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Examining the correlation between headaches and insomnia, anxiety, and depression among women of Chinese descent in Hong Kong.

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Article Information

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Abstract: According to research, "In the general population, there is a strong correlation between sleep apnea, headaches, and mood disorders. Daily morning headaches will be associated with SDBD. Perimenopausal women are more likely than their pre- and postmenopausal counterparts to experience sleep disruptions, headaches, and low mood "counterparts."

In comparison to "After one month," both Caucasians and Hong Kong Chinese reported lower rates of insomnia (11% versus 29%) (Leger et al., 2000; Li et al., 2002). Within a year, 37% of Hong Kong Chinese and 38% of Whites will experience frequent headaches (Cheung, 2000; Hagen et al., 2000). Hong

Kong Chinese had lower rates of depression but higher rates of anxiety (2% vs. 13% and vs. 4%, respectively, in lifetime prevalence) than did Caucasians. Chen et al. (1993); Grant et al. (2005); Hasin et al. (2005). Parker et al. (2001) hypothesize that differences in depression prevalence could be attributed to people's reluctance to admit they have a mental health problem or to the manifestations physical of symptoms. Because of these disparities in prevalence, it is predicted that Hong Kong Chinese and Caucasians will have different associations with insomnia, headaches, and mood. The advantages are significant "for the purpose of researching the relationship between insomnia, headaches, and mental health issues among the Chinese population of Hong Kong."

INTRODUCTION: Chronic insomnia and headaches are among the most common health issues. Epidemiological surveys have estimated that insomnia affects 9% to 15% of the general population. (Ohayon, 2002). There are numerous neurological disorders, but headaches are among the most common.

According to Stovner et al. (2007), 47% of the world's population suffers from headaches at any given time. Slumber is more than just a break in our daily routine; it is a complex behavioural and physiological process. Enough sleep facilitates the body's physiological and psychological functions, allowing it to prepare for the next day's activities. Insomnia, the inability to fall asleep or stay asleep, affects most people at some point. Their lives. Insomnia reduces the quality or quantity of nocturnal sleep, which negatively impacts a person's performance throughout the day. Women are more likely than men to suffer from insomnia and headaches, which are frequently accompanied by snoring, depression, and anxiety. The majority of these investigations took place in North America and Europe, specifically among the Caucasian population. The majority of these studies looked at people who were actively seeking treatment for symptoms like chronic and severe sleeplessness and headaches. There has been no research into the relationship between insomnia and depression in the Chinese population. Poor sleep, headaches, and mental disorders may all be related, and risk factors for headaches can be identified. This information Can be used to develop public health interventions. For these reasons, I set out to investigate the relationship between sleeplessness, depression, anxiety, and headaches in middle-aged Chinese women, as well as to identify risk factors for headache.

LITERATURE REVIEW

The International Classification of Sleep Disorders (ICSD) defines insomnia as "a nightly complaint of an inadequate quantity of sleep or not feeling refreshed after the usual sleep period." The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (American Psychiatric Association 1994) defines "difficulty starting or sustaining sleep, or non-restorative sleep" as "clinically severe discomfort or impairment." Insomnia's exact pathophysiology is unknown, in part due to its variable nature, as insomnia can be a free-standing illness with a pathophysiology or a comorbid condition caused by multiple medical and mental problems. According to the "research population, methodology, and definition of insomnia," the prevalence of insomnia varies greatly. Using Stricter criteria result in a lower prevalence in the majority of cases. In population samples, the prevalence of insomnia ranged between 9% and 29%. (Yeo 1996; Neckelmann et al. 2007; Taylor et al. 2005; Leger et al. 2000). The prevalence in clinical samples ranges between 10% and 50%. (Hatoum et al., 1998; Simon and Von Korff, 1997; Ohayon and Roth, 2003; Katz and McHorney, 1998; Ustun et al., 1996). Approximately 12 percent of Hong Kong's general population experiences sleeplessness at least once a month (Li et al., 2002). Chung and Tang (2006) discovered that women in their mid-thirties and forties had a higher rate of the condition (18%). Insomnia is more common in women than men. (Olson, 1996, Leger et al., 2000; Li et al., 2002; Neckelmann et al., 2007; Ohayon and Roth, 2003).

