IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

# To Study Gender Differences Across Young Working Population In Investigating The Role Of Stress In Insomnia

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**ABSTRACT:** The goal of this study is to investigate gender disparities in the young adult workforce, with a particular focus on the complex relationship between stress and Insomnia.

The study's quantitative technique makes use of well-respected instruments to evaluate stress and sleeplessness precisely. We hope to use statistical studies to shed light on the gender-based variations in the occurrence of stress-induced sleeplessness as well as its prevalence.

This study offers a platform to better understand the unique issues confronted by the young working population and has important implications for occupational health and sleep research. Our research aims to provide important insights into the intricate relationship between stress and insomnia, as well as the gender-specific subtleties associated with the condition. These insights can then be used to inform workplace policies and targeted interventions, potentially opening the door to customized strategies that support the wellbeing of young professionals.

**Keywords:** Young Adults, Stress, Sleeplessness, Quantitative Study, Occupational Health, Gender-Based Variations, Stress-Induced Insomnia, Workplace Policies, Targeted Interventions.

**INTRODUCTION:** This dissertation focuses on exploring the intricate connection between gender differences and the influence of stress on insomnia within the young working population. As individuals embark on their professional journeys, navigating age-specific stressors, coupled with gender-related factors, becomes a pivotal aspect affecting overall well-being.

The study acknowledges the significant variations in stress experiences between males and females in the workforce, emphasizing the importance of understanding these distinctions for a nuanced comprehension of the challenges faced by young professionals. A quantitative approach, employing established tools to measure stress and insomnia, aims to not only quantify stress-induced insomnia prevalence but also identify unique patterns and correlations associated with each gender. The use of validated scales ensures precision in capturing the diverse nature of stress and its effects on sleep quality.

In essence, this research aims to reveal the nuanced dynamics of gender-specific responses to stress among the young working population and their impact on insomnia. The findings hold practical implications for occupational health, providing insights for tailored interventions, workplace policies, and strategies to enhance the overall well-being of young professionals in the contemporary work environment.

Additionally, the modern workplace is marked by unprecedented dynamism, necessitating adaptability and resilience from its participants. As young professionals navigate the intricacies of their respective industries, a crucial imperative emerges: understanding the intricate nature of stress. Beyond the conventional stressors tied to job demands, elements like organizational culture, interpersonal relationships, and societal expectations exert varied degrees of influence, introducing layers of complexity to the experienced stress.

Recognizing substantial variations in stress encounters among male and female professionals emphasizes the necessity for a nuanced examination. Conventional gender roles, workplace expectations, and societal pressures intricately interweave to form a distinct array of stressors, shaping unique responses within each gender. This acknowledgment not only enriches our understanding of the challenges but also lays the groundwork for targeted interventions, fostering resilience and alleviating the adverse effects of stress-induced insomnia.

The quantitative approach embraced in this study transcends a mere listing of stressors, delving into the intricate details of gender-specific manifestations. Through a meticulous examination of the subtle interplay between stress and insomnia, the research aims to clarify potential moderating factors and coping mechanisms distinguishing male and female responses within the young working demographic.

Moreover, the incorporation of validated scales ensures that the gathered data is not only all-encompassing but also trustworthy, enabling a robust analysis that surpasses surface-level observations. This precision is paramount in unraveling the diverse nature of stress experienced by young professionals and its subsequent impact on sleep quality.

In conclusion, this research h strives not only to unveil the intricate dynamics of stress and insomnia within the young working population but also to contribute empirical evidence guiding evidence-based practices. As the results emerge, they stand ready to offer practical insights for organizational leaders, policymakers, and healthcare professionals, shaping interventions and policies that align with the distinct needs of young professionals aiming for success in today's demanding and competitive work environment.

**REVIEW OF LITERATURE:**

Alan T Welford (1973). The effects on performance are discussed of various types of stress deriving from imbalance between capacities on the one hand and, on the other, the demands of tasks, environmental conditions and social situations which either overload or under load the individual. Common cybernetic principles seem to apply over an area which includes not only stress, but also motivation and arousal. A model is proposed which ties together three previously existing models current in this field: the Inverted-U Hypothesis, Signal Detection Theory and the Yerkes-Dodson Law. The model is examined further in relation to individual differences of personality and to problems of conserving talent among students and those carrying heavy executive responsibility.

The rationale behind this study is to examine the impact of stress on performance, discussing various stress types resulting from imbalances in capacity versus task demands, environmental conditions, and social situations. Introduces a model integrating the Inverted-U Hypothesis, Signal Detection Theory, and the Yerkes-Dodson Law, exploring its application to individual differences in personality and talent conservation among students and executives.

Haynes, S. N., Adams, A., & Franzen, M. (1981). The effects of presleep stress on sleep-onset insomnia. Journal of Abnormal Psychology, 90(6), 601–606.10 sleep-onset (SO) insomniacs and 11 noninsomniacs (18–21 yrs old) slept undisturbed for 3 nights but were exposed to brief cognitive stressors before SO on the next 2 nights. Significant between-group differences were found in responses to the cognitive stressors on self-report but not objective measures of SO latency (SOL). Noninsomniac Ss evidenced an increase and insomniac Ss a decrease in SOL on stress nights. Insomniac Ss demonstrated a significantly higher mean heart-rate response before and after the stressors. A variable expressing the relationship between objective and subjective measures of SOL (pseudoidiopathic dimension) for each S was

not significantly related to Ss' responses to stress. Results are inconsistent with the hypothesized role of presleep stress in SO insomnia but are consistent with other studies indicating higher levels of physiological arousal of insomniac vs no insomniac.
This article aims to investigate the effects of presleep stress on sleep-onset insomnia. Compares responses of insomniacs and noninsomniacs to cognitive stressors before sleep, finding significant self-report differences but not in objective measures of sleep onset latency. Highlights higher physiological arousal in insomniacs and challenges the hypothesized role of presleep stress in sleep-onset insomnia.

Andrew Baum, Jerome E Singer, Carlene S Baum (1981). This paper presents an overview of the literature on stress and the environment using a basic attitude change paradigm. The stress literature is organized around characteristics of source, transmission, and audience variables. Prominent models of stress are reviewed, along with classifications of stressors themselves. The appraisal of stressors is considered as a transmission variable, affected by such factors as attitudes towards the stressor, perception of risk and danger, and perceived control. Research on dispositional variables is also reviewed and the stress response is discussed.
This article offers an overview of stress and the environment literature using an attitude change paradigm. Organizes stress characteristics around source, transmission, and audience variables, reviewing prominent stress models. Emphasizes appraisal of stressors as a transmission variable influenced by factors like attitudes, risk perception, and control, while also discussing dispositional variables and the stress response.

