

Oregon School-Based Health Centers: Descriptive Analysis of a Patient Satisfaction Survey

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Abstract

Oregon's School Based Health Centers (SBHCs) have grown from five in 1986 to the 41 state certified centers currently in operation. The centers provide developmentally appropriate primary care and behavioral health care services to elementary, middle, and high school sites. SBHC program goals include increasing student access to care, and improving both health and educational outcomes. In the 2000-2001 service year, the Oregon SBHC program began the administration of a new patient satisfaction survey designed to measure satisfaction with services, access, receipt of prevention messages, and number of missed classes. A proportional random survey sample was achieved with a 98% response rate. Results indicate that SBHC patients had high levels of satisfaction and compliance, an increased likelihood of accessing care, high levels of compliance and satisfaction with services, decreased time from school for health care reasons, and were likely to have received one or more prevention messages. This experience demonstrates how public health surveillance can be incorporated into a SBHC clinical setting with minimal disruption to services and can inform SBHC program evaluation and improvement.

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It is well documented that adolescents are especially vulnerable to health risks due to behavior (Gans, Blyth, & Elster, 1990; Levenberg & Gans, 1995; Ozer, Brindis, Millstein, Knopf, and Irwin, 1997; Ozer, Macdonald, and Irwin, 2002). In addition, Muscari (1999) found that behaviors developed during adolescence could influence health even into adulthood. Pediatric standards of care include the provision of health risk prevention services to patients during regularly scheduled well child checks (American Academy of Pediatrics [AAP] Committee on Practice and Ambulatory Medicine, 2000; American Academy of Family Physicians [AAFP], 1992; Elster & Kuznets, 1994; Green, 1994; US Preventive Task Force [USPTF], 1996). However, several authors note that while primary care practitioners (PCPs) are effective when they are able to deliver prevention messages, rates of delivery are low (Jaén, Crabtree, Zyzanski, and Strange, 1998; Kottke,

Solberg, Brekke, Cabrera, and Marquez, 1997; Lewis, 1988; Russell, 1993; Sox, Dietich, Tosteson, Winchell, and Labaree, 1997; Strange, Flock, Goodwin, Kelly, and Zyzanski, 2000). As a result, PCPs can miss opportunities to provide prevention messages to adolescent patients who are vulnerable to beginning or continuing to engage in high-risk behaviors that can impact health later in life.

Several studies have also described that despite increased need and vulnerability, this population is less likely to seek care. For example, 20% of adolescents in one study went without health care when they thought they needed it (Ford, Bearman, and Moody, 1999). Park et al. (2001) describe several barriers to youth accessing health care services, including lack of experience in negotiating medical systems, inconvenient hours and locations, concern about confidentiality, as well as financial, cultural and linguistic barriers. Consequently, since the early

1970's, public school and community health leaders have recognized that to be most effective, health care for young people must be provided in an environment both accessible and familiar to them (Schlitt et al., 2000). As a result, the School Based Health Center (SBHC) model emerged when state and local public health entities located primary health care clinics in elementary, middle, and high schools, organizing services to match the unique physical and developmental needs of students (Schlitt et al., 2000). A major goal commonly seen in SBHCs nationally is to increase access to comprehensive health care for young people, especially those from low-income families (Blum, Pfaffinger, and Donald, 1982). There are currently approximately 1500 SBHCs across the nation (National Assembly on School-Based Health Care [NASBHC], 2003), and their effectiveness in delivering a wide range of health care services is documented (Lear, Gleicher, St. Germaine, and Porter, 1991; Schlitt et al., 2000).

The Oregon SBHC movement has followed the national model, with the first SBHC opening in a high school in 1986. Within a few years, there were 13 centers located in communities targeted because of low socioeconomic status, less access to health care, and higher proportions of youth risk behaviors. There are currently 41 SBHCs scattered across Oregon's diverse geography, located in urban, rural, frontier, and coastal communities. Data gathered for the 2000-2001 service year indicates these centers served 25,193 students in 89,627 primary care visits (Oregon Department of Human Services, 2002). Current goals of the Oregon SBHC program are to increase student's access to primary care, mental health and health promotion services; and to improve educational and health outcomes.

