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Research report

The relationship between internalizing psychopathology and suicidality, treatment seeking, and disability in the Australian population

Matthew Sunderland *, Tim Slade

NHMRC Centre for Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, Randwick Campus, University of New South Wales, Sydney, Australia

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ABSTRACT

Background: Recent evidence has emerged suggesting that multiple mood and anxiety disorders may be better assessed using a single dimension representing internalizing liability. The current study seeks to demonstrate the validity and utility of internalizing liability when accounting for suicidality, treatment seeking, and disability over and above any disorder specific relationship.
Methods: Data were from the 2007 Australian National Survey of Mental Health and Wellbeing. A model containing a single factor was fit to the data as a means of explaining the shared relationship across seven DSM-IV mood and anxiety disorders. The shared and specific relationships between lifetime and past 12 months internalizing and mental health consultations, suicidality, and disability were examined using Multiple Indicators, Multiple Causes models.
Results: General levels of latent internalizing were significantly related to all covariates of interest across both lifetime and past 12 months diagnoses. Models that included the specific relationship between various internalizing disorders and the clinical correlates failed to significantly improve model fit over and above a model that already included the general relationship between latent internalizing and the covariates.
Limitations: Limitations include the use of cross-sectional data and diagnostic assessments based on self-report lay-administered interviews.
Conclusions: The overall internalizing latent variable sufficiently explains the majority of the relationship between multiple mood and anxiety disorders and suicidality, treatment seeking, and disability. Researchers should focus on investigating the shared or common components across all mood and anxiety disorders particularly with respect to individuals presenting with higher rates of suicidality, treatment seeking behavior, and disability.

1. Introduction

Epidemiological and clinical studies have identified a range of clinical factors that can exacerbate, complicate, or confuse the diagnosis and treatment of DSM-IV mood and anxiety disorders. Of particular relevance to mood and anxiety disorders are levels of suicidality, levels of functional impairment or disability, and rates of treatment seeking behavior. Knowing the relationship between these factors and the mood and anxiety disorders as well as knowing the potential impact that they have on the presentation and treatment of these disorders is particularly relevant for clinicians, mental health policy makers, and prevention programs. For example, suicidality represents one of the highest contributors to mortality in adolescents and young adults and is therefore used as a primary severity indicator for clinicians when considering treatment options as well as prioritizing the patient's needs and level of care (Claassen et al., 2007; Jobes et al., 2005; Kim et al., 2011). The presence of disability likewise has the potential to compound the severity of a disorder in a circular fashion (Bruffaerts et al., 2012; Ormel et al., 1994). Treatment options need to consider the impact of disability and how increased levels may result in the continual maintenance of mental disorders (Von Korff et al., 1992). Finally, different disorders are related to varying levels of treatment seeking behavior, for instance individuals with social phobia or agoraphobia may be less inclined to seek formal support due to the nature of the disorder (Griffiths, 2013). Maximizing treatment provision for all mental health conditions is one key outcome in the

* Corresponding author. Tel.: +61 2 9385 0106.
E-mail address: Matthews@unsw.edu.au (M. Sunderland).

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Australian government's ongoing policy of mental health reform (Council of Australian Governments, 2012).

Since publication of the third edition of the Diagnostic and Statistical Manual (DSM) by the American Psychiatric Association through to the latest version, the DSM-5, mental disorders have been classified using discrete diagnostic criteria. This assumes that disorders exist as discrete categorical entities. Epidemiological evidence has accumulated over the past 20 years that has questioned the categorical assumption, primarily through the finding that co-morbidity (or co-occurring conditions) between anxiety and depressive disorders is more common than would be expected by chance (Kessler et al., 2005; Scott et al., 2006; Teesson et al., 2009). Researchers have speculated as to whether the high rate of mood and anxiety disorder co-morbidity provides some indication that a common trait, gene, or environmental factor exists to explain the common variance (Goldberg et al., 2009). Indeed, Krueger (1999) provided a re-conceptualization of co-morbidity by fitting a series of exploratory and confirmatory factor models in an attempt to explain the relationship between multiple disorders using a series of shared latent dimensions. Using large scale epidemiological data, Krueger (1999) was able to show that the DSM-IV mood and anxiety disorders loaded onto a single higher-order latent dimension. This latent dimension, which has since been referred to as internalizing liability, has demonstrated excellent fit using data from several countries as well as different research settings (Beesdo-baum et al., 2009; Krueger and Markon, 2006; Slade and Watson, 2006; Wright et al., 2013).

