Journal of Affective Disorders 186 (2015) 26–31

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Clinical and sociodemographic correlates of severe insomnia in psychotropic drug-free, Asian outpatients with major depressive disorder

Manit Srisurapanont [a,*,1], Surinporn Likhitsathian [a,1], Hong Choon Chua [b], Pichet Udomratn [c], Sungman Chang [d], Narong Maneeton [a], Benchaluk Maneeton [a], Chia-Hui Chen [e], Edwin Shih-Yen Chan [f,g], Dianne Bautista [f,g], Ahmad Hatim Bin Sulaiman [h]

[a] Department of Psychiatry, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
[b] Institute of Mental Health, Woodbridge Hospital, Singapore
[c] Department of Psychiatry, Faculty of Medicine, Prince of Songkla University, Songkhla, Thailand
[d] Department of Psychiatry, Kyungpook National University Hospital, Daegu, Republic of Korea
[e] National Health Research Institute, Department of Psychiatry, Taipei Medical University Shuang-Ho Hospital, Taiwan
[f] Duke-NUS Graduate Medical School, Singapore
[g] Singapore Clinical Research Institute, Singapore
[h] Department of Psychological Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia

ARTICLE INFO

Article history:
Received 21 May 2015
Received in revised form
18 June 2015
Accepted 20 June 2015
Available online 21 July 2015

Keywords:
Asian
Insomnia
Depressive disorders
SCL-90-R
Subjective

ABSTRACT

Background: Little has been known regarding the correlates of severe insomnia in major depressive disorder (MDD). This post-hoc analysis aimed to examine the sociodemographic and clinical correlates of severe insomnia in psychotropic drug-free, Asian adult outpatients with MDD.
Methods: Participants were psychotropic drug-free patients with MDD, aged 18–65 years. By using the Symptom Checklist-90 Items, Revised (SCL-90-R), a score of 4 (severe distress) on any one of three insomnia items was defined as severe insomnia. Other measures included the Montgomery–Asberg Depression Rating Scale (MADRS), the Fatigue Severity Scale (FSS), the nine psychopathology subscales of SCL-90-R, the Physical and Mental Component Summaries of Short Form Health Survey (SF-36 PCS and SF-36 MCS), and the Sheehan Disability Scale (SDS).
Results: Of 528 participants, their mean age being 39.5 (SD = 13.26) years, 64.2% were females, and 239 (45.3%) had severe insomnia. The logistic regression model revealed that low educational qualifications (less than secondary school completion), high SCL-90- R Depression scores, high SCL-90-R Anxiety scores, and low SF-36 PCS scores were independently correlated with severe insomnia (p's $< .05$).
Limitations: Insomnia was determined only by the patient's distress. Middle insomnia was not assessed. Psychotropic drug-free patients with MDD are not commonly seen in psychiatric practice.
Conclusion: Severe insomnia is common in patients with MDD. It is closely related with low educational qualification, subjective depression and anxiety severity, and poor physical health. These findings may implicate the treatment of comorbid MDD and severe insomnia, for example, sleep hygiene education, pharmacological treatment.

1. Introduction

Insomnia is characterized by difficulty falling asleep (sleep onset disturbance), difficulty staying asleep (sleep maintenance disturbance), or poor quality (nonrestorative) sleep, leading to impairment of next-day functioning, including psychological distress (Walsh, 2004). For patients with major depressive disorder (MDD), it is common, difficult to treat, and associated with poor outcomes. Insomnia can be found in 80–90% of patients with MDD (Park et al., 2013; Soehner et al., 2014; Sunderajan et al., 2010; Sung et al., 2014). In spite of achieving remission with fluoxetine treatment, almost half of these patients still have insomnia

* Correspondence to: Department of Psychiatry, Faculty of Medicine, Chiang Mai University, 110 Intavarorod Road, si Poom, Muang, Chiang Mai 50200, Thailand. Fax: +66 53 945426.
E-mail address: manit.s@cmu.ac.th (M. Srisurapanont).
[1] Manit Srisurapanont and Surinporn Likhitsathian are joint first authors.

http://dx.doi.org/10.1016/j.jad.2015.06.032
0165-0327/

symptoms (Iovieno et al., 2011). The residual symptom of insomnia is a key predictor of recurrence in major depression and a major contributor to the disability associated with depression (Dombrovski et al., 2008; Katz and McHorney, 2002). Although insomnia has tremendous impact on MDD, it is still underrecognized and undertreated (Sunderajan et al., 2010).

Across the severity spectrum of insomnia, the severe one should be a priority area of MDD research. First, limited evidence suggests that severe insomnia is common in MDD patients. By using the insomnia subscale score of Hamilton Depression Rating Scale (HDRS), the Clinical Research Center for Depression in South Korea (CRESCEND) study found that 59.1% of MDD patients had high insomnia (score of 4 or more) (Park et al., 2013). Using a scale of rating from 0 to 5 of the insomnia item of Schedule for Affective Disorders and Schizophrenia, O'Brien et al. (2011) found that 24.7% of adult outpatients with MDD had severe insomnia (score of 4 or 5). Second, it was found that increasing severity of sleep disturbance in depressed patients was associated with poorer psychosocial functioning (McCall et al., 2000). Third, severe insomnia is independently associated with worsened health-related quality of life to almost the same extent as chronic physical conditions, such as congestive heart failure (Katz and McHorney, 2002). Last, as hypnotic medications for severe insomnia may be unavoidable, pharmacological treatment for these patients may be more complicated than usual. Antidepressants commonly used in practice, for example, selective serotonin reuptake inhibitors, not only have limited benefit on insomnia but also can themselves cause insomnia (Papakostas, 2007). Although benzodiazepines are acceptable for the treatment of severe, disabling, or extremely distressed insomnia (Committee on Safety of Medicines, 1998), such treatments have to be balanced with their harmful effects, for example, motor incoordination, increased risk of falls, etc.

