

Shortchanging Adolescents: Room for Improvement in Preventive Care by Physicians

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Background and Objectives: Behaviors developed in adolescence influence health later in life. Adolescents seldom visit physicians to discuss health-related behaviors. Instead, physicians must incorporate health counseling into the exams for which the adolescents do come. We studied the frequency and duration of adolescents' consultations with family physicians and pediatricians involving counseling about diet and nutrition, exercise, weight reduction, cholesterol reduction, HIV transmission, injury prevention, and tobacco use. **Methods:** Data were analyzed from the National Ambulatory Medical Care Survey for the 3-year period from 1995 through 1997. This survey uses a multistage national probability sample of patient visits to nonfederal, office-based physicians. We described patterns of counseling provided to adolescents and compared patterns for family physicians/general practitioners and pediatricians. **Results:** Of 91,395 physician-reported visits analyzed, 4,242 (4.6%) were by adolescents ages 12–19. Visits to family physicians and pediatricians accounted for 1,846 (43.5%) of these visits. Counseling about any of the seven areas studied was included in 15.8% of family physician visits and 21.6% of pediatrician visits. The length of consultation increased from 13.8 to 17.6 minutes if counseling was included. **Conclusions:** Adolescents visit physicians infrequently. When they do, few receive counseling on critical adolescent health issues. Both family physicians and pediatricians have room for improvement.

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Behaviors developed during adolescence influence health later in life.¹ The US Preventive Services Task Force states that "Counseling patients about personal health practices (for example, counseling to prevent tobacco use, to promote physical activity, and to prevent accidental injuries) remains one of the most underused, but important, parts of the health visit."² Various practice guidelines echo this sentiment, calling for physicians to discuss tobacco cessation and to incorporate other preventive counseling measures into each visit.^{3,4}

There is little disagreement that adolescents are a high-risk group that could benefit from health counseling. For example, a Surgeon General report states that nearly all tobacco initiation starts before high school graduation, suggesting that anti-smoking counseling should occur during adolescence.⁵ Although evidence

of effectiveness is incomplete, counseling about lifestyle issues has been shown to be important and beneficial in some circumstances. For example, clinical trials have shown an increase in smoking cessation after physician counseling, and physician HIV counseling has shown a benefit with a reduction in risky behaviors.⁶⁻⁸

Despite this evidence, a direct observational study revealed that family physicians seldom counsel, and when they do, the patient visit is significantly longer.⁹ Annual physical examinations for adolescents have not been shown to be a particularly effective way to bring counseling to patients, and how primary care physicians can best meet the needs of adolescents is controversial.¹⁰ Adolescents seldom visit physicians specifically to discuss counseling issues. Instead, physicians are expected to incorporate counseling into an office visit devoted to the problems for which the adolescents do come.

Studies of how different specialties treat similar problems are of interest because they may identify alternative options for treating problems. Studies have shown, for example, that family physicians and pediatricians

approach asthma, fever, and health counseling for adolescents differently.¹¹⁻¹⁶ We studied whether family physicians and pediatricians differ in the amount of counseling they offer adolescents concerning diet and nutrition, exercise, weight reduction, cholesterol reduction, HIV transmission, injury prevention, and tobacco use. We also examined the amount of time spent in office visits to assess the implications for clinical practice of providing counseling to adolescents. We started with the assumption that family physicians would counsel adolescents more frequently than pediatricians because of family physicians' daily experience with adult morbidity and mortality associated with choices made during adolescence.

Methods

Data were analyzed from the National Ambulatory Medical Care Survey (NAMCS) for the 3-year period from 1995 through 1997.¹⁷⁻¹⁹ Because of relatively small numbers of visits by adolescents, a 3-year period was used to increase the number of relevant visits.

The National Center for Health Statistics sponsors the NAMCS, which uses a multistage national probability sample to assess patient visits to nonfederal, office-based physicians. Although national inferences are possible from NAMCS data, because of substantive changes in content from the 1995 and 1996 to the 1997 surveys and the complication of having three different sampling frames, analyses in this study used unweighted data. Therefore, no attempt was made to develop national estimates. Due to a few changes in items included in the 1997 NAMCS, analysis of counseling pertaining to weight reduction and cholesterol reduction was necessarily restricted to 1995 and 1996.

NAMCS has been conducted repeatedly by the National Center for Health Statistics since the 1970s. NAMCS data have been used widely by many researchers to examine ambulatory care.²⁰⁻²³ Randomly selected physicians complete a one-page form reporting on the context of each patient visit that occurs during a prescribed time period. This form can be completed in 1–2 minutes, and it is periodically revised to include questions about priority issues, such as preventive services. NAMCS data are obtained directly from the physician, usually at the time of visit. NAMCS data are not abstracted from medical records.

The preventive measures in this study were those selected for inclusion in NAMCS as forced choice responses that were pertinent to adolescents. As noted earlier, these preventive measures included counseling about diet and nutrition, exercise, weight, cholesterol, HIV transmission, injury prevention, and tobacco use. The physicians check yes if the visit included counseling about each of the listed types of counseling.

The visits examined in this study were made by adolescents (ages 12–19) to the offices of family physicians

and general pediatricians. These medical specialties were contrasted on their profile of counseling for each of the preventive measures listed above. Analyses addressed counseling frequency and its association with duration of visits. This analysis did not rely on reasons for visit or diagnoses.

