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Intimate partner violence and psychotic experiences in four U.S. cities

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ABSTRACT

Background: A large body of research has established a relationship between trauma exposure, particularly during childhood, and psychotic experiences. Yet, there remains a general lack of research on adult trauma exposure, including intimate partner violence (IPV), as a risk factor for psychotic experiences. The purpose of this study is to investigate the association between IPV and psychotic experiences in U.S. cities.
Methods: Data were collected from 1615 participants in four U.S. cities. Psychotic experiences were assessed through the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI) psychosis screen along with adapted IPV measures.
Results: Findings revealed that experiencing at least one form of IPV was significantly associated with each of the four psychotic experiences assessed for both men and women. The strongest associations were found for threatening and sexual IPV; physical IPV was not significantly associated with psychotic experiences. Exposure to IPV was associated with more than a tripling of the odds of reporting at least one psychotic experience as opposed to none. Among those exposed to IPV there was between three- to five times the odds of reporting specific subtypes of psychotic experiences.
Conclusion: The results expand on prior findings linking psychotic experiences and childhood trauma exposure to include intimate adult exposures. Emotional and sexual IPV appear to be associated with elevated risk for psychotic experiences in adulthood. Even though IPV is more commonly reported by women in the U.S., such victimization appears to have similar associations with psychotic experiences regardless of gender.

1. Introduction

1.1. Social etiology of psychosis

Most prominent theories of psychosis etiology have proposed that both biological and social factors are necessary components in the development and onset of schizophrenia and other psychotic disorders (Corcoran et al., 2003; Macdonald and Schulz, 2009; van Os et al., 2008). As such, a broad range of environmental, psychosocial, and biological indicators have been shown to be risk factors for psychosis and psychotic experiences, including poverty, migration, racial discrimination, trauma, and genetic vulnerability (Freeman and Fowler, 2009; Jarvis, 2007). Epidemiological research has shown that psychotic experiences such as hallucinations and delusions occur on a continuum, with many individuals in the general population reporting psychotic experiences that resemble symptoms of frank psychosis but are of lesser intensity, persistence, or associated impairment (Linscott and van Os, 2013). Biological evidence has supported the existence of this psychosis continuum (e.g., severity correlates with levels of inflammatory cytokines and structural connectivity; Mørch et al., 2016; O'Hanlon et al., 2015), which likewise caries a varying impact on function that correlates with the severity of psychotic symptoms (Oh et al., 2017). Importantly, such sub-threshold psychotic experiences can be easily assessed in the general population and, given their lesser severity and impact on function, are less subject to reverse causality or confounding effects than psychotic disorders (e.g., psychotic disorder leading to greater social adversity), making them ideal for studying social risk factors for psychosis in non-clinical samples.

1.2. Trauma and psychotic experiences

A large body of research has established a relationship between trauma exposure and psychotic experiences. Much of this literature has focused on childhood trauma, which has been shown to increase the risk of positive experiences (Janssen et al., 2004; Read and Argyle, 1999). While there has been some debate about the causality of this relationship (Morgan and Fisher, 2007), recent longitudinal data has shown that exposure to childhood trauma was associated with the

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subsequent onset of psychotic experiences, and that cessation of traumatic experiences led to a subsequent reduction in psychotic experiences (Kelleher et al., 2013), which is most consistent with causal explanations. The association between sexual abuse, in particular, and psychosis is stronger for females (Shevlin et al., 2013).

1.3. Intimate partner violence (IPV)

In the United States, the Centers for Disease Control and Prevention (CDC) estimates that 35.6% of women and 28.5% of men have experienced rape, physical violence, and/or stalking by an intimate partner in their lifetime (Black et al., 2011). Numerous studies have shown that exposure to IPV is correlated with an increased prevalence of anxiety, depression, STDs, injuries, suicidal ideation, posttraumatic stress disorder, and other physical and mental health symptoms (Bonomi et al., 2007; Coker et al., 2002; Golding, 1999; Campbell et al., 2002; Black et al., 2011). Given that psychotic experiences frequently co-occur with these related mental health conditions in adults (DeVylder et al., 2014), and that numerous theories link stress exposures to psychosis risk (Corcoran et al., 2003; Macdonald and Schulz, 2009; van Os et al., 2008), it is probable that IPV exposure is likewise relevant in the occurrence of psychotic experiences.