As part of the effort to both assure and improve the quality of their system of care, the Oregon SBHC program administers a patient satisfaction survey annually. This practice reflects the national trend of SBHCs and is consistent with the Institute of Medicine's Framework (2001) wherein patient satisfaction is an outcome indicator (Donabedian, 1966). Seventy percent of SBHC respondents in the national NASBHC

Census 2000-2001 reported using patient surveys as part of quality assurance (Schlitt et al., 2000). In the 2000-2001 service year, the Oregon program implemented a survey designed to explore several dimensions of SBHC operations such as patient satisfaction, access to and overall comfort with SBHC services, class time used to access these services, and types of prevention messages given. The purpose of this article is to describe the results of the patient satisfaction survey in Oregon School Based Health Centers and subsequent implications for service delivery.

Methodology

During the 2000-2001 school year, state certified SBHCs were asked to participate in a two-page, 16-item patient satisfaction survey consisting of fifteen multiple choice and one open-ended question. "Access to care" was operationally defined as anywhere a student felt they could go to receive care. The goal was to obtain a random sample of responses from 700 clinic users. The number of surveys to be completed at each center was in proportion to the percentage of total patients seen in the previous school year. The centers were instructed to choose a day between mid-February and mid-March to begin the survey. Upon conclusion of a visit with a health care professional, each student was asked to complete the survey and the total number of refusals was recorded. For those students who agreed to take the survey, a coin was flipped; if it landed on heads, the survey was completed and if it landed on tails, then the student was excluded from the survey. The students placed the completed surveys into a confidential envelope, which was then forwarded unopened to the state SBHC program office for processing. The centers continued this procedure until all of their allotted surveys were completed. Results of surveys sent to the state SBHC program office were entered into SPSS. Descriptive analyses were conducted with the aggregated data.

Results

The stratified random sample method yielded a return of 688 surveys (98%). The exclusion rate was 8%, which was determined by those surveys where the respondents did not indicate grade or

the grade reported was below six. Thus, for the purposes of this study, we report on a total of 631 surveys of students in grades six to twelve seen during the survey period. A total of 22 students refused to complete the survey. Ten

refusals came from one center, while none of the other centers had more than two refusals. Responses to individual survey items are summarized in Table 1.

Table 1
Itemized Responses to Survey Questions (N=631)

| | Total | | Male | | Female | |
|--|-------|------|------|------|--------|-------|
| | n | % | n | (%) | n | (%) |
| Gender | | | 160 | (25) | 466 | (74) |
| Grade | | | | | | |
| 6 | 36 | (6) | 7 | (1) | 27 | (4) |
| 7 | 40 | (6) | 16 | (3) | 24 | (4) |
| 8 | 56 | (9) | 21 | (3) | 35 | (6) |
| 9 | 110 | (17) | 23 | (4) | 87 | (14) |
| 10 | 157 | (25) | 38 | (6) | 119 | (19) |
| 11 | 122 | (19) | 31 | (5) | 88 | (14) |
| 12 | 110 | (17) | 24 | (4) | 86 | (14) |
| Overall health because of center | | | | | | |
| Better | 417 | (67) | 117 | (19) | 300 | (48) |
| Same | 205 | (33) | 43 | (7) | 160 | (26) |
| Worse | 2 | (.3) | 0 | (0) | 1 | (.3) |
| How comfortable going to center | | | | | | |
| Very comfortable | 519 | (83) | 131 | (21) | 386 | (62) |
| Somewhat comfortable | 102 | (16) | 26 | (4) | 74 | (12) |
| Not very comfortable | 2 | (.3) | 1 | (.2) | 1 | (.2) |
| Not all comfortable | 2 | (.3) | 0 | (0) | 2 | (0.3) |
| How easy is it to talk to center staff | | | | | | |
| Very easy | 330 | (53) | 79 | (13) | 248 | (40) |
| Easy | 28 | (46) | 80 | (13) | 206 | (33) |
| Not very easy | 0 | (0) | 0 | (0) | 0 | (0) |
| Difficult | 7 | (1) | 0 | (0) | 7 | (1) |
| Very hard | 2 | (.3) | 0 | (0) | 2 | (.3) |
| How likely to follow advice of center staff. | | | | | | |
| Very likely | | | | | | |
| Likely | 316 | (50) | 77 | (12) | 236 | (38) |
| Maybe | 274 | (44) | 75 | (12) | 197 | (31) |
| Probably not | 37 | (6) | 8 | (1) | 29 | (5) |
| | 0 | (0) | 0 | (0) | 0 | (0) |
| Talked with center staff about any prevention messages | | | | | | |
| Dangers of tobacco | 137 | (22) | 37 | (6) | 99 | (16) |
| Dangers of drugs or alcohol | 141 | (22) | 35 | (6) | 105 | (17) |
| Getting exercise | 149 | (24) | 31 | (6) | 115 | (18) |
| Eating healthy | 195 | (31) | 35 | (6) | 156 | (25) |
| Feeling sad or angry | 227 | (36) | 38 | (6) | 188 | (30) |
| Making safe choices about sex | 286 | (45) | 35 | (6) | 251 | (40) |

