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Youth and Their Parents' Views on the Acceptability and Design of a Video-Based Tobacco Prevention Intervention

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Abstract

The purpose of this study was to evaluate the acceptability of a brief, video-based parental intervention that modeled parent-child communication about tobacco, delivered within an emergency department (ED) setting. While waiting to be seen by a physician in the ED, 20 parent-youth dyads watched the video together and then private, semi-structured focused interviews were conducted around the “take home” message and views on the settings, actors, and content of the videos. Dyads agreed that the design, delivery, and content of the video intervention were acceptable, realistic, and useful in providing parental reinforcements about the importance of parent-youth tobacco communication and the ED was considered to be a good setting for watching the video. Our findings support the development and delivery of such an ED intervention and aids in determining content and scenarios for future intervention development.

Smoking remains the leading cause of preventable disease and death in the United States. Given that over 90% of adult smokers began smoking as adolescents or young adults (USDHHS, 2001), there is a need for creative tobacco prevention interventions that will slow or halt tobacco initiation and thus prevent future tobacco-related morbidity and mortality. Tobacco prevention interventions have been conducted in a variety of settings including schools and healthcare facilities with limited success. The various strategies used in these interventions include written and verbal information-giving methods, social influence approaches, generic skills training, and community interventions (Ranney et al., 2006; Tyc, et al. 2003; Fidler & Lambert 2002; Stevens, et al, 2002; Hovell & Slymen 1996). Family influences are known to be important to early preparation stages of smoking (Flay, et al. 1983; Jackson & Henriksen 1997; Fleming, Kim, Harachi, & Catalano, 2002) and recent literature supports the potential effectiveness of decreasing youth smoking susceptibility and initiation by utilizing parental interventions that increase parent-youth anti-smoking socialization which includes discussion of smoking related topics, setting rules about smoking, and monitoring (Chassin et al., 1998; Engels & Willemsen 2004; Jackson and Dickinson 2003 and 2006). We sought to develop and test the acceptability of a parental video-based tobacco prevention intervention that could be used in a setting with a high prevalence of youth who were at high risk for initiating smoking in the future, but whose parents may not have received smoking prevention advice in the past. The pediatric emergency department (ED) setting was chosen to accomplish our goals because the ED: 1) serves a large population of uninsured youth of lower socioeconomic status whose parents smoke and who are themselves at increased risk of tobacco initiation (Conwell et al., 2003; Epstein, Williams, Botvin, Diaz, & Ifill-Williams, 1999; Gilman, Abrams, & Buka, 2003; Mahabee-Gittens 2002; Mahabee-Gittens et al., 2008), (2) is utilized by these youth for non-emergency health problems (Ziv, Boulet & Slap 1998, Alpern et al, 2006; Nawar, Niska, & Xy 2007), as many have no source of primary care (Baker et al., 1994; O'Brian et al., 1997;

Young et al., 1996); where their parents may have gotten anticipatory guidance on smoking prevention, and (3) visit is associated with long patient wait times for evaluation by a physician for non-urgent cases (Alpern et al, 2006), thus providing an potentially opportune “down time” for preventive interventions (Rhodes et al., 2001).

In order to keep our intervention brief, salient, relevant, and easy to understand for our ED population, we developed a video-based parental tobacco prevention intervention that could be viewed by parent-youth dyads during ED visit times. It is believed that the impact of messages delivered via educational videotapes can be more effective than print delivered messages such as newspapers and magazines (Bandura, 1969) or through teacher- or peer-led activities for several reasons: 1) Potential to reach larger audiences for example while in the ED waiting room: 2) Increased likelihood that the model behavior will be imitated by providing reinforcement of model behavior and potential identification of the actors in the videotape with the target audience (Bandura, 1969; Biglan, et al., 1988, Gagliano ME, 1988); 3) Improved patient knowledge, good acceptability, and satisfaction with the information and suggested treatment or behavior, as seen in a meta-analysis of studies that have used videotapes for patient education in cancer care (Gysels & Higginson, 2007); 4) Improved attitudes and treatment adherence, as has been demonstrated in video-based education efforts to prevent AIDS and STD spread (Solomon MD, & DeJong W 1988 and 1989; O'Donnell LN, San Doval A, Duran R, O'Donnell C, 1995); and 5) Effective use in busy health care settings that have limited staff available to provide prevention education to serve diverse populations (Solomon MZ, & DeJong W 1988 & 1989; O'Donnell LN, San Doval A, Duran R & O'Donnell C, 1995).

