

COMMENTARY

Explaining the Relation between Nightmares and Suicide

Comment on Littlewood et al. Nightmares and suicide in posttraumatic stress disorder: the mediating role of defeat, entrapment, and hopelessness. *J Clin Sleep Med* 2016;12(3):393–399.

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For most of us, avoiding sleep is a radical idea. Sleep is a much needed respite that we yearn for all day. However, we know many nightmare sufferers resist sleep in the often futile attempt to avoid having a nightmare.¹ Given that nightmares are that disturbing to the nightmare sufferer, it should not be surprising that nightmares have been found to be associated with suicidal thoughts, attempts, and death by suicide.^{2–4} Further, research has demonstrated that the longer one suffers from nightmares, the greater the suicide risk, even after statistically controlling for the symptoms of depression, anxiety, and PTSD.⁵ In sum, the literature demonstrates that nightmares are associated with suicide risk and that they predict suicide variance that is unique from other suicide risk factors, such as depression, anxiety, PTSD, and substance use disorders.⁶ As such, nightmares are clinically relevant in relation to suicidality and are worthy of further study.

Although the importance of nightmares in understanding suicide has become clear, the mechanism by which nightmares confer suicide risk is not as well understood. Discovering this mechanism is a critical piece in assessing and treating the suicide risk that is incurred due to nightmares. For instance, understanding what it is about nightmares that associates them with suicide will aid our ability to assess suicide risk through more specifically assessing whatever factor is behind the relation. In other words, it allows our predictors to be more explicit and precise, resulting in increases in assessment specificity and sensitivity. Similarly, in regard to treatment, knowing the explanatory piece may lead to new treatments to help reduce the suicide risk caused by nightmares. For instance, if a mediating factor is found, then it is possible to reduce suicide risk by treating either nightmares or the mediating factor, thus increasing one's ability to intervene.

In separate investigations of college students⁷ and older adults,⁸ our lab attempted to explain the relation between nightmares and suicide using the Interpersonal-Psychological Theory of Suicide,⁹ but neither investigation fully explained why nightmares increase suicide risk. In another recent investigation, Hochard and colleagues¹⁰ demonstrated negative affect as a partial mediator in the relation between nightmares and self-harm thoughts and behaviors among a primarily female college student sample. However, the direct effect (nightmares'

effect on suicide) was of greater magnitude than the indirect effect (nightmares' effect on suicide through negative affect), suggesting that although negative affect may explain part of why nightmares are associated with suicide, it still does not explain the majority of the relation.

However, a new study has the potential to help shape our understanding of why nightmares are associated with suicide through studying several new mediators: defeat, entrapment, and hopelessness. Littlewood and colleagues¹¹ examined a sample of 91 individuals who had experienced traumatic events, 51 of whom met criteria for PTSD currently and an additional 24 of whom reported a prior diagnosis of PTSD. Using a bootstrapped mediational model, the authors found a significant indirect effect (mediational pathway) where a significant proportion of the variance between nightmares and suicide risk was explained by feelings of defeat, entrapment, and hopelessness. This model is meaningful for a few reasons. First, although a direct effect remained, this is one of the only studies that has a larger indirect effect than direct effect, suggesting that although the mediational model is not explaining the entire relation between nightmares and suicide, it is explaining most of the relation. Additionally, the authors found that this model was unchanged after controlling statistically for the effects of insomnia and depression, providing the reader with greater confidence that it is actually defeat, entrapment, and hopelessness that is mediating the relation and not the effects of depression or insomnia. Lastly, because these variables have not been extensively studied in the nightmare literature, this study is particularly well-positioned to guide future research on the relation between nightmares and suicidal behavior.

The study by Littlewood and colleagues has clinical relevance because it not only helps us better understand the mechanism by which nightmares confer suicide risk, but it also presents us with several potential new targets for intervention in order to ameliorate the effects of nightmares in relation to suicide. However, more research needs to be done. First, mediation is a causal construct; thus, to test mediation accurately, longitudinal data are required. Many studies, including the study by Littlewood and colleagues, lay the groundwork for longitudinal studies by examining whether mediational relations are present in correlational data, but we do not yet know

if these variables actually mediate the nightmare-suicide risk relation. Thus, replication of this finding in longitudinal data would greatly add to the literature. Additionally, this study sets the foundation for potential intervention research. In particular, based upon the findings of Littlewood and colleagues, it would be very interesting to examine whether an intervention designed at reducing hopelessness, a well-established suicide risk factor,¹² may reduce the impact of nightmares on suicide risk. Given that the indirect path relies on hopelessness, it is possible that a substantial portion of nightmares' effect on suicide may be ameliorated through reducing hopelessness. Similarly, entrapment and defeat may also be therapy targets in order to reduce the effects of the indirect pathway.

In sum, we still have not explained the process by which nightmares confer suicide risk, but we are making progress. Although work is left to be done, the study by Littlewood and colleagues¹¹ substantially adds to the literature by presenting a model explaining a majority of the variance between nightmares and suicide risk as well as introducing new mediator variables that may be targets for future intervention work. Thus, this model is a significant advance in this research area, and it brings us one step closer to a full understanding of how and why nightmares confer suicide risk.

CITATION

Nadorff MR, Pearson MD, Golding S. Explaining the relation between nightmares and suicide. *J Clin Sleep Med* 2016;12(3):289–290.

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SUBMISSION & CORRESPONDENCE INFORMATION

Submitted for publication January, 2016

Accepted for publication January, 2016

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DISCLOSURE STATEMENT

This was not an industry supported study. The authors have indicated no financial conflicts of interest.