Irritable sleep apnea is becoming more common as we age (Leger; Neckelmann; Li; Ohayon and Roth, 2003; Ohayon and Roth; Li; Ohayon and Roth; Neckelmann). In 1999, the National Heart, Lung, and Blood Institute Working Group on Insomnia discovered that sleep deprivation can cause exhaustion, a lack of energy, difficulty focusing, and a bad mood. Insomniacs may also complain of headaches and an inability to carry out daily tasks. Insomnia can reduce a person's quality of life (Hatoum et al., 1998; Zammit et al., 1999). Sleep deprivation has been linked to an increased

risk of accidents and absenteeism. US\$21 billion in In the United States, the projected annual economic cost of insomnia was \$6 billion in 2006 (Kaplan, 2007; Walsh and Engelhardt, 1999).

STATEMENT OF THE PROBLEM

The literature consistently shows a prevalence of "sleep-headache, sleep-mood disorder, and headache-mood disorder co-morbidity." There were several cross-sectional and standardized questionnaires used to assess the presence and severity of disorders of interest. In these studies, insomniacs reported more morning headaches than non-insomnia tic controls. Ohayon (2004) studied the risk factors for chronic morning headache (CMH) in the general population. Sleep.-EVAL expert system was used to conduct telephone interviews with 18980 adults aged 15 and up. A DSM-IV insomnia diagnosis was associated with a higher risk of developing CMH compared to those who did not have insomnia (20% vs. 8%). Major" depression and SDBD will also be shown to be associated with a higher The prevalence of CMH in the study was 29% versus 6%, 21% versus 6%, and 15% versus 7%, respectively.

Furthermore, he "discovered that being a woman, middle-aged, unemployed, or a housewife will all be associated with morning headaches. "People with a history of mental illness are more likely to experience severe insomnia. Ohayon and Roth (2002) investigated the psychiatric history of insomniacs in the general population. Subjects aged 15 to 100 will be recruited from the United Kingdom, Germany, Italy, and Portugal. The Sleep EVAL method will be used to assess insomnia as well as mental symptoms. Around 30% of insomniacs will be diagnosed with mental health issues. 45 percent of participants Patients with co-morbid MDD and anxiety disorder experienced severe sleeplessness that required treatment. 49 percent of those with a current diagnosis of sleeplessness had a history of anxiety and/or mood issues. A psychiatric history was discovered in 26% of insomnia patients, compared to only 8% of those without the condition. More than half (56%) of people with a recurrence of mood disorder had sleeplessness symptoms before the onset of mood disorder symptoms in 41% of cases. Anxiety and depression account for 29% of all cases of insomnia. Sleeplessness occurred approximately 18% of the time before the current anxiety problem, whereas anxiety occurred 43% of the time before insomnia. In 23% of cases, sleeplessness came first, and anxiety came first. 34% of people who have both a history of and a current anxiety illness. The authors described insomnia as a symptom of sadness and anxiety.

THE STUDY AIMS

To examine the "cross-sectional relationship of middle-aged Chinese women with sleeplessness, mood problems, and headaches."

Research Questions:

Is there a link between sleeplessness, mood problems, and headaches among Chinese women?

RESEARCH METHODOLOGY

The local "institutional review board" reviewed and approved the research. The author contacted 39 community centers and women's organizations in Hong Kong, and ten agreed to participate in the study. Potential participants will be contacted following their regular group meetings and

seminars at the community centers. Subjects will be given an overview of the study's objectives and procedures. All participants signed a permission form indicating that they understood the risks. The sample will be considered a convenient sample because of the individuals' willingness to participate in the study.

RESEARCH DESIGN:

We used a "questionnaire" created by Morin in 1993 to assess the severity of insomnia and its impact on participants' daily lives over a two-week period. The self-reported questionnaire contain Seven items are used to assess the severity of sleep onset, sleep maintenance, and early morning awakening problems; satisfaction with current sleep pattern; interference in daily functioning; impairment of quality of life as perceived by others; and level of distress caused by sleep problems. Each item is rated on a five-point Likert scale ('O' not at all, '4' very much). A score between 0 and 28 is possible. One minute to complete and less than five minutes to score the first test. Preliminary research suggests that 1ST is a reliable and valid tool for assessing one's own self-perceived sleep issues (Savard et al., 2005, Bastien and a! The ISI will be translated into Chinese for us. The Chinese version of the ISI, the original English version, lined In a pilot study of ten multilingual mental inpatients, a physician-rated version of the 1ST will demonstrate significant intercorrelations. The Chinese 1ST and the physician-rated version of the 1ST had a Pearson correlation value of 0.98, whereas the English 1ST and the Chinese 1ST had a Pearson correlation coefficient of 0.95.