| | Total | | Male | | Female | |
|--|-------|-------|------|------|--------|------|
| | n | % | n | (%) | n | (%) |
| Overall rate of care at center | | | | | | |
| Excellent | 465 | (74) | 113 | (18) | 348 | (56) |
| Good | 145 | (23) | 42 | (7) | 103 | (16) |
| Okay | 16 | (3) | 4 | (.6) | 11 | (2) |
| Poor | 0 | (0) | 0 | (0) | 0 | (0) |
| How many classes missed today to come to center | | | | | | |
| None | 343 | (55) | 107 | (17) | 233 | (37) |
| 1-2 Classes | 255 | (41) | 43 | (7) | 211 | (34) |
| 3-5 Classes | 3 | (0.5) | 0 | (0) | 3 | (.5) |
| All Day | 5 | 0.8) | 4 | (.6) | 1 | (.2) |
| Don't Know | 16 | (2.6) | 5 | (.8) | 11 | (2) |
| If school did not have a Health Center, another place to go for care | | | | | | |
| Yes | 365 | (59) | 87 | (14) | 277 | (45) |
| No | 172 | (28) | 48 | (8) | 123 | (20) |
| Don't Know | 81 | (13) | 22 | (4) | 57 | (9) |
| If you said yes, would you go | | | | | | |
| Yes | 189 | (56) | 49 | (15) | 140 | (42) |
| No | 56 | (17) | 11 | (3) | 44 | (13) |
| Don't Know | 90 | (27) | 15 | (4) | 75 | (22) |
| If you said yes, how many classes would you have missed to go to the other place | | | | | | |
| None | 39 | (12) | 17 | (5) | 22 | (7) |
| 1-2 Classes | 133 | (43) | 32 | (10) | 101 | (32) |
| 3-5 Classes | 63 | (20) | 14 | (5) | 48 | (15) |
| All Day | 59 | (19) | 11 | (4) | 48 | (15) |
| Don't Know | 17 | (6) | 2 | (1) | 15 | (5) |

Participant Characteristics. Of the 631 respondents, 160 (26%) were male and 466 (74%) were female. This reflects the national tendency and Oregon experience that females are more likely to be client of a SBHC and utilize services more frequently. The survey was completed by 36 (6%) 6th graders, 40 (6%) 7th graders, 56 (9%) 8th graders, 110 (17%) 9th graders, 157 (25%) 10th graders, 122 (19%) 11th graders, and 110 (17%) 12th graders. Eighty-one percent of those who completed the survey were in high school.