Dean B Baker (1985). During the past two decades, the field of occupational stress research has developed a few general themes as to the causes of stress, yet it has not yielded a clear conceptualization of the problem. The field has been dominated by a clinical perspective of stress as a psycho-physiological phenomenon that arises from an individual's perception of the balance between environmental demands and response capabilities (8, 1 1, 28, 35, 45). The consequences of stress include physiological, psychological, and behavioral changes, which again are mediated by perceptions. Based on this paradigm, most stress research has focused on individual perceptions and susceptibility, and most interventions have been directed toward individual coping strategies (14, 40, 44, 5 1). This emphasis on the individual is quite different from that of most other areas of occupational health. The usual public health approach to primary prevention in the workplace is to identify and modify dangerous working conditions in order" to assure so far as possible every working man and woman in the Nation safe and healthful working conditions"(38). Consequently, most occupational health research is oriented primarily toward identifying work place conditions that are deleterious (32). The analogous orientation in stress research would be to determine what conditions within the workplace could be modified to reduce stress for all workers. From a public health perspective, the key issue in the study of stress at work is whether the etiologic dynamics of stress are to be found within the workplace or within the worker. Since stress certainly has a multifactorial etiology, investigators have been able to formulate, and at least partially validate, substantially different models.
This study offers an overview of stress and the environment literature using an attitude change paradigm. Organizes stress characteristics around source, transmission, and audience variables, reviewing prominent stress models. Emphasizes appraisal of stressors as a transmission variable influenced by factors like attitudes, risk perception, and control, while also discussing dispositional variables and the stress response.

Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: Its causes and consequences for job performance. Journal of Applied Psychology, 71(4), 618–629. Examined occupational stress and its relation with individual characteristics, job conditions, stressful events, affect, and job performance. Study 1, in which 104 nurses participated in group discussions and 96 nurses (mean age 36 yrs) completed a questionnaire, identified 45 stressful events (appended) for nurses. In Study 2, 171 nurses (mean age 34.6

yrs) completed another questionnaire and were rated by a supervisor and/or a coworker. Findings show that ratings of interpersonal aspects of job performance (i.e., sensitivity, warmth, consideration, tolerance) and cognitive/motivational aspects (i.e., concentration, composure, perseverance, adaptability) correlated significantly with self-reported perceptions of stressful events, subjective stress, depression, and hostility. Models developed through path analysis suggest that the frequency and subjective intensity of the 45 events identified in Study 1 caused feelings of stress, leading to depression and causing decrements in interpersonal and cognitive/motivational aspects of job performance.
This study aimed to explore how occupational stress affects job performance among nurses. Understanding this relationship is critical for improving nurse well-being and patient care quality. By identifying stressors and their impact on performance, the study aimed to inform interventions and advance theoretical understanding in organizational psychology and stress research.

Rosalind C Barnett, Lois Ed Biener, Grace K Baruch (1987). Gender and Stress illuminates the female experience of stress and offers a new paradigm for research on stress in both men and women. The book challenges prevailing assumptions, biases, and myths about the stress process, indicating that men and women not only find different situations stressful, but respond in different ways to perceived stress. Divided into four sections, each of thirteen chapters combines the results of original research with a reexamination of existing studies.(PsycINFO Database Record (c) 2016 APA, all rights reserved).
This study challenges prevailing assumptions and biases about stress, highlighting gender differences in stress experiences and responses.

Robert L Kahn, Philippe Byosiere (1992). Organizational stress is defined as a rapidly expanding field, characterized by disagreements about terminology and definitions but underlying agreement on the variables of interest and their causal relationships/these relationships constitute a hypothetical sequence that begins with organizational antecedents to stress and then identifies the stressors they generate, the perception and appraisal of those stressors by individuals, the short-term responses evoked, and the effects of long-term exposure/at each step in this causal chain, the moderating effects of individual differences and interpersonal relationships are acknowledged.
This article defines organizational stress, outline its components, and establish a hypothetical sequence from antecedents to effects.

Charles M Morin (1993). This volume [offers] a complete, multifaceted cognitive-behavioral treatment program for chronic insomnia. Using a conceptual model that emphasizes the interplay between maladaptive behavior patterns and dysfunctional sleep cognitions, the book covers all aspects of assessment and treatment. In addition, it is the first to present a systematic approach to withdrawing drug-dependent insomniacs from hypnotic medications.
This study presents a systematic cognitive-behavioral treatment program for chronic insomnia, focusing on behavior-sleep cognition interplay.

Patricia P Chang, Daniel E Ford, Lucy A Mead, Lisa Cooper-Patrick, Michael J Klag (1997). American journal of epidemiology 146 (2), 105-114.The Johns Hopkins Precursors Study, a long-term prospective study, was used to study the relation between self-reported sleep disturbances and subsequent clinical depression and psychiatric distress. A total of 1,053 men provided information on sleep habits during medical school at The Johns Hopkins University (classes of 1948–1964) and have been followed since graduation. During a median follow-up period of 34 years (range 1–45), 101 men developed clinical depression (cumulative incidence at 40 years, 12.2%), including 13 suicides. In Cox proportional hazards analysis adjusted for age at graduation,

class year, parental history of clinical depression, coffee drinking, and measures of temperament, the relative risk of clinical depression was greater in those who reported insomnia in medical school (relative risk (RR) 2.0, 95% confidence interval (Cl) 1.2–3.3) compared with those who did not and greater in those with difficulty sleeping under stress in medical school (RR 1.8, 95% Cl 1.2–2.7) compared with those who did not report difficulty. There were weaker associations for those who reported poor quality of sleep (RR 1.6, 95% Cl 0.9–2.9) and sleep duration of 7 hours or less (RR 1.5, 95% Cl 0.9–2.3) with development of clinical depression. Similar associations were observed between reports of sleep disturbances in medical school and psychiatric distress assessed in 1988 by the General Health Questionnaire. These findings suggest that insomnia in young men is indicative of a greater risk for subsequent clinical depression and psychiatric distress that persists for at least 30 years. Am J Epidemiol1997;146:105–14.
This study investigates the association between self-reported sleep disturbances and subsequent clinical depression and psychiatric distress in men.

Andrew D. Krystal MD, MS. (2003), Insomnia is a highly prevalent disorder that can lead to substantial impairments in quality of life and functional capacity. This condition occurs significantly more frequently in women than men. An important contributing factor is that insomnia can occur in association with hormonal changes that are unique to women, such as those of menopause or the late-luteal phase of the menstrual cycle. Another consideration is that women are more likely to suffer from major depression and anxiety disorders, which are also associated with insomnia. The reasons are unclear as are the reasons why women are at increased risk of primary insomnia. These conditions are frequently encountered in clinical practice and present a challenge to the practitioner because there is a striking lack of research data to serve as a guide. For example, there are no published studies to indicate how to safely and effectively manage insomnia that often occurs late in pregnancy. This article reviews the available literature related to these conditions with a focus on the data and diagnosis and treatment of insomnia and highlights the need for further research.
This article reviews the prevalence and contributing factors of insomnia, particularly in women, and highlights the need for further research.

Sabine Sonnentag, Michael Frese (2003). Comprehensive handbook of psychology 12, 453-491.Stress in organizations is a widespread phenomenon with far-reaching practical and economic consequences. A report published by the National Institute for Occupational Safety and Health (1999) in the United States summarized findings from various surveys on organizational stress and found that between 26 and 40% of all surveyed workers experienced their work as very stressful. Similarly, 28% of the workers in the European Union reported that their work causes stress (Levi &Lunde-Jensen, 1996). In Japan, the percentage is even higher than either of these (Harnois& Gabriel, 2000).Experiencing organizational stress is related to health problems and their associated costs. A study based on more than 46,000 US. employees showed that health care costs were 46% higher for workers who experienced high levels of stress (Goetzel et al., 1998). Moreover, organizational stress is assumed to be related to increased absenteeism. For example, estimates from the US. and England suggest that about the half of all lost days within organizations are related to workplace stress (Cooper, Liukkonen, & Cartwright, 1996.
This study explores the widespread phenomenon of organizational stress, its implications on health, and economic consequences.