The questionnaire will also assess the frequency of snoring and difficulty falling or staying asleep, as well as the frequency of non-regenerative sleep that caused significant distress or impairment in daytime functioning. The sleep disorder will be described using DSM-IV criteria (APA, 1994).

DATA ANALYSIS

Data will be entered into an SPSS dataset via a "single-entry technique," and the results will be compared to the original surveys to eliminate the possibility of human error.

Participants who "did not respond to queries about their age or whether they will be pregnant will be excluded from the study." All statistical analyses will be performed using SPSS 15.0 for Windows (SPSS mc, Chicago, IL), and summary statistics will be used to characterize the demographics and clinical Features of the participants. It has been demonstrated that ISI scores below 10 are associated with subthreshold insomnia (Morin et al., 1999; Bastien et al., 2001); thus, subjects with an ISI score of 11 will be classified as having an insomnia disorder, while those with an ISI score of 11 and a HADS anxiety score of 11 will be classified as having an anxiety disorder.

CONCLUSION

Middle-aged "Later in life, Chinese women are more likely to experience insomnia, depression, and headaches than younger Chinese women. Anxiety, depression, insomnia, and chronic snoring have all been linked to varying degrees of headache intensity. This study found no sociodemographic effects that could confound the results. Patients with headaches will have a higher prevalence of disability, and the severity of disability will be proportional to the intensity of the headaches. Even after controlling for coexisting anxiety and sadness, it will be shown that

insomnia and chronic snoring are associated with an increased risk of headaches. Middle-aged Chinese women who snore three times or more per week are five times more likely to report moderate to severe headaches than those who do not snore. The study's findings indicate that sleep deprivation, snoring, anxiety, and depression are all factors contributing to headaches in middle-aged women. For researchers to identify the underlying causes of headache, longitudinal cohort studies with large samples of participants are required. "Factors of danger

LIMITATIONS OF THE STUDY

Our study has "significant limitations." The cross-sectional approach will only be able to detect correlations between variables. Causality between associations could not be established. However, due to a lack of funds and resources, as well as time constraints, a longitudinal design will not be feasible. It would be too risky to conduct a long-term study on the relationship between sleep problems, mood disorders, and headaches in the Chinese population because there will be no prior research on the subject.

REFERENCES

- 1. Alberti A. Headache and sleep. Sleep Medicine Reviews 2006; 10:431-437.
- 2. Alberti A, Mazzotta Gallinella E, Sarchielli P. Headache characteristics in obstructive sleep apnea syndrome and insomnia. Acta Neurologica Scandina vica 2005; 111:309-316.
- 3. American Academy of Sleep Medicine. ICSD-2—international classification of sleep disorders, 2nd ed.: diagnostic and coding manual. Westchester, IL: American Academy of Sleep Medicine; 2005.
- 4. APA. Diagnostic and Statistical Manual of Mental Disorders, 4th ed. DSM-IV. Washington, DC: American Psychiatric Association; 1994.
- 5. Baker A, Simpson S, Dawson D. Sleep disruption and mood changes associated with Irienopause. Journal of Psychosomatic Research I 997;43(4):359-369.
- 6. Bastien CH, Vallieres A, Morin CM. Validation of the insomnia severity index as an outcome measure for insomnia research. Sleep Medicine 2001;2:297-307.
- 7. Belanger Morin CM, Langlois F, Ladouceur R. Insomnia and generalized anxiety disorder (GAD): effects of cognitive behavior therapy for GAD on insomnia symptoms. Journal ofAnxiety Disorders 2002; 18:561-571.
- 8. Bjelland I, Dahi AA, Haug TT, Neckelmann D. The validity of the Hospital Anxiety and Depression Scale and updated literature review. Journal of Psychosomatic Research 2002; 52: 69-77.
- 9. Boardman HF, Thomas E, Milison DS, et al. Psychological, sleep, lifestyle, and comorbid associations with headache. Headache 2005;45:657-669.
- 10. Breslau N, Roth T, Rosenthal L, Andreski P. Sleep disturbance and psychiatric disorders: a longitudinal epidemiological study of young adults. Biological Psychiatry 1996;39:41 1-4 18.