Despite the demonstrated validity of the internalizing latent dimension, it is at odds with the DSM categorical conceptualization of mental disorders and how these disorders are related to other clinical correlates of interest. For example, if mental disorders are considered as manifest indicators of a common latent dimension, then it must be assumed that the many relationships between putatively distinct disorders and a clinical correlate of interest are simply recycled instances of the same shared relationship between the internalizing dimension and the clinical correlate. This would indicate that knowledge of any one mental disorder is superfluous when predicting the rates of suicidality, disability, and treatment seeking behavior. Instead, a more parsimonious and informative approach would be to identify the level of severity related to the latent internalizing liability to determine the probability or likelihood of various clinical correlates.

As a means to investigate this issue, Eaton et al. (2013) previously examined the predictive validity of internalizing liability in relation to future suicide attempts amongst the US general population. They found internalizing liability was significantly and strongly related to suicide attempts and it was able to predict the relationship better than any additional disorder-specific diagnosis. This research demonstrated the utility of a more informative and parsimonious approach to the assessment of multiple disorder comorbidities and provided further validity of the internalizing dimension with respect to issues of major clinical importance. In a related study, Naragon-Gainey and Watson (2011) investigated the relationship between anxiety disorders, depression, and suicidal ideation after controlling for broad personality factors that represent neuroticism/negative emotionality and extraversion/positive emotionality. In their study, the majority of disorders were not associated with suicidal ideation beyond shared variance with the broad personality factors with the exception of depression and PTSD. Given that previous evidence has strongly linked neuroticism with the internalizing latent dimension (Griffith et al., 2010), it is logical to assume that a broad dimensional factor representing internalizing would account for the majority of the relationship between multiple disorders and differing degrees of suicidality. However, to the best of our knowledge, this assumption has not been extended to lesser severe forms of suicidality, such as ideation and plans, as well as to other relevant clinical correlates of interest such as treatment seeking behavior associated with mental illness and to levels of general disability. The aim of the current study is to demonstrate the validity and utility of a general internalizing liability model when accounting for suicidality, treatment seeking, and disability in a large sample of the Australian population.

2. Methods

2.1. Sample

Data for the current study were from the 2007 Australian National Survey of Mental Health and Wellbeing (NSMHWB), a nationally representative private household survey of Australian adults aged 16–85 years. The sample comprised one randomly selected eligible household member from 8841 private households out of a possible 14,805, resulting in a response rate of 60%. Extensive non-response analyses to assess the reliability of the data were undertaken, including comparisons of the 2007 NSMHWB to other data sources and a small non-response follow-up study, further details and results are provided in the survey user's guide (ABS, 2009). The survey utilized a multi-stage clustered sampling design and oversampled (greater probability of selection) young and old adults to ensure reliability and representativeness of these traditionally under-represented age bands. More information on the sample characteristics and design of the NSMHWB are available in Slade et al. (2009).

2.2. Measures

DSM-IV Criteria: The lifetime and past 12 months presence of DSM-IV disorders were assessed using the World Mental Health version of the Composite International Diagnostic Interview (WMH-CIDI; Kessler and Ustun, 2004). This interview was developed specifically to measure each DSM-IV and ICD-10 criterion for common mental disorders in the general population and has been used extensively for this purpose in epidemiological surveys from approximately 28 different countries as part of the World Mental Health Survey Initiative. In addition, the WMH-CIDI has demonstrated sound reliability and has good clinical concordance in relation to a clinician-administered semi-structured diagnostic interview, the Structured Diagnostic Interview for DSM-IV (SCID-IV) (Kessler et al., 2004). To assess the influence of comorbidity in the current study, the diagnostic criteria were applied without hierarchy rules, however disorders were excluded if they were solely attributed to a physical condition or medication use. The specific anxiety and affective disorders examined in the current study included: major depressive episode, dysthymia, bi-polar, social phobia, panic disorder, agoraphobia, post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), and generalized anxiety disorder (GAD).

2.2.1. Clinical correlates

To measure non-specific rates of suicidality across the lifespan and in the past 12 months, the survey included several questions that were separate from the mood and anxiety modules of the WMH-CIDI. Three questions were used in the current study; the first measured general suicidal ideation “Have you ever seriously thought about committing suicide?” the second measured suicidal plans “Have you ever made a plan for committing suicide?” and the third measured suicide attempts “Have you ever attempted suicide?” Each question was administered in a sequential order, e.g. the question about suicidal plans was asked to only those who had suicidal ideation etc. If the respondent experienced suicidality in their lifetime additional questions were then administered to confirm the presence of suicidality in the past 12 months. To form a global measure of suicidality, the three questions were combined into a single ordered categorical variable which represented the