



# **The Role of Sleep Quality and Aggression among Working and Non - Working Women**

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## **Abstract**

This research aims to explore the correlation between sleep quality and aggression in women who are employed and those who are not, while considering various socio- demographic variables like name, age, marital status, and occupation. The study sample consisted of 160 women, and data collection was done through a combination of online platforms and physical questionnaires. The gathered data underwent analysis using the Statistical Package for the Social Sciences (SPSS) software after ensuring it met the assumptions of normality. To assess the differences in sleep quality and aggression levels, the U test was employed, with a focus on the employment status of the participants. The key findings of this investigation reveal a significant association between sleep quality and occupation, distinguishing between working and non-working women. However, no notable variances were observed concerning aggression levels and occupation among the female participants.

## **Introduction**

### **Sleep Quality**

Sleep Quality is the measurement of how well you're sleeping, in other words, whether your sleep is restful and restorative sleep. According to Rosipal, Lewandowski, and Dorffner (2013), sleep quality refers both to the subjective perception of sleep and objective measures derived from physiological. The interactional between subjective and objective can help to lead in a better understanding of sleep. In Buysse (1989), objective aspects are quantitative markers like sleep duration, while subjective aspects include

beliefs about the depth and restfulness of one's (as cited in Visser, Hirsch, Brown, Ryan. & Moynihan, 2014). However, many researchers came to a point that sleep quality is still poorly defined by most of the researchers as it depends on one's perspective view of their own Sleep Quality (Harvey, Stinson, Whitaker, Moskowitz & Virk, 2008; Krystal & Edinger, 2008 as cited in German & Turner, 2013).

However, it still can distinguish the difference between good sleep and poor sleep. According to the Harvey et al., (2008) and Buysse (2014), good sleep is characterized by subjective satisfaction, suitable timing, high efficiency, more energy, better psychological functioning and stay focused in waking hours. However, poor sleep is a key feature of insomnia, poor sleep can bring many negative outcomes in their life like feel fatigue. Since the Sleep Quality doesn't have a clear definition, past research stated that the sleep quality can be described from a wide range of aspects, such as difficulty in falling asleep, the length of time it takes to accomplish the transition from full wakefulness to sleep, difficulty in maintaining sleep, awakenings at night, premature final morning awakening, how refreshed a person feels after sleep and a person's own view of sleep quality (Tynjala, Kannas, Levalahti, & Valimaa, 1999).

Sleep Quality is the measurement of how well you're sleeping in other words, whether your sleep is restful and restorative. It differs from sleep satisfaction, which refers to a more subjective judgment of how you feel about the sleep you are getting. Sleep quality is more complicated to measure than sleep quantity, but it's not entirely subjective. Guidelines give an overview of sleep quality goals, and they include some individual and age differences.

### **Methods to measure Sleep Quality**

- Sleep latency: This is a measurement of how long it takes you to fall asleep. Drifting off within 30 minutes or less after the time you go to bed suggests that the quality of your sleep is good.
- Sleep waking: This measures how often you wake up during the night. Frequent wakefulness at night can disrupt your sleep cycle and reduce your sleep quality. Waking up once or not at all suggests that your sleep quality is good.
- Wakefulness: This measurement refers to how many minutes you spend awake during the night after you first go to sleep. People with good sleep quality have 20 minutes or less of wakefulness

during the night.

- Sleep efficiency: The amount of time you spend actually sleeping while in bed is known as sleep efficiency. This measurement should ideally be 85 percent or more for optimal health benefits. Refers to a range of behaviors that can result in both physical and psychological harm to you, others, or objects in the environment.

### **Poor Sleep Quality**

Poor Sleep Quality is characterized by the opposite factors. If it takes you longer than 30 minutes to fall asleep, if you wake up during the night more than once, or if it takes you longer than 20 minutes to drift back asleep after waking up, your sleep quality is considered poor. You're likely to feel tired the next day, even if you get the recommended number of sleep hours. It is important to note that there are some individual and age differences in these factors. For example, it's common to wake up more frequently during the night as we get older. As long as you return to sleep quickly, this won't hurt your sleep.

### **Theoretical Foundations of Sleep Quality**

Several theories have been proposed to explain the function of sleep and why it is necessary. These theories include the restorative theory of sleep, the cognitive theory of sleep; the energy conservation theory of sleep and the adaptive theory of sleep.

#### **• Restorative Theory**

This theory supports the notion that sleep is necessary to revitalise and restore the physiological processes that help in rejuvenating the body and mind. With this theory, it is postulated that NREM sleep is important for restoring physiological functions and REM sleep is important in the restoration of mental functions.

Findings of many biological functions occurring primarily during sleep support the restorative theory of sleep. Some of these functions include:

- Muscle repair
- Cell repair
- Tissue growth
- Protein synthesis

- Release of many of the important hormones for growth

Sleep therefore allows for the body to repair and replete several cellular components that are needed for physiological functions and that become depleted during the day. This supports the concept of allowing our patients to get sufficient rest after surgeries in order to promote efficient recovery processes.

- **Cognitive Function Theory**

Sleep is important for cognitive function and memory formation. Studies on sleep deprivation show disruption in cognition and also indicate memory deficits. These disruptions lead to :

- Impairment in the attention-maintaining ability
- Impairments in decision making
- Difficulty recalling long-term memories

These types of disruptions are also positively correlated to the amount of sleep deprivation, the impairments become more severe as the sleep deprivation time increases.

It has also been shown that slow-wave sleep (NREM N3) after learning a new task has the ability to improve resultant performance on that task. Stickgold (2005) also showed that slow-wave sleep is vital for effective memory formation.[17] It is therefore not the best idea to stay up all night studying for a test, as it may not be effective and may even be counterproductive.

- **Energy Conservation Theory**

Sleep has been implicated as a means of energy conservation. The energy conservation theory suggests that the main function of sleep is to reduce energy demand during a part of the day and night. The fact that the body has a decreased metabolism of up to 10% during the sleep, supports this theory. Body temperature and calorie demand drop during sleep and increase when we are awake, again supporting the hypothesis that sleep plays an important role in helping to conserve energy resources.

- **Adaptive Theory**

The adaptive theory is also referred to as the evolutionary theory of sleep or the inactivity theory. It is one of the earliest theories that explain the function of sleep. This theory suggests that sleep is a behaviour which enhances our overall survival. It has been suggested that human beings evolved at a faster rate compared to other species due to our focus on getting rest.

This theory suggests that all species have adapted to sleep during periods of time when wakefulness will put them more at risk of danger eg that sleep is an adaptive behavior to keep us away from night and darkness when predator species enjoy advantage in vision and stealth.

Similar to hunger and thirst, sleepiness may represent an underlying physiological need which is only satisfied by sleeping and it's integral to survive of individuals.

## **Aggression**

O' Neal (1994) defined "Aggression as any behaviour that hurt, harm or injury to other people". Aggressive behavior can be conceptualized as the observable expression of Aggression, which can be damage the persons (Liu et al., 2013). According to Anderson and Bushman (2002) have defined human Aggression as "any behavior directed and immediately and intent to hurt people". According to Allen and Anderson (2017) also stated that the Aggressive behavior will hurt the victims, and the victims is motivated to avoid the behavior. A broad definition will include a broad range of actions or behaviors from the people which are in no harmful stimulation is introduced and purposely withholding info from another person to a lot of manifestation acts of verbal and physical Aggression, it also can cause the violence. According to Bushman and Anderson (2001) stated that there are two types of Aggression which is affectional and instrumental Aggression. Affectional Aggression is an Aggression that can bring negative effect to the people. Instrumental aggression is an aggressive behavior to achieve the goal and is comparatively barren of effect. However, Bushman and Anderson (2001); Tedeschi and Felson (1994) mentioned there is not a clear distinction between effective and instrumental Aggression; the theorists have recommended that abandoning the affective-instrumental distinction.

In psychology, the term Aggression" refers to a range of behaviors that can result in both physical and psychological harm to yourself, others, or objects in the environment.

Aggression centers on hurting another person either physically or mentally. While we all may feel aggressive on occasion, when aggression becomes pervasive or extreme, it may be a sign of an underlying mental health condition, a substance use disorder, or another medical issue.

Aggression can serve a number of different purposes, including:

- Expressing anger or hostility
- Asserting dominance
- Intimidating or threatening
- Achieving a goal
- Expressing possession
- Responding to fear
- Reacting to pain
- Competing with others

Because aggressive behavior is intended to harm someone who doesn't want to be harmed, it must involve action—simply thinking about harming someone or feeling angry isn't enough, and accidentally harming someone doesn't qualify. Aggressive behaviors can be physical, like beating, hitting, kicking, or stabbing another person. Damaging property is also a form of physical aggression. Verbal, which may include mocking, name-calling, and yelling. Relational, which is intended to harm another person's relationships. This can include spreading rumors and telling lies about someone else.

