



## Editorial

## Complex Primary Care Interventions Focused on Reducing Adolescent Risk Behavior



Risk behaviors, defined as intentional participation in some form of behavior that involves potential negative consequences or losses as well as perceived positive consequences or gains [1], are the primary drivers of early mortality among adolescents in the U.S. [2]. Recent data from the Centers for Disease Control and Prevention show that overdoses, motor vehicle crashes, and other unintentional injuries are, with suicide, among the leading causes of death for adolescents aged 12–17 [2]. It is important to identify youth who are engaging in risk-associated behaviors so that we can guide them to appropriate interventions and mitigate undesired negative consequences. One method for doing so is well-child screenings. Well-child screening occurs during an annual visit with a medical provider during which clinicians have an opportunity to screen for relevant medical problems as well as psychosocial concerns to provide anticipatory guidance than can promote good health. Well-child screening can include developmental/behavioral assessments, physical examinations, and specific screening procedures. A discussion of risk-associated behaviors can certainly occur within this context, and providers are frequently encouraged to screen youth for these behaviors. In fact, a majority of adolescents receive a well-child visit (81.7% of adolescents aged 12–17 in the U.S. in 2018) [3], which means this healthcare touchpoint is ideal for engaging youth. Increasingly, electronic screening methods are being used to inform anticipatory guidance.

In this issue of the Journal of Adolescent Health, McCarty et al. [4] describe using a stepped-wedge cluster-randomized trial design to assess the impact of a bundled, complex intervention to identify risk behaviors among adolescents in a primary care clinical setting. The intervention included clinician training in motivational interviewing, as well as an electronic screening and feedback tool that tracked quality of care and services received. The authors hypothesized that this bundled intervention would be effective in ultimately reducing

adolescent risk behaviors over time. Measured outcomes included levels of counseling delivered, adolescent satisfaction, patient centeredness, and adolescent health risk scores. Adolescents who received the intervention endorsed a higher rate of clinician counseling for disclosed risk behaviors and demonstrated a small reduction in risk scores relative to those who did not receive the intervention, which persisted for 3 months.

These results are encouraging. Given the increase in early mortality among young people due to risk-associated behavior, the well-child visit needs to be optimized to detect and favorably influence these behaviors when possible. The current project is one example of optimizing this healthcare touchpoint via the incorporation of Motivational Interviewing (MI) into clinician training, a tool that has become an ubiquitous first step for engaging adolescents and for health behavior change. MI was originally designed as a method to decrease client ambivalence toward therapy and improve the overall motivation to receive treatment [5]. MI has been adapted many times over the years and has shifted from a focus on therapy engagement to multiple applications in medical care and public health [6]. A core issue in the utility of MI is fidelity to the model. In general, training in MI is best conducted in a multimethod approach including didactic education, in-person training, and practice and booster training sessions [7]. Drift back to pretraining behaviors occurs, and most trainings include ongoing supervision and monitoring for follow-up success. Interventions to continue measuring drift and addressing future training needs are difficult to sustain. Thus, future bundled interventions, such as McCarty et al.'s intervention, should consider methods of on-going training and follow-up to maintain high fidelity to the model and sustain impact over time.

A further point of discussion is that recruitment within this study occurred throughout many sites and that there was high variability in the number of patients recruited from each site. As this bundled intervention is further explored, it will be important to assess the validity of these tools in clinical settings that reflect varied demographic and risk profiles. The present study's sample consisted primarily of white youth. Racial/ethnic minority adolescents have been shown to underutilize health

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services and experience increased barriers to treatment engagement [8], making it important to assure that the intervention and screening tools are culturally sensitive. In fact, one study found that racial/ethnic minorities differ in their health information utilization and application of health information outside of medical encounters [9]. This suggests that diverse groups of adolescents may be differentially impacted by bundled, primary care–based interventions, resulting in varied health outcomes following medical visits. In sum, applying and evaluating this complex intervention in a variety of clinic settings is needed. Moreover, there may need to be specific cultural adaptations for a broader, more diverse audience of adolescents.

We need new models of primary care to reduce adolescent risk behavior. Primary care is a setting in which young people can be screened routinely for behaviors and be matched with appropriate care, making this an important site for possible intervention. Utilizing complex interventions such as the model described by McCarty et al. [4] demonstrates where science can help facilitate improved outcomes among adolescents. Their model has been shown to be compatible and easily integrated with current care models while showing improved outcomes for adolescents, a promising finding. With that said, risk reduction in this study did not extend beyond 3 months. Future work is needed to better understand how this and similar complex interventions can be delivered with fidelity in a way that meets the needs of diverse populations and will have longer lasting impact.

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