Ulrich Voderholzer, AnamAl-Shajlawi, GesaWeske, Bernd Feige, Dieter Riemann (2003). It is well known that insomnia is more frequent in women than in men throughout all age groups. In this respect insomnia resembles other psychiatric disorders that occur more frequently in women such as anxiety and depressive disorders. Since insomnia is frequently a symptom of anxiety and depression, it remains an open question

whether the comorbidity with psychiatric disorders fully explains the gender differences in the prevalence of insomnia or whether gender influences sleep independently from psychiatric conditions. We analyzed sleep measures of patients diagnosed with a primary insomnia (n=86) and of an age- and sex-matched healthy control group (n=86) by polysomnography; additionally, subjective rating scales were available for 70 patients and 54 controls matched for mean age and sex ratio. Surprisingly, none of the sleep continuity measures (sleep duration, sleep efficiency, arousal index, and wake%), nor slow wave or REM sleep % showed significant gender differences in both insomniacs and healthy controls. Also, subjective estimates of sleep quality were comparable in both sexes. As expected, insomniacs strongly differed from the control group in all subjective measures of sleep. Polysomnography showed significantly reduced sleep duration and efficiency, increased arousal index, and slightly, but significantly, less REM sleep in the insomniacs as compared to the healthy controls. These studies indicate that gender seems to have, if any, relatively little influence on sleep per se. We hypothesize that the clear gender differences in the prevalence of insomnia are caused predominantly by gender differences in the prevalence of anxiety and depression. Primary insomnia may be, at least in a part of the cases, a subclinical or subthreshold form of anxiety or depression. Depression and Anxiety 17:162–172, 2003. © 2003 Wiley-Liss, Inc.
This article examines gender differences in insomnia prevalence and investigate the influence of anxiety, depression, and psychiatric conditions on these differences.

MD Ellen Hirschman Miller (2004). The occurrence of insomnia in women is influenced in great part by the complex hormonal cycles they undergo. Patterns of insomnia in younger women may be physiologically different on a hormonal basis from those found in older women. Although significant objective sleep disturbances have been difficult to demonstrate across the menstrual cycle in normal women, the International Classification of Sleep Disorders (ICSD) includes premenstrual insomnia and premenstrual hypersomnia as sleep disorders within the category of menstrual-associated sleep disorder. On the other hand, during pregnancy and after childbirth, profound fluctuations in steroid and hypothalamic-pituitary-adrenal axis-related hormones produce significant physiological changes, including sleep disruption. During the menopausal transition, significant sleep disruptions are provoked by sleep-disordered breathing, vasomotor disturbance, and mood disorders. Regardless of age, women with chronic insomnia are at higher risk for developing or sustaining depression. Thoughtful management approaches must consider known relationships between menstrual or menopausal status and various sleep disorders, and should rely on pharmacologic, nonpharmacologic, or a combination of treatments to achieve successful relief from insomnia. The off-label, first-line use of antidepressants for treating insomnia in the absence of depression is now considered debatable. The long-term efficacy and safety of the newer benzodiazepine receptor agonists (BZRAs) for insomnia, whether taken nightly or episodically, are supported by existing clinical experience. US Food and Drug Administration guidelines limiting the use of hypnotics to only a few weeks predate the newer generation BZRAs, and, as such, the guidelines may no longer be truly appropriate for these new agents.
This article investigates the influence of hormonal cycles on insomnia in women across different life stages, highlighting the need for tailored management approaches considering hormonal and physiological changes.

M Pilar Matud (2004). Personality and individual differences 37 (7), 1401-1415.This study examines gender differences in stress and coping in a sample of 2816 people (1566 women and 1250 men) between 18 and 65 years old, with different sociodemographic characteristics. The results of MANCOVA, after adjusting for sociodemographic variables, indicated that the women scored significantly higher than the men in chronic stress and minor daily stressors. Although there was no difference in the number of life events experienced in the previous two years, the women rated their life events as more negative and less controllable than the men. Furthermore, we found gender differences in 14 of the 31 items listed, with the women listing family

and health-related events more frequently than the men, whereas the men listed relationship, finance and work-related events. The women scored significantly higher than the men on the emotional and avoidance coping styles and lower on rational and detachment coping. The men were found to have more emotional inhibition than the women. And the women scored significantly higher than the men on somatic symptoms and psychological distress. Although the effect sizes are low, the results of this study suggest that women suffer more stress than men and their coping style is more emotion-focused than that of men.
This study examines gender differences in stress and coping strategies, emphasizing women's higher susceptibility to chronic stress and emotional coping styles compared to men.

Claudio N Soares (2005). Archives of Women's Mental Health 8, 205-213. Insomnia is a common and significant healthcare problem, and affects a large percentage of women seen by general practitioners, obstetrician-gynecologists and mental health professionals. Specific risk factors for insomnia may be gender-related, including higher prevalence rates of depression and anxiety among women, environmental and social factors, as well as reproductive-related factors (e.g., peri-menstrual difficulties and menopause-related symptoms). Sleep problems interfere significantly with daytime functioning and overall well-being, and may lead to serious clinical consequences. Treatment options include benzodiazepines, non-benzodiazepines, nonprescription sleep aids, and non-pharmacologic interventions such as sleep hygiene measures. This article reviews the existing literature on the prevalence, clinical characteristics of insomnia in women, and highlights some of the treatment options available. Healthcare providers should be aware of the variety of pharmacologic and non-pharmacologic options for treatment of insomnia and, in particular, be able to weigh their efficacy against the risks of side effects and next-day sedation.
The rationale behind this study is to reviews the prevalence and clinical characteristics of insomnia in women, emphasizing gender-related risk factors and highlighting available treatment options.

MirjanaAranđelović, Ivana Ilić (2006). Assuming that stress is a misfit between the demands of the environment and the individual's abilities, the imbalance may be corrected, according to the situation, either by adjusting external demands to fit the individual or by strengthening the individual's ability to cope, or both. At this point, it should be borne in mind that since stress is a multifaceted phenomenon, no simple solution is available. Furthermore, differences in the particular circumstances of each case make it impossible to provide a unique solution for the management of stress. In general, and regardless of their differences, publications conclude that the ideal solution to combat stress is to prevent its occurrence. This may be achieved by tackling the core of the problem - the cause. However, there is no single cause of stress and the elimination of all stressors is a utopian task. Therefore, action should be aimed at eliminating as many causes as possible, so that the action taken reduces stress and prevents future stress. As this cannot always be achieved in the short term, it is generally agreed that improving the ability to cope with stress is a valuable strategy in the process of combating stress. The manual can then go on to identify a series of essential steps for the prevention of stress. These include: stress recognition, stress assessment, anti-stress intervention, monitoring and evaluation. With a view to such assessment, several manuals propose involving workers in identifying those stressors which, they feel, cause unnecessary stress in their jobs and in rating them to establish priorities for intervention. The assessment should be done in an "audit" of the relevant hazards, and employees should be asked to express their concern about any situation that may be causing stress at work. Once the existence of stress has been recognized and the stressors identified, action to deal with stress should be taken. Wide-ranging types of interventions may thus be considered in the manuals, leaving the choice of the most effective combination to the target audience according to the specific features of the particular work situation. The following is a possible list of types of intervention, ranging from interventions targeted at the work environment to those targeted at the individual: Intervention of the external socioeconomic environment, intervention on technology and work organization, intervention in

working place and task structure, intervention to improve individual responses and behaviour, specific intervention for health protection and promotion.

