

Social Connectedness and Discrimination, Online and Offline, as Factors Modulating the Risk of Urban Living for Psychosis-like Symptoms in Healthy Adults

Social Isolation and connection

- Social exclusion, isolation, feelings of disconnection, and social fragmentation have been associated with elevated psychological stress and psychotic symptoms.
- Social support, inclusion, and involvement, on the other hand, have been shown to lower the risk of schizophrenia.
- A majority of Hoffman's³ patients with schizophrenia and hallucinations can trace back their first experience of "voices." A large number of these patients report reduced interpersonal interactions immediately prior to emergence of voices. The onset of hallucination was preceded by increased social isolation in 73% of the cases that could identify the onset of auditory verbal hallucinations.

Internet and Mental Health

- Research findings reporting on the impact of internet use on psychological well being are varied and inconsistent.
- Three meta analyses did not find any relationship between social network site use and psychological well being^{8,9,10}
- The influence of specific types of online activity on specific aspects of individuals' psychological well being remains largely unexamined
- Qualitative work employing focus groups has reported on the psychological stressors tied to social network use.⁴
 - managing inappropriate content, being tethered to the site, lack of privacy and control of shared information, pervasiveness of content, social comparison and jealousy, and relationship tension and conflict

Initial Findings

- As our study is still in progress, these charts represent data drawn from the initial phase of the project.
- Participants included 50 healthy individuals, aged 18-30, from diverse ethnic backgrounds.

The Urban Effect

Urban living is a robust risk factor for schizophrenia: the higher the population or population density of one's city, the higher the risk of developing the illness. Psychotic symptoms also occur in healthy individuals, and city living raises this risk as well.¹ Population level studies have demonstrated that people brought up in urban environments have a risk 1.5-3 times higher of developing schizophrenia.² Although it is widely supposed that this "urban effect" in schizophrenia and "healthy" psychotic symptomatology is a social one, the specific factors driving this association are unknown. One method to address this is to investigate the social factors that mediate the urban effect. The purpose of this study is to explore the hypothesis that social connectedness and discrimination—a manifestation of social exclusion—modulate the risk of psychotic symptoms in healthy adults.

The most dramatic change in the social world in recent years is the creation of online social life, and this form of social life mirrors traditional social life in many ways. As a result, one cannot investigate social connectedness and discrimination in face-to-face interactions alone. Our study will also investigate whether "virtual urbanicity" might have similar effects on psychotic symptomatology. By investigating the links between online and urban living, social inclusion, discrimination, and psychosis, we can contribute to a fuller understanding of the social factors of mental health and illness.

Hypothesis and Methods

Hypothesis:

- (1) Psychotic symptomatology will be positively correlated with the size of the participant's city of origin
- (2) Psychotic symptomatology will be positively correlated with the size of the participant's perceived online community
- (3) For a fixed city or virtual community size, psychotic symptomatology will be positively correlated with reported discrimination and with social disconnectedness

