

PLATFORM RESEARCH PRESENTATIONS: SESSION 1

*New Investigator Award Eligible
Scientific Research Papers*

1.

FOREGONE HEALTH CARE AMONG U.S. ADOLESCENTS: ASSOCIATIONS BETWEEN RISK CHARACTERISTICS AND CONFIDENTIALITY CONCERN

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Purpose: While nearly one in five U.S. high school students have reported foregoing health care that they believed was necessary, little is known about the risk characteristics of adolescents who forego health care due to confidentiality concerns. This study examined whether adolescents who report health risk behaviors, psychological distress and/or unsatisfactory communication with parents have an increased likelihood of reporting confidentiality concern as reason for having foregone health care in the past year.

Methods: The study utilized data from Wave I home interviews of the National Longitudinal Study of Adolescent Health, conducted with U.S. middle and high school students in 1994–1995. Selection criteria included having foregone health care they believed was necessary in the past year. The generalized estimating equations method was used to account for the clustered nature of the data.

Results: A total of 2,438 adolescents were eligible for the study (1315 f, 1123 m). Fourteen percent of girls and 10.5% of boys reported confidentiality concern as a reason for having foregone health care in the past year. Analyses for boys which adjusted for age, race/ethnicity, parental education and insurance type showed that high depressive symptomatology [OR 3.73 (95% CI 1.79–7.75)], past-year suicidal ideation [OR 1.90 (1.05–3.43)], and past-year suicide attempt [OR 5.87 (2.27–15.17)] were each associated with an increased likelihood of reporting confidentiality concern as a reason for foregone health care. Among girls, having ever had sexual intercourse [OR 2.24 (1.30–3.85)], birth control nonuse at last sex [1.89 (1.18–3.03)], history of STI [OR 2.93 (1.17–7.32)], any past-year alcohol use [OR 2.03 (1.29–3.20)], high depressive symptomatology [OR 4.05 (2.25–7.31)], moderate depressive symptomatology [OR 2.12 (1.16–3.85)], past-year suicidal ideation [OR 2.82 (1.83–4.35)], past-year suicide attempt [OR 2.79 (1.53–5.07)], and low satisfaction with parental communication [OR 1.81 (1.16–2.81)] were each associated with an increased likelihood of reporting confidentiality concern as a reason for foregone health care.

Conclusion: Adolescents who report health risk behaviors, psychological distress and/or unsatisfactory communication with parents have an elevated likelihood of citing confidentiality concern as a reason for foregoing health care, as compared to adolescents who do not report these risk factors. The population of adolescents who forego health care due to confidentiality concern thus appears to be in particular need of health care services. It is essential to identify effective approaches for increasing utilization of confidential services among high-risk adolescents, with consideration of potential roles of teens, parents and health care providers.

Support: Agency for Healthcare Research and Quality, Centers for Disease Control, Maternal and Child Health Bureau - Leadership and Education in Adolescent Health Training Grant.

2.

ASSOCIATIONS BETWEEN MEDIA LITERACY AND ADOLESCENT SMOKING

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Purpose. Smoking is the leading cause of preventable death in the US, and 90% of adults who die from smoking begin as adolescents. Youth aged 8–18 are exposed to 8½ hours of mass media daily, and such exposure is associated with increased smoking. Media literacy therefore presents a promising framework for developing innovative tobacco control programs for adolescents. However, there are currently no reliable, validated scales to measure smoking media literacy (SML) in adolescents. We aim to develop a reliable SML scale and to test its criterion validity by examining associations between SML scores and measures of adolescent smoking.

Methods. A total of 120 Likert-type scale items were developed based on a comprehensive theoretical framework of media literacy with eight core concepts. Expert consultants commented on clarity and relevance of items and added appropriate items. Two focus groups of 9th–11th grade adolescents reviewed the item pool. Items were eliminated or altered based on the expert and student reviews. The resulting 51-item scale was given to a sample of all available students at a large local high school (N=1216). Iterative principal components analysis (PCA) was used to determine which items best captured the underlying construct of SML. Concurrent criterion validity was tested by determining associations between media literacy scores and the major predictors of smoking based on the theory of reasoned action:

current smoking (last 30 days), intention to smoke (measured with Pierce's susceptibility score), smoking attitudes, and smoking norms. Initial associations were tested with Pearson correlation coefficients and t-tests as appropriate. Multiple linear regression and logistic regression were used to further test associations while controlling for demographic and covariate data.

