Early intervention with an adolescent twist

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The present clinical note outlines the application of the concept of early intervention to early adolescence. This important developmental phase provides numerous opportunities for physicians and other health care professionals to employ disease prevention and health-promoting strategies within the context of their day-to-day clinical interactions with adolescents.
Key Words: Adolescent health promotion; Early adolescence; Intervention strategies

L'intervention précoce à l'aube de l'adolescence

RÉSUMÉ : La présente note clinique aborde l'application du concept d'intervention précoce au début de l'adolescence. Cette étape importante du développement donne de nombreuses occasions aux médecins et aux autres professionnels de la santé de faire appel aux stratégies de prévention des maladies et de promotion de la santé dans le contexte de leurs interactions cliniques quotidiennes avec les adolescents.

Early intervention strategies are among the core principles of disease prevention and health promotion. The application of these principles during the childhood years has long been a priority for paediatricians. In recent years, the advocates of early childhood development have made a strong case for the importance of early interventions. This emphasis on early intervention is reflected in the National Children's Agenda (1). However, there is concern that this new emphasis may be pursued at the expense of early intervention strategies that are of value in other phases of the life cycle, in particular during adolescence (2-5). Both Steinhauer (4) and Henggeler et al (3) provide excellent, evidence-based examples of how interventions in later childhood and early adolescence can have significant benefits in later adolescence.

It is recognized that the main risks to life and future health during adolescence are primarily due to behaviour (6-8). It is also recognized that strategies to promote healthy lifestyles among Canadian adolescents have met with limited success (9-11). The purpose of the present paper is to focus on the period of early adolescence, and to propose that it presents important challenges and early intervention opportunities. These opportunities may provide paediatricians and other physicians with a chance to have a positive influence on developmental outcomes.

EARLY ADOLESCENCE

Early adolescence begins with the onset of puberty and extends into the early teen years. Because of the variability of the age of onset of puberty among Canadian adolescents, it may extend from grades 6 through 9. It is a phase that is characterized by rapid physical changes, emotional ability, strong peer group connections, concrete thinking and experimentation with various lifestyle fads. It is also a period when connectedness to

family and school declines, and resistance to adult authority appears to rise. Conflict with family and school, and with the self are commonly experienced by early adolescents.
The early adolescent years prompted G Stanley Hall (12) to characterize adolescence as a period of storm and stress. Certainly, it is a time when many adults who are faced with a recalcitrant adolescent are prone to throw up their hands in frustration and say "I give up!". However, Offer and Offer (13) and others (14) have challenged this stereotypical view of early adolescents and espouse the view that not all adolescents experience "storm and stress". Some adolescents are in a state of constant tumult, while others experience surges of tumultuous behaviour that are followed by periods of quiescence (13,14) Still, other adolescents sail calmly through adolescence and experience it as a continuous, tumult-free developmental phase. Indeed, as shown in Table 1, it is possible to match the differing coping styles (as described by Offer and Offer [13]) with the three phases of adolescence and create a nine-cell matrix that reflects more appropriately the heterogeneity of the adolescent population. This matrix provides a framework that clinicians can use to understand the particular adolescent who they are dealing with; by matching the adolescent's coping style and/or phase with clinical appraisal, they can formulate early intervention strategies that have a better chance of success (15).

STRATEGIC INTERVENTIONS

To be effective, interventions must be timely, developmentally appropriate and have measurable outcomes. They may require a different style (and message) and delivery vehicle during early adolescence than in later adolescence. For example, peer-based, in-school antismoking campaigns may be most effective in the elementary school years, whereas quit smoking strategies delivered in the physician's counselling room may have a significant impact on smokers in the mid to late adolescent years. Interventions may be universal (applied to all early adolescents) or targeted to specific individuals or groups. For example, immunization against hepatitis B, a sexually transmitted disease, may be provided to high risk street youth or to all grade 6 students. The former strategy has been found to have significant compliance problems, whereas the latter assures better levels of 'herd' immunity. Finally, physicians have long recognized the important opportunity that presents itself during `critical' moments in the office or emergency room. A well timed, short message at the opportune moment often falls on receptive ears and proves to be a major contribution to life change.

Not all interventions will prevent disease or injury, or promote safe adolescent life styles. This failure is not because physicians' interventions are wrong; rather, when talking to adolescents about the risks of being involved in accidents tomorrow, or experiencing cancer or stroke in later life, adolescents are more likely to believe that "it won't happen to me". Despite high profile media messages and in-class programs, far too many adolescents use tobacco, fail to exercise and consume high fat, low fibre foods (16,17). At least a partial explanation of the apparent inability of health promotion messages to affect this age group is related to the early adolescent's cognitive stage (unable to reason abstractly) and the psychology of personal fable (I know better than to let that happen to me). In addition, that which adults see as problems, adolescents see as solutions to their higher priority concerns (e.g., weight control or socialization needs).