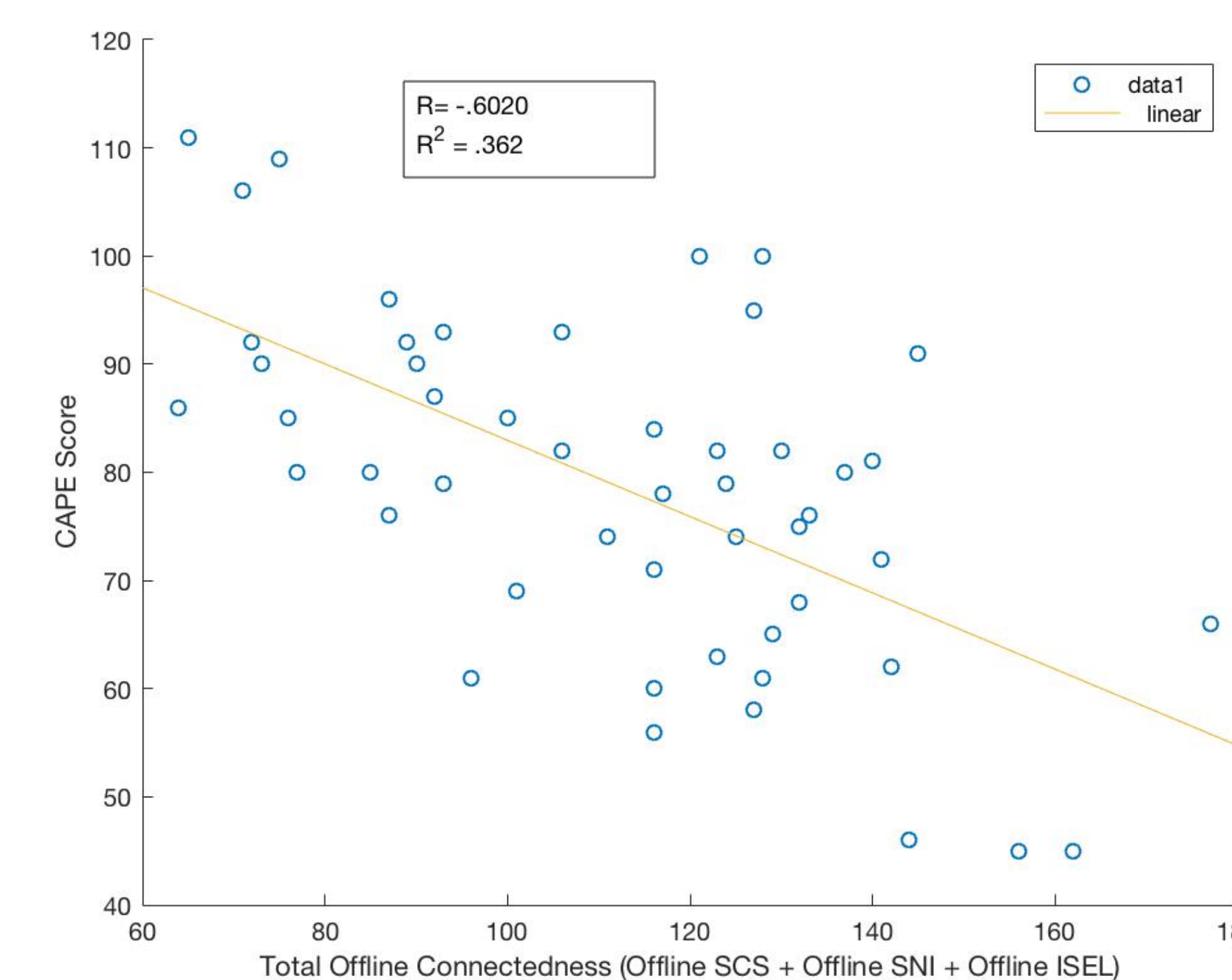
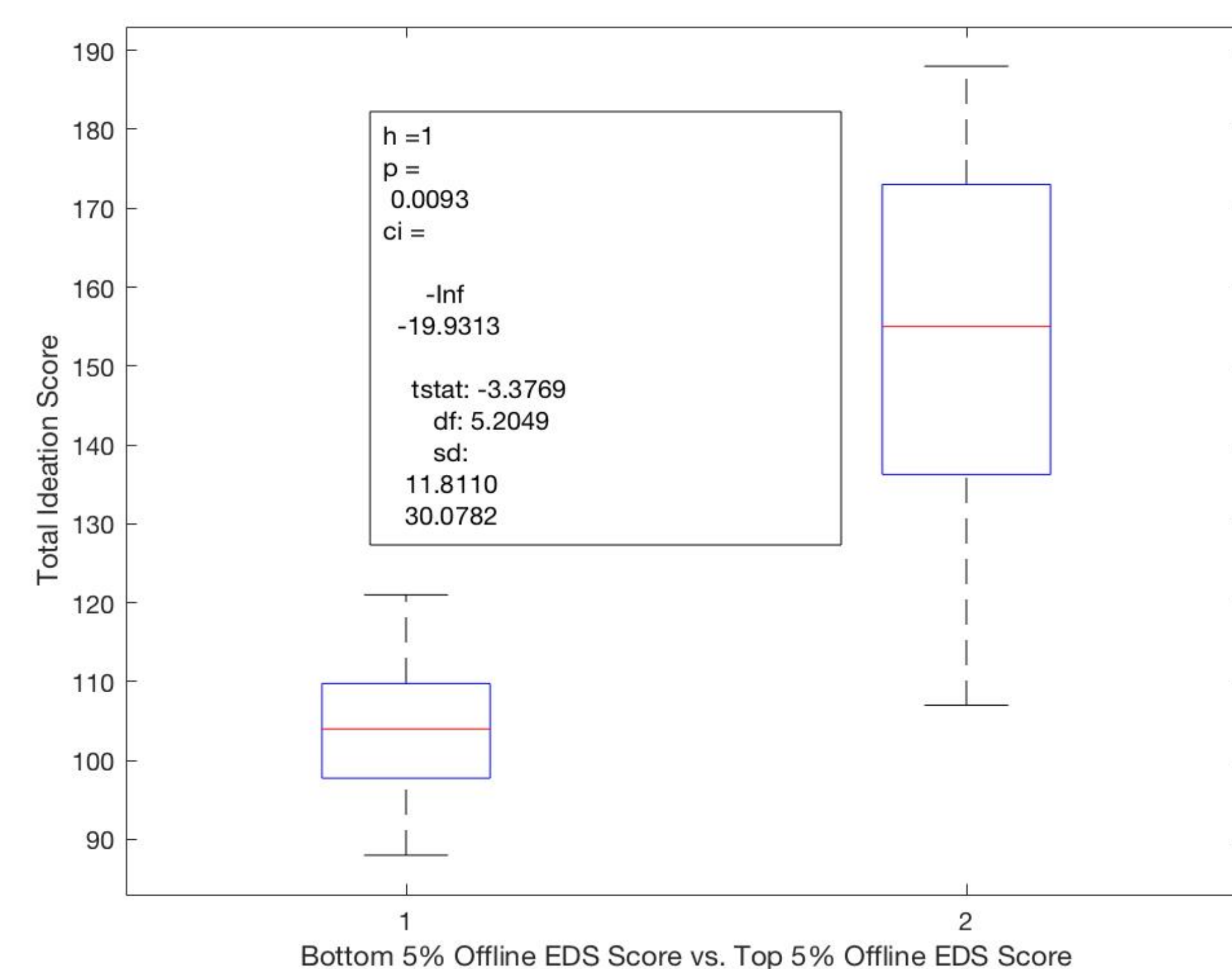
Methods:

We are combining questionnaire data with semi-structured interviews

The questionnaires will provide a larger sample of generalized, more quantitative data. The interviews offer deeper insights, which contextualize the questionnaire data within personal narratives and the lived experiences of the participants.

Measures: Social Connectedness (Social Connectedness Scale), Interpersonal Support (Interpersonal Support Evaluation List), Social Network (Social Network Index), Everyday Discrimination (Everyday Discrimination Scale), Psychotic symptoms (Peters et al. Delusions Inventory & CAPE Community Assessment of Psychic Experiences)

In addition to receiving the SCS, ISEL, SNI and EDS, participants received alternate versions of these scales adapted for the online environment



Evidence of a causal link between urban upbringing and risk for psychotic symptomatology:

- Dose-response relationships between urbanicity and schizophrenia have been duly replicated across empirical studies and meta-analytical work.²
- The association between urbanicity and psychotic symptomatology holds over varying settings, study designs, and interpretations of "urbanicity."
- Empirical studies have shown that this association is independent from a wide range of confounders such as age, sex and family history of psychosis.
- Longitudinal experiments demonstrate a dose-response relationship between urban upbringing and psychotic outcome that extends to urbanicity at birth and during upbringing.²

Discrimination and Psychotic Symptomatology

- There is a strong body of evidence that perceived discrimination is related to experiences of measurable psychological distress and psychotic symptomatology
- Increased probability of reporting psychotic experiences was found to be associated with perceived discrimination in a linear fashion
- Delusional ideation has been found to be significantly associated with perceived discrimination.⁵
- A U.K study⁶ analyzing data from the Fourth national Survey of Ethnic Minorities found an association between estimated annual prevalence of psychosis and reports of experiences of verbal abuse, racial attacks and perceived employer racism

Social experiences, Stress and Psychosis

- A strong body of research supports the role of stress in psychosis
- Studies report the onset and relapse of psychosis is associated with the stresses of the urban environment, social adversity experiences of discrimination, migration, major life events, and childhood trauma.
- Researchers propose that it is the habitual, smaller events that play out in the "flow of daily life" that influence the expression of psychosis more than rare major life events.⁷
- Number of proposed mechanisms linking social experiences and risk for psychosis
 - Behavioral Sensitization
 - Socio-developmental pathway
 - Social deafferentation

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