Disparities in Emerging Adults' Depression and Roles of Greenspace and Social Networks

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Abstract

There has been a steady increase in the occurrence of major depressive episodes among emerging adults, specifically those in their late teens to mid-to-late twenties. This research aims to explore the link between social class identity (SCI) and depression among emerging adults in the United States. It also assessed the mediating roles of green space utilization (GSU) and direct/digital social networks (DSN) in the relationship. We addressed two key hypotheses: an anticipated negative correlation between SCI and depressive symptoms and the mediating effects of GSU and DSN on this association. We analyze a dataset focusing on emerging adults in the United States (*N* =1705). We used descriptive statistics and mediation analysis to assess the relationships among variables. We found that the mean score of depression was higher among those aged 18-24 and the 'racial and sexual minority' group. Based on the mediation analysis, we found a negative indirect association between SCI and a low score of depressive symptoms, with GSU acting as a significant protective element.

Background

Depression significantly contributes to mortality, morbidity, disability, and economic burdens in the United States [1]. There has been a steady increase in the occurrence of major depressive episodes among emerging adults, specifically those in their late teens to mid-to-late twenties. The rates have risen from 10.3% in 2015 to 17.2% in 2020 for individuals aged 18-25 and from 7.5% to 9.9% for those aged 26-34 [2]. This concerning trend underscores the fact that a substantial portion of emerging adults is contending with mental health challenges while transitioning into adulthood. This study draws from social identity theory and therapeutic landscape concepts. Social identity theory provides insights into the psychological mechanisms through which individuals derive a sense of self and belongingness within the complex tapestry of social interactions [3]. Therapeutic landscapes exemplify the interplay between direct and digital social networks and their combined impact on physical and mental health [4]. This concept highlights how specific environments fostered through these networks can have healing or restorative effects on an individual's well-being. The presence of natural environments, parks, and green spaces within one's social networks has been incontrovertibly linked to ameliorating mental health, heralding reductions in symptoms of anxiety and depression.

Aim: The project aimed to investigate the impact of Spatial Social Networks and Environmental Exposure SSNE on emerging adult's mental health.

Data and Methods

Data: This study analyzed baseline information from the SSNE project between 2022 and 2023, with a sample size of 1705 participants.
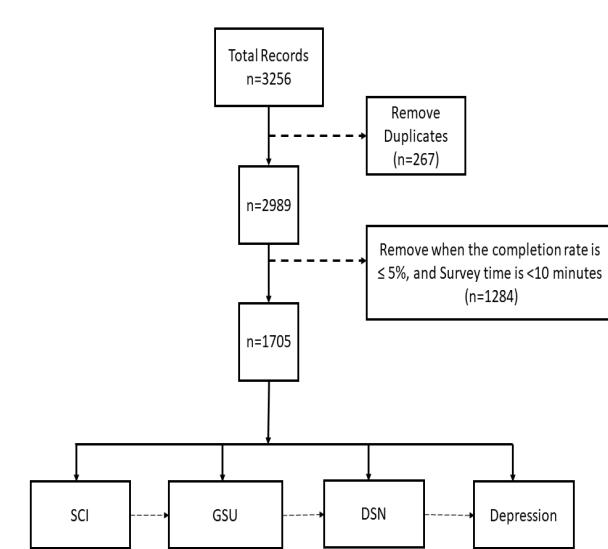

Fig. 1. Sample size flowchart.

Variables: *Dependent*| Depression; *Independent* | Social class identity (SCI); *Mediators*| green space utilization (GSU) and digital/real social network (DSN).

Analytical plan: This study employed descriptive, bivariate, and multivariate analyses. The mediation analysis approach used the Hayes PROCESS "Model 4" to investigate the link between the independent, mediators, and outcome variables.

Results and Discussion

Table 1. The Prevalence of Severity of Depression Among Emerging Adults in the United States (N=1705)

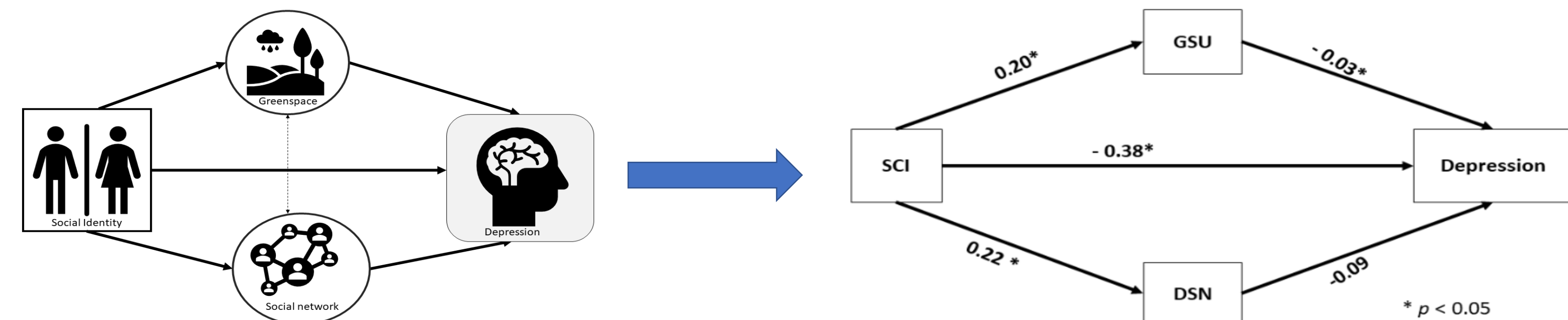|	Minimal n (%)	Mild n (%)	Moderate n (%)	Moderately Severe n (%)	Severe n (%)
Non-minority	227 (16.33)	369 (26.55)	398 (28.63)	261 (18.78)	135 (9.71)
Racial/sexual minority	14 (6.73)	38 (18.27)	64 (30.77)	63 (30.29)	29 (13.94)

Fig. 2. *Conceptual and Mediation Results of the Link Between Social Identity and Depression Among Emerging Adults.*

Mediation analysis: SCI showed a significant positive relationship with both mediators (Fig. 3). The direct impact of SCI in the presence of the mediators (i.e., GSU and DSN) was significant (b = -0.38, t = -2.57, 95% BootCI = -0.18, -0.12) while controlling for age and 'racial/sexual identity.' The analysis revealed that SCI has a significant indirect association with depression through GSU (b = -0.016, *Bootstrap Confidence Interval* 95% (*BootCI*) = -.030, -.003), supporting hypothesis H2a. On the other hand, mediation analysis showed that the indirect effect of SCI through DSN on emerging adults' mental health (b= -0.009, 95% *BootCI*= -.024, .006) was not statistically significant.

Discussion and implication

Our research shed light on the heightened prevalence of depression among individuals categorized as 'racial and sexual minorities' within our study cohort. Our investigation further reveals that social identification and exposure to green spaces act as protective factors, mitigating the risk of depression among emerging adults suggesting that while certain factors like social identification and green space exposure may play a role in buffering against depression, the mechanisms through which social networks operate in this context warrant further exploration.

Acknowledgment

References

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