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Parental report of receipt of adolescent preventive health counseling services from pediatric providers

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ABSTRACT

Objective: Little is known about prevention-focused counseling health providers deliver to parents of adolescents. This study compared parental report of discussions with their adolescents' providers about a range of adolescent prevention topics.
Methods: Between June and November 2009, a questionnaire was provided to parents accompanying adolescents aged 11–18 on outpatient clinic visits. Parents indicated, anonymously, which of 22 prevention topics they remembered discussing with their adolescent's provider. Hierarchical logistic regression models were used to identify correlates of parental recall.
Results: Among the 358 participants, 83% reported discussing at least one prevention topic. More parents reported discussing general prevention topics than mental health or high-risk topics (e.g. sex). Adolescent gender, visit type, having a usual source of care, and parental beliefs about their adolescents' risk behaviors correlated with parental report of discussions about high-risk and mental health topics.
Conclusion: Most parents recalled discussing one or more topics with their adolescent's health provider. However, parental report of discussions about topics linked to significant adolescent morbidity was low.
Practice implications: Strategies to improve the frequency, timeliness and appropriateness of counseling services delivered to parents about adolescent preventive health are needed. Strategies that utilize decision support tools or patient education tools may be warranted.

1. Introduction

Adolescence is a relatively healthy period of life. Most adolescent morbidity is due to engagement in health risk behaviors [1]. Screening and counseling adolescents about health risk behaviors is considered an important approach for promoting adolescent health. In addition, national guidelines recommend that health providers deliver prevention-focused messages to parents, as well as to adolescents [2,3]. The American Academy of Pediatrics' "Guidelines for Health Supervision"[4] and the Maternal and Child Health Bureau's "Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents" [3] list age-appropriate prevention-focused topics that clinicians should discuss with parents. The basis for these guidelines is the belief that anticipatory guidance and prevention counseling delivered to parents improves children's health. Providing parents with age-appropriate information about their adolescent's health and development strengthens parents' ability to identify problems early and to seek help [5].

While studies have examined the delivery of prevention counseling services in pediatric care, the majority focus on anticipatory guidance delivered to parents during early childhood [6]. Few have examined whether providers deliver prevention messages to parents of adolescents, the content of these messages, or the effect counseling has on adolescent health. Several qualitative studies have explored parental reports of whether such conversations have occurred. Two used focus group methodology to document parents' perception that providers rarely counsel them about adolescent preventive health issues [7,8]. One of these, conducted among parents recruited from eight

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clinics that were part of a state-based adolescent research network, found that parents wanted providers to communicate with them more about adolescent preventive health issues [8]. The other, a nationwide study, noted similar results [7]. Although helpful, a major limitation of these studies is that they do not quantify provider counseling rates or variations in provider–parent counseling by topic. Such information would be immensely helpful for informing intervention efforts.

Delivery of prevention-based counseling services to parents and adolescents is recommended during annual well-child visits, which focus largely on health promotion. However, implementation of these prevention guidelines is difficult because fewer than 40% of adolescents attend an annual well-child visit [6,9,10]. Instead, adolescents are more likely to present for acute care visits [11], during which delivery of prevention services is feasible, but rare [12]. An additional challenge is that adolescents often present with multiple complaints, which limits physicians' time to provide risk screening and targeted counseling to adolescents or their parents.

Accurately assessing the provision of prevention counseling services to parents in pediatric practices is challenging. The most rigorous assessment method relies on audio-recording visits. This approach is time consuming, labor intensive, and expensive. Analysis of medical record documentation, billing records, or assessing recall by parents or providers can be used as proxy measures for clinician counseling behavior. However, the accuracy of each method is highly variable as demonstrated by studies examining delivery of counseling services to parents during early childhood [13–15]. These studies have found that medical record documentation has little concordance with directly observed physician counseling. For adolescent populations, billing records capture services delivered to adolescents, not parents. Studies employing parental report vary depending on the length of time since the clinic visit, visit type, and the child's age [16]. Despite these limitations of using parental report, a recent study demonstrated that parental recall is a time-efficient and cost-effective method with higher sensitivity than medical record review and good convergent validity with audio-recorded visits [17].