Our video intervention was called IMPACT (Improving Parent/Adolescent Communication about Tobacco). It was designed based on social learning theories of behavior change (Bandura, 1977) with the intended primary emphasis and message on modeling and empowering parents to feel efficacious in helping their children avoid tobacco use, using both verbal and body language to express anti-tobacco attitudes and rules, and improving youth refusal skills to tobacco requests in a way that was culturally and linguistically appealing to our ED population. This paper reports on: 1) development of the video content; 2) parent and youth acceptability of the practical aspects of the design and delivery of the IMPACT video; 3) parent and youth views on the content of the video; and 4) overall acceptability of the video as an intervention tool in the ED.

Methods

I. Participants and Setting

Participants were recruited from the ED of Cincinnati Children's Hospital Medical Center, which has an annual patient census of over 85,000 visits. All parents/legal guardians of youth 11–14 years of age triaged to the non-urgent category were eligible for participation in the study. Youth were excluded from the study if they were unable to complete the survey because of illness, injury, mental retardation, or developmental delay. Only one parent or legal guardian per family were surveyed, regardless of the number of eligible children in the family. There were 20 parent/youth dyads of which 10 were non Hispanic Caucasian (1/6 male parents/youth, and 9/4 female parents/youth) and 10 African Americans (1/3 male parents/youth, and 9/7 female parents/youth). This study was approved by the CCHMC Institutional Review Board.

II. Intervention Development

Pre-Intervention Research—Prior to the creation of the video that was evaluated for this study, a group of 20 parent/child dyads watched a parent-child communication video

developed by Oregon Research Institute as part of a project aimed at reducing tobacco use initiation (Gordon, Biglan & Smolkowski, 2008). The video, entitled: “Tobacco-Free TV (TFTV): Focus on Family,” concentrated on parent/child communication about tobacco use. The TFTV program was an effort to increase communication between parents and teens about tobacco by both modeling positive parent/child interactions and didactically highlighting the techniques being used in each interaction (Gordon et al., 2008). During focused interviews, feedback on ways to change the dialogue, characters, scenarios, and content of the TFTV video for use with our target population was provided by both parents and youth.

Video Content and Development—Based on the information collected in the focused interviews, and using basic social learning and behavior modification principles (Bandura, 1969) and the Theory of Planned Behavior (Ajzen, 1985, 1991) as a framework, a set of specific behavioral objectives for the content of the video for the current study was developed and prioritized. Thus, the goals of the program were to: a) increase parents’ self-efficacy to influence their child’s smoking behavior; b) teach the social skills needed to talk effectively about tobacco use within their child’s social context; c) promote parental expectations that tobacco use behavior is not normative, is socially unacceptable, and is perceived negatively by the parent; and d) prompt parent-youth discussion of tobacco use behaviors.

Two parent-based video vignettes, one tailored to non-smoking parents and for the other to parents who smoke, were developed. Each 5–7 minute vignette (Figure 1) included role models and didactic content set in situations in which parents and teens could realistically find themselves discussing tobacco. To target our predominantly bi-cultural ED population we employed both African-American and Caucasian actors (Mahabee-Gittens, et al., 2008). Scripts were prepared iteratively using content and phrasing generated from the various focused interviews, and a team of experts in adolescent medicine, psychology, emergency medicine, and tobacco prevention.

III. Intervention Assessment

Focused Interview Protocol—Parent-youth dyads watched one of the videos (based on parental smoking status) together in their private ED room while waiting for an ED physician evaluation. Parents and youth were then separated into private ED rooms and focused interviews were conducted. Each focused interview followed the same protocol, which included: 1) provision of information about audio recording, voluntary participation, payment upon completion of the focused interview, purpose of the protocol, anonymity of the data collected, and the relative risks and benefits of participating in the study; 2) collection of informed consent for parents and assent for youth; and 3) focused interview questions regarding the video. The study facilitator asked focused interview questions in the order specified in the protocol (see Table 1 for sample of questions). The sessions were audio recorded and transcribed verbatim. Two members of the research team independently reviewed the transcripts, and developed conceptual categories, according to standard qualitative research procedure (Glaser & Strauss, 1967). All categories were verified by the investigators. The research team then organized the data into the approved categories.