### **Different types of Aggression**

- **Passive Aggression:** like ignoring someone during a social event or offering backhanded compliments. Passive-aggressive behavior is usually intended to allow harm to come to someone, rather than causing harm directly.
- **Pulsate Aggression:** Especially when it's caused by anger, triggers the acute threat response system in the brain, involving the amygdala, hypothalamus, and periaqueductal gray. This form of aggression is not planned and often takes place in the heat of the moment. If another car cuts you off in traffic and you begin yelling and berating the other driver, you're experiencing impulsive aggression.

- Instrumental Aggression: Also known as predatory aggression, instrumental aggression is marked by behaviors that are intended to achieve a larger goal. Instrumental aggression is often carefully planned and usually exists as a means to an end. It's likely that several different factors are involved, including someone's biology, environment, and psychological history.

### **Biological Factors**

There may be genetic and hormonal factors that influence aggression. Imbalances in certain hormones, like testosterone and cortisol, and neurotransmitters, like serotonin and dopamine, may be linked to aggression. These imbalances can occur for a number of reasons, including genetics.

Brain structure can also influence aggression. People with structural abnormalities in the amygdala tend to show more aggression than their peers. Changes in other areas of the brain may also contribute to aggressive behavior.

### **Environmental Factors**

People who grow up witnessing aggression may be more likely to believe that violence and hostility are socially acceptable. Experiencing trauma during childhood can also lead to aggressive behavior in adulthood.

Psychologist Albert Bandura's famous bobo experiment demonstrated that observational learning can also play a role in how aggression develops. In this experiment, children who watched a video clip where an adult model behaved aggressively toward a Bobo doll were more likely to imitate those actions when given the opportunity.

### **Psychological Factors**

Several mental health conditions can be associated with aggressive behavior, including:

- Attention-deficit/hyperactivity disorder (ADHD)
- Bipolar disorder
- Borderline personality disorder (BPD) • Narcissism
- Post-traumatic stress disorder (PTSD)

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**Theoretical Foundations of Aggression****• The restoration theory of aggression**

The restoration theory proposed by Dr Ian Oswald (1966) suggests that sleep is essential to restore any physiological processes that are degraded through use during the day. Sleep helps to restore the homeostatic balance of the body. Oswald (1980) stated that REM sleep was necessary for brain repair through the stimulation of protein synthesis and NREM sleep restores bodily processes which have deteriorated during the day. Many restorative processes such as digestion, removal of waste products and protein synthesis do appear to occur during sleep.

The restoration theory suggests different functions for the stages of sleep. For example, patients who survive drug overdoses and withdrawal, and other brain 'insults' (such as intensive electroconvulsive therapy), experience increases in REM sleep. These increases are consistent with the estimated time for the half-life of proteins in the brain, that is, in a sixweek period, about half the brain's total protein is replaced and this is the approximate length of the increased REM period. Sleep deprivation studies have been cited as evidence of the restoration theory.

The brain plasticity theory by Adolf Meyer (1902) suggests that the brain needs some period of time for critical changes to occur. During sleep, circuits in the brain undergo consolidation processes that are important for memory formation. For example, academic performance and examination grades worsen as a person's nightly sleep decreases. Both the REM and NREM3 phases of sleep are important for different types of memories, and studies suggest that declarative memory, pieces of information about facts, benefits more from slowwave sleep while procedural memory, the learning of motor skills, is enhanced by REM sleep

**• Social learning theories of aggression**

Bandura proposed that aggression can also be learnt by the indirect mechanism of observational learning. Social learning theory maintains that children learn through a process of imitation. Aggressive acts carried out by a role model will be internalised by an individual and reproduced in the future. If the role model's behaviour is seen to be rewarded, then a child can learn that this is an effective way of getting what they want. Through this process of vicarious reinforcement, rewards that are witnessed as a result of



aggression result in the behaviour being seen as acceptable and then reproduced.

Bandura proposes that there are five main cognitive factors that mediate control of the aggressive behaviour:

- Attention-A person/child must attend to the aggressor. So a child must pay attention to an act of aggression carried out by a role model; for instance, when a child engages in a computer game or watches a violent film they are attending to the aggression.
- Retention - To model the behaviour, it needs to be placed into LTM, which enables the behaviour to be retrieved. A child needs to remember the aggression that they have witnessed.
- Production - The individual needs to be able to reproduce the behaviour, i.e. have the physical capabilities. So for instance aggression displayed by superheroes is less likely to be imitated if the child does not possess the physical capabilities to actually carry out the behaviour.
- Motivation - An individual must be expecting to receive positive reinforcement for the modelled behaviour. A child must expect they will get some kind of reward from carrying out aggression. This doesn't have to be materialistic but could be linked to gaining higher status in the eyes of their peers.
- Self-efficacy - Individuals must believe that their behaviour will attain a goal, they must have confidence in their own ability to carry out the action and that they will be rewarded for that action. Self-efficacy relates to the factor of self- belief in one's actions. If a child decides aggression will be an appropriate action, they must be confident that they can carry out the behaviour and that it will end up in a positive outcome.

Bandura believed aggressive reinforcement in the form of imitation of family members was the most prominent source of behaviour modelling. Parents are the primary role models for children; through a process of observation and identification their behaviour is modelled. The boy who watches his father attack his mother is more likely to become an abusive parent and husband. In addition to the role models within the family, Bandura proposed that role models in the media can provide a source of vicarious reinforcement which can lead to aggressive behaviour being replicated. Bandura proposed that these role models can provide a child with a 'script' to guide their behaviour.

### • Sigmund freuds instinct theories of aggression

Sigmund Freud defined "instinct" as an involuntary stereotyped response to a distinct stimulus and is close to the English definition of reflex. According to Freud, an instinct is a basic, unlearned, preprogrammed pattern of behavior that is to be found in all individuals of every species.

Freud's theory says that two powers drive human behavior. First, there are the life instincts-Eros, which cause us to seek pleasure. Second, there are the death instincts Thanatos, where he theorized that these were indications of our impulses towards self- destruction or damage that we may be unaware of.

- Eros or Life instincts: Includes: engaging in sex, eating, and other activities to be alive
- Thanatos or Death instincts: Includes: engaging in aggressive behaviors like fights, stunts, and not caring about survival.

He explained that all animals, social or otherwise, have aggressive instincts, which drive them to be involved in contentious activities. These aggressive activities help unleash the instinctual energy called catharsis, the purification of guilt.

### Statement of the problem

The working and non-working women are those who are pursuing their careers and ambition after passing higher education, which is the Bachelor's degree. The present study is intended to examine the relationship between Sleep Quality, which is the measurement of how well you're sleeping; in other words, whether your sleep is restful and restorative among working and non- working women. As they are the leading characters of our developing country it is necessary to access the level of Aggression to understand the impact of Aggression in their life.

### Variables

The variables used in the study were sleep quality , aggression among working and non-working women.

### Objectives

- To analyze the difference in sleep quality among working and non-working women.
- To analyze the difference in aggression among working and non working women.

## Hypothesis

- There is significant difference between Sleep quality in working women and nonworking women.
- There is no significant difference between Aggression in working women and nonworking women.

## Need and Significance of the study

Adequate sleep contributes to a women's overall health and well-being. Women should get the proper amount of sleep at night to help stay focused, improve concentration, and improve academic performance. Not getting enough quality sleep regularly raises the risk of many diseases and disorders. These range from heart disease and stroke to obesity and dementia. Further, the intervention to reduce aggressive behavior and improve mental health program among working womens. Sometimes, the pace of modern life barely gives you time to stop and rest. It can make getting a good night's sleep on a regular basis seems like a dream. But sleep is as important for good health as diet and exercise. Good sleep improves your brain performance, mood, and health.

## Reviews of literature

### Review

Zi-Ting Chen, Hsiao-Tzu Wang, Ke-Hein Chuch, I-Chao Liu, Chien-Ming Yang (2021) conducted a study titled "An exploration of the sleep quality and potential violence among patients with schizophrenia in community. The purpose of this study was to explore the influences of demographic characteristics, psychiatric symptom severity, and sleep quality in community patients with schizophrenia on the risks of potential violence and its sub dimensions (i.e., physical aggression, verbal aggression, anger, and hostility). This study adopted a cross-sectional research design. Using convenience sampling, 78 community patients with schizophrenia were recruited from psychiatric outpatient clinics, day wards, and those who received home-care services. This study discovered that sleep quality is a crucial factor that influences the risks of potential violence. Analysis on the sub dimensions revealed that having a violence history during the preceding month and sleep quality are crucial factors that influence physical aggression. In addition, sleep quality is a crucial factor that influences the occurrence of anger. Age and sleep quality substantially influence hostility. However, this study did not identify any crucial factors that influenced verbal aggression. In the future, community nursing professionals should collect data on the patients' age,

whether the patients exhibited violence behavior during the preceding month, and their sleep quality to prevent risks of potential violence, physical aggression, anger, or hostility.