Indeed, there is growing recognition of the need to promote resilience in adolescence not just as a way of enabling risk avoidance, but as a vehicle for promoting the hardiness necessary to face life's traumas successfully (4,18). A consequence of this type of thinking has been the shift in policy focus away from considering adolescents (especially early adolescents) as problems towards a more positive view of adolescence as a time to experience 'initiative' (19). Thus, early intervention in early adolescence needs to be based on an understanding of what it is that adolescents are trying to solve when they engage in a risky behaviour, and a determination of how to convert the problem into an opportunity to promote individual growth and development.

TABLE 1: Heterogeneity of the adolescent population of British Columbia

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	Stage of adolescence		
	Early	Middle	Late
Coping style			
Constant state of tumult	10%	10%	7%
Surges of tumult behaviour	16%	16%	10%
Continuous, tumult-free behaviour	11%	11%	9%
Approximate age group (years)	12 to 14	15 to 17	18 to 19

THE PHYSICIAN'S ROLE

The traditional role

Physicians can advocate for proven prevention techniques. The most common reason why adolescents seek medical care is injury. Whenever an adolescent is seen, physicians can use the occasion to offer a targeted intervention to promote proper use of safety belts; helmets when on a bicycle, motorcycle or snowboard; protective eye gear and face masks in the various ball sports (hockey, squash, baseball, etc); and safety harnesses when climbing. Universal strategies, such as for immunization, can be applied if, for example, the adolescent patient's immunization status is monitored and physicians ensure that recommended schedules are being followed. The American Medical Association's Guidelines for Adolescent Preventive Services (GAPS) (20) provides information on a range of office-based prevention strategies for adolescent patients.

Supplementary activities

Guidelines for Adolescent Preventive Services (GAPS) (20) also recommends that traditional visits are opportunities for physicians to address other less commonly applied

health promotion strategies. For example, with the sexually active adolescent, this includes condom use, birth control, knowledge of emergency contraception, or where to go for help to deal with an aggressive or coercive partner. The adolescent who is beginning to smoke may already be experiencing pressure to use alcohol or experiment with other drugs, while the body builder or ballet dancer may be under pressure to use unhealthy diets or non prescription performance enhancers. When these and other sensitive issues arise in the course of caring for early adolescents, the physician is obligated to respect the adolescent patient's privacy and rights to consent and confidentiality. This can be accomplished, without undermining the parental role, by clearly communicating the boundaries of confidentiality to both the parents and the adolescent.

TABLE 2: The psychosocial adolescent history based on home, education, activities, drugs, sex and suicide (HEADSS)

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H = Home	Who lives there, how do they relate, what are the conflicts, recent losses or stresses
E = Education	What grade, enjoyment, accomplishments, attendance, plans for future
A = Activities	Peer relations, best friends and dating experiences, in and out of school involvement, job, vocational plans, interests, hobbies, skills
D = Drugs	Legal and nonlegal, parental awareness, type, frequency of use, setting where used, age of onset, relation to emotional state
S = Sex	Orientation, age of first experience, safe sex practices, negative experiences, number of partners
S = Suicide	Mood, poor school performance, withdrawal from friends and family, previous attempts, thoughts about suicide, close contact with suicide or death

TABLE 3: Risky behaviours of non-smokers versus regular smokers

Table 3: Risky behaviours of nonsmokers versus regular smokers		
	Nonsmoker (%)	Regular smoker (%)
Skips school	17%	65%
Drivers who have ever driven after alcohol consumption	16%	65%
Rode with a drinking driver in past month	12%	51%
Considered suicide	9%	29%
Attempted suicide	3%	17%
Physical fights in past year	23%	47%
Binge drank in past month (of user)	23%	76%
Ever used alcohol	41%	99%
Alcohol users who used alcohol 100 days or more in life	5%	38%
Ever used marijuana	14%	94%
Marijuana users who used marijuana 40 times or more in life	14%	57%
Used harder drugs	14%	72%
Ever had sexual intercourse	9%	67%
First had sex at age 14 years or younger	37%	53%
First tried alcohol at age 14 years or younger	72%	90%
First tried marijuana at age 14 years or younger	61%	86%

Data from reference 24

When asked, early adolescents usually indicate that they wish that their physician would talk to them more about things that are of concern to them (21). One way to get started is by scheduling a visit with sufficient time to undertake a home, education, activities, drugs, sex and suicide (HEADSS) examination (Table 2). The HEADSS schema for a screening interview of adolescents was developed by the adolescent group at the Children's Hospital in Los Angeles, California and has since proven to be a popular tool that is used by adolescent health clinicians. This type of semi directed counselling session can provide important clues to the what, why and wherefore of an early adolescent's behaviour.

