

THREE PILLARS ON MENTAL HEALTH AMONG YOUNG ADULTS: A POPULATION STUDY OF SLEEP, STRESS AND DIET

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Abstract - A healthy lifestyle can be beneficial for one's mental health. Sleep, Stress and Diet have been associated with mental health and well-being individually in young adults. Thus, identifying which of this healthy behavior that promote psychological well-being and reduce mental problems is useful to prevent mental disorders. This study investigates the differential and higher-order associations between sleep, stress and dietary factors as predictors of mental health and well-being in young adults

Key Words: Sleep deprivation, Fight- or -Fight response, Insomnia, Depression, Poor mental health

1.INTRODUCTION

Mental health defined by World Health Organization is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community". It affects how we think, feel, and act. Mental health is important at every stage of life, from childhood and adolescence through adulthood.

A healthy lifestyle can be beneficial for one's mental health. Thus, identifying healthy lifestyle choices that promote psychological well-being and reduce mental problems is useful to prevent mental disorders. Getting high-quality sleep, a non-stressful life, and eating well not only have advantages to physical health (Chin et al., 2019) but also have advantages to mental health such as reduced risk of depression (Roach et al., 2017; Francis et al., 2019) and anxiety (Nho and Yoo, 2018) and increased psychological well-being (Pilcher et al., 1997; Mujcic and Oswald, 2016; Prendergast et al.,

2016; Conner et al., 2017). Emerging adulthood is a time of both developmental and ecological changes, marked by increased responsibility, new roles, and changing life circumstances (Conley et al., 2020). This developmental period often coincides with a transition to work or university, with changing routines, academic demands, and living situations, which can disrupt health behaviors (Conley et al., 2014). Emerging adults also appear more vulnerable to poorer mental health (Adolescent Health Research Group, 2008; Stallman, 2010), which could suggest a role for unhealthy life styles contributing to poorer emotional functioning.

Sleep and mental health are closely connected. Sleep deprivation affects your psychological state and mental health. And those with mental health problems are more likely to have insomnia or other sleep disorders. Sleep plays a vital role in both mental and physical health across the lifespan, with approximately one third of each day dedicated to sleep (Samson and Nunn, 2015). It is recommended that healthy adults need approximately 7–8 h sleep per night, while healthy emerging adults need approximately 7–9 h sleep per night (Hirshkowitz et al., 2015). Both inadequate and disrupted sleep has been shown to negatively influence mental and physical health and are risk factors for both depression and anxiety (Alfano and Gamble, 2009; Harvey, 2011). However, while sleep quantity is associated with increased depression and negative affect among clinical populations, sleep

quality appears to be a greater predictor of mental health and well-being among the general population (Pilcher et al., 1997; Bassett et al., 2015; Wallace et al., 2017; João et al., 2018) and young adults in particular (Buysse et al., 2008). Some studies have also established sleep as an important element in psychiatric conditions (Baglioni, Nanovska et al., 2014a; Baglioni, Spiegelhalder et al., 2014b). Poor quality of sleep and insomnia are related to emotion, previous studies have observed the effects of loneliness, grief, hostility, impulsivity, stress, depression, and anxiety on sleep (Baglioni, Spiegelhalder, Lombardo, & Riemann, 2010; Cho et al., 2013; Gallagher, Phillips, & Carroll, 2010; Okun, Tolge, & Hall, 2014). Furthermore, while clear recommendations around sleep quantity are outlined and promoted, the importance of sleep quality in mental health and well-being receives less attention. Research suggests that the relationship between sleep and mental health is complex. While sleep has long been known to be a consequence of many psychiatric conditions, more recent views suggest that sleep can also play a causal role in both the development and maintenance of different mental health problems.