Respondent Access to Health Care. When students were asked, if their school did not have a SBHC, would they have another place (like a

doctor's office, emergency room, or another clinic) to go for care that day, 365 (59%) reported they did. One hundred seventy two (28%) students reported they did not have another place to go for care; 81 (13%) did not know (Figure 1). Out of the 365 (59%) students who knew they had access to other care, only 189 (56%) said they would go, which leaves 146 (44%) of those students unlikely to have accessed health care outside of the SBHC. Regardless of their access to other care, 429 (71%) students were unlikely to receive services on the day of the survey if they did not have SBHC in their school (Figure 2).

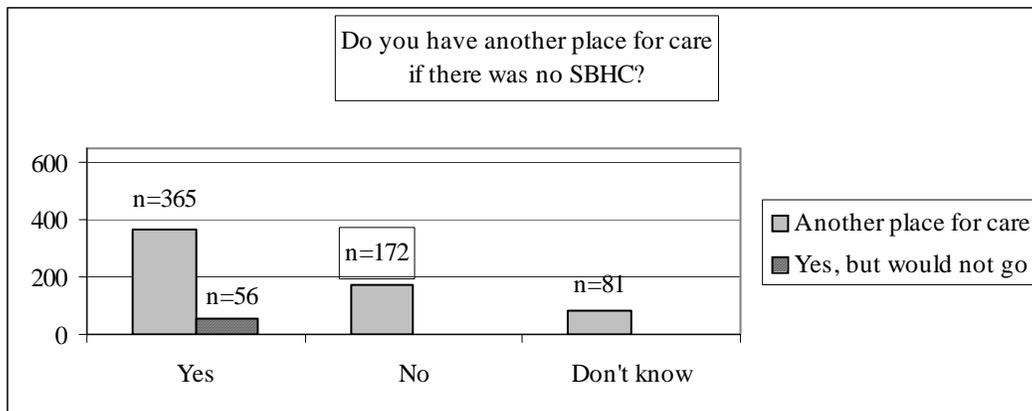


Figure 1
Student Access to Other Health Care

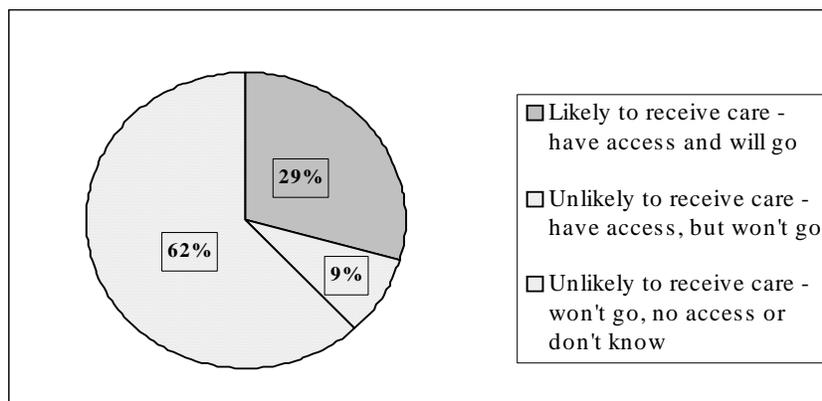


Figure 2
Likelihood of Receiving Care

SBHC and Classes Missed. On the day the students received care and the survey was completed, 343 (55%) of the students reported that they did not miss a class while using the center. 255 (41%) reported they missed between one and two classes while at the center. Three (0.5%) students reported missing three to five classes. Five (0.8%) students reported missing all day while accessing the center and 16 (2.6%) did not know how many classes they missed. Out of those students with access to other care,

39 (13%) estimated they would not have missed a class if they had gone somewhere other than the SBHC for the care they needed that day. There were 133 (43%) students reporting that they would miss an estimated one to two classes. Sixty-three (20%) estimated they would miss three to five classes. Fifty-nine (19%) estimated they would miss all day and 17 (6%) did not know how many classes they would miss if the received care outside of the SBHC (Figure 3).

