the Department of Paediatrics and Child Health, Faculty of Health Sciences, Tygerberg Children's Hospital and Stellenbosch University, Parow, Western Cape. She has a special interest in treating adolescents with cancer.

Pieter-Luttig van der Merwe, executive head of the Department, is a paediatric cardiologist, often managing children with cardiac problems until the age of 18 years and beyond.

Usage of health care services by adolescents reveals significant figures. In the UK in 2001, adolescents aged 12 - 19 occupied 18 inpatient beds and 2.2 day-case beds in a district hospital serving some 250 000 people.⁵ At Tygerberg Hospital, we found that 2 937 adolescents were seen at Paediatric Outpatients in 2006, mostly in the neurology, nephrology and endocrinology clinics. In the Department of Paediatric Oncology, adolescents spent 1 122 hospitalisation days and accounted for 150 outpatient visits during this period.

In South Africa, teenagers of 13 and above are usually managed in the adult health care system, which may be detrimental to good adolescent health care. In contrast, the age limit of paediatric practice was extended from 14 years to 21 years in the USA in 1972, based on research showing that paediatric teams had a better understanding of the developmental processes of adolescence and therefore were more efficient in managing them.⁶ It seems logical that improved health care should be provided by a doctor who has followed children through their growth, is trained to deal with the problems of puberty, and is used to discussing health matters and other issues such as school, sport, sexual life, social integration and job orientation with adolescents and their parents.

Paediatric services are sometimes better equipped to deal with the health demands of adolescents. Admissions of young people aged 18 and above to the Royal Children's Hospital in Melbourne doubled from 1992 to 2001. The reason was that the multidisciplinary approach required by the often complex care needs, especially of surgical patients, was not met by the adult medical care system.⁷ In Virginia, USA, 60% of adult nephrologist respondents did not feel completely comfortable treating a paediatric-specific condition such as those sometimes seen in adolescents.⁸ Some paediatric treatment algorithms appear to be more appropriate for adolescents than the corresponding therapies for adults. Adolescents may respond better to some paediatric cytostatic protocols than to adult protocols. A higher remission rate (99% v. 90%) and better event-free survival were found in patients with acute lymphoblastic leukaemia, between 10 and 40 years of age, who were treated according to the paediatric protocol, compared with a similar group treated according to the adult protocol.⁹

Health professionals who manage adolescents need to be aware of important issues that are not disease-related. These include the capacity to give consent, the right to

Corresponding author: C Stefan (cs@sun.ac.za)



confidentiality (balanced against the need to involve the family in the therapeutic process) and the need to offer appropriate advice, based on an accurate assessment of the cognitive and emotional status of the patient.^{10,11} Dealing with such matters is likely to be routine for a paediatrician – but uncommon in adult medicine.

Progress in medical science has led to growing numbers of children and teenagers with chronic health conditions surviving into adulthood. Diseases such as diabetes, cystic fibrosis, congenital heart defects, cancers and genetic disorders, while requiring lifelong therapy or surveillance and episodic therapy, are childhood diseases carried over to adolescence and adult life. Passing on such patients to adult specialist clinics once they are 13 years of age is highly unrealistic. Published data support a transition process from paediatric to adult care for these chronic patients to ensure that, as adolescents, they are not lost from the system. The transition should be individualised, taking into account the stage of growth and development – which may be impaired by the chronic illness; good communication is necessary between patients and their families, and between the paediatric and adult team. Self-management skills must be accurately assessed to minimise non-compliance with treatment – which is frequently seen in this age group.^{12,13} Broader issues such as education, employment, social relationships, independent living and funding of health care should also be addressed,¹⁴ and adjustments made for ethnic characteristics. To ensure success, transition protocols should be developed within specialties, involving paediatric and adult nurses and medical professionals.¹⁵

Little research has been done on the opinions and needs expressed by adolescents with chronic conditions. Adolescents perceive child and adult medicine as distinct medical subcultures.¹⁶ Leaving a cohesive paediatric service and entering into an unco-ordinated adult health service has been described as ‘hurtling into a void’.¹⁷ The trusting relationship established with one’s paediatrician is an important therapeutic factor,¹⁸ and adolescents need to establish similar relationships with their adult doctors to maintain adherence to treatment and follow-ups. If well conducted, the transition to adult health systems is perceived positively by teenagers, who derive a sense of independence, are proud to be entrusted with responsibility for their own health, and experience it as a step towards adulthood.¹⁹

Teenagers with chronic diseases are best managed within a continuum of care where paediatricians play the major role. Paediatricians are best positioned to decide the timing and organisation of the transition to adult medicine. The age of transition depends on the degree of maturation of the teenager.