The rationale behind the study is to explore effective strategies for managing stress among individuals in various work environments. Recognizing stress as a complex phenomenon, the study aims to identify practical interventions to prevent and alleviate stressors. By involving workers in the identification and prioritization of stressors, the study seeks to develop tailored intervention strategies targeting both the work environment and individual coping mechanisms. The goal is to provide a comprehensive framework for stress management that enhances employee well-being and organizational productivity.

George P Chrousos (2009). All organisms must maintain a complex dynamic equilibrium, or homeostasis, which is constantly challenged by internal or external adverse forces termed stressors. Stress occurs when homeostasis is threatened or perceived to be so; homeostasis is re-established by various physiological and behavioral adaptive responses. Neuroendocrine hormones have major roles in the regulation of both basal homeostasis and responses to threats, and are involved in the pathogenesis of diseases characterized by dyshomeostasis or cacostasis. The stress response is mediated by the stress system, partly located in the central nervous system and partly in peripheral organs. The central, greatly interconnected effectors of this system include the hypothalamic hormones arginine vasopressin, corticotropin-releasing hormone and pro-opiomelanocortin-derived peptides, and the locus ceruleus and autonomic norepinephrine centers in the brainstem. Targets of these effectors include the executive and/or cognitive, reward and fear systems, the wake–sleep centers of the brain, the growth, reproductive and thyroid hormone axes, and the gastrointestinal, cardiorespiratory, metabolic, and immune systems. Optimal basal activity and responsiveness of the stress system is essential for a sense of well-being, successful performance of tasks, and appropriate social interactions. By contrast, excessive or inadequate basal activity and responsiveness of this system might impair development, growth and body composition, and lead to a host of behavioral and somatic pathological conditions.

This article Investigates the neuroendocrine mechanisms underlying the stress response and their role in maintaining homeostasis, highlighting the physiological basis of stress-related diseases.

Erica R Kucharczyk, Kevin Morgan, Andrew P Hall (2012). While the importance of assessing the occupational consequences of insomnia is emphasized in clinical nosologies and research guidelines, there is little consensus on which aspects of occupational performance should be assessed, the most methodologically justifiable measures of insomnia and work performance, and how outcomes should be reported. The present review was designed to summarize and methodologically critique the assessment of those aspects of occupational performance most impacted by (or most frequently associated with) insomnia symptoms. The 30 studies which met the review inclusion criteria broadly addressed six domains of occupational functioning: absenteeism; workplace accidents; productivity; punctuality; job satisfaction and career progression. Collectively, study outcomes support the conclusions that insomnia symptoms: are consistently associated with excess absenteeism; elevate accident risk in the workplace; reduce subjectively experienced workplace productivity (at least in the shorter term); inhibit career progression; and can degrade job satisfaction. Study outcomes do not support the conclusion that people with insomnia are significantly less punctual than other workers. The overall value of the occupational sleep-health literature, however, is limited by a lack of comparability among studies. In particular, there is a clear need to standardize definitions of sleep and occupational outcomes, and to recognize the confounding influence of health variables on occupational performance and sleep.

The aim of this study is to review the impact of insomnia symptoms on various aspects of occupational performance, aiming to summarize the existing literature and critique methodological approaches.

Allison T Siebern, SooyeonSuh, Sara Nowakowski (2012). Insomnia is one of the most common sleep disorders, which is characterized by nocturnal symptoms of difficulties initiating and/or maintaining sleep, and by daytime symptoms that impair occupational, social, or other areas of functioning. Insomnia disorder can exist alone or in conjunction with comorbid medical and/or psychiatric conditions. The incidence of insomnia is higher in women and can increase during certain junctures of a woman's life (e.g., pregnancy, postpartum, and menopause). This article will focus on an overview of cognitive behavioral therapy for insomnia, evidence of effectiveness for this treatment when insomnia disorder is experienced alone or in parallel with a comorbidity, and a review with promising data on the use of cognitive behavioral therapy for insomnia when present during postpartum and menopause.
This study provides an overview of cognitive-behavioral therapy for insomnia and its effectiveness in managing insomnia disorder alone or in conjunction with comorbid conditions, focusing on women during postpartum and menopause.

Mari Hysing, StålePallesen, Kjell M Stormark, Astri J Lundervold, BørgeSivertsen (2013). Journal of sleep research 22 (5), 549-556.The aim of the current study was to examine sleep patterns and rates of insomnia in a population-based study of adolescents aged 16–19 years. Gender differences in sleep patterns and insomnia, as well as a comparison of insomnia rates according to DSM-IV, DSM-V and quantitative criteria for insomnia (Behav. Res. Ther., 41, 2003, 427), were explored. We used a large population-based study in Hordaland county in Norway, conducted in 2012. The sample included 10 220 adolescents aged 16–18 years (54% girls). Self-reported sleep measurements included bedtime, rise time, time in bed, sleep duration, sleep efficiency, sleep onset latency, wake after sleep onset, rate and frequency and duration of difficulties initiating and maintaining sleep and rate and frequency of tiredness and sleepiness. The adolescents reported short sleep duration on weekdays (mean 6:25 hours), resulting in a sleep deficiency of about 2 h. A majority of the adolescents (65%) reported sleep onset latency exceeding 30 min. Girls reported longer sleep onset latency and a higher rate of insomnia than boys, while boys reported later bedtimes and a larger weekday–weekend discrepancy on several sleep parameters. Insomnia prevalence rates ranged from a total prevalence of 23.8 (DSM-IV criteria), 18.5 (DSM-V criteria) and 13.6% (quantitative criteria for insomnia). We conclude that short sleep duration, long sleep onset latency and insomnia were prevalent in adolescents. This warrants attention as a public health concern in this age group.
The rationale behind this research is to Investigate sleep patterns and insomnia rates in adolescents, emphasizing the prevalence of insomnia and short sleep duration in this age group to highlight its public health significance.

Linda L Stiles (2014). The prevalence of insomnia in the United States ranges from 33% to 50% and is a serious occupational health issue. Workers experiencing insomnia suffer from work performance loss impacting corporate business objectives and worker health and well-being. Studies examining the relationship between insomnia and work performance loss in research and development workers (R & D) are lacking in the current literature. This study was based on the concept of work performance, which covers the physical, mental, and social dimensions of work performance which are critical in meeting R & D goals and objectives. A cross sectional survey comprised of a self-designed demographic and insomnia survey and the Stanford Presenteeism Scale-13 was used to collect data from a sample of 489 R & D workers at a public sector national laboratory. Study data were analyzed with descriptive and inferential statistical procedures including frequency distributions, linear regression, and analysis of variance. A significant relationship was found between insomnia and work performance loss in R & D workers. Demographic factors and comorbid health conditions did not significantly influence this relationship; however, annual salary range, depression and anxiety, and migraines or chronic headaches predicted a significant proportion of work performance loss variability. Implications for positive social change include a better understanding of the relationship

between insomnia and work performance loss in R & D workers. This understanding may lead to improvements in work performance and worker well-being throughout the R & D industry sector.
This study explores the relationship between insomnia and work performance loss in research and development workers, addressing the gap in understanding the occupational consequences of insomnia in specific professional sectors.

