Preventive Medicine for Adolescents

A Hopeless Cause or a Research Challenge for Family Physicians?

In this issue of the Archives, Harper and Madlon-Kay describe an attempt to improve the response rate of adolescents aged 12 through 18 years to a mailed reminder to receive a second measles-mumps-rubella vaccination. The best response to the mailed letter to the parents of these adolescents resulted in only 6.3% of the adolescents receiving the vaccination within 2 months of notification. The authors were surprised at the low response rate since other trials using mailed reminders have improved the provision of a variety of preventive services in adults by 20% to 30%.

Examination of a randomized controlled trial that included the use of physician, mailed, and telephone reminders for five different preventive services, including a 10-year tetanus toxoid immunization and an annual influenza vaccination for individuals older than 65 years, provides further insight into the response of adolescents. The study demonstrated that people in their 20s were the least receptive to any intervention, while middle-aged individuals and those up to age 70 years were the most responsive.

Our lack of success in convincing adolescents not to smoke, to practice safe sex, to use effective birth control methods, and to drive safely is well known to health care providers. With the findings of Harper and Madlon-Kay extending the list to include reminder systems for improving the provision of preventive services, it is tempting to concede that the fundamental problem is the rebelliousness of adolescents against adults and their own disregard for, and lack of interest in, their longevity. Should we be surprised that adolescents lack interest in immunization against anything when it is “imposed” on them by a medical clinic?

In light of the apparent obstacles, it is tempting to forget about providing preventive services to adolescents since most are healthy. Why not abandon these futile efforts and concentrate on the real need for preventive interventions later in life? Before following this logic too far, consider the potential life years lost when a 17-year-old dies at the wheel of a car or a 12-year-old acquires a nicotine addiction compared with the potential life-years lost in a 60-year-old in whom we detect and treat mild hypertension. If we are seriously committed to health promotion and prevention, we cannot so easily rationalize our way out of dealing with adolescents.

In the extreme, there are two ways to provide preventive services to any population. One is to legislate the population to conform to a standard approach. The other would use various methods of convincing individuals who are in contact with a physician or other individual provider. Broader public campaigns and societal pressure may also be used. In the jurisdiction in which I live, governmental intervention that addresses the reduction of health problems is more accepted than in most American states.

The current legislative approach used in the Canadian province of Ontario includes a requirement for up-to-date immunizations for entry to both first and ninth grades. Anyone with inadequate immunization documentation is required to receive an immunization and have his or her immunization status updated through either the Department of Public Health or a personal physician (at no cost) or be expelled from school. New legislation prohibits persons younger than 19 years from purchasing cigarettes (with a $25,000 to $100,000 fine for vendors caught selling to underage people).

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Anyone acquiring a driving license at age 16 years receives a graduated license for 3 years that imposes restrictions on the types of roads that may be driven on (initially, not on expressways), the time of day he or she may drive (no driving after 10 PM), and who is present in the car with the driver (there must be a licensed driver older than 25 years). A breach of seat belt laws risks a fine of $90.

Legislation provides a political “quick fix” that is often cited in election campaigns as evidence of a caring government. Legislative changes are based on experience in other jurisdictions that clearly have demonstrated lives saved and that provide politicians with data to develop projections of the impact of new laws in dramatic terms.
The legislative approach saves the lives of adolescents and thus significantly contributes to the reduction of potential life-years lost. However, one could argue that empowering adolescents to take more responsibility for their own actions would be a more respectful and mature approach to reducing the carnage that now beleaguers our youth. If letter reminders are not effective, then reminding the physician to raise important preventive issues whenever adolescents visit the office is an alternative strategy. Any overdue preventive procedure, which could include birth control advice, immunizations, or instructions on practicing safe sex, should be provided. In the study by Rosser et al., when the physician was reminded on any visit to provide preventive services to an adult, more than 60% of outstanding preventive procedures were completed, compared with 13% of procedures in the control groups.

Possibly the most important point raised by Harper and Madlon-Kay is the need for more research to provide a clearer understanding of the health beliefs of adolescents to enable us to improve our ability to communicate with them and understand the voice of this frequently neglected population in our practices. The concept of engaging teenagers in assuming responsibility for their own health has the added benefit of promoting desirable lifelong behavior.

Family physicians are well positioned to conduct qualitative studies followed by quantitative trials to determine how we can improve the provision of services to adolescents. Ultimately, we are the group that will most benefit from better-educated adults, who are responsive to the need for preventive services. A final thought is that if we do not ignore “negative” results from studies such as that by Harper and Madlon-Kay, we may learn more than from studies that support our perceived ideas or hypotheses.

I am grateful to both Harper and Madlon-Kay for their courage and perseverance in publishing this work and to the editor of the ARCHIVES for accepting this report for publication. May it inspire the readers to begin answering some important questions about sometimes maligned and often medically neglected adolescents.

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REFERENCES