Results. PCA revealed one strong factor with 18 items, representing all eight media literacy core concepts. Internal consistency was excellent (Cronbach's alpha=0.88). SML was significantly lower in current smokers ($p<0.0001$) and those susceptible to smoking ($p<0.0001$). SML was negatively associated with pro-smoking attitudes ($p<0.0001$) and a pro-smoking sense of norms ($p<0.0001$). After controlling for all demographics and covariates, SML had a significant and independent association with current smoking ($p=0.032$), susceptibility ($p<0.001$), and attitudes ($p<0.001$), but not with norms ($p=0.412$). Controlling for all covariates, raising media literacy by one point on a 10 point scale decreased the odds of smoking by 18% and the odds of being susceptible to smoking by 27%.

Conclusions. Smoking media literacy is a construct that can be adequately measured with a Likert-type scale with promising reliability and validity. Higher levels of media literacy were associated with more negative attitudes toward smoking, less susceptibility to smoking, and less smoking behavior, even after controlling for multiple covariates. The development of this scale could serve as a model and lead to development of media literacy scales related to other health behaviors.

Support: Maurice Falk Fund and Tobacco Free Allegheny, Pittsburgh, PA.

3.

ADOLESCENTS' INTENTIONS TO TRY VAGINAL MICROBICIDES

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Purpose: Vaginal microbicides are of particular interest in the prevention of STDs. This study examines the acceptability of different microbicide characteristics to adolescent women.

Methods: Video/Audio Computer-Assisted Self-Interviews were completed by 204 adolescent women (14-20 years old, Mean = 17; 57% African American) recruited from community clinics. Microbicide acceptability was assessed with 8 items, each describing a microbicide uniquely defined along 4 dimensions: 1) *Spermicide* (Yes, No); 2) *Timing* of use (1 hour pre-coitus, 15 min. pre-coitus, 10 min. post-coitus); 3) *Target* (HIV, Other STDs); and 4) *Side effects* (Burning & itching in 10%, None). Adolescents used a 7-point response format to rate intent to buy each

microbicide at least once (1="Extremely unlikely" to 7="Extremely likely"). We used rating-based conjoint analysis (RBCA), a marketing research technique that examines how different product dimensions influence intent to purchase, to evaluate microbicide preferences. RBCA results in importance scores (IS), indicating the extent to which dimensions affect microbicide ratings. The sum across importance scores equals 100. Part worth utilities (PWU) indicate the preference for each attribute (e.g., spermicide vs. non-spermicide) within each dimension. Patterns of results were examined for younger (14-15 yo), middle (16-17 yo) and older (>18 yo) adolescents.

Results: Mean ratings ranged from 3.3 (non-spermicide, 1 hour pre-coitus, AIDS, side effects) to 5.2 (spermicide, 10 min. post-coitus, AIDS, no side effects). *Side Effects* most strongly influenced ratings (IS=45), followed by *Spermicide* (IS=36) and *Timing* (IS=17). *Target* did not substantially influence ratings (IS=2). PWU indicated a strong preference for no side effects (PWU= .48) and for spermicidal action (PWU= .39) and there was relative antipathy toward timing of 1 hour pre-coitus (PWU= -.22). Age group analyses indicated that younger and older adolescents had the same pattern of results as those reported above. For the middle group, however, spermicidal action was most important (IS = 42), followed by a desire for no side effects (IS = 30).

Conclusions: Adolescents' ratings of microbicides were quite sensitive to characteristics such as minor side-effects, spermicidal action, and timing of application. The shifts in attitudes across age groups may reflect developmental changes in reproductive health behaviors and priorities. Contraceptive action may have been less important to older adolescents because many (62%) were on hormonal contraception and less important to younger adolescents because most (56%) had not engaged in intercourse. In contrast, relatively few of those in the middle age group were on hormonal contraception (20%), yet the majority (69%) had engaged in intercourse. As microbicides are developed, attention will need to be paid to how characteristics may influence acceptability and to how the influence of certain characteristics may change as a function of development and experience.

Support: NIH.

4.

SITUATIONAL AND RELATIONAL ASPECTS OF COITUS DURING VAGINAL BLEEDING AMONG ADOLESCENT WOMEN

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Purpose: Coitus during menses is proscribed in many cultures and is associated with increased risk of sexually transmitted infections (STI). Prior research shows that adolescents receive very little information about sexuality and menses but that coital frequency decreases markedly in the presence of vaginal bleeding. This prior research is