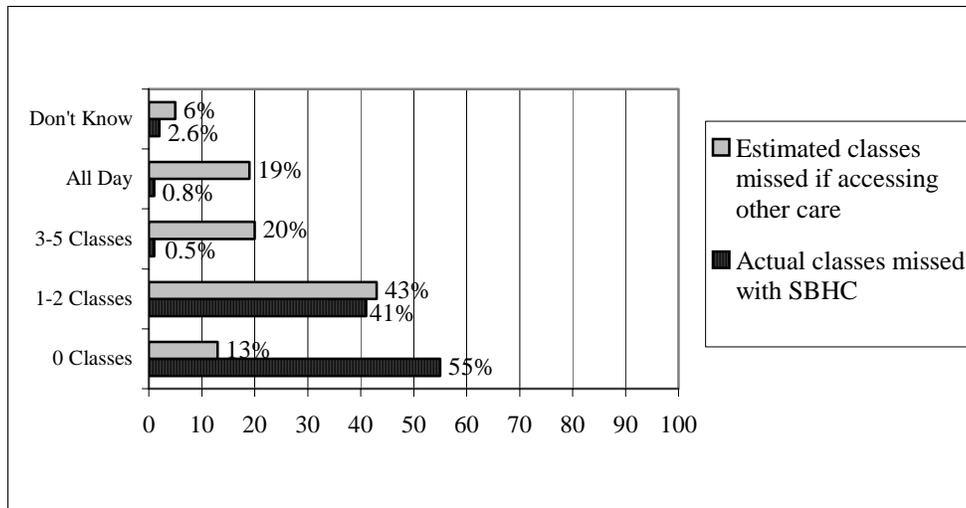


Figure 3
Comparison of Classes Missed Due to Health Care Reasons

Prevention Messages Discussed. One survey item directed students to circle any and all of the prevention messages discussed with SBHC staff. 464 (74%) students reported they had discussed at least one prevention message while talking to the center staff. One hundred thirty-seven (22%) students discussed the dangers of tobacco with staff. Dangers of drugs or alcohol was a prevention message that 141 (22%) of the students discussed with staff. One hundred forty-nine (24%) students reported discussing the need for exercise. Talking about eating healthy was reported by 195 (31%) of students. Talking about feeling sad or angry was reported by 227 (36%) of students. Discussions about making safe choices about sex was reported by 286 (45%) of students. The discussion of two or more prevention messages was reported by 304 (48%) students. Discussions of three or more prevention messages was reported by 197 (31%) students. Four or more prevention messages were reported by 93 (15%) students (Figure 4).

Patient Satisfaction with SBHC. Three hundred thirty (53%) students reported it was very easy to talk to the staff at the SBHC. Two

hundred eighty-eight (46%) reported it was easy to talk to the staff. Seven (1%) reported it was difficult to talk to staff; two (0.3%) reported it was very hard. Four hundred sixty-five (74%) students rated the overall care received at the center the day of the survey was excellent. One hundred forty five (23%) rated the care as good; sixteen (3%) rated care as fair. Three hundred sixteen (50%) students reported they were very like to follow the advice given by SBHC staff. Two hundred seventy four (44%) stated they were likely to follow advice; 37 (6%) reported they may be likely to follow staff advice. Five hundred nineteen (83%) students reported they were very comfortable going to the health center. One hundred two (16%) were somewhat comfortable going to the center. Two (0.3%) reported they were not very comfortable and two (0.3%) reported they were not at all comfortable going to the center. Four hundred seventeen (66%) students reported their health was better because of the health center. Two hundred five (33%) reported their health was the same and two (0.3%) reported their health was worse because of the SBHC (Figure 5).