Charles M Morin, Christopher L Drake, Allison G Harvey, Andrew D Krystal, Rachel Manber, Dieter Riemann, Kai Spiegelhalder (2015). Insomnia disorder affects a large proportion of the population on a situational, recurrent or chronic basis and is among the most common complaints in medical practice. The disorder is predominantly characterized by dissatisfaction with sleep duration or quality and difficulties initiating or maintaining sleep, along with substantial distress and impairments of daytime functioning. It can present as the chief complaint or, more often, co-occurs with other medical or psychiatric disorders, such as pain and depression. Persistent insomnia has been linked with adverse long-term health outcomes, including diminished quality of life and physical and psychological morbidity. Despite its high prevalence and burden, the aetiology and pathophysiology of insomnia is poorly understood. In the past decade, important changes in classification and diagnostic paradigms have instigated a move from a purely symptom-based conceptualization to the recognition of insomnia as a disorder in its own right. These changes have been paralleled by key advances in therapy, with generic pharmacological and psychological interventions being increasingly replaced by approaches that have sleep-specific and insomnia-specific therapeutic targets. Psychological and pharmacological therapies effectively reduce the time it takes to fall asleep and the time spent awake after sleep onset, and produce a modest increase in total sleep time; these are outcomes that correlate with improvements in daytime functioning. Despite this progress, several challenges remain, including the need to improve our knowledge of the mechanisms that underlie insomnia and to develop more cost-effective, efficient and accessible therapies.
This article aims to review the prevalence, characteristics, and treatment options for insomnia disorder, emphasizing recent changes in classification and therapeutic approaches, and highlighting the need for further research.

AP Amaral, MJ Soares, AT Pereira, S Bos, C Roque, A Macedo (2017). Introduction several epidemiological studies have been conducted to document the prevalence and correlates of insomnia. Most of them confirm their high prevalence in the general population, and a gender difference in the risk for insomnia.AimsTo study the role of gender in the relationship between personality (perfectionism and neuroticism) and insomnia ([IG] insomnia group, [ISG] insomnia symptoms group, and [GSG] good sleepers group).MethodsA total of 549 college students (80.1% females) filled in the MPS (Frost et al., 1990; Hewitt and Flett, 1991), EPI (Barton et al., 1992, 1995), and a self-reported questionnaire to assess insomnia symptoms.ResultsNo differences were found between female and male samples, concerning the dimension of perfectionism – doubts about actions. The IG and the ISG showed higher levels of doubts about actions than the GSG. However, only in female sample the IG and the ISG showed higher levels of concern over mistakes in comparison with the GSG. In males, no significant differences between the sleep groups were found, in which respects concern over mistakes. The level of extroversion was higher in the GSG, but only in male sample. In females, there were no significant differences between the sleep groups in relation to extroversion.ConclusionsNo gender differences were found for the role of doubts about actions in insomnia. Only in females, the dimension – concern over mistakes is important in insomnia, and only in males the dimension – extroversion is important to have a good sleep. These results warrant further research.Disclosure of interestThe authors have not supplied their declaration of competing interest.
The rationale behind this study is to investigate the role of gender in the relationship between personality traits and insomnia, addressing the gap in understanding how personality factors contribute to sleep disturbances differently in men and women.

David A. Kalmbach, Jason R. Anderson, Christopher L. Drake (2018). Sleep reactivity is the trait-like degree to which stress exposure disrupts sleep, resulting in difficulty falling and staying asleep. Individuals with highly reactive sleep systems experience drastic deterioration of sleep when stressed, whereas those with low sleep reactivity proceed largely unperturbed during stress. Research shows that genetics, familial history of insomnia, female gender and environmental stress influence how the sleep system responds to stress. Further work has identified neurobiological underpinnings for sleep reactivity involving disrupted cortical networks and dysregulation in the autonomic nervous system and hypothalamic-pituitary-adrenal axis. Sleep reactivity is most pathologically and clinically pertinent when in excess, such that high sleep reactivity predicts risk for future insomnia disorder, with early evidence suggesting high sleep reactivity corresponds to severe insomnia phenotypes (sleep onset insomnia and short sleep insomnia). High sleep reactivity is also linked to risk of shift-work disorder, depression and anxiety. Importantly, stress-related worry and rumination may exploit sensitive sleep systems, thereby augmenting the pathogenicity of sleep reactivity. With the development of cost-effective assessment of sleep reactivity, we can now identify individuals at risk of future insomnia, shift-work disorder and mental illness, thus identifying a target population for preventive intervention. Given that insomniacs with high sleep reactivity tend to present with severe insomnia phenotypes, patient sleep reactivity may inform triaging to different levels of treatment. Future research on sleep reactivity is needed to clarify its neurobiology, characterize its long-term prospective associations with insomnia and shift-work disorder phenotypes, and establish its prognostic value for mental illness and other non-sleep disorders.
This article explores sleep reactivity and its association with insomnia and mental illness, emphasizing the need for identifying individuals at risk for insomnia and related disorders to inform preventive interventions.

Jenny Theorell-Haglöw, Christopher B Miller, Delwyn J Bartlett, Brendon J Yee, Hannah D Openshaw, Ronald R Grunstein (2018). Research in sleep medicine over the last decades has involved a broad variety of sleep disorders in both men and women. Gender differences have been identified in sleep physiology as well as in the three most common sleep disorders: obstructive sleep apnoea (OSA), insomnia and restless legs syndrome (RLS). However, research on gender differences in sleep medicine appears limited. This clinical review aims to give an updated overview of gender differences, in relation to prevalence, clinical presentation, treatment and quality of life in OSA, insomnia and RLS. Future research directions in the adult population will also be discussed.
This article aims to review gender differences in the prevalence, clinical presentation, treatment, and quality of life related to sleep disorders, addressing the limited research on gender-specific aspects of sleep disorders.

Sophie Wardle-Pinkston, Danica C Slavish, Daniel J Taylor (2019). Cognitive performance has been extensively investigated in relation to insomnia, yet review of the literature reveals discrepant findings. The current study aimed to synthesize this literature with a systematic review and meta-analysis. 48 studies (k = 50 independent samples, n = 4539 total participants) met inclusion criteria. Omnibus meta-analysis revealed insomnia was associated with poorer overall cognitive performance (Hedge's g = −0.24, $p < 0.001$). Analyses by cognitive domain revealed insomnia was specifically associated with impairments in subjective cognitive performance (g = −0.35), and objective measures of perceptual function (g = −0.24), manipulation (g = −0.52) and retention/capacity in working memory (g = −0.30), complex attention (g = −0.36), alertness (g = −0.14), episodic memory (g = −0.29), and problem solving in executive functions (g = −0.39). Age, percent female, publication year, and insomnia measure did not consistently moderate findings. Approximately 44% of studies failed to use diagnostic criteria when categorizing insomnia and cognitive measures varied widely. This indicates a need for standardization of methods assessing insomnia and cognitive performance in

research. Overall, findings from this meta-analysis indicate insomnia is associated with impairment in objective and subjective cognitive performance, highlighting the utility of treating insomnia to potentially improve cognitive outcomes.