In this study, we administered a cross-sectional questionnaire to parents in pediatric outpatient clinics at a large academic hospital to assess parental report of receipt of prevention-focused counseling about adolescent health issues from their adolescent's pediatric provider. To inform subsequent intervention efforts, we examined demographic, parenting, and health care utilization factors that were potential correlates of parental reports. Given the lack of data regarding the content of prevention messages delivered to parents of adolescents and the effect such counseling has on adolescent health, this study represents the first step in filling these research gaps.

2. Methods

Between June and November 2009, we administered an anonymous, self-report questionnaire to a convenience sample of parents accompanying their adolescent children on visits to the general outpatient pediatric clinics at the Children's Hospital of Pittsburgh. At the time of the study, the clinics had 25 providers and 19,000 unique visits annually. Sixty-four percent of patients were black and 30% were white, with few Hispanics or Asians (2% and 4%, respectively). The questionnaire was administered as part of a larger initiative to improve the provision of adolescent health promotion education to parents in pediatric primary care practices at the institution. The questionnaire sought to (1) identify adolescent preventive health issues of primary concern to parents of adolescents; (2) determine parents' preferred and actual sources for adolescent preventive health information; and, (3) assess parent and provider interest in computer-based delivery of adolescent prevention-focused information to parents. This manuscript presents the findings for the first aim of the questionnaire only.

Biological or legally adoptive parents of adolescents aged 11–18 years were invited to complete the questionnaire if they were accompanying an age-eligible adolescent on a clinic visit. Parents were handed a recruitment postcard when they checked in for their adolescent's visit. The postcard directed parents to a research study booth in the waiting room, where research staff explained the study, assessed eligibility, and distributed the questionnaires. Parents completed the questionnaire in the waiting room prior to their visit. This was done to reduce bias based on discussions that occurred on the day of the study visit. A response rate could not be calculated due to restrictions from our Institutional Review Board (IRB) regarding our recruitment activities and access to detailed clinic visit data. The clinics do not collect data regarding the proportion of parents who accompany adolescents to appointments, and permission was not granted by our IRB to collect this information. Moreover, recruiters were only permitted to talk with parents who voluntarily approached the study booth after receiving a flyer from the clinic staff. Recruiters were not provided access to clinic data regarding the volume of patient visits by age eligible adolescents during the study period. These factors precluded determination of a response rate.

2.1. Data collection

The questionnaire was adapted from the School Health Promotion Initiative's Parent Survey [18]. The changes made were to amend the language to be consistent with the questionnaire's use in an outpatient pediatric clinic rather than a school-based, setting. Items were added to assess parental interest in computer-based delivery of prevention information. The 41-item, self-administered pen-and-paper questionnaire took approximately 15 min to complete. Parents returned the questionnaire to a locked box at the study booth and were then provided with a $5 cash reimbursement for their time. Because questionnaires were anonymous and contained no identifiable or sensitive information, only verbal (not written) informed consent was obtained. The study was approved by the University of Pittsburgh IRB.

2.2. Main outcomes

Parents were provided with a list of 22 adolescent preventive health topics identified via review of national guidelines on adolescent preventive health services [3,19–21]. This resulted in a broad list of topics that were then reviewed by a panel of pediatricians, adolescent medicine specialists, and an OB/GYN to create the list of 22 topics used. Parents were asked to indicate which topics they could recall discussing with their adolescent's provider. To reduce under-reporting bias, parents were asked to indicate whether they had ever discussed each topic, rather than limiting recall to a shorter timeframe. In our models, we adjusted for the length of time since the last clinic visit to reduce bias due to differential lengths of time since a last encounter with an adolescent's provider.

Among parents who recalled discussing at least one topic, principal components analysis was used to group topics into clusters. This was done to avoid multiple testing, which increases type I errors [22]. We used a maximum likelihood iterative solution with the factors rotated to a varimax solution [23]. A three-factor solution was found. Factor 1, named *High Risk* topics, included drug/alcohol use, sexual health topics (e.g., HPV virus, sexually transmitted infections (STI), teen pregnancy), and abuse [24].