There have been many studies on insomnia in depression, but the evidence specific for severe insomnia in MDD is still limited. Based on the multivariate analysis, compared with mild insomnia in MDD, the more severe one is associated with increased age, gastrointestinal somatic symptoms, poor insight, high levels of anxiety, and more severe illness (Park et al., 2013). Univariate findings of another study also supported the association between severe insomnia and poorer psychosocial functioning (O'Brien et al., 2011). However, due to the statistical limitation that could not rule out the coincidence of depression and poorer psychosocial functioning, this later finding might only reflect the association between severe insomnia and depression. Another limitation of both the studies was that some participants might be taking psychotropic medications (e.g., hypnotic medications) during the assessment periods, which might affect the sleep results. In addition, it is not yet known if several factors associated with insomnia in MDD are also correlated with the severe one. Examples of those are being female (Sung et al., 2014), severe depression (Sunderajan et al., 2010), suicide ideation (McCall et al., 2010), and poorer physical health (Sunderajan et al., 2010). Due to these reasons, we proposed to examine the clinical and sociodemographic correlates of severe insomnia in psychotropic-free outpatients with MDD.

2. Methods

This is a post-hoc analysis of data obtained from the Study on Aspects of Asian Depression (SAAD). The SAAD was a multicountry, cross-sectional, observational, clinical study of depression, carried out between 2009 and 2010. Because its details have already been presented (Srisurapanont et al., 2013; Sulaiman et al., 2014), only the key methods are presented here. This study examined outpatients with depression who were attending psychiatric practices in China, Korea, Malaysia, Singapore, Taiwan, and Thailand. All the sites are tertiary psychiatric care settings. After the study details were explained, all the participants provided written informed consent prior to participation in the study. The study protocol was approved by the Institutional Review Board or the Ethics Committee of each site.

2.1. Participants

Inclusion criteria were age between 18 years and 65 years, and meeting the DSM-IV criteria for MDD, confirmed by the Mini International Neuropsychiatric Interview (MINI) (Sheehan et al., 1998). Exclusion criteria included unstable medical condition, mood disorder due to medical conditions and/or substance abuse, psychotic or bipolar disorder, clinically significant cognitive impairment, treatment with a long-acting antipsychotic medication within the previous three months, treatment with an oral psychotropic medication within the previous month, and treatment with a benzodiazepine within the previous week. All other psychiatric and co-morbid conditions were permitted.

2.2. Assessment

2.2.1. Insomnia and the Symptom Checklist-90, Revised (SCL-90-R)

Each of the participants assessed their behavioral symptoms by using the SCL-90-R (Derogatis, 1977). This questionnaire is a 90-item self-report symptom inventory designed primarily to collect the psychological symptom patterns of psychiatric and medical patients. It is a measure of perceived, current psychological symptoms during the previous week. Based on the subjective distress, each item is rated as 0 (no distress), 1 (a little bit distress), 2 (moderately distressed), 3 (quite a bit of distress), and 4 (extremely distressed). The SCL-90-R consists of nine primary symptom dimensions and a group of additional items. Each of the nine symptom dimensions comprises 6–13 items. The score on each dimension is the mean of the scores derived from all items of such dimension.

Three insomnia items of the SCL-90-R inquire about sleep as follows: How much were you distressed by trouble falling asleep, awakening in the early morning, or sleep that is restless or disturbed? These three items measure the distress on initial insomnia, terminal insomnia, and restless sleep. Based on the original factor analysis, none of them is a part of any SCL-90-R symptom dimensions (subscales).

Together with disability, ones may use distress to establish disorder thresholds (American Psychiatric Association, 2013). In this study, insomnia and severe insomnia were defined, respectively, by a score of 2 or more and a score of 4 on any of the three SCL-90-R insomnia items.

2.2.2. Sociodemographic and clinical characteristics

Other than sociodemographic characteristics, we collected the data relevant to age at onset of MDD, history of hospitalization, and duration of index episode. The SCL-90-R items were clustered into nine dimensions (or subscales), including somatization, obsession–compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. We used the Montgomery–Asberg Depression Rating Scale (MADRS) (Montgomery and Asberg, 1979) and the Fatigue Severity Scale (FSS) (Krupp et al., 1989) for assessing the severity of depression and fatigue. The higher scores on the SCL-90-R subscales, the MADRS, and the FSS indict, the more severe psychopathology.

Items 15 and 59 of the SCL-90-R inquire about the respondent's distress on “thought of ending your life” and “thoughts of death or dying,” respectively. The presence of suicidal ideation was defined by a score of 2 or more on any of these two items.