Results

The interviews of the parents and youth were analyzed separately; however, most of the themes are presented together to underscore the similarities. Four salient themes were derived from the qualitative analysis: 1) video design and delivery; 2) video content; 3) smoking prevention behaviors; and 4) video acceptability.

Video Design and Delivery

Actors—Almost all the dyads said that they liked the actors and found them to be believable and realistic (e.g., “They’d be very disappointed and expect me to make good decisions. They would say the same things”). Only three negative comments were collected regarding the actors (e.g., “The smoking father seemed like he didn’t smoke in real life.”).

Scenarios—Both parents and youth liked that the video itself was brief. Youth, in particular, found the scenarios to be realistic and salient (e.g., “The part where she was choking and she was coughing and...when she came home smelling like smoke.”)

Identification—The parents overwhelmingly indicated that they could identify with the approach of the parents in the video. For example, “I would have been more angry but can remember how strong peer pressure can be so could keep that in the back of my mind while talking to my children.” The parental smokers said they could relate to the parents in the video. One mother said, “I do get out of breath sometimes and I do express my opinions about smoking and wish that I had not ever started”. The majority of the youth said the parents in the video were very similar to their own—that their parents would use similar words if the child was caught smoking. Many of the youth whose parent(s) smoked said they had seen evidence of similar health effects like coughing, shortness of breath, and weakness. A few of the youth indicated that their parents would have been angrier than the parents in the video—“she’s very protective, she does everything she can to make sure I don’t smoke or drink or anything like that.” The youth participants said that they could relate to the youth in the video because they liked to be social (i.e., go to parties and hang out with popular kids), and said similar things about smoking to their parents (e.g., “Yeah, I can identify because he told his dad he would never smoke and that’s what I keep telling my mom that I would never smoke.”)

Video Content

Overall Message—The dyads agreed on the importance of the main messages of the video: smoking is bad for you and if someone already smokes, they need to stop (e.g., “It says that if you do smoke that your kids don’t have to. Just give them some rules and communicate with your children before they even try”); peer pressure plays a role in smoking (“just because some people are doing it doesn’t mean it’s the right thing to do.”); and talking honestly and openly about smoking and the associated dangers (e.g., “Smoking messes up your lungs”).

The youth reported that from the video they primarily learned “not to smoke” or “never to smoke”—“That it’s not good for your body to smoke and how easy it is to get sucked into the addiction.” Many remarked about the prevalence of peer pressure and its relationship to popularity—“popular isn’t always right and what’s right isn’t always what’s popular.”

Overall, the parents said they were familiar with all the information presented in the video and did not learn much new information. However, many mentioned that the video highlighted for them the importance of talking about smoking with your kids in a calm and honest manner in order to try “to prevent it [smoking] from happening again.” In terms of understanding the video, all dyads reported that the video was very straightforward and extremely easy to understand.

Applicability—The parents overwhelmingly agreed that the words used by the parents in the video were on target, and they could see themselves saying them if confronted with a similar situation. A few parents indicated that they already talked a lot about not smoking with their children; however, other parents reported that the video would prompt them to do

more talking with their kids—"I do think I should to talk with her more just because she's the kid she is today doesn't mean she's gonna be that kid tomorrow".

Parents indicated that gaining the child's perspective about the difficulty of dealing with peer pressure would motivate them to talk more to their children about not smoking.

Parents indicated, and youth agreed, that they would have been more angry and given more punishment if their child was caught smoking. Youth participants indicated that punishment and the information about the dangers of smoking were the most convincingly portrayed messages in the videos.

Suggested Changes—Suggestions from the youth participants included: 1) showing younger kids in the videos; 2) having more pressure put on the adolescent about smoking at a party; 3) showing the adolescent getting punished for smoking; 4) showing other situations besides sports-related scenarios; 5) showing health consequences when youth smoke—not just the health consequences of the adult; and 6) showing a parental smoker in the video who is able to stop smoking.

