

Findings from the International Quit & Recovery Registry

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The International Quit & Recovery Registry (IQRR) was founded in 2011. The goal is to acquire an internet sample of individuals in recovery from addiction. Although this internet acquired sample is unlikely to be representative of all individuals in recovery, this sample provides a means to interact frequently with a subgroup of all those in recovery. Individuals in recovery are invited to provide a valid email address, provide information about their addiction history, their treatment experiences, and how long they have been in recovery. Currently, the IQRR consists of 7,315 registrants who are in all 50 states in the U.S, in 29 countries across 6 continents. The average age is 45 years old, 58% are women, and 90% are Caucasian. The primary substance of dependence reported is: 54% alcohol, 18% stimulants, 13% opioids, 7% nicotine, and 5% cannabis. Two types of research are conducted with the IQRR. The first is research examining the phenotype of recovery, and the second involves randomized controlled trials using social media as a means to support individuals in recovery.

Phenotype of Recovery: Registrants are invited each month to complete questionnaires, surveys, and/or engage in decision-making tasks. Participants who complete monthly assessments receive 100 recovery research rewards equivalent to \$1 and entry into a yearly drawing for a \$100 online payment. Here I will present data from one representative study completed by a subset of the total registrants. The goal of this study was to examine whether parental history of addiction was meaningfully related to the discounting of delayed rewards. Given that delay discounting has been proposed as a behavioral marker of addiction and that the extent of discounting is inheritable, then there may be a systematic relationship with parental addiction status and the extent of discounting among the recovered. The sample included 177 IQRR registrants with mean age of 47 years. Participants completed a family history of substance dependence when they joined the registry and they completed a discounting of delayed rewards task as one of the monthly assessments. Registrants were classified as having either no, one, or both parents with a history of addiction. Those with one parent or no parents with addiction did not differ in the rate of discounting from each other. Those registrants who reported that both parents had a history of addiction discounted delayed rewards at a significantly greater rate than those with one or no parents with addiction. This data suggests that parental history of substance abuse predicts addiction and delay discounting in offspring.

Social Media in Recovery: The aim of this trial was to determine whether one of two different social network connection topologies differentially influenced social media engagement and self-reported relapse of individuals in recovery from drug dependence. We hypothesized that highly-clustered networks with more adjacent social network friends (i.e., lattice topology) would facilitate more engagement in network activities and fewer reports of relapse than a topology containing fewer adjacent social network friends (i.e., small world topology). Two hundred and fifty-six participants were randomly assigned to either the lattice or small-world social network. Each participant was provided with exactly six connected friends referred to as their “Recovery Buddies.” Of the nine measures of engagement, eight favored the lattice network. That is, participants engaged in more social network activities. A 95% confidence interval for the proportion of measures favoring the lattice given the observed data is 57% to 98%. After controlling for the effect of time, there was a significant difference in relapse rates between the network topologies ($p=0.007$, odds ratio for lattice vs small world = 0.675, 95% CI 0.507 - 0.899). These results suggest that the lattice network engenders greater social network engagement and less reported relapse and these variables are influenced by network typology. These findings may have implications for recovery maintenance and adoption of health behavior.

Supported by: R01 DA039456 and the Virginia Tech Carilion Research Institute