



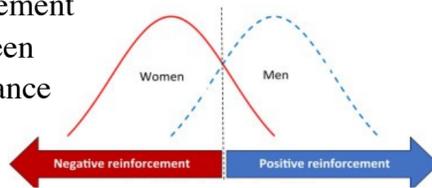
Physical Vs. Virtual Isolation, Loneliness, and Substance Misuse During COVID-19

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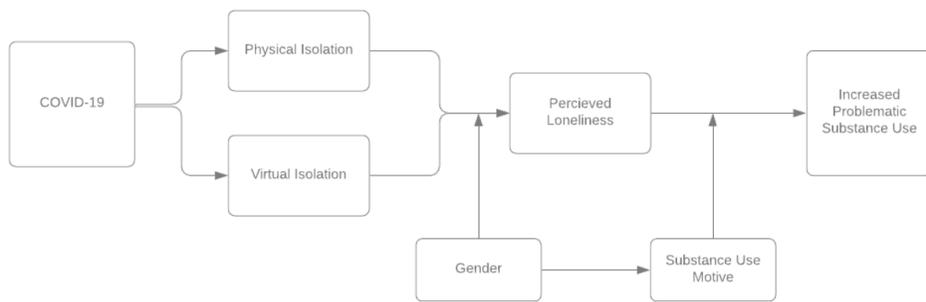
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Introduction

- Overdose deaths increased 30% during the pandemic; slightly higher in men and young adults.
- Rates of binge-drinking and alcohol-related deaths rose more sharply among women.
- Physical isolation (objective) and loneliness (subjective emotional state) are associated with higher risk of substance misuse, though there is little information on virtual isolation.
- Research suggests women are more affected by interpersonal disconnect, but effect on substance use is unclear.
- Gender differences in reinforcement motives may affect link between isolation/loneliness and substance misuse.
- Positive reinforcement: Using substances to achieve positive affect (ex: excitement and social confidence at a party).
- Negative Reinforcement: Using substances to control negative affect (ex: to cope with stress or loneliness).



Hypotheses



- Physical, but not virtual, isolation is associated with higher loneliness.
- Association between isolation and loneliness is stronger among women.
- Association between loneliness and substance misuse is stronger among women and those who report more negative reinforcement motives.
- Association between isolation and substance misuse is weaker among men and those who report more positive reinforcement motives.
- Women will report more negative reinforcement motives, and men will report more positive reinforcement motives.

Method

The current study is a secondary analysis of data collected for the REAL-U Study, 2021, by the Family Journeys Co-Lab.

Participants: $N = 135$ former university students, young adults aged 25-30, 64% female, 58% white and 25% African American, 8% Asian or Middle Eastern, 6% Hispanic, 1% American Indian.

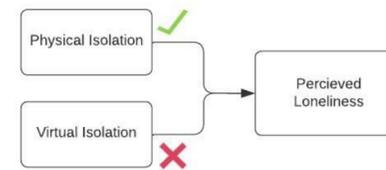
Measures: Physical and virtual interaction (hours of face-to-face or virtual interaction per day), loneliness (UCLA loneliness scale), reinforcement motives (DMQ-R, Marijuana Motives Questionnaire), and substance use problems (RAPI, NIDA Assist).

Analyses: Multiple regression with interaction effects, ANOVA.

Results

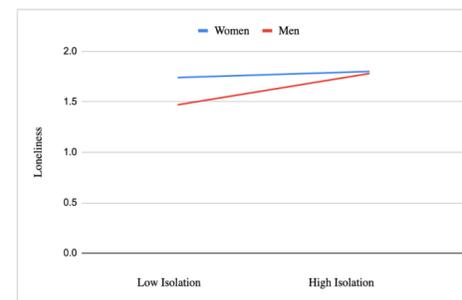
1. Physical Vs. Virtual Isolation

Loneliness associated with physical isolation ($b=.13, t=2.48, p=.01$), but not virtual isolation ($b=.06, t=.83, p=.41$).



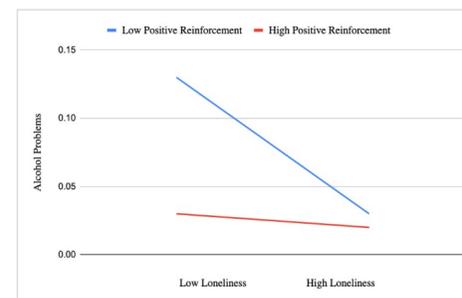
2. Gender x Isolation → Loneliness

Marginally significant ($b=.18, t=1.67, p<.10$) interaction effect of gender (men) and physical isolation on loneliness.



3. Loneliness x Reinforcement/Gender → Substance Misuse

Significant interaction of loneliness and positive reinforcement on substance misuse ($b=.04, t=3.69, p<.001$); no interaction effect of gender with loneliness.

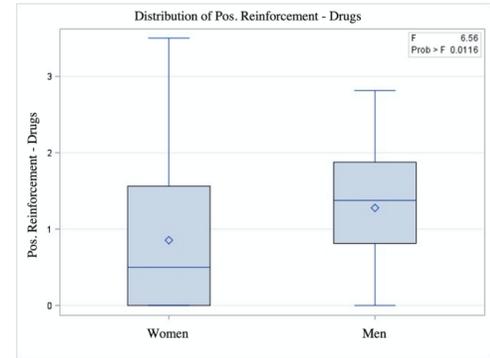


4. Isolation x Reinforcement/Gender → Substance Misuse

No significant interaction effect of isolation with either reinforcement motives or gender on substance misuse.

5. Gender Differences in Reinforcement Motives

Men more likely to report using drugs as positive reinforcement ($F(1, 128)=6.56, p=.01$); no differences in negative reinforcement motives



Discussion

- Social interaction online and over the phone is not a suitable replacement for in-person socializing, especially for those at risk of substance misuse, which was positively correlated with loneliness ($r=.23, p<.05$)
- Minimal differences in loneliness at low isolation suggests studies with contradictory finding (conducted among elderly populations) may be affected by a reporting bias
- Participants who reported more positive reinforcement motives may have sought out social situations (such as parties) to cope with loneliness, which put them at greater risk of substance misuse due to their reinforcement tendencies
- Greater isolation during COVID → men's loneliness lower than women's at low isolation, but equal at high isolation → substance misuse associated w/ loneliness equal between men and women → increased likelihood among men to use substances for negative reinforcement than might have occurred in non-isolated men before the pandemic, explaining contradictory findings to previous research

Future Directions

- What use can certain forms of virtual interaction have in protecting against loneliness when physical isolation is necessary?
- What other factors may interact with isolation/loneliness to increase substance misuse risk? Ex: introversion/extroversion and mental health conditions like social anxiety and PTSD.

Acknowledgments · Contact Info

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