The focus of this study is to conduct a systematic review and meta-analysis to synthesize the literature on the association between insomnia and cognitive performance, highlighting the need for standardized methods and understanding of how insomnia affects cognitive outcomes.

SourayaSidani, SepaliGuruge, Mary Fox, Laura Collins (2019). Journal of gender studies 28 (4), 402-413.The higher prevalence of insomnia in women has been attributed to biological factors, which are less likely than cognitive and behavioural factors to play a role in perpetuating insomnia. Gender differences in perpetuating factors have not been extensively examined. This study compared men's and women's self-reports of factors that perpetuate insomnia; experience of symptoms, perceived severity and impact on daytime functioning; and use of strategies to manage insomnia. Data were collected at baseline, using reliable and valid measures, in a project that evaluated behavioural therapies for insomnia. The sample (N = 739) consisted of women (62.4%) and men (37.6%). Gender differences were found in: (1) perpetuating factors: men took more naps and held more unhelpful beliefs about insomnia, whereas women experienced higher pre-sleep arousal; (2) perception of insomnia severity: higher among women; (3) perceived impact of insomnia: higher fatigue among women; and (4) use of strategies (higher in women) to manage insomnia. Gender differences were of a small size but could be associated with women's stress, expression of somatic symptoms, and interest in maintaining their own health to meet multiple role demands.

This article compare men's and women's reports of factors perpetuating insomnia, addressing the gap in understanding gender differences in insomnia perpetuating factors and coping strategies.

Jiefan Ling, Wanqi Sun, Ngan Yin Chan, Jihui Zhang, Siu Ping Lam, Albert Martin Li, Joey Wing Yan Chan, Simon D. Kyle, Shirley Xin Li (2020). Sleep quantity and quality are both important for optimal development and functioning during youth. Yet few studies have examined the effects of insomnia symptoms and objective short sleep duration on memory performance among adolescents and young adults. One-hundred and ninety participants (female: 61.6%) aged from 12 to 24 years completed this study. All participants underwent a clinical interview, a 7-day actigraphic assessment, a battery of self-report questionnaires and cognitive tests to assess working memory and episodic memory. Insomnia symptoms were defined as a score ≥ 9 on the Insomnia Severity Index, and objective short sleep duration was defined as average total sleep time less than 7 hr for those aged 12–17 years, and 6 hr for those aged 18 years and above as assessed by actigraphy. Insomnia symptoms were significantly associated with worse self-perceived memory ($p < .05$) and poorer performance on the digit span task ($p < .01$), but not the dual N-back task and verbal learning task. There was no significant difference in any of the memory measures between participants with objective short sleep duration and their counterparts. No interaction effect was found between insomnia and short sleep duration on any of the objective memory outcomes. Insomnia symptoms, but not objective short sleep duration, were associated with poorer subjective memory and objective working memory performance in youths. Further studies are needed to investigate the underlying mechanisms linking insomnia and memory impairments, and to delineate the long-term impacts of insomnia on other aspects of neurocognitive functioning in youth.

The study aimed to investigate the effects of insomnia symptoms and objective short sleep duration on memory performance among adolescents and young adults. Given the crucial role of sleep in cognitive development and functioning, understanding how insomnia impacts memory in youth is essential for informing interventions and addressing potential cognitive impairments. By examining subjective and objective measures of sleep and memory, the study aimed to contribute to the understanding of the relationship between sleep disturbances and cognitive function during adolescence and young adulthood.

Richard S. Lazarus (2020).A sound theory of psychological stress must be capable of helping us understand the variations in the ways individuals appraise adaptational transactions with their environments. On the basis of knowledge gained from traditional research methods, there are three main strategies for reducing stress in the workplace. One is to alter the conditions of work so that they are either less stressful or less counterproductive for effective coping. The second strategy is to try to help those who are having difficulty adapting to conditions that are impossible or difficult to change to cope more effectively. The third strategy is transactional and requires that we identify the individual or group relationships with the work setting that are stressful, and try to change them for the individual or group on the basis of relational findings. Emotion-focused coping consists of efforts to regulate the emotional distress caused by harm or threat.
The rationale behind this study is to discuss strategies for reducing workplace stress, emphasizing the importance of understanding individual appraisals of stressors and the need for tailored interventions to address workplace stress effectively.

Jolijn Boer, NadyaHöhle, Lisa Rosenblum, IngoFietze (2023). There is a distinct preponderance of female insomniacs when compared to male insomniacs. The aim of this study was to examine possible gender differences in the causes for insomnia, and the phenotypes of insomnia, and to investigate whether gender-specific insomnia diagnosis and treatment could be relevant in clinical practice. Data were collected from 121 insomniac patients by a medical specialist in the framework of normal clinical practice in Germany. The data consist of the patient's medical history and various sleep-related patient questionnaires. Data from both genders were tested for independence using chi-square tests and Mann–Whitney U tests. We found a correlation between the gender of the patient and insomnia phenotypes in several aspects: concomitant lipometabolic disorders, diabetes mellitus, and high BMIs are more common in male insomniacs ($p < 0.05$). Frequency of insomnia occurrence in certain age groups, insomnia severity, distribution of SOI (sleep onset insomnia), SMI (sleep maintenance insomnia) and combined SOI + SMI, sleep duration, the time needed to seek medical consultation, trying out sleep-inducing drugs/techniques and the trigger, etiology and familial predisposition of the insomniac disorder were independent of the patient's gender. We would like to re-evaluate the results with a larger number of patients in a further study.
The aim of this article is to examine gender differences in the causes and phenotypes of insomnia to inform clinical practice by identifying potential gender-specific diagnostic and treatment approaches for insomnia.

**METHODOLOGY:**

**Aim:** To study the gender differences across young working population in investigating the role of stress in insomnia.

**Objectives:** To investigate the relationship between stress and insomnia among young working professionals.

1. To study gender differences in stress levels among young working professionals.
2. To study gender differences in insomnia severity among young working professionals.
3. To contribute to the understanding of stress-induced insomnia patterns among young adults based on gender.
4. To provide recommendations for addressing stress and insomnia among young working adults based on findings.

**Hypothesis:**

It was hypothesized that:

•There will be a significant positive relationship between stress and insomnia in young working adults.

•There will be a significant gender difference in stress scores, such that males will report higher stress than females.

•There will be a significant gender difference in insomnia severity scores, such that males will report higher insomnia severity than females.

**Variables:**

Independent Variable: Gender

- Male
- Female
- Stress Levels

Dependent Variables:

- Insomnia Severity

**Sampling Design:**

Population Description:

This study focuses on individuals aged 18 to 35 actively engaged in the workforce, encompassing a dynamically involved demographic.

Sampling Framework:

An exhaustive list is compiled, including eligible individuals within the specified age range. This thorough approach ensures inclusivity and provides a varied representation of the broader young working population.

Sampling Method:

The approach of voluntary response sampling is utilized, enabling individuals from the established sampling frame to autonomously opt to participate. This method fosters inclusivity and active involvement, with participants voluntarily choosing to contribute to the study by responding. Each individual is assigned a distinctive identifier through this process, with the goal of selecting 150 participants.

