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Letter to the Editor

**Cite this article:** DeVlyder JE (2018). Cumulative trauma as a potential explanation for the elevated risk of suicide associated with psychotic experiences: commentary on Moriyama *et al.* 'The association between psychotic experiences and traumatic life events'. *Psychological Medicine* **48**, 1915–1916. <https://doi.org/10.1017/S0033291718000764>

Received: 11 February 2018  
Revised: 15 February 2018  
Accepted: 28 February 2018  
First published online: 26 March 2018

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# Cumulative trauma as a potential explanation for the elevated risk of suicide associated with psychotic experiences: commentary on Moriyama *et al.* 'The association between psychotic experiences and traumatic life events'

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In this issue, Moriyama and colleagues (2018) advance our knowledge of the social epidemiology of psychosis an important step forward, by offering a nuanced examination of the role of childhood trauma exposure in psychosis etiology. While the large sample size ( $N = 2245$ ) and use of an early childhood sample (ages 6–12 years) are notable strengths of the study, the greatest advance comes from how the authors conceptualized the childhood trauma exposure construct. Rather than simply offering a sum score of trauma exposures (e.g. as in the Adverse Childhood Experiences questionnaire, Felitti *et al.* 1998) or focusing on individual specific sub-types of traumatic experiences, they specifically examined trauma exposure with and without intent to harm, as indicators of social and non-social stress, respectively. Further, given that intent to harm may be an indicator of greater overall trauma exposure, they also adjust for the frequency of past trauma exposure. Briefly, the authors found that psychotic experiences were associated with exposure to specifically trauma with intent to harm – replicating prior work (Arseneault *et al.* 2011; van Nierop *et al.* 2014) – but that this association was statistically explained by the overall quantity of prior trauma exposures.

The specificity of trauma with intent to harm as a risk factor for psychosis bears resemblance to findings from the suicide literature, which have linked suicidal behavior to specifically *assaultive* violence, across a broad range of study populations and types of violence exposures (Wilcox *et al.* 2009; Nruham *et al.* 2010; Coid *et al.* 2013; DeVlyder *et al.* 2017). This is notable given the amassing evidence over the past several years that psychotic experiences are robust indicators of risk for suicidal behavior in both cross-sectional and longitudinal epidemiological data, including suicidal ideation, attempts, and death by suicide (Sharifi *et al.* 2015; Honings *et al.* 2016). Perhaps most importantly, psychotic experiences have been shown in at least two studies to distinguish respondents that have suicidal ideation alone from those who act on suicidal ideation by making an attempt (Kelleher *et al.* 2012; DeVlyder *et al.* 2015a). As such, this helps to address a key gap in the suicide prevention literature: there is substantial data on risk markers for suicidal *ideation*, but very limited data on factors that predict the clinically critical question of who, among individuals with suicidal ideation, will also make a suicide attempt (Klonsky *et al.* 2016). This robust association with suicidal behavior may prove to yield the greatest clinical utility of assessing for psychotic experiences.

Several studies have provided longitudinal evidence that psychotic experiences may lead to subsequent suicidal behavior (Kelleher *et al.* 2013, 2014a), suggesting potential causality. However, research has suggested that much of the co-occurrence between psychotic experiences and suicidal behavior can be accounted for by shared risk factors, particularly those that are associated with elevated stress and exposure to trauma (DeVlyder *et al.* 2015b) and arise in the context of greater multi-morbidity and clinical severity (Kelleher *et al.* 2014b). As such, both psychotic experiences and suicidal behavior may be trans-diagnostic indicators of general severity of psychopathology that arise in the context of cumulative stress and trauma exposure. This may be true even if each of these clinical features arises at a different point in one's life course. The sample in the Moriyama *et al.* (2018) study was likely too young to report significant suicidal behavior. However, it would be of considerable interest to understand whether any suicidal behavior that may arise among youth with PEs in this sample (or similar samples) later in adolescence and into young adulthood are accounted for by this cumulative trauma history, particularly violent trauma. Future studies on risk factors should consider looking at both outcomes together, including the potential role of such risk factors in explaining this clinically significant association.

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