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Editorial

Intervening at the Fingertips: A Text-Based Approach to Mitigating Texting While Driving



Despite a demonstrable increase in legislation and public health interventions during the last few decades, motor vehicle crashes (MVCs) remain the second leading cause of death among adolescents and young adults (AYAs) in the United States [1]. Recent data show that MVCs among this age group are despairingly on the rise after several years of progressive decline [2]. Multiple risk factors contribute to these sobering statistics, but overwhelming evidence supports a strong association between distracted driving and an increased risk of MVC, particularly among young, inexperienced drivers [3–5]. Noncompliance with driving laws and restrictions suggests a mismatch between legislation and social norms and attitudes around distracted driving behaviors [6]. This discrepancy underscores an urgent need to creatively expand beyond macroscopic policy to counter this trend.

The article by Suffoletto et al. [7] in this issue evaluates Safe Vehicle Engagement (SaVE), an innovative text-based program designed to mitigate texting while driving (TWD) among AYA. Their randomized controlled trial examines the effect of a 6-week automated and interactive text messaging intervention on self-reported TWD behaviors at 6 and 12 weeks following enrollment. The program leverages the discretion, anonymity, and familiarity of mobile delivery platforms that resonate among AYAs. Furthermore, the intervention is thoughtfully designed to counter immature self-regulatory processes in young, inexperienced drivers and simultaneously promote goal-setting [7–9]. Participants randomized to the intervention received weekly personalized text message–based questionnaires soliciting self-reported TWD behaviors. Positive behaviors were reinforced with messages of encouragement, whereas negative behaviors prompted recommendations on strategies to change behavior. Personalized messages were then followed by a goal-commitment query, which prompted further motivational texts. Control participants solely received weekly questionnaires without coupled feedback or support messages. The trial demonstrated reductions in self-reported TWD at both the study's conclusion (nonsignificant) and 6 weeks later (significant). In doing so, this intervention demonstrates limited

immediate-but-durable delayed effectiveness at reducing TWD behaviors among an at-risk population.

Individualized, goal-directed interventions may complement broader, generalized distracted driving laws and policies. Little effort has been dedicated to evaluating the perception and acceptability of driving policies among the AYA population and factors motivating compliance. This gap potentially highlights a missed opportunity for essential buy-in from the target population prior to enacting legislation and may partially explain the relatively small—although not insignificant—decrease in resultant modified behaviors [6]. By offering a multimodal approach to addressing this ongoing public health challenge, these strategies may synergistically reduce MVCs among young drivers.

Effective goal-setting is a critical sociocognitive developmental exercise that enhances functioning across the lifespan, particularly during adolescence [10]. Strategies to enhance self-regulation—the process of organizing thoughts, feelings, and actions—often complement goal-setting activities to support modified behavioral change and promote self-efficacy [11]. The SaVE program builds upon these existing frameworks not only by encouraging young drivers to set individualized goals; SaVE's interactive text and response format further enhances self-regulatory processes and rewards positive behavior.

The widespread and increasing use of mobile technology offers a platform to deliver innovative behavior-change strategies for AYAs [12]. Recent published data from a nationally representative survey demonstrate that 84% of 13–18-year-olds reported cellphone ownership in 2019, a nearly 17% increase since 2015 [13]. These data additionally show that most teens spend nearly 30% of their day using cellphones in some capacity. The increasing cellphone use among adolescents has inspired numerous mobile-based health behavior interventions ranging from promoting glucose monitoring among type I diabetics to counseling alcohol and substance use cessation [14]. Harnessing this technology offers a new opportunity to combat TWD. This delivery model may not only help reach a broader range of AYA but also lessen health disparities by offering an accessible, low-cost format available to the general population.

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More recent studies exploring interventions aimed at reducing distracted driving have shown small to moderate effects. In studies of younger teenage drivers, parents are effective at reducing mobile-device use in teenage drivers with directed feedback from access to applications that track their children's phone-use while driving [15]. Parents are also important role models for their children's future driving habits and can help set norms for safe driving practices by modeling attentive driving even while their children are young [8]. Recent legislative interventions have focused on restrictions on the use of cellphones with the goal of decreasing driver distraction, including specific text messaging bans, handheld cellphone bans, and novice driver all cellphone-use bans. Studies examining the effect of these state laws have shown some promise at reducing self-reported TWD by adolescents and decreased MVC fatalities in adolescent drivers and their passengers [16,17]. It is clear from much of the current evidence on interventional strategies that a multi-pronged approach is necessary to ensure the greatest chance of success in behavioral modification and decreased risk.

The nearly universal adoption of mobile devices and software has presented unique challenges in their appropriate use, particularly during activities like driving that require undivided attention. Harnessing the popularity and use of these devices to target the same risky behaviors that they enable is a novel method of risk reduction and behavioral change. As more states work to pass effective legislation, technology, and behavioral-based approaches are essential in combatting TWD and saving lives from distraction-related MVCs. Combining successful behavioral approaches with effective mobile-based programs designed for a young target audience is a necessary part of the multifaceted solutions needed to combat MVC-related injuries and fatalities.

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