Jatalie D.Dautovich SarahGhose DanaSchreiber (2020) conducted a study titled "Sleep quality and anger expression: An examination of psychosocial mechanisms across the adult lifespan". Data from national sample of 816 adults from the Midlife in the United States dataset were used to link sleep quality to anger expressed outwards via psychosocial mediators. Using moderated parallel mediation models, poorer sleep quality predicted the expression of anger outwards via emotional (angrier affect) and cognitive (poorer perceptions of solidarity with family [0.001, 0.025], and affective solidarity towards a spouse or partner (0.019, 0.068]) pathways. However, there were significant age differences in these pathways with anger expression for older adults less driven by angry affect and more so by perceptions of solidarity with a spouse or partner. Sleep quality is tied to cognitive perceptions of relationships, although the target of these perceptions, and the subsequent links with anger expressions, depends on age. Therapeutic interventions for relational skills may need a different focus at different time points across the lifespan. Although angry affect emerged as a pathway for younger and middle-aged adults, managing anger may be less relevant than coping with perceptions of interpersonal relationships for older adults.

Wong choon wei (2019), In Malaysia, there have many young adults' issues which have related to sleep quality and aggression. Sleep quality can affect the academic performance, individual of psychological and physical health while aggressive behavior was mostly happened in young adults like vandalism. Sleep quality and aggression has proven there have correlated with each other. However, it was not clearly understood there have a correlated with each others. Thus, this study aimed to investigate the sleep quality and aggression among young adults in Malaysia. This is a correlational study that uses a quantitative, cross-sectional research design. A total of three hundred and ninety-two Malaysia young adults were recruited using convenient sampling method. Pittsburgh Sleep Quality Index (PSQI) and Buss-Perry Aggression Questionnaire (BPAQ) were used in this study. Pearson correlation test was used to measure the relationship between both variables which are sleep quality and aggression and the results presented significance. Independent ttest was used to measure between the gender difference and both variables, the results indicated that there was no significant between the male and female in sleep quality but male higher sleep quality than female. Furthermore, another result indicted that there was no significant between the male and female in aggression but male higher aggression level then female. Findings in this

study can be used as a fundamental of future research. The future study should focus on different kind of occupation and education background, applying longitudinal design, and stratified random sampling to improve the generalization ability of results.

Fatima Al Beshr, Teresa Arora (2019) *Assessing The Relationship Between Sleep Quality, Anger And Aggression* The relationship between sleep duration and various mood states has been previously documented. Short sleep duration has been linked to negative emotions, including anger, across all age groups.. The purpose of this cross-sectional study was to investigate the potential relationships between subjective sleep quality, anger and aggression in adults residing in the United Arab Emirates. A total of 50 participants, aged 18-50 years, were recruited. The sample was comprised of 72% females and 28% males who completed three previously validated and reliable questionnaires. Subjective sleep quality was measured using the Pittsburgh Sleep Quality Index (PSQI). Levels of aggression was assessed using the Buss-Perry Aggression Questionnaire (BPAQ) and its four components (anger, hostility, physical aggression, verbal aggression), where higher scores indicated higher levels of aggression. Forty-four percent of the samples were good quality sleepers and 56% were classified as poor quality sleepers. Poor sleep quality is associated with higher levels of anger and aggression in adults in the United Arab Emirates. Future recommendations would be to assess the longitudinal relationship between sleep quality and anger as well as aggression to determine cause-effect associations.

Eid Jane L. Ireland, Isabella J.M. Niesten (2017) conducted a study titled *Relationship between sleep quality and aggression in European sample*. The purpose of this paper is to explore the relationship between sleep quantity, subjective sleep quality and aggression, hostility and well-being levels among adults in a non-clinical population. In total, 201 participants aged 18 and above from Germany, UK and the Netherlands completed an online survey consisting of a Pittsburgh Sleep Quality Index along with measures of psychological well-being, implicit and explicit aggression, and intent attribution. The quality of sleep and perception of this quality should be the focus of clinical intervention to limit unwanted behavioural impacts. The importance of accounting for sleep quality perception in intervention that examines attributional biases such as hostility is indicated. Differences across countries should be identified and accommodated for in intervention.

Lyndsie FionaBarker" (2016) Sleep and its association with aggression among prisoners: Quantity or quality? This paper aims to examine the association between self-reported sleep quality and quantity and how these relate to aggression motivation and hostile cognition in a male prisoner sample. Two independent studies are presented. The first comprised 95 adult male prisoners who completed a sleep quality index along with measures of implicit and explicit aggression. The second study extended this to consider aggression motivation and hostile attribution biases using a sample of 141 young male adult prisoners. In study one, sleep quantity and indicators of sleep quality were found not to associate with aggression whereas the perception of poor sleep did, those perceiving poor sleep quality were more likely than those perceiving good sleep to report they had perpetrated aggression in the previous week and to report higher levels of implicit aggression. Study two found that while increased indicators of poor sleep quality were associated with lower prosocial attribution tendencies and higher levels of reactive and proactive aggression, sleep quantity was not associated. The perception of poor quality sleep was important; those perceiving poor sleep were more likely to report higher levels of reactive and proactive aggression than those reporting good sleep. Collectively the studies highlight the importance of accounting for the perception of sleep quality as an important cognitive component in understanding the association between sleep and aggression.

Sara Ali, Aisha Qasim, Alayna Batool, Muhammad Zakaria, Amina Qazi, Ghinasha Chudar (2014) conducted a study titled "Sleep Quality and level of Aggression in Youngsters". The current study is aimed to examine the sleep quality and level of aggression in youngsters and to determine the relationship between sleep quality and level of aggression. Adults of general population of 18 to 24 years of age from Peshawar participated in the study that was selected through random sampling. The Pittsburgh Sleep Index (PSQI) and aggression questionnaire (AQ) was used to evaluate youth sleep disturbance and aggression. Results showed sleep disturbance as a predictor of aggression among youth while the aggressive behavior is same for males and females there is no significant difference.

Jeanine Kamphuis et al. Sleep Med. (2012) conducted a study on Poor sleep as a potential causal factor in aggression and violence. Clinical observations suggest that sleep problems may be a causal factor in the development of reactive aggression and violence. In this review we give an overview of existing literature on the relation between poor sleep and aggression, irritability, and hostility. Correlational studies

are supporting such a relationship. Although limited in number, some studies suggest that treatment of sleep disturbances reduces aggressiveness and problematic behavior. In line with this is the finding that sleep deprivation actually increases aggressive behavior in animals and anger, shorttemperedness, and the outward expression of aggressive impulses in humans. In most people poor sleep will not evoke actual physical aggression, but certain individuals, such as forensic psychiatric patients, may be particularly vulnerable to the emotional dysregulating effects of sleep disturbances. The relation between sleep problems and aggression may be mediated by the negative effect of sleep loss on prefrontal cortical functioning. This most likely contributes to loss of control over emotions, including loss of the regulation of aggressive impulses to context-appropriate behavior. Other potential contributing mechanisms connecting sleep problems to aggression and violence are most likely found within the central serotonergic and the hypothalamic-pituitary-adrenal-axis. Individual variation within these neurobiological systems may be responsible for amplified aggressive responses induced by sleep loss in certain individuals. It is of great importance to identify the individuals at risk, since recognition and adequate treatment of their sleep problems may reduce aggressive and violent incidents.

Catherine M Caska, Bethany E Hendrickson, Michelle It Wong, Sadia Ali. Thomas Neylan, Mary A Whooley, (2009) conduct a study to evaluate if anger expression affects sleep quality in patients with coronary heart disease (CHD). Anger expression and sleep quality in patients with coronary heart disease: A finding from the Heart and Soul Study Research has indicated that poor sleep quality independently predicts adverse outcomes in patients with CHD. Risk factors for poor sleep quality include older age, socioeconomic factors, medical comorbidities, lack of exercise, and depression. We sought to examine the association of anger expression with sleep quality in 1020 outpatients with CHD from the Heart and Soul Study. We assessed anger-in, anger-out, and anger temperament, using the Spielberger State-Trait Anger Expression Inventory 2, and measured sleep quality, using items from the Cardiovascular Health Study and Pittsburgh Sleep Quality Index. We used multivariate analysis of variance to examine the association between anger expression and sleep quality, adjusting for potential confounding variables. Each standard deviation (SD) increase in

anger-in was associated with an 80% greater odds of poor sleep quality. This association remained strong after adjusting for demographics, comorbidities, lifestyle factors, medications, cardiac function, depressive symptoms, anger-out, and anger temperament. In the same model, each SD increase in anger-out was



associated with a 21% decreased odds of poor sleep quality. Anger temperament was not independently associated with sleep quality Anger suppression is associated with poor sleep quality in patients with CHD. Whether modifying anger expression can improve sleep quality or reduce cardiovascular morbidity and mortality deserves further study.

