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The Evolution of an Online ATOD Intervention: From Conceptual Model to Scalable Intervention with an Eye toward Optimization

Presentation Abstract

Compared to non-athletes, college student-athletes are at increased risk of heavy alcohol use, smokeless tobacco use, and the use of performance-enhancing substances. Despite the need for athlete-tailored interventions, there are no evidence-based programs to prevent alcohol, tobacco, and other drug (ATOD) use among college student-athletes that take into account their unique patterns and motivations for use. This void leaves colleges with few options for meeting the needs of their student-athletes. In response to this void, our team developed *myPlaybook*, an online ATOD intervention tailored to college student-athletes, and then began evaluating *myPlaybook* using a conventional approach to evaluation. We initially conducted both formative and process evaluations to evaluate feasibility as part of a Phase I Small Business Innovative Research (SBIR) grant.

The next phase of an SBIR study typically uses an RCT to evaluate the overall efficacy of the program prior to taking it to scale. This conventional approach to evaluation determines whether the program produces statistically significant effects. However, this approach does not address a second, equally important question: Is the intervention optimally effective and efficient?

Therefore, after the initial development and evaluation of *myPlaybook*, we decided to adopt an engineering-based methodology, the Multiphase Optimization Strategy (MOST), to try to optimize its impact. In our presentation, we will provide a brief overview of the conceptual model that guided development of *myPlaybook*. We will present the results from our first component selection experiment, describe how those results led to revisions to *myPlaybook*, and then present the results from our second component selection experiment. We will end with a brief discussion of critical issues that we encountered during the first-ever iterative application of MOST and describe our solutions to these challenges.