Sample Magnitude:

Determining a sample size of 150 individuals strikes a balance between statistical significance and practical considerations. This decision is aimed at generating substantial insights into gender differences, stress, and insomnia within the young working cohort, employing a voluntary response sampling approach.

**Inclusive and exclusive criteria:**

In a research study examining gender differences within the young working population concerning the impact of stress on insomnia, the criteria for participant inclusion are outlined as follows:

Inclusion Criteria:

1. Age Bracket: Individuals falling within the age range of 18 to 35 years.
2. Employment Status: Participants currently engaged in employment.
3. Gender: Both male and female participants are eligible.
4. Absence of Diagnosed Sleep Disorders: Participants without a history of diagnosed sleep disorders, unless the study focuses on specific groups with documented conditions.

Conversely, the exclusion criteria encompass:

Exclusion Criteria:

1. Age beyond Specified Range.
2. Unemployed or Student Status.
3. History of Diagnosed Sleep Disorders or other medical conditions impacting sleep.
4. Current Usage of Medications Known to Significantly Affect Sleep.
5. Substance Abuse or Dependence.
6. Any Other Factor That Might Confound the Relationship between Stress, Gender, and Insomnia.

**Research Design:**
Quantitative Research Design: Survey-Based Study

Objective:
Explore how gender differences impact stress and insomnia in young working individuals using surveys and questionnaires.

Key Components:

1. Sampling:
   - Use a method where individuals aged 18 to 35 from various industries voluntarily decide to participate.

2. Variables:
   - Independent Variables:
     - Gender
     - Stress levels
   - Dependent Variable:
     - Insomnia severity

3. Data Collection:
   - Conduct surveys and questionnaires to gather data on gender, stress levels (using recognized stress assessment tools), and insomnia severity (using established insomnia severity scales).

4. Sample Size:
   - Determine an appropriate sample size based on statistical considerations to ensure reliable results.

5. Data Analysis:
   - Apply statistical methods, like regression analysis, to understand the connection between gender, stress levels, and insomnia severity.
   - Analyze subgroups to find potential differences among different gender categories.

6. Ethical Considerations:
   - Protect participant privacy and secure informed consent.
   - Adhere to ethical guidelines throughout the research.

Advantages of Survey-Based Study:
   - Allows a thorough investigation into gender differences, stress, and insomnia among young working individuals.
   - Surveys and questionnaires offer a standardized way to collect responses.

- Facilitates quantitative analysis to uncover patterns and connections among variables.

This research design emphasizes the use of surveys and questionnaires to explore gender differences, stress, and insomnia within the specified age group of the working population, employing a voluntary participation approach.

**Tools:**

The Perceived Stress Scale (PSS-14) given by Sheldon Cohen in 1983 and the Insomnia Severity Index (ISI) given by Charles M. Morin in 1993 are widely used tools in psychological and health research.

1. Perceived Stress Scale (PSS-14):
   - Purpose: Designed to measure the perception of stress in individuals.
   - Structure: Consists of 14 items that assess the degree to which situations in one's life are appraised as stressful.
   - Scoring: Responses are typically rated on a Likert scale, ranging from "Never" to "Very Often."
   - Interpretation: Higher scores indicate higher levels of perceived stress.
   - Application: Useful in assessing the subjective experience of stress across various populations.

2. Insomnia Severity Index (ISI):
   - Purpose: Developed to evaluate the severity of insomnia symptoms.
   - Structure: Comprises seven items addressing different aspects of insomnia, including sleep onset, sleep maintenance, early morning awakening, and the impact of insomnia on daily functioning.
   - Scoring: Responses are based on a Likert scale, with total scores categorizing individuals into different levels of insomnia severity.
   - Interpretation: Higher scores indicate greater insomnia severity.
   - Application: Valuable in clinical and research settings to assess and monitor insomnia symptoms.

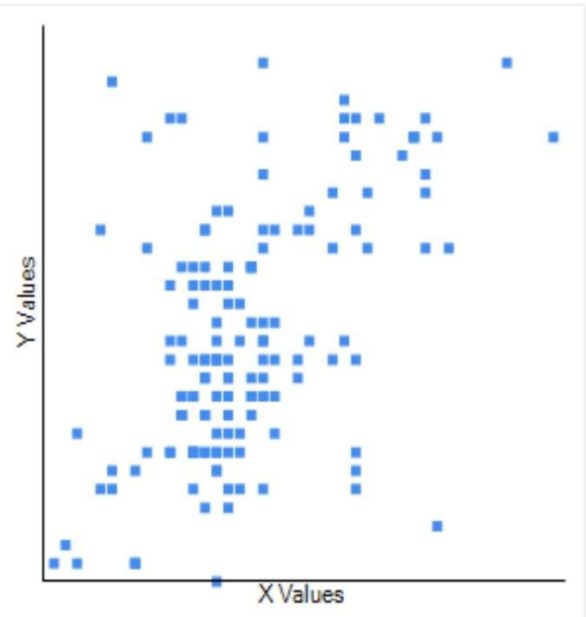
Considerations for Using These Tools:
   - Validity and Reliability: Both tools have established validity and reliability, ensuring their effectiveness in measuring stress and insomnia severity.
   - Cultural Sensitivity: Consider cultural variations in interpretation and adaptation if your study involves diverse populations.
   - Ethical Considerations: Ensure participants' informed consent and communicate the purpose of using these scales clearly.

**RESULTS:**

To examine the hypotheses, we conducted a Pearson correlation and independent-samples t-tests. The correlation analysis revealed a moderate positive correlation between stress and insomnia ($r = 0.525$, $N = 151$, $p < 0.001$). This indicates that higher stress levels were associated with greater insomnia severity in our sample (supporting H1). The Pearson correlation results are shown in Table 1.

- Stress and Insomnia

| N | r | P |
|---|---|---|
| 151 | 0.525 | <.001 |




X Values (Stress)
Σ = 4470
Mean = 29.603
Σ(X - Mx)2 = SSx = 8726.159

Y Values (Insomnia)
Σ = 1988
Mean = 13.166
Σ(Y - My)2 = SSy = 6868.861

X and Y Combined
N = 151
Σ(X - Mx)(Y - My) = 4064.934

R Calculation
$r = \Sigma((X - My)(Y - Mx)) / \sqrt{((SSx)(SSy))}$
$r = 4064.934 / \sqrt{((8726.159)(6868.861))}$
=0.525

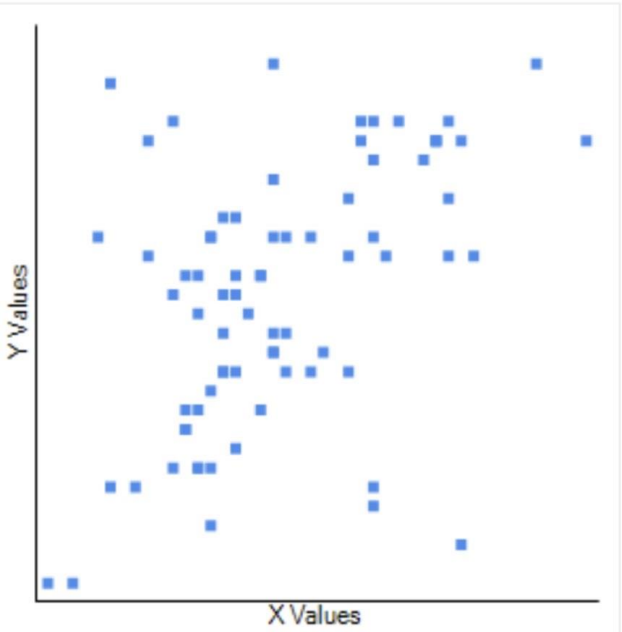
The value of R is **0.525.**

In our study investigating the relationship between stress and insomnia, we observed a correlation coefficient of 0.525, indicating a moderate positive correlation between these two variables within our sample population. It suggests that as stress levels increase, so does the likelihood of experiencing insomnia, and vice versa.