D Algul, UB Semiz, MA Ates, M Cetin, S Ebrine, C Basoglu, R Gunay. C Gunes, CO Noyan, O Yilmaz (2007) conducted a study on Subjective sleep quality and aggression in antisocial personality disorder. As a symptom, aggression is closely related to antisocial personality disorder (ASP). Prefrontal cortex plays a key role in the regulation of anger and violence and in sleep-wake transitions. The aim of this study is to evaluate the quality of the subjective sleep and to determine its relation to the degree of aggression for the subjects with APD Among 155 males who were sent to a pretrial forensic psychiatric examination by the court, 60 were suitable and admitted to the study. All of them were being charged with violent offences (murder or assault). 64 subjects were not involved in crimes involving violence were taken as the control group. All of the subjects met the DSM-IV criteria for ASP. Subjects were interviewed with an assessment battery including a semi structured interview form concerning the sociodemographic factors, SCID-1, SCID-II, Aggression Questionnaire (AQ) and Pittsburgh Sleep Quality Index (PSQI). AQ total point and physical aggression, verbal aggression and anger subscales were found to be significantly higher in the study group.

Between the groups significant differences were found in PSQI total points, sleep latency, sleep disorder, use of sleeping pills and in the points of subscales of loss of functionality during day. There has been found a positive correlation between PSQI global point and AQ total point. This study can contribute to further support to evidence of brain dysfunction predisposing to severe aggression

Maaïke M Van Veen, Marika Lancel, Elise Beijer, Sharon Remmelzwaal, Femke Rutters, 101500, 2021 conducted a study on poor sleep quality and aggression. Poor sleep quality is closely related to aggression, but despite the promise of new therapeutic possibilities, a systematic synthesis of observational research on the association between sleep quality and aggression is lacking. This systematic review and meta-analysis examined the association between sleep quality and aggression, using the academic databases PubMed and PsycINFO. Subjective and objective measures of sleep quality were included, as well as multiple measures of aggression, assessing aggressive and externalizing behavior, anger, hostility



and irritability. Our findings confirm that poor sleep quality is consistently associated with higher aggression. As most evidence is cross-sectional, more prospective and high-quality experimental evidence is required to elucidate cause-effect and optimize prevention and treatment of aggression.

MM Van Veen, M Lancel, O Şener, RJ Verkes, EJ Bouman, F Rutters 2022 conducted a study on sleep duration and aggression .Short sleep duration has been linked to higher levels of aggression. To synthesize all available research on this association systematic review and meta-analysis was performed. We included observational and experimental studies, using various measures of sleep duration and aggression. Eighty eligible papers were identified, describing 82 studies comprising a total number of 76.761 participants. Meta-analysis of results was possible for 60 studies. Exclusion of studies with low methodological quality strengthened the effect estimate in experimental but not in observational studies. To conclude, short sleep duration is associated with higher levels of aggression, with observational research strongly supporting the association and experimental studies providing mixed results. More well-designed prospective and experimental studies are needed to establish causality and optimize treatment, especially for individuals with psychological vulnerabilities

Olivia P Demichelis, Sarah A Grainger, Kate T McKay, Xanthia E Bourdaniotis, Emily G Churchill, Julie D Henry 2022 conducted a study on stress and aggression. Prior research suggests that sleep is associated with increased subjective stress and aggression, but important questions remain about the typical magnitude of these relationships, as well as their potential moderators. We therefore conducted the first metaanalysis of this literature. These findings suggest that poorer sleep is associated with - and leads to - heightened levels of subjective stress and aggression. These findings, and their implications, are discussed in relation to neurobiological literature, which highlights the complex interplay between metabolic activity in the brain, hormonal changes, and behavior. population type and measurement instruments, but not according to article quality or age group. Our findings confirm that poor sleep quality is consistently associated with higher aggression. As most evidence is cross-sectional, more prospective and high-quality experimental evidence is required to elucidate cause-effect and optimize prevention and treatment of aggression.

conducted a study on sleep and aggressive behavior .We know that poor sleep can have important implications for a variety of health outcomes and some evidence suggests a link between sleep and aggressive behavior. However, few studies have looked at this relationship among African-Americans in the United State Data from the National Survey of American Life (NSAL) and the NSAL Adult Re-Interview were used to examine associations between sleep duration and self-reported quality of sleep on reactive aggression among African American and Caribbean Black respondents between the ages of 18 and 65 (n = 2499).

Controlling for an array of sociodemographic and psychiatric factors, sleep was found to be significantly associated with reactive aggression. Persons reporting everyday discrimination and problems managing stress were more likely to sleep poorly. The present study is among the first to document an association between poor sleep and reactive violence among AfricanAmericans. Findings suggest that reducing discrimination may lead to improved sleep and subsequently reduce forms of reactive violence.

Jeanine Kamphuis, Peter Meerlo, Jaap M Koolhaas, Marike 2012 conducted a study on sleep and aggression. Clinical observations suggest that sleep problems may be a causal factor in the development of reactive aggression and violence. In this review we give an overview of existing literature on the relation between poor sleep and aggression, irritability, and hostility. Correlational studies are supporting such a relationship. Although limited in number, some studies suggest that treatment of sleep disturbances reduces aggressiveness and problematic behavior. In line with this is the finding that sleep deprivation actually increases aggressive behavior in animals and angriness, short-temperedness, and the outward expression of aggressive impulses in humans. In most people poor sleep will not evoke actual physical aggression, but certain individuals, such as forensic psychiatric patients, may be particularly vulnerable to the emotional dysregulating effects of sleep disturbances. The relation between sleep problems and aggression may be mediated by the negative effect of sleep loss on prefrontal cortical functioning. This most likely contributes to loss of control over emotions, including loss of the regulation of aggressive impulses to context-appropriate behavior. Other potential contributing mechanisms connecting sleep problems to aggression and violence are most likely found within the central serotonergic and the hypothalamic–pituitary– adrenal-axis. Individual variation within these neurobiological systems may be responsible for amplified aggressive responses induced by sleep loss in certain individuals. It is of great importance to

identify the individuals at risk, since recognition and adequate treatment of their sleep problems may reduce aggressive and violent incidents.

## **Method**

The methodology plays a vital role in determining the success of research, as it encompasses the methods, measures, and techniques used for data collection and analysis. It provides a comprehensive account of how the investigation was conducted, covering sample selection, data collection techniques, data collection procedures, and statistical analysis.

### **Research design**

The current study was of a descriptive nature, focusing on existing conditions, relationships, opinions, processes, effects, and trends, as outlined by Best and Khan (1992). Various methods were utilized, including the use of appropriate statistical techniques with SPSS.

### **Sample and Sampling**

The study sample comprises 180 women including both working and non working women from Ernakulam district. The selection of participants for this study was done through a random sampling method.

### **Data collection procedures**

The samples taken were females of age ranges from 25 and above. Participants were selected through convenient sampling. Questionnaires to be filled with requests were collected directly and informed consent was obtained. The questionnaires were arranged together in different slides and were in printed and google form. Before conducting the study, the researcher provided information about the nature and purpose of the study. The participants were reassured about the anonymity and confidentiality of the information they were providing. The respondents were not required to reveal their names anywhere in the questionnaire or in the personal data sheet. After the data collection, each response sheets were scored and suitable statistical techniques were used for analyzing the data Statistical Techniques used.

### **Inclusion criteria**

- The inclusion criteria focused solely on working and non- working womens.
- The study included womens residing in the Ernakulam district.
- The study targeted women who is above 25.

### **Exclusion criteria**

- Women who is below the age of 25 were excluded.
- Womens residing outside of Ernakulam district were excluded Tools

### **Tools**

#### **Demographic data sheet**

The personal data sheet is utilized to gather information from parents regarding important socio-demographic factors, including name, age, gender, and martial status and occupation.

#### **SLEEP QUALITY SCALE [ SQS ]**

The sleep quality scale was developed by YI et at. The Sleep Quality Scale (SQS) measures sleep quality in people who live in the general population. The SQS is may be more comprehensive than any other scale, including the Pittsburgh Sleep Quality Index, because it includes questions about how well people function during the day and how well they feel after getting restful sleep. The Sleep Quality Scale (SQS) is a self-report scale designed to measure six domains of sleep quality consisting of 28 items. Consisting of 28 items, the SQS evaluates six domains of sleep quality: daytime symptoms, restoration after sleep, problems initiating and maintaining sleep, difficulty waking, and sleep satisfaction. Developers hoped to create a scale that could be used as an all-inclusive assessment tool – a general, efficient measure suitable for evaluating sleep quality in a variety of patient and research populations.

