Loneliness and psychological well-being during Covid-19

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Background

The following study was focused on the early months of the Covid-19 global pandemic. Since this was a novel and time-restricted occurrence, all of the analyses were exploratory. Well-established links between loneliness and negative psychological functioning occur across populations.[1, 2] Given the imposed isolation due to Covid-19 safety protocols, loneliness likely increased and is important in understanding psychological functioning. Although there is an array of anecdotal and theoretical support for the link between loneliness and increased problematic substance use, there is a dearth of empirical support for this relationship.[3, 4] While validating a multifaceted loneliness scale researchers found that loneliness was increased among those who are substance dependent;[5] however, this could be different in the general population. This study aimed to examine the relationship between loneliness and various psychological factors in the general public.

Methods

- Participants were recruited through MTurk and securely routed to Qualtrics.

- We collected data from March 2020 through July 2020 to understand the relationship between the Covid-19 "lockdown" and psychological well-being.

- The final sample was 783 participants (M_{age} = 37, SD = 14.5) from 49 states.

- Of the participants, the majority were male (55.9%) and white (71.1%).

- They were asked about changes compared to their lives in February 2020 (i.e., pre-Covid).

- They completed various questions measuring substance use, and fear of Covid infection, and validated questionnaires assessing loneliness and depression.

Results

- The majority of participants were in a relationship (75.8%)

- Being in a relationship did not appear to relate to reported loneliness. Those who were single reported slightly higher loneliness (M = 45.7, SD = 12.5) compared to those in a relationship (M = 44.9, SD = 9.71), however this was not a significant difference t(781) = 0.886, p = 0.376

- There was a strong relationship between loneliness and depression (r = .638, p < .001)

- Those who were less lonely were less depressed (F (1, 625) = 515, p < .001)

Correlation Matrix of Loneliness and Substance Use

	1	2	3	4
1 Loneliness	—			
2 Alcohol	.124***	—		
3 Marijuana	.286***	.462***	—	
4 Drug Use	.355***	.465***	.691***	—

Note. Controlling for gender, education, race, and relationship status. Loneliness = Revised UCLA Loneliness Scale, * p < 0.05, ** p < .01, *** p < .001
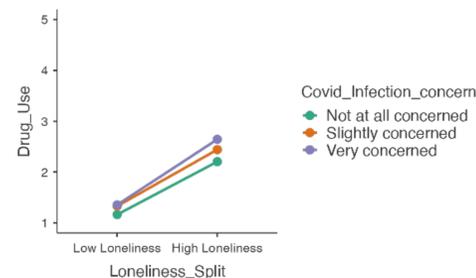
Alcohol Use and Loneliness' Interaction with Covid-19 Infection Concern
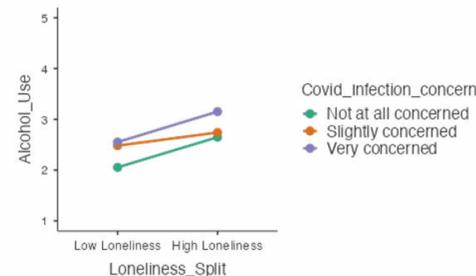
Marijuana Use and Loneliness' Interaction with Covid-19 Infection Concern
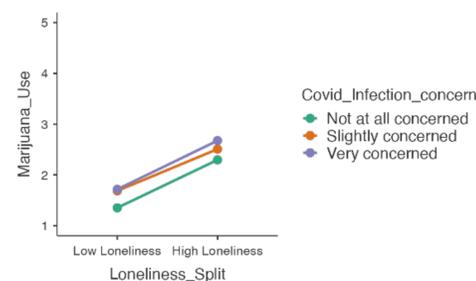
Recreational Substance Use and Loneliness' Interaction with Covid-19 Infection Concern

Percentage of Substance Use by Substance

	Alcohol	Marijuana	Other Recreational Substance
Never	18.6%	42.9%	49.4%
Rarely	20.3%	17.4%	15.6%
Sometimes	37.9%	20.9%	18.6%
Often	16.1%	12.6%	12.6%
Very Often/Daily	7%	6.1%	3.7%

Changes in Substance Use

- Loneliness predicted changes in **alcohol use** x^2 (4) = 57.5, p < .001, McFadden's R^2 = .026

- Loneliness predicted slightly less frequent use (Beta = 0.06, p < .001), slightly more frequent use (Beta = 0.05, p < .001), and much more frequent use (Beta = 0.08, p < .001)

- Loneliness predicted changes in **marijuana use** x^2 (4) = 95.5, p < .001, McFadden's R^2 = .044

- Loneliness predicted much less frequent use (Beta = 0.04, p = .002), slightly less frequent use (Beta = 0.08, p < .001), slightly more frequent use (Beta = 0.08, p < .001), and much more frequent use (Beta = 0.08, p < .001)

- Loneliness predicted changes in **recreational substance use** x^2 (4) = 109, p < .001, McFadden's R^2 = .052

- Loneliness predicted much less frequent use of alcohol (Beta = 0.03, p = .019), slightly less frequent use (Beta = 0.09, p < .001), slightly more frequent use (Beta = 0.09, p < .001), and much more frequent use (Beta = 0.09, p < .001)

Discussion

We found a strong relationship between loneliness and depression. When controlling for gender, SES, and education, loneliness predicted about 40% of the variance in depression scores. Counterintuitively, no statistical difference in perceived loneliness was found between single participants and those in a relationship. Loneliness had a small relationship with alcohol and marijuana, and a moderate relationship with recreational substance use. However, the results should only be interpreted within a normative population. There was no relationship between loneliness and fear of Covid-19 infection. There was a weak relationship between fear of infection and alcohol use. Across substances, those who were very concerned about infection reported increased substance use (i.e., alcohol, marijuana, recreational substances) regardless of loneliness. At the same time, increased substance use was correlated with increased loneliness regardless of the level of concern. Various trends observed did not speak to a linear relationship between loneliness and changes in substance use. It is possible that during the isolation loneliness provoked an increase in substance use in some individuals, and a decrease in others.

References

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