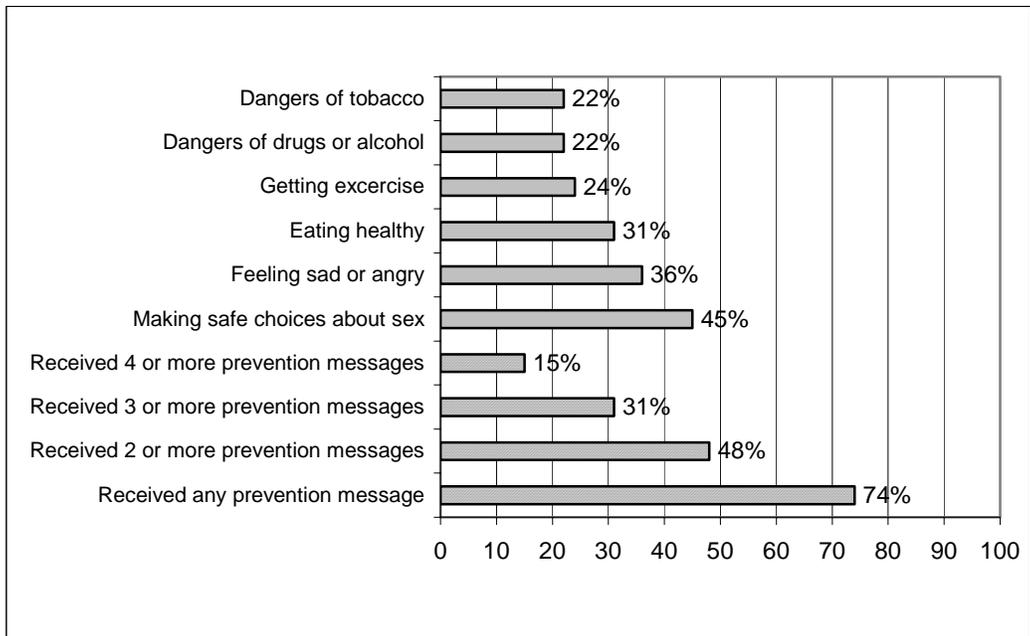


Figure 4
Prevention Messages Reported by Respondents

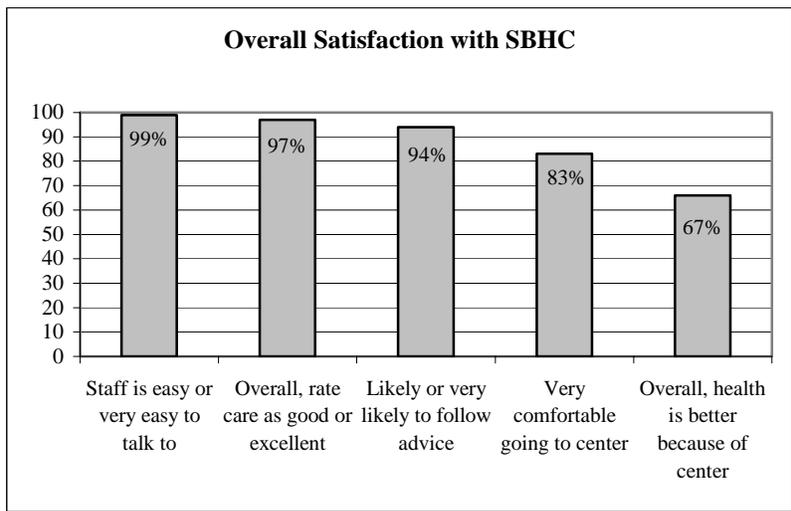


Figure 5
Overall Satisfaction with SBHC

Limitations

Results describe a proportional random sample of students seen in Oregon’s SBHCs collected during only one month. As a convenience sample, it is unknown whether the demographics (including gender, grade, ethnicity, etc.) or

experiences of SBHC clients would differ during other months of the SBHC service year. Social desirability bias could not be excluded as survey respondents participated within the setting they were evaluating. In addition, the reliability and validity of the survey has not been documented

with the age group to which it was administered. The combination of these elements would limit generalizability of the findings.