### Reliability and Validity

An initial psychometric evaluation conducted by Yi and colleagues found an internal consistency of .92, a test-retest reliability of .81. The SQS is strongly correlated with results obtained on the Pittsburgh Sleep Quality Index Scores achieved by the insomnia sample were significantly higher than those of controls, indicating good construct validity.

### Scoring

Using a four-point, Likert-type scale, respondents indicate how frequently they exhibit certain sleep behaviors (0 = “few,” 1 = “sometimes,” 2 = “often,” and 3 = “almost always”). Scores on items belong to factors 2 and 5 (restoration after sleep and satisfaction with sleep) and are reversed before being tallied. Total scores can range from 0 to 84, with higher scores denoting more acute sleep problems.

### BUSS PERRY AGGRESSION QUESTIONNAIRE [BPAQ]

The Buss-Perry Aggression Questionnaire (BAQ) is one of the most widely used aggression scales. BAQ is a self-report scale consisting of 29 items answered on a 5-point Likert type scale that was adapted from the Buss-Durkee Hostility Inventory (BDHI) (Buss and Durkee 1957). Its 4 subscales measure physical aggression, verbal aggression, hostility, and anger. The physical aggression subscale includes 9 items about physically harming others, the verbal aggression subscale includes 5 items about verbal aggression directed towards others, the anger subscale includes 7 items that measure the affective aspect of aggression, and the hostility subscale includes 8 items that assess the cognitive aspect of aggression.

### Reliability and validity

The reliability of the BPAQ Version was calculated using internal consistency, test-retest, and split-half methods. Cronbach's alpha coefficient (Cronbach 1951) was used to determine the internal consistency of each of the 4 subscales. With regard to test-retest reliability of verbal aggression subscale, physical aggression subscale, anger subscale, hostility subscale, total score: Split-half reliability coefficients with Spearman-Brown correction ranged from .53 to .82 (verbal aggression subscale: .53; physical aggression subscale: .73; anger with resentment subscale: .78; hostility subscale: .75; total score: .82).

In this study the MDAS anger-related behaviors subscale was used to determine the criterion validity of the BAPQ Version. The correlation coefficient between the BAPQ Version and the MDAS anger-related behaviors subscale was .49. Correlation coefficients between the BAQ-Turkish Version subscales (physical aggression, hostility, anger, and verbal aggression) and the MDAS anger-related behaviors subscale were .40, .40, .31, and .27, respectively.

## Scoring

The BPAQ consists of four subscales, each comprising a specific set of items related to different aspects of aggression:

- Physical Aggression Subscale (Items 1-9): This subscale measures tendencies towards physically aggressive behaviors, such as hitting pushing, or physically harming others.
- Verbal Aggression Subscale (Items 10-14): This subscale assesses inclinations towards using aggressive language, including insults, threats, or verbally abusive behavior.
- Anger Subscale (Items 15-21): This subscale gauges the intensity and frequency of feelings of anger and imitability,
- Hostility Subscale (Items 22-29): This subscale evaluates overall negative attitudes and hostility towards others.

To calculate the scores for each scale, respondents rate their agreement or disagreement with each item. The scores for items 7 and 18 are reverse-scored, as they are worded in the opposite direction to aggression. To get the total score for aggression, the individual scale scores are added together. Higher total scores indicate a higher level of aggressive behavior in the individual being assessed.

## Statistical Analysis

Statistical analysis is a method used to collect, analyze, interpret, and present data. It involves applying mathematical and statistical techniques to make sense of patterns and trends within the data. The main goals of statistical analysis are to summarize the data, draw conclusions, and make inferences or predictions about a larger population based on a sample of data. It helps researchers and analysts make informed decisions and draw reliable conclusions from their data.

## Descriptive Statistics

Descriptive statistics is a branch of statistics that deals with the collection, presentation, and characterization of a set of data to describe its main features. It involves summarizing and organizing data in a meaningful way, typically using measures such as mean, median, mode, range, variance, standard deviation, and percentiles. Descriptive statistics are used to understand and communicate the essential characteristics of a dataset without making any conclusions beyond the data itself.

## Correlation

Correlation is a statistical measure that describes the strength and direction of a relationship between two variables. It is used to understand how changes in one variable are associated with changes in another variable. Key points include Strength of Relationship: Correlation coefficient values range from -1 to +1. A correlation of +1 indicates a perfect positive correlation, meaning as one variable increases, the other also increases proportionally. A correlation of -1 indicates a perfect negative correlation, meaning as one variable increases, the other decreases proportionally. A correlation of 0 indicates no linear relationship between the variables. Direction of Relationship:

Positive correlation: When one variable increases, the other variable tends to also increase. The correlation coefficient is greater than 0. Negative correlation: When one variable increases, the other variable tends to decrease. The correlation coefficient is less than

0. Types of Correlation Coefficients: Pearson correlation coefficient: Measures the linear relationship between two continuous variables. Spearman correlation coefficient: Measures the monotonic relationship between two continuous or ordinal variables. It is used when variables are not normally distributed or when the relationship is not linear. Kendall's tau: Similar to Spearman's correlation, it measures the strength of a relationship between two ordinal variables.

## Mann-Whitney U test

Mann-Whitney U test is non-parametric statistical method to test the significance of the difference between two groups on a dependent variable. In other words: comparing two groups. This is a widely used method instead of independent sample 't' test, is assumptions of 't' test are violated. Statistic computed in the method is called as "U". If the sample size is above 20, the scores will be converted to 'z' values. Nature

of the dependent variable has to be continuous; but, the ordinal level also can be included. Independent variable has to be categorical with two groups. Interpretation is made based on median values of both the distribution. Mean rank of each group can provide better interpretation if median scores are equal.

### Ethical Considerations

Ethical considerations are an essential aspect of conducting research, particularly in fields such as science, social science, medicine, and psychology. These considerations involve ensuring that research is conducted in an ethical and responsible manner, with respect for the rights, well-being, and dignity of participants, as well as the broader impact on society. Here are some key points regarding ethical considerations in research includes informed consent, privacy and confidentiality, minimizing harm, respect for participants, beneficence ,justice and fairness ,data handling and publication ,ethics review, cultural sensitivity ,ongoing monitoring.

### Results and discussion

#### Result

The study's findings are outlined and analyzed in this section in relation to the study's objectives. The results section provides a straightforward account of the researcher's discoveries without delving into speculation. The discussion delves into the significance of the findings, contextualizes them, and elucidates their importance. The study aimed to investigate the role of sleep quality and aggression among working and non- working women.

This chapter details the study's outcomes and their implications.

**Table 1**

| Hypothesis Test Summary  |   |      |                             |
|--|---|------|-----------------------------|
| Null Hypothesis  | Test  | Sig  | Decision                    |
| The distribution of Sleep Quality Scale is the same across categories of Occupation. | IndependentSam<br>ples<br>MannWhitney U<br>Test | .000 | Reject the null hypothesis. |
| The distribution of Agression Scale is the same across categories of Occupation.     | IndependentSam<br>ples<br>MannWhitney U<br>Test | .248 | Retain the null hypothesis. |

Asymptotic significances are displayed. The significance level is .05.

*Summary of Null Hypothesis Tests and their corresponding decisions*



Table 1. The results of the null hypothesis tests and their respective conclusions are presented. Each null hypothesis was evaluated using the independent-samples Mann-Whitney U Test, with degrees of freedom of 0.001 and 0.000. In all instances, the decision was made to reject the null hypothesis.

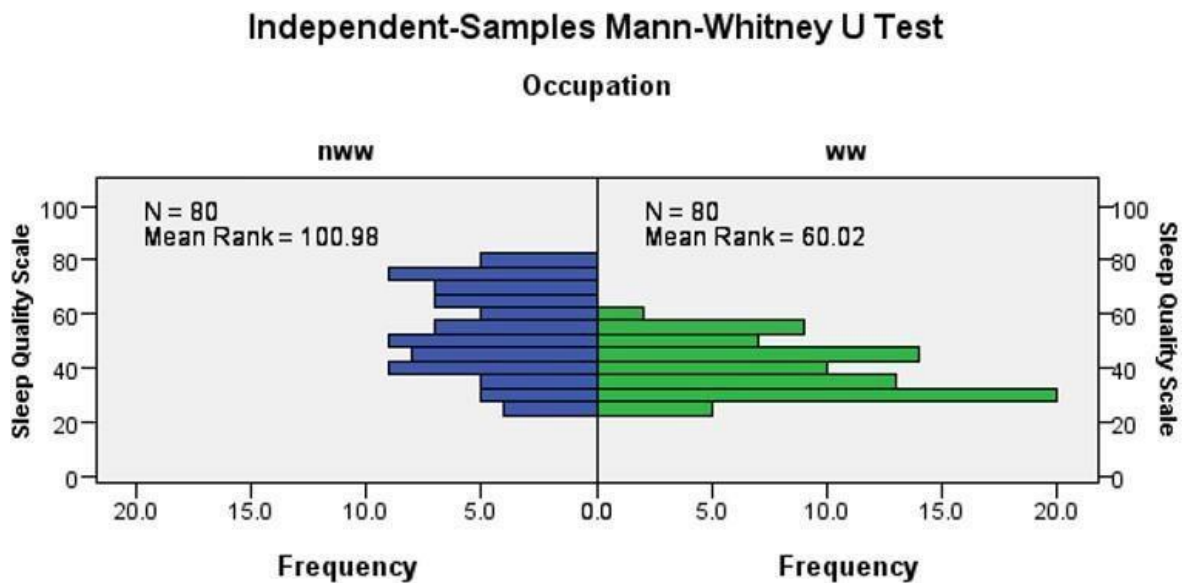


Fig.1: Graphical representation of sleep quality according to non- working women and working women.