Although less studied than childhood victimization, several nonclinical studies have shown links between adult traumatic experiences (including both sexual and physical victimization) and psychotic experiences (Murphy et al., 2012; Elklit and Shevlin, 2011), including a dose-response relationship between cumulative traumatic experiences and psychosis (Shevlin et al., 2008). However, research on IPV as a risk factor for psychotic experiences remains limited. This is a critical issue given the high prevalence of IPV in the general population. To the best of our knowledge, only two studies exist that investigate the relationship between IPV and psychosis in a non-clinical setting. These studies utilize data from the Adult Psychiatric Morbidity Survey taken in England in 2007 (Boyda et al., 2015; Shevlin et al., 2013). Intimate partner violence was defined to include threats, exclusion, and physical violence, but did not include sexual IPV. Results found a strong association between victimization and psychotic experiences (Shevlin et al., 2013). Those who experienced IPV had an increased likelihood of experiencing all psychotic experiences (mania, thought insertion, paranoia, strange experiences, and hallucinations) (Shevlin et al., 2013). However, subtypes of IPV were not associated with all psychotic experiences, with the strongest associations between threats of IPV and thought insertion and paranoia (Boyda et al., 2015).

1.4. Study aims

The purpose of this study is to expand findings on the association between IPV and psychotic experiences by sampling from four large and socio-economically diverse U.S. cities and studying gender interactions. First, it was predicted that experiences of IPV would be significantly related to psychotic experiences. Second, we predicted that IPV subtypes may be differentially associated with the four psychosis items (strange experiences, thought insertion, paranoia, and hallucinations) as suggested by previous findings (Boyda et al., 2015), although this hypothesis was tentative given minimal prior literature. Third, we predicted that the relationship would be moderated by gender, given previous findings that the link between sexual abuse and psychosis is stronger for women (Shevlin et al., 2013; Bebbington et al., 2011).

2. Materials and methods

2.1. Study design

This study is a secondary analysis of data from the Survey of Police-Public Encounters (DeVylder et al., 2016). Adults were recruited between March and April 2016 for an online-based survey study involving participants from four Eastern U.S. cities (New York City, Philadelphia, Baltimore, and Washington D.C.). Qualtrics Panels, an independent survey administration service, was used to obtain a demographically representative sample (±10% of 2010 Census) of the cities in terms of age, sex, and race/ethnicity, using quota sampling by direct e-mail advertisement to their existing database of potential research participants in the United States. Eligibility screening resulted in a final sample size of N = 1615 (details of the screening and sampling procedure, including tests for demographic differences between included and excluded participants and comparisons with U.S. Census data, can be found in DeVylder et al., 2016). Analyses of demographic data between those who completed the survey and those who did not suggest no significant differences between the groups. The study was approved by the Institutional Review Board of University of Maryland, Baltimore.

2.2. Measures

2.2.1. Demographics

Participants self-reported demographic characteristics including gender, age, race/ethnicity, sexual orientation (lesbian, gay, or bisexual), household income (in $20,000 increments, up to $100,000+), and educational attainment.

2.2.2. Intimate partner violence

Lifetime experiences of IPV were assessed through three dichotomous items. These items utilize a modified version of measures from the National Intimate Partner and Sexual Violence Survey (Black et al., 2011) and are consistent with the CDC definitions of IPV (Breiding et al., 2015). Intimate partner violence was assessed through the following questions: (1) "Has a romantic or sexual partner ever made threats to physically harm you?" (2) "Has a romantic or sexual partner ever shot at, stabbed, struck, kicked, beaten, punched, slapped, or otherwise physically harmed you?" and (3) "Has a romantic or sexual partner ever forced or pressured you to engage in unwanted sexual activity that you did not want to do? Unwanted sexual activity includes vaginal, oral, or anal intercourse or inserting an object or fingers into your anus or vagina." A composite variable was created to indicate exposure to any IPV experience. To assess associations with sub-types of IPV, Item 1 was used to indicate threat IPV; item 2 was used to indicate physical IPV; and item 3 was used to indicate sexual IPV.

2.2.3. Psychotic experiences

Psychotic experiences were assessed through the four-item World Health Organization (WHO) Composite International Diagnostic Interview (CIDI) psychosis screen. The CIDI screen is a widely used and validated epidemiological assessment of psychotic experiences (Nuevo et al., 2012; Koyanagi et al., 2016; DeVylder et al., 2016). These four dichotomous questions asked if during the last 12 months participations had experienced: (1) "A feeling something strange and unexplainable was going on that other people would find hard to believe?", (2) "A feeling that people were too interested in you or that there was a plot to harm you?", (3) "A feeling that your thoughts were being directly interfered or controlled by another person, or your mind was being taken over by strange forces?", and (4) "An experience of seeing visions or hearing voices that others could not see or hear when you were not half asleep, dreaming, or under the influence of alcohol or drugs?" These four items were also collapsed to create a dichotomous variable to indicate presence of any psychotic experiences. Item 1 was used to assess strange experiences; item 2 was used to assess paranoia; item 3 was used to assess thought insertion; and item 4 was used to assess hallucinations.

2.3. Data analysis

Chi-square tests were conducted to test bivariate associations between sociodemographic characteristics and psychotic experiences.

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