The literature highlights the potential advantages of admitting adolescents, especially for chronic medical care, to special units. Furthermore, public pressure, professionals’

interest in adolescent health, and funding have led to the opening of numerous adolescent wards, or adolescent bays in paediatric wards, in hospitals across the USA, UK, Australia and other countries. Good practice guidelines in the UK indicate that adolescents should be admitted solely to such units (where available).²⁰ A typical unit consists of a ward with beds, one-bed rooms for severely ill teenagers, and facilities for socialising, playing games, watching television and listening to music. The unit offers an environment appropriate for the age group (surveyed teenagers feel alienated in children’s and adult wards).²¹ Adolescents are looked after by doctors and nurses trained in working with them; most adolescents state that they are not understood by adults, including the adult ward personnel.²² An interdisciplinary approach may be offered, and should ideally also involve social workers, teachers, physiotherapists, psychologists and recreational workers.²³ The opportunity for sick teenagers to interact with peers undergoing the same therapeutic process may offer valuable psychological support. In the paediatric oncology unit at Tygerberg Hospital, we manage every year a number of adolescents over the age of 13; our findings regarding their specific needs converge with data from the literature.

We believe that there is sufficient published evidence for reconsidering the age of transition of South African children to adult medical services. A need exists for structured training in adolescent medicine for doctors and nurses, and for further research into the health needs of adolescents in our country. This sub-specialty could be supported by an adolescent medicine interest group within the South African Society of Paediatricians.

1. World Health Organization. Adolescent Health and Development, in: Overview of Child and Adolescent Health. Geneva: WHO, 2004. www.who.int/child_adolescent_health/OVERVIEW/AHD/adh_over.htm (accessed 1 June 2007).
2. Statistics South Africa. Mid-year population estimates, South Africa 2006 Pretoria: Statistics South Africa 2006. www.statssa.gov.za/publications/P0302/P03022006.pdf (accessed 1 June 2007).
3. Department of Health, South Africa. Policy Guidelines on Youth and Adolescent Health, Part 1. Pretoria: Department of Health, 2001. www.doh.gov.za/doc/policy/yah/part1.pdf (accessed 1 June 2007).
4. Makiwane MB. Adolescent pregnancy and reproductive health in Transkei (rural South Africa). *Afr J Reprod Health* 1998; 2(1): 41-48.
5. Viner RM. National survey of use of hospital beds by adolescents aged 12 to 19 in the United Kingdom. *BMJ* 2001; 322: 957-958.
6. Litt IF. Age Limits of Pediatrics, American Academy of Pediatrics, Council on Child Health, Pediatrics, 1972; 49:463 *Pediatrics* 1998; 102(1) Suppl: 249-250.
7. Lam P-Y, Fitzgerald BB, Sawyer SM, et al. Young adults in children’s hospitals: why are they there? *Med J Aust* 2005; 182(8): 381-384.
8. LoCasale-Crouch J, Johnson B. Transition from pediatric to adult medical care. *Adv Chronic Kidney Dis* 2005; 12(4): 412-417.
9. Hallbook H, Gustafsson G, Heyman M, et al. Treatment outcome in young adults and children over 10 years of age with acute lymphoblastic leukemia in Sweden: a comparison between a pediatric protocol and an adult protocol. *Cancer* 2006; 107(7): 1551-1561.
10. Summers D, Alpert J, Rousseau-Pierre T, et al. An exploration of the ethical, legal and developmental issues in the care of an adolescent patient. *Mt Sinai J Med* 2006; 73(3): 592-595.
11. Dickens BM, Cook RJ. Adolescents and consent to treatment. *Int J Gynaecol Obstet* 2005; 89(2): 179-184.
12. Watson AR. Problems and pitfalls of transition from paediatric to adult renal care. *Pediatr Nephrol* 2005; 20(2): 113-117.
13. Minden K, Niewerth M, Listing J, et al. Transition clinic – it is not always a simple segue in rheumatology for adults. *Z Rheumatol* 2005; 64(5): 327-333.
14. Betz CL. Adolescents in transition of adult care: why the concern? *Nurs Clin North Am* 2004; 39(4): 681-713.
15. Por J, Golberg B, Lennox V, et al. Transition of care: health care professionals’ view. *J Nurs Manag* 2004; 12(5): 354-361.

16. Glasper A, Cooper M. Hospitals need specialist inpatient adolescent units. *Br J Nur* 1999; 8(9): 549.
17. Chamberlain MA, Kent RM. The needs of young people with disabilities in transition from paediatric to adult services. *Eura Medicophys* 2005; 41(2): 111-123.
18. Brumfield K, Lansbury G. Experiences of adolescents with cystic fibrosis during their transition from paediatric to adult health care: a qualitative study of young Australian adults. *Disabil Rehabil* 2004; 26(4): 223-234.
19. Miles K, Edwards S, Clapson M, *et al.* Transition from paediatric to adult services: experiences of HIV-positive adolescents *AIDS Care* 2004; 16(3): 305-314.
20. Smith S. Adolescent units – an evidence-based approach to quality nursing in adolescent care. *Eur J Oncol Nursing* 2004; 8(1): 20-29.
21. Kari J, Donovan C, Li J, *et al.* Teenagers in hospital: what do they want? *Nursing Standard* 1999; 13(23): 49-51.
22. Bibby RW, Posterski DC. *Teen Trends: A Nation in Motion*. Ontario: Stoddart, 1992.
23. Viner R, Keane M. *Youth Matters – Evidence-based Best Practice for the Care of Young People in Hospital*. London: Action for Sick Children, 1998.