The graphical representation in figure 1 illustrates the sleep quality comparison between nonworking women and working women. The data depicted in the graph indicates that the mean rank of perceived sleep quality is higher for non-working women compared to working women. This difference is statistically significant with a p-value of 0.001, which is less than the significance level of 0.01.

**Table 2 :****The significant difference in sleep quality based on occupation**

Mann Whitney U Test was used to determine the significant difference in perceived sleep quality based on Occupation. The results are displayed in Table 2.

**Table 2**

*Summary of the Mean rank and U value obtained by the occupation among women on sleep quality.*

| Occupation    | N  | Mean Rank | U Value  | Asymp.Sig |
|---------------|----|-----------|----------|-----------|
| [2 tailed]    |    |           |          |           |
| Non-working   | 80 | 100.98    |          |           |
| Sleep Quality |    |           | 4838.000 | 0.000     |
| Working       | 80 | 60.02     |          |           |

Table 2 displays the Mean rank and U value for sleep quality in relation to occupation among women, with a sample size of 80 for both non-working and working women. The mean rank for sleep quality is 60.02 for non-working women and 100.98 for working women, with a loneliness U value of 4338.000, indicating significance at the 0.01 and 0.05 levels. The results from Table 2 reveal a strong correlation between occupation and sleep quality among women, showing significant differences in perceived sleep quality based on occupation, with statistical significance at the 0.01 and 0.05 levels. Therefore, the hypothesis suggesting a significant difference between sleep quality and occupation among women is supported.

## Independent-Samples Mann-Whitney U Test

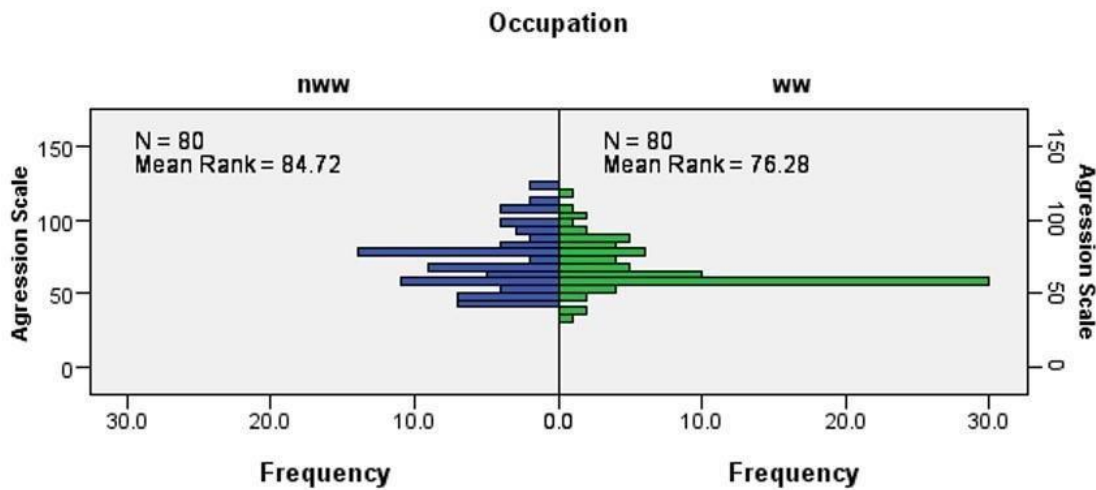


Fig 2: Graphical representation of Aggression according to non- working women and working women.

The graphical representation in Figure 2 illustrates the aggression comparison between nonworking women and working women. The data depicted in the graph indicates that the mean rank of perceived aggression is higher for non-working women compared to working women. This difference is statistically significant with a p-value of 0.001, which is less than the significance level of 0.01.

**Table 3 :**

**The significant difference in Aggression based on occupation**

Mann Whitney U Test was used to determine the significant difference in perceived Aggression based on Occupation. The results are displayed in Table 3.

Table 3 Summary of the Mean rank and U value obtained by the occupation among women on Aggression.

|            | Occupation  | N  | Mean Rank | U Value  | Asymp.Sig    |
|------------|-------------|----|-----------|----------|--------------|
|            |             |    |           |          | [ 2 tailed ] |
|            | Non-working | 80 | 84.72     |          |              |
| Aggression |             |    |           | 3538.000 | 0.248        |
|            | Non-working | 80 | 76.28     |          |              |

Table 3 presents the Mean rank and U value for aggression based on Occupation among women.

The sample size for both non-working women and working women is 80 [N = 80]. In non-working women, the Mean rank for aggression is 84.72, while in working women it is 76.28. The U value for loneliness is 3538.000, indicating no significance at the 0.01 level. Therefore, the results from Table 3 indicate that there is no significant difference in perceived aggression based on occupation when examining the relationship between aggression and occupation among women. The hypothesis stating no significant difference between aggression and occupation among women is accepted.

## Discussion

The objective of this research was to investigate the impact of sleep quality and aggression in both working and non-working women. To compare the sleep quality and aggression levels, the U test was utilized, taking into account the employment status of the women. The findings of the hypothesis tests and their corresponding conclusions are provided. Each null hypothesis was assessed using the independent-samples Mann-Whitney U Test, with degrees of freedom of 0.001 and 0.000. In every case, the decision was made to reject the null hypothesis, indicating a significant relationship between sleep quality and aggression among both working and non-working women.

The data presented in table 1 provides an overview of the results and conclusions of the Null Hypothesis Tests. Each test was conducted using the independent-samples Mann-Whitney U Test with degrees of freedom of 0.001 and 0.000. In every case, the decision was made to reject the null hypothesis. The study examines the relationship between occupation status (working vs. non-working) and sleep quality in women. The hypothesis suggests that there will be a significant difference in sleep quality between working and non-working women. This hypothesis is based on the belief that working women may experience higher stress levels, longer work hours, and greater time demands, resulting in poorer sleep quality compared to non-working women who have more flexibility and fewer work-related stressors.

Another aspect of the study investigates the relationship between occupation status (working vs. non-working) and perceived aggression in women. The hypothesis proposes that there will be no significant difference in perceived aggression between working and non-working women. This hypothesis

is supported by the idea that occupation status may not directly influence perceived aggression, as it is influenced by individual personality traits, social factors, and situational contexts rather than employment status alone.

The data presented in Table 2 highlights the differences between occupation and sleep quality among women. The findings indicate that there are significant differences in perceived sleep quality based on whether women are working or not. These differences hold statistical significance at the 0.01 and 0.05 levels, confirming the hypothesis that occupation plays a significant role in sleep quality among women. Sleep quality can vary significantly between working and non-working women due to a range of factors related to their daily routines, responsibilities, and stress levels. Working women often have more structured work schedules, which can disrupt their sleep patterns compared to non-working women who have more flexibility in their daily routines. The demands of the workplace, including deadlines and job-related responsibilities, can increase stress levels among working women, affecting their ability to fall asleep or stay asleep. Longer commute times for working women can result in less sleep and increased fatigue compared to non-working women who do not have to commute for work. Non-working women may have more time for regular physical activity, which is known to promote better sleep quality. Balancing work and family obligations can be challenging for working women, leading to increased stress and disrupted sleep compared to non-working women who have more time for family and household duties. The mental load carried by working women, including managing household tasks, childcare, and career responsibilities, can make it difficult for them to relax and fall asleep. Financial concerns, such as providing for oneself or one's family, can contribute to higher stress levels among working women, impacting their sleep quality compared to non-working women who may not face the same financial pressures.