Studies have underlined the importance of evaluating the influence of stress on the processes concerning the proper functioning of sleep (Cho et al., 2013; Gamaldo et al., 2014; Kashani et al., 2012; Ko, Chang, & Chen, 2010; Okun et al., 2014), given that it is an essential dimension of health (Buysse, 2014). Stress may conduce to negative health implications, including increasing the likelihood of cardiovascular disease, directly affecting the nervous system, as well as increasing the probability of involvement in risk behaviors, such as smoking and excessive alcohol consumption, which will propitiate a poor quality of sleep (Hawkey, Masi, Berry, & Cacioppo, 2006;

McHugh & Lawlor, 2013). In humans, stress can cause the autonomic nervous system (ANS) to release hormones, such as adrenaline and cortisol. These hormones raise the heart rate to circulate blood to vital organs and muscles more efficiently, preparing the body to take immediate action if necessary. This reaction is known as the fight-or-flight response, and it was vital for human survival during the earlier stages of evolution. It is normal to feel stressed occasionally, but chronic feelings of stress can cause the nervous system to maintain a heightened state of arousal for extended periods. Being in this state can severely impact physical and mental health in the long term. One effect of stress is that it can cause sleep deprivation. Frequently being in a heightened state of alertness can delay the onset of sleep and cause rapid, anxious thoughts to occur at night. Insufficient sleep can then cause further stress. According to a National Sleep Foundation survey, 43 percent of people aged 13–64 have reported lying awake at night due to stress at least once in the past month.

Diet is the third modifiable lifestyle behavior that contributes to mental health and well-being in young adults. Research has shown regular adherence to a healthy diet is associated with reduced risk of depression and improved mood (Molendijk et al., 2018). Intake of fruits and vegetables is a key aspect of a healthy diet linked to greater happiness and well-being in young adults (White et al., 2013; Conner et al., 2015) with further evidence than consumption of cooked or processed fruits and vegetables (Brookie et al., 2018). Conversely, regular consumption of a typical Western diet, categorized by consumption of refined grains, high sugar intake and processed and fried foods, has been associated with increased perceived stress among female college students, increased depressive symptoms among both male and female students (El

Ansari et al., 2014), poorer mental health outcomes (Jacka et al., 2010), and increased risk of depression (Akbaralyetal.,2009). Poor nutrition may be a causal factor in the experience of low mood, and improving diet may help to protect not only the physical health but also the mental health of the population, say Joseph Firth.

Sleep, stress, and diet have been associated with mental health and well-being individually in young adults. However, which of these “big three” health behaviors most strongly predict mental health and well-being, and their higher-order relationships in predictive models, is less known. Therefore, Knowing the importance of each of these lifestyle behaviors, singularly or in combination with each other, and the hierarchical order of importance will inform mental health interventions at both the population and individual level. This study investigated the differential and higher-order associations between sleep, stress, and dietary factors as predictors of mental health and well-being in young adults and whether there were any higher-order interactions among these behaviors in the prediction patterns.

2. OBJECTIVES

To determine the differential and higher-order associations between sleep, physical activity, and dietary factors as predictors of mental health and well-being in young adults.

The purpose of this study is to examine which of this healthy behavior mainly affects the mental health and well- being in young adults.

3. METHODOLOGY

The study used a cross-sectional correlational design with data collected through an online survey and

extensive measurement of demographic and health covariates.

The population of this study was around 300 young adults of age between 18-24 years.

Simple random sampling was adopted for selecting the population residence from Coimbatore and Kerala.

The study's inclusion criteria were young adults aged 18 to 24, with those suffering from chronic disease conditions or who were undergoing medication were exempted.

Tools and Techniques constructed for collecting primary data by pretested well-designed questionnaires to assess socio-demographic data and health covariates of the selected population.

4.RESULTS AND DISCUSSIONS

The summary of the study entitled “Three pillars of mental health among young adults: A Population study of sleep, stress, and diet” was : Age distribution of the selected samples states that the majority (Twenty-six percentage) of the samples were 22 years of age followed by 21 years of age (Twenty percentage). Among the selected population for the study seventy-six percentage were males and about twenty-three percentages were females.

Disease conditions of the selected population were observed that ninety-six percent of the samples were not suffering from any types of diseases whereas only four percent of them having hypertension, diabetics, and migraine.The majority (ninety-three percentage) of the selected samples were not having any types of food allergies and only about (six percentage) having some kinds of food allergies.

Satisfaction of sleep is defined as one's satisfaction of the sleep experience, integrating aspects of sleep initiation, sleep maintenance, sleep quantity, and refreshment upon awakening.

The study found that eighty-five percentage of the people surveyed were happy with their sleep, with just fifteen percentage unhappy.

Sixty percent of the samples had been moderately refreshed after waking up from sleep, ninety percentage of the samples feel very refreshed accompanied by means of sixteen percent fairly refreshed and most effective approximately five percent feels in no way refreshed.