- 11. Brun J, Claustrat B, Saddier P, Chazot G. Nocturnal melatonin excretion is decreased in patients with migraine without aura attacks associated with menses. Cephalalgia 1995;15: 136-139.
- 12. Bussone G, Usai S, Grazzi L, Rigamonti A, Solari A, Amico DD. Disability and quality in different primary headaches: results from Italian studies. Neurological Sciences 2004;25: S105-S 107.
- 13. Claustrat B, Loisy C, Brun J, Beorchia S, Arnaud JL, Chazot G. Nocturnal plasma melatonin levels in migraine: a preliminary report. Headache 1938; 29:242-245.
- 14. Dennerstein L. Well being, symptoms and the menopausal transition. Maturitas 1996;23: 147-157.
- 15. Dodick DW, Eross EJ, Parish JM. Clinical, anatomical, and physiologic relationship between sleep and headache. Headache 2003; 43:282-292.
- 16. Duru G, Auray JP, Gaudin AF, Dartigues JF, Henry P, Lanteri-Minet M, Lucas C, Pradalier A, Chazot G, El Hasnaoui A. Impact of headache on quality of life in a general population survey in France (GRIM2000 Study). Headache 2004;44:57 1-580.
- 17. Finn L, Young T, Palta M, Fryback DG1. Sleep-disordered breathing and selfreported general health status in the Wisconsin sleep cohort study. Sleep 1998;21 (7):70 1-706.
- 18. Goder R, Friege L, Fritzer G, Strenge H, Aldenhoff SB, Hinze-Selch D. Morning headaches in patients with sleep disorders: a systemic polysomnographic study. Sleep Medicine 2003;4:385-391.
- 19. Lam PM, Leung TN, Haines C, Kwok HC. Climacteric symptoms and knowledge about hormone replacement therapy among Hong Kong Chinese women aged 40-60 years. Maturitas 2003;45:99-I07.
- 20. Lim L, Hg TP, Chua HC, Chiam PC, Won V, Lee T, Fones C, Kua ER. Generalized anxiety disorder in Singapore: prevalence, co-morbidity and risk factors in a multiethnic population. Social Psychiatry and Psychiatric Epidemiology 2005;40:972-979.
- 21. Lipton RB, Hameisky SW, Kolodner KB, Stenier TJ, Stewart WF. Migraine, quality of life, and depression. A population-based case-control study. Neurology 2000;55:629-635.
- 22. Morin CM, Colecchi C, Stone J, Sood R, Brink D. Behavioral and pharmacological therapies for late-life insomnia: a randomized controlled trial. JAMA 1999;281(11):991-999.
- 23. National Heart, Lung, and Blood Institute Working Group on Insomnia. Insomnia: assessment and management in primary care. American Family Physician 1999;59:3029-3038.
- 24. Neckelmann D, Mykietun A, Dahl AA. Chronic insomnia as a risk factor for developing anxiety and depression. Sleep 2007;30(7):873-880.
- 25. Paiva T, Batista A, Martins P, Martins A. The relationship between headaches and sleep disturbances. Headache 1995;35:590-596.
- 26. Parker G, Gladstone G, Chee KT. Depression in the planet's largest ethnic group: the Chinese. The American Journal of Psychiatry 200 1;158:857-864.
- 27. Peppard PE, Szklo-Coxc M, Hia KM, Young T. Longitudinal association of sleep-related breathing disorder and depression. Archives of Internal Medicine 2006; 166: 1709-17 15.

28. Peres MFP, Sanchez del Rio M, Seabra MLV, TUfik S, Abucham J, Cipolia-Neto3, Silberstein SD, Zukerman E. Hypothalamic involvement in chronic migraine. Journal of Neurology Neurosurgery and Psychiatry 2001;71:747-751.