Network Topology and Recovery Phenotype Effects on Social Media Engagement

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This experiment was conducted to evaluate different network topologies and phenotypes of people in recovery in order to determine the effects of social media engagement and recovery success versus relapse in those who are in self-reported recovery from addiction to substance use. It was hypothesized that participants engaged in the clustered lattice network would have a greater chance of remaining in recovery, experiencing information redundancy, and being affected by the choices of their friends than those in the completely random small world network. It was also hypothesized that daily posts covering various treatment-related topics would result in different levels of engagement, and individuals with certain personality characteristics (i.e. religiosity or recovery focus) would be more engaged and more likely to maintain recovery during experimental social network therapy. To test these hypotheses, a social network, the Social Interactome, housing the two topologies was created. Participants were randomly assigned to a topology, given the opportunity to complete assessments and attend video meetings, and exposed to daily posts from twelve categories over a twelve week timespan. Data was analyzed by conducting mixed factorial ANOVA's, Tukey-HSD post-hoc comparisons, and a paired sample t-test. The number of reported relapses was positively influenced by participating in a lattice network, but topology did not have a singular effect on engagement; however, when paired with daily post category, it emerged as a trend towards significance. Daily post engagement varied depending on category. Religious commitment did not affect engagement or relapse, but recovery focus positively affected reported relapse.

Awards Won:
National Institute on Drug Abuse, National Institutes of Health &amp the Friends of NIDA: First Award of $3,000