Results

There were 91,395 physician-reported NAMCS visits for the years 1995–1997. Of those, 4,242 visits (4.6%) were by adolescents ages 12–19. Visits to family physicians or pediatricians accounted for 1,846 (43.5%) of all visits made by adolescents, and a majority (62.5%) of the 1,846 visits were to family physicians. The adolescents seen by family physicians were older (age 16 versus age 15, $P < .001$) and more likely to be female (58.0% versus 48.5%, $P < .001$) than those seen by pediatricians. Some type of counseling was included in 15.8% of visits to family physicians and 21.6% of visits to pediatricians.

Table 1 shows the percentage of visits for each specialty that included counseling about seven concerns relevant to adolescents. For all but weight reduction and cholesterol reduction, the difference between the specialties was statistically significant; pediatricians counseled more frequently than family physicians did.

If counseling was performed, the average time spent with a patient increased on average from 13.8 to 17.6 minutes. Table 2 shows the average duration of visit for each counseling topic, combined for both specialties.

Table 1
Percentage of Visits by Adolescents
to Family Physicians* or Pediatricians
That Included Behavioral Counseling**

Counseling	Family Physicians/ GPs		P Value for Difference Between Specialties
	(n=1,153)	Pediatricians (n=693)	
Any	15.8%	21.6%	< .001
Diet	9.1%	14.9%	< .001
Exercise	6.9%	12.0%	< .001
Injury prevention	2.5%	7.5%	< .001
Tobacco use	2.9%	7.6%	< .001
HIV transmission	1.4%	2.9%	.024
Weight reduction***	1.9%	2.5%	.453
Cholesterol reduction***	.4%	.5%	.827

* Includes family physicians and general practitioners as reported in the National Ambulatory Medical Care Survey

** n=1,846 visits

***Counseling not addressed in 1997 NAMCS survey; n=1,242 in 1995–1996 survey.

GP—general practitioner

Table 2

Average Duration of Office Visits by Family Physicians* and Pediatricians According to Type of Counseling Included in Visit**

Counseling Type	Duration of Visit (Minutes)	Number of Visits
None	13.8	1,020
Any	17.6	22
Diet	18.8	208
Exercise	19.6	162
Injury prevention	19.4	81
Tobacco use	19.2	87
HIV transmission	20.5	36
Weight reduction***	18.5	26
Cholesterol reduction***	27.0	5

* Includes family physicians and general practitioners as reported in the National Ambulatory Medical Care Survey

** n=1,846 visits

*** Counseling not addressed in 1997 NAMCS survey; n=1,242 in 1995–1996 survey

Discussion

This analysis of the NAMCS data from 1995–1997 of adolescent visits demonstrates that adolescents seldom receive preventive counseling from family physicians and pediatricians. Our data also show that pediatricians counseled their adolescent patients at a higher rate than family physicians, contrary to our hypothesis. When either physician specialty reported any counseling, the time spent per visit increased more than 25%.

This study was restricted to counseling in areas reported in NAMCS and thought to be justified by relatively strong evidence. Even so, neither family physicians or pediatricians counseled most adolescents about these areas. For one of the most important behavioral issues facing adolescents, HIV transmission, there was almost no counseling at all by either primary care specialty. Only 36 out of 1,846 adolescents (2.0%) were counseled about HIV transmission. Similarly, only 87 patients (4.7%) were counseled about tobacco use, even though research has shown a benefit of physician counseling.²

The fact that visits with counseling took more time than those without counseling is a factor that may hinder expansion of counseling services. In fact, the current time pressures in primary care settings may impede progress or perhaps even preclude family physicians and pediatricians from focusing on counseling adolescents about critical health issues. We suggest that because preventive counseling is an important aspect of high-quality adolescent health care, physicians who care for adolescents need to clarify their patient care

objectives and possibly redesign office procedures to incorporate preventive counseling into various types of adolescent visits. Physicians must be proactive and not wait for specific encounters to discuss preventive measures. Physicians may also want to encourage use of alternatives for preventive care outside their office settings, such as school clinics and Internet sites. Physicians may want to advocate with private health plans, Medicaid, insurers, residencies, medical schools, and/or large physician groups to encourage systems of service, training, and reimbursement that support preventive counseling in primary care practices.

Limitations

This study is limited because of its cross-sectional nature. These data did not allow the following of individual patients over time. Thus, it is possible that adolescents were counseled at prior, subsequent, or unreported visits. However, the low rate of adolescent visits to doctors indicates few additional opportunities for counseling, making it unlikely that a large amount of counseling by physicians during office visits was missed for this reason.

Another limitation is the self-reporting mechanism on which NAMCS depends. Counseling may have occurred that was not reported. There is evidence that this may be the case,⁹ but it is unlikely that such underreporting would be of sufficient magnitude to refute the conclusions the NAMCS data support. Finally, the NAMCS data source focuses only on the medical office setting. Therefore, this study cannot quantify counseling that may or may not be occurring in other settings.

Conclusions

This study indicates that adolescents are being short-changed by the ambulatory medical care system in the United States. Family physicians and pediatricians should review what they are doing during their consultations with adolescents and realize that offering their adolescent patients counseling on important health issues may be one of the most effective health services they can provide during their infrequent contacts with adolescents. Adolescents deserve more from these primary care physicians than they are getting. There is considerable room for improvement, specifically by family physicians and pediatricians. Whether or not such an improvement occurs is a substantial challenge and probably depends on several factors that require cooperative action among adolescents and the various components of the health care system.

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