Women working non-traditional hours, such as night shifts or rotating shifts, may face disruptions in their circadian rhythms, resulting in poorer sleep quality compared to non-working women with regular sleep-wake cycles. Factors like noise, lighting, and temperature in the workplace can impact sleep quality for working women, especially in environments less conducive to sleep than those at home for non-working women. Working women may experience higher levels of job-related stress, burnout, or anxiety, affecting mental health and sleep quality more than non-working women with fewer stressors. Non-working women may have more opportunities for socializing and building supportive relationships,

positively influencing sleep quality compared to working women with less time for social activities due to work commitments. Working women may struggle to prioritize healthcare appointments and self-care practices, potentially leading to unaddressed health issues impacting sleep quality, unlike non-working women with more flexibility. Non-working women may have more time to plan and prepare nutritious meals, positively impacting sleep quality compared to working women relying on convenience foods due to time constraints. Working women may be exposed to more screen time during the day, interfering with sleep quality, unlike non-working women with fewer screen-related distractions. Non-working women may have clearer boundaries between work and personal life, allowing them to fully disengage from work-related stressors and relax before bedtime, unlike working women who may struggle to detach from work responsibilities, leading to poorer sleep quality.

In conclusion, the differences in sleep quality between working and non-working women can be attributed to various factors, including job-related stress, disruptions to the sleep-wake cycle, commuting time, balancing work and personal responsibilities, and the mental load associated with managing multiple roles. These factors collectively contribute to the observed disparities in sleep quality among women based on their occupation.

The findings from Table 3 demonstrate that there is a lack of significant difference in perceived aggression based on occupation when examining the relationship between aggression and occupation among women. This suggests that the hypothesis stating no significant difference between aggression and occupation among women is supported.

Women who are employed may encounter higher levels of stress due to the demands of their job, which can result in increased aggression compared to women who are not employed and may experience less workplace-related stress. The presence of interpersonal conflicts or competition in the workplace may contribute to heightened aggression among working women compared to non-working women, who may have fewer opportunities for conflict. Balancing work and family responsibilities can create role strain for working women, leading to feelings of frustration and irritability that may manifest as aggression. Financial pressure to support themselves or their families may contribute to feelings of stress and aggression among working women if they perceive their job as insufficient for meeting their financial needs. Power dynamics in the workplace may contribute to feelings of frustration or powerlessness among working women, which

can result in increased aggression compared to non-working women who may have more control over their daily lives. Struggling to achieve a balance between their professional and personal lives may lead to feelings of resentment or dissatisfaction among working women, which can contribute to aggression. Working women may face discrimination or sexism in the workplace, which can evoke feelings of anger or frustration that may manifest as aggression. Certain occupations may expose women to situations that increase the likelihood of aggressive behavior, such as working in high-stress environments or dealing with confrontational situations.

Women who work in male-dominated environments may be socialized to adopt more assertive or competitive behaviors, potentially leading to higher levels of aggression compared to women who do not work. The pressure to excel in their jobs and meet career goals can create feelings of anxiety or aggression among working women if they believe they are falling short of expectations. The culture of the workplace can play a role in shaping the behavior of employees, and competitive or high-pressure environments may contribute to aggression among working women. Workplace policies and practices, such as performance evaluations or promotion criteria, can create competition or conflict among employees, which may contribute to aggression among working women. Access to support services or resources in the workplace can help working women manage stress or conflict, but the lack of these resources or their ineffectiveness can contribute to increased aggression. Working women may experience frustration or resentment if they perceive barriers to achieving their career aspirations, which can lead to increased aggression compared to non-working women who may not face the same pressures. Cultural norms and expectations surrounding women's roles in the workforce can influence behavior, with working women feeling pressure to conform to certain standards or expectations that can contribute to aggression.

## **SUMMARY AND CONCLUSION**

### **Summary**

This research aims to investigate the correlation between sleep quality and aggression in women who are employed and those who are not, while considering various sociodemographic variables like name, age, marital status, and occupation. A total of 160 women participated in the study, with data being gathered through a combination of online platforms and physical questionnaires. The collected data was

then subjected to analysis using SPSS software after ensuring it met the assumptions of normality. To compare the levels of sleep quality and aggression, the U test was employed, with a focus on the employment status of the female participants. The key findings of the study revealed a significant association between sleep quality and occupation, distinguishing between working and non-working women. However, no notable variances were observed in terms of aggression levels based on the occupation of the women involved in the study.

### **Conclusion**

This research aims to explore the correlation between sleep quality and aggression in women who are employed and those who are not, while considering various sociodemographic variables like name, age, marital status, and occupation. The study sample consisted of 160 women, and data collection was done through a combination of online platforms and physical questionnaires. The gathered data was subjected to analysis using the Statistical Package for the Social Sciences (SPSS) software after ensuring it met the assumptions of normality. In order to compare the levels of sleep quality and aggression, the researchers employed the U test, with a specific focus on the employment status of the participants. The key findings of this study revealed a significant association between sleep quality and occupation, distinguishing between working women and non-working women.

However, the analysis did not uncover any notable variances in aggression levels based on the employment status of the women involved in the research.

### **Implications**

The importance of sleep quality and aggression in the lives of both working and nonworking women cannot be overstated when it comes to promoting their health, well-being, and success in different aspects of life. By recognizing and addressing the factors that contribute to poor sleep quality and aggression, policymakers, employers, healthcare providers, and individuals can collaborate to establish nurturing environments and introduce interventions that significantly improve the overall quality of life for women. This holistic approach aims to empower women and create a positive impact on their overall well-being and success.



The quality of sleep plays a crucial role in maintaining overall health and well-being. When sleep quality is poor, it can lead to various physical health problems such as obesity, cardiovascular disease, and weakened immune function. Moreover, inadequate sleep can also have a negative impact on mental health, contributing to issues like depression, anxiety, and stress. By understanding the factors that influence sleep quality, including occupation status, interventions can be developed to promote better sleep habits and improve the overall health outcomes of women. Sleep quality not only affects physical and mental health but also has implications for cognitive function, attention, and decision-making abilities. These aspects are vital for work performance and productivity, especially for working women. When working women experience poor sleep quality, they may be more prone to making errors, reduced efficiency, and workplace accidents. By identifying the factors that influence sleep quality among working women, employers can implement strategies to support employee well-being and optimize workplace performance. Aggression, whether it is overt or subtle, can have detrimental effects on psychological well-being and interpersonal relationships.

Examining the relationship between aggression and occupation status among women can help identify potential sources of stress and conflict in both work and home environments. By addressing workplace aggression and promoting positive communication and conflict resolution skills, a healthier work environment can be fostered, leading to improved psychological well-being for working women. Women often find themselves juggling multiple roles and responsibilities, including those related to work, family, and caregiving.

The intersection of gender roles and occupation status may influence sleep quality and aggression differently for working and non-working women. Exploring these dynamics can provide valuable insights into the unique experiences of sleep and aggression based on gender, and can inform efforts to promote gender equity and work-life balance.

### **Limitations**

1. The study was conducted with a limited number of participants, which may limit the generalizability of the findings.
2. The research was conducted in a specific geographic area, which may restrict the applicability of the results to other regions.

3. The study specifically focused on parents, so the conclusions drawn may not be relevant to individuals from different age groups or populations.
4. The correlational design used in this study can only establish associations between variables and cannot determine causality.
5. The accuracy and reliability of the study findings depend on the honesty and truthfulness of the respondents who completed the questionnaire.
6. It is possible that there are other variables not accounted for in the study that could potentially influence the results.

### **Suggestions or further research**

1. The research has the potential to be conducted in regions beyond Ernakulam district.
2. The study has the capability to include a diverse range of age brackets.
3. This research has the option to be executed with a larger number of variables.
4. The study can be leveraged for upcoming research by extending the duration of data collection and making use of the data gathered.
5. This study can act as a foundation for comparative studies across different cultures.

### **Reference**

- Alami, A., Shahghasemi, Z., Ghochan, A. D. M., & Baratpour, F. (2015, May 12). Students aggression and its relevance to personal, family, and social factors. Iranian Red Crescent Medical Journal, 17(2), doi:10.5812/iremj.
- Allen-Gomes, A., Tavares, J., & Pinto De Azevedo, M. H. (2009). Sleep-wake patterns in Portuguese undergraduates. Acta Med Port., 22(5), 545-552.
- <https://www.actamedicaportuguesa.com/revista/index.php/amp/article/1719> Allen, J J., & Anderson, C. A. (2017). Aggression and violence: Definitions and distinctions. Iowa State University. doi:10.1002/9781119057574.whbva001 Allen,