Most parents were satisfied with the video scenarios, and would change nothing. A few parents made minor suggestions, such as adding more details of how to talk to their children about not smoking and provide some practical application of consequences (e.g., like having the child do some research about smoker's bodies versus non-smoker's bodies).

Smoking Prevention Behaviors

Rules/Expectations/Consequences—Parents had mixed views about setting specific expectations and/or rules about not smoking, which ranged from having no specific expectations about smoking to having an unequivocal non-smoking policy in the home. Dyads mentioned specific negative consequences that parents could use if their children go against their expectations or rules regarding tobacco use, (e.g., taking away meaningful things, adding chores, or some type of grounding). A number of parents mentioned the importance of preparing their children to deal with the realities of life ("You just gotta trust your child, just sit down and talk to them, that's all you can do.") The youth were clear that they want parents to keep them away from smoking by not letting them hang out with friends who smoke or go to parties where there is likely to be smoking.

Influencing/Preventing Smoking—Youth identified stress and peer pressure as factors that might influence them to start smoking. They indicated that health concerns, appearance, and impact on athletics (including the potential for obtaining academic scholarships) were preventative factors against smoking initiation.

When parental smokers were asked how to influence their children not to smoke, the majority said that they would use themselves as examples, explaining in detail the health consequences (e.g., trips to the hospital, exacerbations with asthma), and that they wish they had never started smoking ("As a smoker, I just I really try to express to my kids that I wish I had never started and that it's very hard to quit and that cigarettes are a drug.").

Video Acceptability

Overall Rating—Dyads overwhelmingly liked the video and found it convincing and helpful. Parents repeatedly mentioned that the video highlighted the importance of beginning to discuss smoking prevention with their children ("It was very informative, actually, and it kind of brought to my attention the fact that I really haven't had a conversation with my kids about not smoking...just kind of expect that they won't...so the

video showed me what I need to do.”). Many of the youth said the video was “cool,” while a few said the video was just “ok.”

Study Itself—Overall, dyads felt that showing the video in an ED was appropriate (“I would say yes [the ED is the right place] because you are waiting to see the doctor so why not have a little education”). A few parents felt the ED was not an appropriate setting, primarily because of their reasons for visiting the ED (“I don’t think it’s the right place to do it because parents already have their mind on something else and are kind of preoccupied with something else right now.”)

Most of the parents, even the smokers, said they were participating primarily to improve their children’s health, and because smoking is an important issue (“I think it’s an important issue, even though I’m a smoker. I’m not a proud smoker, I’m a shameful smoker.”) About half of the youth said they participated in the study to “learn more” and the other half said they “needed something to do” while waiting.

Discussion

Parents play a pivotal role in influencing their child’s tobacco behavior, thus the need for the development of new parental smoking prevention interventions has been emphasized (Chassin, Presson, Todd, Rose & Sherman, 1998; Jackson & Henriksen, 1997; Kafka & London, 1991; Sargent et al., 2001). Investigators have found that videotapes can be effective in developing resistance skills and less positive attitudes towards smoking in adolescents (Pfal, M, Van Bockern S, & Kang JG, 1992), teaching about HIV/AIDS, promoting safe-sex practices, (Bandura, 2002b; Solomon MZ, & DeJong W 1988 & 1989; O’Donnell LN, San Doval A, Duran R, O’Donnell C, 1995), decreasing body dissatisfaction (Watson & Vaughn, 2006), and promoting adult literacy (Bandura, 2002a). The strengths of using radio, television, and videotapes are that they provide viewers/listeners with culturally similar models who they wish to emulate, thus promoting behavior change (Bandura, 2002b). In our study, dyads felt that they could relate to the parents and youth in the videos, understood the main message of the video, and parents appreciated the reminder about the importance of talking to their children about smoking.

