

should stress the protective effects of positive parenting practices on youths' lives.

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4.

PROTECTIVE EFFECTS OF PARENTAL MONITORING KNOWLEDGE AND ENFORCEMENT OF RULES ON ADOLESCENT SEXUAL BEHAVIOR: A META-ANALYSIS

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Purpose: Early sexual initiation and unprotected sex contribute to negative health outcomes among adolescents, including STD/HIV and unintended pregnancy. Parental monitoring has shown consistent protective associations with adolescent sexual risk behaviors. However, less is known about which types of parental monitoring are most impactful, and for which adolescents. We performed a meta-analysis to assess the magnitude of the association between types of parental monitoring (i.e., overall monitoring; knowledge of companions, whereabouts, and activities; and enforcement of rules about friends and dating) and three sexual behaviors (i.e., ever had sex, condom use, and contraceptive use).

Methods: Studies were identified by searches of the Medline, CINAHL, PsycInfo, Cochrane, ERIC, Social Services Abstracts, Sociological Abstracts and Proquest databases from 1984 to 2011. The search was restricted to studies reported in English and focused on adolescents in middle and high school (ages 10–19 years). Crude Odds Ratios (ORs) (or adjusted OR, if crude data were not provided), with standard errors of 95% confidence intervals (CIs) were used to calculate the pooled ORs and 95% CIs using a random-effects model for each outcome.

Results: The search produced 2048 studies and 23 were included in the meta-analysis. The pooled results show that higher overall parental monitoring was associated with a decrease in adolescent's ever having sex (pooled OR = .63; 95% CI = .58–.69; $p < .001$). Both higher parental monitoring knowledge (pooled OR = .70; 95% CI = .62–.80; $p < .001$) and parental enforcement of rules (pooled OR = .58; 95% CI = .51–.69; $p < .001$) were associated with a decrease in adolescent's ever having sex. Of the parental monitoring types, rules had a significantly stronger association with ever having sex than knowledge (Q -value = 4.55; $df = 1$; $p < .05$). The meta-analysis for condom use shows that higher overall parental monitoring was associated with increased condom use (pooled OR = 1.16; 95% CI = 1.06–1.28; $p < .01$). Both higher parental monitoring knowledge (pooled OR = 1.15; 95% CI = 1.02–1.29; $p < .05$) and parental enforcement of rules (pooled OR = 1.19; 95% CI = 1.01–1.39; $p < .05$) were associated with increased condom use; however, there was no statistical difference between parental monitoring knowledge and parental enforcement of rules (Q -value = .10; $df = 1$; $p = ns$). Higher levels of overall parental monitoring were associated with increased contraceptive use (pooled OR = 1.08; 95% CI = 1.01–1.15; $p < .05$), after removal of two outliers. Due to the small number of studies examining contraceptive use ($n = 5$), monitoring types were not meta-analyzed separately for this outcome.

Conclusions: Our results indicate that both knowledge and enforcement of rules are important types of parental monitoring efforts with adolescents in middle and high school. Both types of parental monitoring are related to delayed sexual initiation; and if adolescents are sexually active, parental monitoring is linked to increased con-

dom and contraceptive use. Interventions and messages targeting parents should encourage parents to know where their adolescent children go, what they do, and with whom they spend time, as well as to set and enforce rules related to dating and unsupervised time with friends. Parents should continue to engage in these protective behaviors as their children grow older and become sexually active.

Sources of Support: None.

5.

THE MATERNAL COMMUNICATION CODING SYSTEM (MCCS): CLASSIFYING HOW MOTHERS COMMUNICATE WITH THEIR ADOLESCENT CHILD ABOUT SEXUAL AND REPRODUCTIVE HEALTH

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Purpose: To date, much of the work on parent-adolescent communication has been informed by theories of health behavior change. As such, most studies examine only one aspect of the communication process (usually the content or frequency of communication) and findings differ depending on how communication is defined. Almost no studies directly observe parent-adolescent communication about sex or attempt to understand parents' strategies for communicating about sex across different communication domains. Such studies are necessary for uncovering the distinct, unexplored domains of communication and the messages, modes of communication (verbal, media), and strategies (verbal and non-verbal) for transmitting messages that parents use to discuss sex with their children.

Methods: Mothers came to our research office to participate in a semi-structured conversation with their adolescent son or daughter aged 10 to 14 years. Dyads discussed every day issues (e.g., hobbies), abstinence, condoms and birth control. Each interview was audio-recorded, transcribed, and coded using the Maternal Communication Coding System (MCCS), an analytical schema we designed to capture a full spectrum of verbal and non-verbal communication processes. Specifically the MCCS characterizes the communication process across three domains: the type of messages delivered (efficacy of condoms, how to use birth control), how messages about sex are packaged (fear-based persuasion, lecturing, sharing mistakes), and how messages are transmitted (auditory, physical or other non-verbal communication).

Results: Between June 2011 and December 2012, we conducted 21 dyadic interviews: 6 with mother-son dyads and 15 with mother-daughter dyads. Our preliminary analysis using the MCCS suggests: (1) mothers tend to relay specific messages regarding abstinence (timing of sex, cultural or religious beliefs, 'best choice'), condoms and contraceptives (types, efficacy, and STI prevention); (2) mothers package such messages using distinct strategies (inquisitorial, interactive, hypotheticals); (3) mothers also use a wide range of non-verbal cues to communicate meaning and intent in their discussion of sex with their children (long pauses, awkward laughter, "ums," and "ers," changes in volume and cadence); and (4) the three communication domains coalesce in ways that allow us to identify several preliminary maternal communication typologies, the "rule setter," (child's point of view irrelevant, sets rules, dominates conversation, uses fear and inquisitorial style communication, uses strong auditory cues for disapproval such as sighs), the "power sharer" (uses interactive communication and positive reinforcement, allows child to speak, uses humor in a positive way, gives child time to respond) and