The study observed quality of sleep that sixty percent of samples have an excellent pleasant of sleep, twenty percentage and eighty percentage of them having a mean and superb nice of sleep whereas most effective one percent have a terrible fine of sleep.

The guidelines approximately sleep reduce stress shows that eighty nine percent states sleep helps them to lessen their stress level at the same time as most effective about 11 percentage of samples states sleep did help them now not lessen their stress.

The impact of sleep on intellectual fitness of the given sample depicts that, among that sixty percent of the populace feels tiredness, twenty percent feels low temper and sixteen percentages and four percent feels irritability and elevation of strain hormones.

Mental contamination might affect the quality of sleep on eighty-six percentage of the populace while around sixty-4 percent explains that mental contamination did not have an effect on their sleep.

The majority (sixty-seven percentage) of the sample selected for the study did not face any types of trouble

falling or staying asleep too much at night on the other hand around thirty-three percentages of them were having trouble sleeping and they stayed asleep too much.

Different ways of relaxing body and mind when selected population were highly stressed were the forty-seven percentages of the samples sleep when they have stressed thirty-seven percentages of samples talk to other to relax their body and mind and less than ten percentages of the samples were eat well and practice mindful meditation to relieve their stress. The frequency of the stress of the selected population indicates that sixty-seven possibilities of the samples feel pressure only on occasion twenty- percentage once in a while feel strain and much less than five percent experience always and never feels strain.

The diverse reasons for the samples for constantly careworn may also encompass loss of sleep (thirty-5 percentage), immoderate paintings pressure (thirty-three percent), economic threats (twelve percent), and numerous different reasons (twenty percent)

The majority (sixty percentage) of the samples provide an explanation for that pressure will now not cause them to greater sleep whilst forty percentage indicated pressure makes them more sleep.

The impact of strain on the mental health of the selected populace depicts that fifty-one probabilities of the selected population were feeling unhappy or responsible, twenty four percent of them dealing with sleep troubles, and about fourteen percentages and ten percentage of the samples having sleep issues and modifications in ingesting pattern.

A majority (sixty-four percentage) of the samples decided on mentioned that pressure will have an effect on their consuming habits and a minority (thirty-six

percentage) of samples stated stress will now not have an effect on their ingesting habits.

Among the selected adult's forty-seven percentage of them prefer to eat fresh foods when they are highly stressed, twenty-seven percentage of samples likes to eat fats foods when they are stressed and the least percent of samples were preferring to eat frozen and processed foods.

The selected sample's opinion about whether lack of sleep tends them hungry explains that seventy-six percentage says that lack of sleep will not make them hungry on the other hand about twenty-three percentages of the samples say lack of sleep will make them hungry.

The effect of sleep on the eating habits of the samples proves that fifty-six percentage eat less, thirty percentage of samples eat well and less than ten percentages of the samples overeat and tend to prefer unhealthy foods. A majority (sixty-seven percentage) of the samples states that healthy eating may reduce their stress while a minority (thirty-three percentage) of the selected samples states that healthy eating will not make reduce their stress.

5. Conclusion

The study, "SLEEP, STRESS and DIET" is an important predictor for mental health and well-being in young adults. Lack of sleep has been linked to a number of unfavorable health consequences including heart disease, diabetes and depression.

Sleep disturbance may exacerbate the signs of many intellectual health conditions along with anxiety, tension, and irritability.

The consequence of the quality of sleep might be related to the ingesting patterns, unhealthy eating

patterns, and it directly affected the mental health of teenagers.

Long-term stress increases the risk of mental health problems such as anxiety and depression, sleep problems, and also affect eating patterns. Stress can adversely affect sleep quality and duration while insufficient sleep can increase stress levels. Both stress and lack of sleep can lead to lasting physical and mental health problems. Stress causes some people to ignore their hunger cues and refrain from eating for long stretches. For other people, stress turns them into emotional eaters who mindlessly munch. Some people overeat when they feel stressed, and other people lose track of their appetite.

The food we eat may affect not just our physical health but also our mental health and wellbeing. Eating well may be associated with feelings of well-being. Eating habits also affect the quality of sleep and poor diet is also associated with stress and leads to a mental health problem.

The results indicated all three factors "SLEEP, STRESS, AND DIET" are important pillars of the mental health and healthy wellbeing of young adults.

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