It may be important in future videos to consider more diverse actors and situations (e.g., other races/ethnicities, other clique sub-groups as denoted by dress and other situations besides sports and parties). In order to change subjective norms or perceptions of social expectations, identification with the individual portrayed in the intervention is crucial. If youth can identify with an actor who declines smoking, this may, in turn decrease their intentions to perform a behavior in the future (Fishbein et al, 1994; Romer & Hornik 1992; Perry & Kelder 1992; Baranowski 1992; Ajzen & Fishbein, 1980; Ajzen, 1988; Bandura 2002b).

The results from our study indicate that the ED is an appropriate setting for using a video-based smoking prevention intervention. The use of the ED has been increasingly recommended as a venue for preventive counseling and education in a variety of health behavior areas (e.g., alcohol screening and intervention, HIV screening and referral, hypertension screening and referral, and smoking cessation counseling) (Bernstein et al, 2006; D’Onofrio & Degutis 2002; Irvin, Wyer, Gerson, 2000). Given the increasing use of the ED for non-urgent medical complaints, coupled with long ED visit times, the ED may represent both an innovative and effective venue in which to provide tobacco prevention counseling (Ziv, Boulet & Slap 1998; Alpern et al, 2006; Nawar, Niska, & Xy 2007; Bernstein et al., 2006). Playing a brief video, especially during non-urgent ED visits, may be an appealing strategy for providing innovative tobacco preventive interventions in the ED,

given limited time staff have available for prevention education. The use of videos as an educational intervention can potentially provide a relatively inexpensive way to transmit information quickly and efficiently about complex behaviors to both parents and youth (O'Donnell, Doval, Duran, & O'Donnell, 1995). Videos are a familiar medium and allow for the communication of concepts in a realistic and holistic way using both visual and auditory information. Many verbal and nonverbal behaviors, such as body language when a parent shows their disappointment that a child is smoking, cannot be captured in words, and in this way, videos can display these nonverbal cues to the audience (Spiers JA, Costantino M, Faucett J, 2000). To our knowledge, this is the first study to report the views of parent-child dyads in a pediatric ED setting regarding the construction and acceptability of a video-based tobacco prevention intervention.

Limitations

Potential biases can arise with the semi-structured focused interview method related to interviewer emphasis on certain questions. In addition, the data for the study were self-reported and potentially subject to the youth's and parent's need to provide socially acceptable answers. However, the semi-structured approach is designed to be discursive and broad, and the interview format was created to allow for maximum variation in responses (Murray, Ashworth, Forster, & Young, 2003). Lastly, given that our study population was a convenience sample collected in a Midwestern, tertiary care, pediatric ED, and the majority of participants had a low socioeconomic status, caution should be exercised in the generalizability of our results in other populations and settings.

Conclusions

Despite these limitations, the findings of this qualitative study support the delivery of a video-based tobacco prevention intervention in the ED. Video materials provide educational advantages over didactic presentation and printed material (Duncan, Duncan, Beauchamp, Wells, & Ary, 2000), and are a relatively inexpensive means to transmit information efficiently and effectively to participants (O'Donnell, Doval, Duran & O'Donnell, 1995). Further research is needed to evaluate the individual components and overall effectiveness of such an intervention.

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Figure 1.
Example of an interactive scenario flowchart for non-smoking parent and child.

Table 1**Sample Focused Interview Questions for Parents**

1	What is the “take home message” of this video for parents/for kids? What is the main message that the video trying to tell you?
2	To the non-smoking parent: Could you imagine yourself saying those words to your child if he/she came home from a party and you realized that he/she had smoked? To the smoking parent: Could you imagine yourself saying those words to your child about your smoking habits? If not, what words would you say to your child?
3	How are you like the parent in the video? How are you unlike the parent in the video?
4	What parts of this video would convince you to talk to your child (more) about smoking?
5	How easy to understand was the video?
6	What did you learn from the video?
7	What are some other scenarios that we could add to the video to help parents talk with their children about tobacco use?
8	What are some examples of specific expectations and/or rules that you think parents should establish to help prevent (or stop) their children from using tobacco?
9	Would you recommend the video to a friend or family member? Yes No Maybe
10	After watching this video, do you think you will talk to your child/parent about smoking: More Same Less
11	How was the length of the video? Too long Too short Just Right
12	Is the emergency department the right place to show this video and teach parents how to talk to their children about smoking? Yes No Maybe