Expanded role

Another way for physicians to intervene during early adolescence is by developing an understanding of the special vulnerabilities that a particular adolescent may face. For example, the tumultuous adolescent may be in constant conflict with family and school, whereas the adolescent with continuous, tumult-free behaviour may face more subtle stress and conflict. The former may manifest itself as delinquency or school failure, whereas the latter may present as anorexia nervosa. An understanding of the unique coping style of an adolescent and his or her family can help guide the physician's prescription when interventions seem in order. Helping adolescents to define clear but flexible boundaries works best in the tumultuous group, whereas stress reduction and redirection of emphasis may help prevent an eating disorder.

Other less obvious opportunities for intervention may present themselves in the examination room. This has always been an important moment in the patient-physician interaction. Depending on the circumstances, it may be a time to ask questions about bodily concerns. After the examination, it is a time to explain the physical findings and explore any special vulnerabilities such as sexual orientation and abuse, and concerns that adolescents may not be aware of their need to voice. For example, adolescents with chronic diseases and those who look older than their age are at greater risk for sexual abuse, substance abuse and suicidal ideation (22,23). These patients are particularly in need of a thorough HEADSS assessment during their early adolescent years.

Late recognition of a problem by physicians is an often quoted criticism of parents and adolescents. Adolescents think that physicians already know everything about them or assume that telling physicians about a problem will get them in trouble. Therefore, physicians cannot wait for their adolescent patients to tell them things. Physicians need to learn to ask the right questions and to listen carefully to the answers. Physicians can develop their interviewing or 'asking skills, and be able to understand the answers and how they compare with community norms for early adolescent behaviours (Table 3). Knowing these features and being able to identify patients whose behaviour is not comparable with that of peers is a useful early recognition tool. Jessor (24) has noted that problem drinking behaviour is more frequent in the presence of low academic expectations, low religiosity and poor relations with parents. A history of earlier age of onset of problem drinking, cigarette use or first sexual intercourse is strongly associated with subsequent engagement in multiple risky behaviours (15). Adolescents with low connectedness to family and school are at higher risk for serious substance abuse, high risk sexual activity and violence (23).

Supportive role

There are adolescents who are at risk because of circumstances beyond their control. They are in need of more individualized interventions and, where possible, the opportunity to connect, in a continuous way, to a non family, caring adult (which may or may not be their personal physician). These are adolescents with chronic physical and emotional conditions, abused adolescents, adolescents who have issues of sexual ori-

entation, some Aboriginal adolescents, early school leavers, etc (22,25, 26). These are groups of patients who enter adolescence with a history that will affect their normal adolescent growth and development, and may put them off track. Finding ways of connecting with them is an essential element in any early intervention and can be the most rewarding of professional experiences.

Adolescents with recognized chronic conditions, such as renal disease, diabetes or cystic fibrosis, and those who have recovered from neonatal disorders or cancer often enter adulthood inadequately prepared. Often, they have become dependent on the paediatric model of care, and rely on parents to take responsibility for their life and health care. The process of transition of care and personal responsibility needs to be introduced to them in early adolescence (27).

Specialized role

Another group of early adolescents to consider are those who are at extremely high risk. They are on the streets and may be homeless, in the justice or foster care systems, or not in school. They drift through their early adolescence and move towards the often deadly environment of the streets of the inner cities. Once there, they consume vast amounts of time, energy and resources. Often, they are beyond the reach of services and have sad, short lives. But they are not always beyond hope and benefit greatly from humane services delivered through multidisciplinary models of alternative care (3,4,11,27,28). However, the best possible early intervention is to recognize that they are at risk before they leave their small towns and cities (29). Upstream care is most likely to work best and be more cost effective.

CONCLUSIONS

Early adolescence provides a range of opportunities for physicians to play a role in interventions that are intended to prevent disease and injury, and to optimize health in the later adolescent and adult years. This fact has recently been highlighted in the federal document The Opportunity of Adolescence: The Health Sector Contribution (30). The strategies outlined in the present paper are in keeping with the best principles of health care, but their implementation requires a shift in priorities and program funding. Establishing mechanisms for enhancing practitioner skills, enabling more time for adolescent physician interaction, having a willingness to work in collaborative, interdisciplinary models of care, promoting an expansion of biopsychosocial research on early adolescence, and funding of research needed to support evidence-based practice are but a few of the challenges physicians should agree to face.

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