Discussion

Health care access for adolescents remains a problem well documented across the U.S., and is consistent with this study. Seventy-one percent of survey respondents did not have access to other care, did not know if they had access to other care, or would not use other care if they had it. Presenting symptoms prompting students to visit the SBHC at the time of the survey are unknown. Students' reasons for not pursuing other health care if the SBHC was unavailable are also not understood. While this is an area where further study is needed, it is important to acknowledge that student responders came to the SBHC at the time of the survey because they felt they needed care and/or had a prior appointment. Regardless, the need for accessible healthcare for adolescents, such as provided in the SBHC model, is supported.

Of particular significance is the finding that a large proportion (44%) of adolescents surveyed who knew they had access to health care other than the SBHC reporting that they would not necessarily have used it for the concern prompting their need for care the day of the survey. The respondents' reasons for these statements were not explored. However, this result indicates that for this group of students at the time of the survey, the decision to access health care was influenced by factors only one of which was the financial means to get it.

The hope of host communities is that improving student access to health care via placing a SBHC in a school would have a positive influence on educational outcomes. The variable most often considered is the effect of the presence of a SBHC on the prevalence of illness and corresponding class absenteeism. Much debate has occurred about how to best link SBHC services with school attendance, as one variable in measuring kids' health. This study may be the first attempt to survey students about how much class time they feel would be missed to access needed health care without the SBHC in their school. Eighty-one percent of respondents

said they would miss more than one class for the care they needed that day if they had to access care elsewhere; 19% said they would miss the entire day. In contrast, over half (55%) of students surveyed reported they were not missing even one class to receive health care in the SBHC that day. In essence, this study suggests that SBHCs are able to have an impact on minimizing the number of classes missed for health care reasons because services are available on-site, thereby increasing students' ability to attend classes.

As has been established, adolescents are particularly vulnerable because of increased health risks due to behavior and low rates of accessing health care. At the same time, their primary developmental task is to establish an independent lifestyle that will be carried into adulthood. Thus, adolescence is a critical time for assessing and intervening with behaviors that could contribute to long-term health and lifestyle choices. The medical community, as well as others, has recognized that the provision of primary care services can provide valuable opportunities to counsel adolescents about lifestyle choices. Anticipatory guidance provided on an annual basis is a recognized component of leading national organizations related to adolescent health care (AAFP, 1992; AAP Committee on Practice and Ambulatory Medicine, 2000; Elster & Kuznets, 1994; Green, 1994; USPTF, 1996).

Improvement of student access to health care services via the SBHC model creates opportunities for students to receive prevention services. In addition, the developmentally-guided service model of the SBHCs also increases practitioners' ability to provide prevention messages. Results of the survey indicate that prevention messages were successfully delivered to high proportions of students during services provided at the SBHC. Seventy-four percent of respondents received one or more prevention messages, 31% received at least 3, and 15% received at least four prevention messages. The survey question eliciting prevention messages did not have a clear time frame for when the message was received. The likelihood that these messages took place during more than one visit is high, in

which case it is notable that students not only received the message, they also remembered it.

SBHC services are provided by practitioners who specialize in services to adolescents with enough flexibility to allow for the delivery of appropriate prevention messages. This model allows for a critical process in service provision to young people: the creation of a safe, welcoming environment. This is reflected in the high overall satisfaction rates reported by survey respondents as well as the high percentage (83%) that reported they felt comfortable going to the SBHC for care that day. It is especially notable that almost all (94%) of respondents reported they were likely to follow the advice of their practitioner. This has obvious implications for improved compliance with health care

services, always an issue with the adolescent patient.

Conclusions

Student respondents to the satisfaction survey indicated that they felt they had more access to health care services for the concern prompting their visit because of the SBHC in their school. They also reported estimating missing less class time to receive these services because of the SBHC. They describe feeling comfortable and satisfied with the health care received at the SBHC, and reported receiving several prevention messages. These results demonstrate how the SBHC model can enhance health services delivery to adolescents with accompanying implications for improved overall health and educational outcomes.

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