The WAGER 12(5) – Addiction and Technology – VLTreatment: Can changing features of Video Lottery Terminals decrease erroneous beliefs and gambling behavior?

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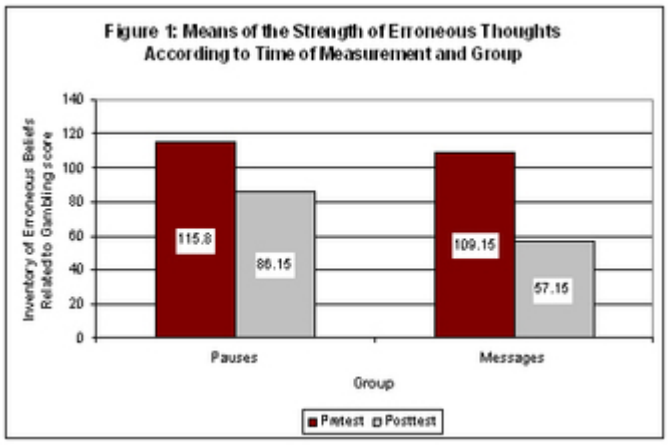
Video lottery terminals (VLTs) are electronic devices that allow gamblers to play a variety of games, including card games, roulette, and spinning reel games. Multiple U.S. states and most Canadian provinces have legalized VLTs, and recent studies have indicated that disordered gamblers prefer VLTs to other games (e.g., Ladouceur, Sylvain, Boutin, & Doucet, 2002). Certain features of VLTs (e.g., lights and sounds, the speed at which players can go from game to game, and the ability to stop the reels) might increase cognitive errors and lead to increased gambling (Cloutier, Ladouceur, & Sevigny, 2006; Griffiths, 1993; Ladouceur & Sevigny, 2005). In this *WAGER*, we review two recent studies that examined the effect of manipulating VLT characteristics on erroneous beliefs and persistence of play.

Study 1: Pop-Up Messages about Gambling Misperceptions

Cloutier et al. (2006) administered the Inventory of Erroneous Beliefs Related to Gambling (ICROLJ) to 768 undergraduates at Laval University. Students rated their agreement with a series of erroneous beliefs using a scale from 0 to 10. Two months after initial contact with students, the researchers selected for further participation in the study the forty students who scored highest on erroneous beliefs about gambling. These participants were randomized to either the control group, which received a 7 second pause after every 15 games, or the experimental group, which received a pop-up message correcting common misperceptions about gambling after every 15 games. Researchers gave each participant 400 credits, equal to $20 Canadian dollars, to play on a VLT as long as they wished. At the conclusion of the study, participants completed the ICROLJ again to measure erroneous beliefs.

The analysis of the differences between the two groups found that the experimental group had a significant decrease on strength of erroneous beliefs, as measured by the ICROLJ, compared to the pause group (see Figure 1). However, number of games played did not differ between the two groups.



Study 2: Stopping the Reels

Ladouceur and Sévigny (2005) recruited occasional video lottery gamblers (defined as less than once per month) by using newspaper ads and bulletin boards in Quebec City and on the Laval University campus. The researchers excluded gamblers who scored five or above (i.e., qualified as pathological gamblers) on a modified telephone version of the South Oaks Gambling Screen (SOGS). The study design randomized 38 participants to either the experimental group, in which participants played a VLT with a stopping device (i.e., a feature that allows players to touch the screen in order to stop play, but *does no*t affect the outcome of the game), or the control group whose VLTs had no stopping device. All participants experienced the same series of wins and losses. The researchers gave all participants $10 for taking part in the study and an additional $5 to begin play. Participants could stop at anytime and receive the dollar amount of the credits remaining on their VLTs up to $20.

Participants in the experimental group played twice as many games as participants in the control group, and nearly one third (32%) of the experimental group reported that they believed using the stopping device increased their chances of winning. The results of these studies are limited mainly to college students and might not be replicated in a sample of regular VLT users and problem gamblers. These studies were also conducted in controlled settings that simulated a gambling atmosphere. Casinos have markedly different

environments that could modify behaviors and perhaps yield different results.

Together, these studies indicate that altering specific aspects of VLTs might affect gambling beliefs and behavior for somewhat naïve players. Though Cloutier et al. found that pop-up messages did not impact behavior compared to controls, it is plausible that the seven second delay in play experienced by the control group might have been an intervention that decreased play by giving players time to consider their options. The ability to change play patterns by altering VLT characteristics is a research area worth pursuing. Future research should include larger samples and a population that is not limited to college students. If VLT alterations such as messages, pauses, and removing stopping devices decrease gambling problems even slightly, the overall health improvement could be marked given the large proportion of problem gamblers who prefer VLTs.

What do you think? Comments on this article can be addressed to John Kleschinsky at basis@basisonline.org.

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