- JJ, Anderson, C. A., & Bushman, B. J. (2018). The general aggression model. *Current Opinion in Psychology*, 19, 75-80. doi:10.1016/j.copsyc. 2017.03.034
- America Psychological Association (2015). Definitions related to sexual orientation and gender diversity in APA documents, <https://www.apa.org/pi/lgbt/resources/sexuality-definitions.pdf>
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology*, 53, 27-51. doi: 10.1146/annurev.psych.53.100901.135231
- Anderson, C. A., & Carnagey, N. L. (2004). Violent evil and the general aggression model. *Aggression. Miller (Ed.), Social Psychology, Good Evil*, Guilford Press, New York, NY. 168-192. [proquest.com.proxy.lib.iastate.edu/D18E3DOFE96344CPQ/77accountid=10906](http://proquest.com.proxy.lib.iastate.edu/D18E3DOFE96344CPQ/77accountid=10906)
- Arber, S., Bote, M., & Meadows, R. (2009). Gender and socio-economic patterning of self-reported sleep problems in Britain. *Soc Sci Med.*, 68 (2), 281-289. <http://epubs.surrey.ac.uk/804131/1/Arber%202009%20Gender%20and%20socioeconomic%20patterning.pdf>
- Anf. A. S., Sohaib, Z., Asif, S., Salman, A., Muhammad, M., & Reem, H. K. (2015, April). Sleep quality among medical students of Karachi, Pakistan. *Journal of the Pakistan Medical Association*, research gate net/publication \_Sleep\_quality\_among\_medical students of Karachi Pakistan
- Atkins, M. S., & Stoff, D. M (1993). Instrumental and hostile aggression in childhood disruptive behaviour disorders. *Journal of Abnormal Child Psychology*, 21, 165-178 doi : 10.1007/BF00911314

Bailey, C. A., & Ostrov, J. M. (2008). Differentiating forms and functions of aggression in emerging adults

Associations with hostile attribution biases and normative beliefs *Journal of Youth and Adolescence*,  
37(6), 713-722. doi: 10.1007/s10964-007-9211-5

Balakrishnan, V (2015) Cyberbullying among young adults in Malaysia. The roles of gender, age and internet frequency *Computers in Human Behavior*, 46, 149-157doi: 10.1016/j.chb.2015.01.021

Barthelemy, R.S., McCormick, M., & Henderson, C. (2016). Gender discrimination in physics and astronomy: Graduate student experiences of sexism and gender microaggressions

*Physical Review Physics Education Research*, 12(2). doi: 10.1103/PhysRevPhysEducRes.

12.020119

Basow, S. A., Cahill, K. F., Phelan, J. E., Longshore, K., & McGillicuddy-DeLisi, A. (2007).

Perceptions of relational and physical aggression among college students: Effects of

gender of perpetrator, target, and perceiver. *Psychology of Women Quarterly*, 31(1), 85-95. doi: 10.1111/j.1471-6402.2007.00333.x

Beckman, L., Hagquist, C., & Hellström, L. (2013). Discrepant gender patterns for cyberbullying and traditional bullying: An analysis of Swedish adolescent data. *Computers in Human Behavior*, 29(5), 1896-1903. doi: 10.1016/j.chb.2013.03.010

Brissette, I., & Cohen, S. (2002). The contribution of individual differences in hostility to the associations between daily interpersonal conflict, affect, and sleep. *Personality and*

*Social Psychology Bulletin*, 28(9), 1265-1274. doi: 10.1177/01461672022812011 Bruck, D., & Astbury, J. (2011, April). Population study on the predictors of sleeping

difficulties in young Australian women. *Behav Sleep Med.*, 10, 84-95.

<http://vuir.vu.edu.au/21940/1/SleepdifficultyYngWmn%20revised%20May%202011.pdf> Burgard, S.

A., & Ailshire, J. A. (2013). Gender and time for sleep among U.S. adults.

Burgard, S. A., Ailshire, J.A., & Hughes, N.M. (2010, June). Gender and sleep duration Among American adults. University of Michigan Institute for Social Research.

<https://www.psc.isr.umich.edu/pubs/pdf/rr09-693.pdf>

Bushman, B. J., & Anderson, C. A. (2001). Is it time to pull the plug on the hostile versus instrumental aggression dichotomy? Psychological Review, 108(1), 273-279.

## APPENDIX

### Socio-demographic data

Name :-

Age :- Gender :-

Marital status:- Occupation:-

I kindly request your participation in filling out the questionnaire. This is solely for academic purposes and the data collected will be kept confidential and anonymity of the respondent will be maintained. It may take only 10 minutes of your time. I kindly request you to provide your sincere and genuine responses in the questionnaire given below.

### BUSS PERY AGRESSION QUESTIONNAIRE

Using the 5 points scale shown, indicate how uncharacteristic or characteristic of each of the following statements is describing you. Using the scale below, tick the appropriate option for each item.

1. Some of my friends think I am a hothead.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic

e) Extremely characteristic

2.If I have to resort to violence to protect my rights, I will.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

3.When people are especially nice to me, I wonder what they want.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

4.I tell my friends openly when I disagree with them.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

5.I have become so mad that I have broken things.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

6.I can't help getting into arguments when people disagree with me

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

7.I wonder why sometimes I feel so bitter about things.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

8.Once in a while, I can't control the urge to strike another person.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

9.I am an even- tempered person.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

10.I am suspicious of overly friendly strangers.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic

d) Somewhat characteristic

e) Extremely characteristic

11. I have threatened people I know.

a) Extremely uncharacteristic

b) Somewhat uncharacteristic

c) Neither uncharacteristic

d) Somewhat characteristic

e) Extremely characteristic

12. I flare up quickly but get over it quickly.

a) Extremely uncharacteristic

b) Somewhat uncharacteristic

c) Neither uncharacteristic

d) Somewhat characteristic

e) Extremely characteristic

13. Given enough provocation, I may hit another person.

a) Extremely uncharacteristic

b) Somewhat uncharacteristic

c) Neither uncharacteristic

d) Somewhat characteristic

e) Extremely characteristic

14. When people annoy me, I may tell them what I think of them.

a) Extremely uncharacteristic

b) Somewhat uncharacteristic

c) Neither uncharacteristic

d) Somewhat characteristic

e) Extremely characteristic



15. I am sometimes eaten up with jealousy.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

16. I can think of no good reason for ever hitting a person.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

17. At times I feel I have gotten a raw deal out of life.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

18. I have trouble controlling my temper.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

19. When frustrated, I let my irritation show.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic

- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

20. I sometimes feel that people are laughing at me behind my back.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

21. I often find myself disagreeing with people.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

22. If somebody hits me, I hit back.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

23. I sometimes feel like a powder keg ready to explode.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

24. Other people always seem to get the breaks.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

25. There are people who pushed me so far that we came to blows.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

26. I know that "friends" talk about me behind my back.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

27. My friends say that I'm somewhat argumentative.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic
- d) Somewhat characteristic
- e) Extremely characteristic

28. Sometimes I fly off the handle for no good reason.

- a) Extremely uncharacteristic
- b) Somewhat uncharacteristic
- c) Neither uncharacteristic

d) Somewhat characteristic

e) Extremely characteristic

29. I get into fights a little more than the average person.

a) Extremely uncharacteristic

b) Somewhat uncharacteristic

c) Neither uncharacteristic

d) Somewhat characteristic

e) Extremely characteristic

### **SLEEP QUALITY SCALE**

Please rate your quality of sleep for each statement using the 4-point scale provided. Tick the corresponding option for each item based on the scale below.

1. I have difficulty falling asleep

a. Rarely

b. Sometimes

c. Often

d. Almost/Always

2. I fall into a deep sleep.

a. Rarely

b. Sometimes

c. Often

d. Almost/Always

3. I wake up while sleeping I have difficulty getting back to sleep once I wake up in middle of the night.

a. Rarely

b. Sometimes

c. Often

d. Almost/Always

4. I wake up easily because of noise.
  - a. Rarely
  - b. Sometimes
  - c. Often
  - d. Almost/Always
5. I toss and turn.
  - a. Rarely
  - b. Sometimes
  - c. Often
  - d. Almost/Always
6. I never go back to sleep after awakening during sleep.
  - a. Rarely
  - b. Sometimes
  - c. Often
  - d. Almost/Always
7. I feel refreshed after sleep.
  - a. Rarely
  - b. Sometimes
  - c. Often
  - d. Almost/Always
8. I feel unlikely to sleep after sleep.
  - a. Rarely
  - b. Sometimes
  - c. Often
  - d. Almost/Always

9. Poor sleep gives me headaches.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

10. Poor sleep makes me irritated.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

11. I would like to sleep more after waking up.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

12. My sleep hours are enough.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

13. Poor sleep makes me lose my appetite.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

14. Poor sleep makes hard for me to think.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

15. I feel vigorous after sleep.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

16. Poor sleep makes me lose interest in work or others.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

17. My fatigue is relieved after sleep.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

18. Poor sleep causes me to make mistakes at work.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

19. I am satisfied with my sleep.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

20. Poor sleep makes me forget things more easily

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

21. Poor sleep makes it hard to concentrate at work.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

22. Sleepiness interferes with my daily life.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

23. Poor sleep makes me lose desire in all things

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always



24. I have difficulty getting out of bed.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

25. Poor sleep makes me easily tired at work.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

26. I have a clear head after sleep.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always

27. Poor sleep makes my life painful.

- a. Rarely
- b. Sometimes
- c. Often
- d. Almost/Always