- Correlation between stress and insomnia amongst women

Independent-samples t-tests compared stress and insomnia scores by gender. As shown in Table 2, males ($M = 31.0$, $SD = 6.61$) reported significantly higher stress than females ($M = 28.0$, $SD = 8.30$), $t(149) = 2.47$, $p = .015$. Similarly, males ($M = 14.0$, $SD = 3.46$) had significantly higher insomnia severity than females ($M = 12.0$, $SD = 3.93$), $t(149) = 3.32$, $p = .001$. These results support the second and third hypotheses.

| Variable | Group | N | Mean | SD | t | df | p |
|---|---|---|---|---|---|---|---|
| Stress | Males | 80 | 31.0 | 6.61 | 2.47 | 149 | .015 |
| | Females | 71 | 28.0 | 8.30 | | | |
| Insomnia | Males | 80 | 14.0 | 3.46 | 3.32 | 149 | .001 |
| | Females | 71 | 12.0 | 3.93 | | | |




X Values {Women`s Stress)
∑ = 2362
Mean = 31.493
∑(X - Mx)2 = SSx = 5996.747

Y Values (Women`s Insomnia)
∑ = 1192
Mean = 15.893
∑(Y - My)2 = SSy = 3505.147

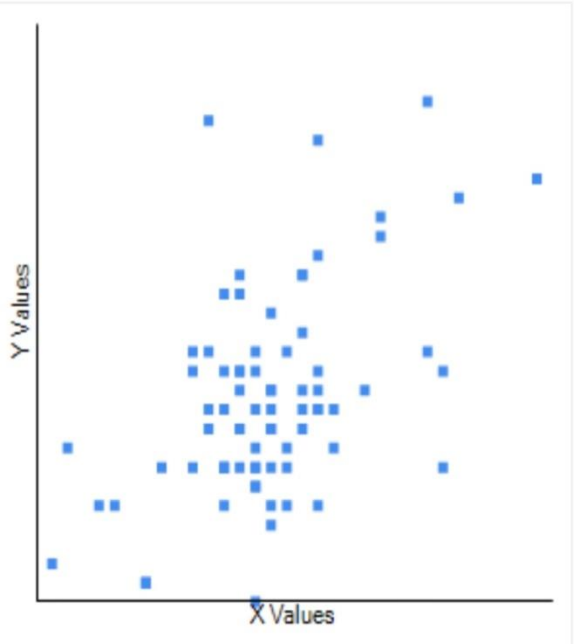
X and Y Combined
N = 75
∑(X - Mx)(Y - My) = 2136.947

R Calculation
r = ∑((X - My)(Y - Mx)) / √((SSx)(SSy))

r = 2136.947 / √((5996.747)(3505.147)) = 0.4661

The value of R is 0.4661.
Although technically a positive correlation, the relationship between the variables is weak (the nearer the value is to zero, the weaker the relationship).
“The correlation coefficient of 0.4661 suggests a moderate positive association between women's stress and insomnia in our study. This implies that, on average, higher levels of stress are linked to an increase in insomnia. However, it's important to note that the strength of this relationship falls within the moderate range. While our findings support a connection between stress and insomnia, it's not an exceptionally strong correlation, allowing for variability in the relationship between these two variables."

- Correlation between stress and insomnia amongst men




X Values (Men`s Stress)
∑ = 2108
Mean = 27.737
∑(X - Mx)2 = SSx = 2196.737

Y Values (Men`s Insomnia)
∑ = 796
Mean = 10.474
∑(Y - My)2 = SSy = 2254.947

X and Y Combined
N = 76
∑(X - Mx)(Y - My) = 1159.474

R Calculation
$r = \sum((X - My)(Y - Mx)) / \sqrt{((SSx)(SSy))}$

$r = 1159.474 / \sqrt{((2196.737)(2254.947))} =$ 0.521

The value of R is 0.521.
In our study examining the association between stress and insomnia specifically among men, we identified a correlation coefficient of 0.521. This correlation suggests a moderate positive relationship between stress and insomnia within the male population under investigation. Put simply, as stress levels increase among men, there tends to be a corresponding increase in the likelihood of experiencing insomnia, and vice versa.

**Discussion:**
The first hypothesis predicted a positive relationship between stress and insomnia. Consistent with this prediction, we found a significant moderate positive correlation ($r = 0.525$, $p < .001$) between stress and insomnia. This result aligns with prior evidence linking stress to sleep problems. For example, Yang et al. (2018) reported that high job stress significantly increases the risk of insomnia. Similarly, Haynes et al. (1981) demonstrated that acute presleep stressors lead to elevated physiological arousal, contributing to sleep disruption. Together, these findings support the view that stress plays a key role in the development of insomnia.

The second hypothesis expected a gender difference in stress levels, with males reporting higher stress than females. Our results supported this hypothesis: males ($M = 31.0$) had significantly higher stress scores than females ($M = 28.0$), $t(149) = 2.47$, $p = .015$. This suggests that in our sample of young professionals, men experienced greater stress. While some studies report that women often indicate higher perceived stress in work settings, our finding may reflect specific socio-cultural factors (e.g., traditional expectations on male providers) or differences in stress reporting and coping strategies.

The third hypothesis predicted a gender difference in insomnia severity, with males reporting higher insomnia than females. This was also supported: males (M = 14.0) reported significantly higher insomnia scores than females (M = 12.0), t(149) = 3.32, p = .001. This result is somewhat unexpected given that many epidemiological studies find higher insomnia prevalence in women (Kerkhof, 2017). For example, prior research has shown women to be significantly more likely than men to experience insomnia symptoms. The divergence in our sample may indicate that the elevated stress observed in males contributed to their higher insomnia scores. Alternatively, it could suggest that women in this sample engaged in more effective coping or sleep-supportive behaviors. Further research should investigate these possibilities.

In summary, all three hypotheses were supported. We observed a significant positive correlation between stress and insomnia, and significant gender differences in both variables (males > females). These findings highlight the importance of addressing stress and sleep issues together and in a gender-sensitive manner. For instance, workplace wellness programs could integrate stress reduction training with sleep hygiene education, with components specifically tailored to the needs of young men in this context.

**Conclusion:**

This study examined the interplay between stress and insomnia among young working adults, with a focus on gender differences. The findings revealed a moderate positive correlation between stress and insomnia, indicating that individuals with higher stress tend to experience more severe sleep disturbances. Additionally, males in this sample reported significantly higher stress and insomnia scores than females. These results underscore the need for gender-sensitive interventions in occupational health – for example, providing stress management and sleep-health support that considers the distinct challenges faced by young men and women.

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