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The Effects of Gadgets Usage on Marital Relationship Satisfaction and Sleep Quality Among Housewives

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ABSTRACT

This study aimed to investigate the effects of gadgets usage on marital relationship satisfaction and sleep quality among housewives. The study includes quantitative, cross-sectional design with participation of 173 housewives under the age group of 25 -50 years. To determine the impacts on housewives, participants' frequencies of gadget use (less than an hour, one to three hours, and more than three hours) are gathered. Statistical tests confirm a significant relationship between gadget use and marital satisfaction, with excessive gadget use negatively affecting marital relationship quality. However, no significant difference is observed in sleep quality across different levels of gadget usage, suggesting that other external factors may influence sleep patterns. The study concludes that excessive gadget use negatively affects marital relationships, likely due to decreased face-to-face interactions and increased distractions. However, sleep quality remains largely unaffected by gadget usage. These findings emphasize the need for mindful digital consumption, promoting a balanced approach to technology use in maintaining healthy relationships and overall well-being. Future research should explore longitudinal effects and other variables affecting sleep quality to provide a more comprehensive understanding of the impact of gadget usage on family dynamics.

Keywords: gadgets usage, marital relationship satisfaction, sleep, housewives.

INTRODUCTION

Human are social creatures who interact and communicate with one another (Fadzil, 2016). Gadgets have become one of the important aspects of an individual, from wakeup to bedtime. As the era changes gadgets rule the human beings. The word technology is derived from the Greek word “techno”, which means the art or skill used to solve a problem, improve an existing solution to a problem, as well as achieving a goal, and contolling an input-output relation or executing a task. Technology is the creation, modification, use and knowledge of tools, machines, techniques, and organizational methods (Echave, 2023). Smartphones, tablets, laptops and other electronic devices have evolved beyond their original professional and academic functions to become essential tools for entertaining and daily communication. Technologies have both positive and negative sides. When the gadgets are used for other than the purpose it affects individual biologically, psychologically and socially. People are becoming overly reliant on these electronic devices,

which prevents them from thinking strategically. Despite the negative effects, gadget addiction entails losing control over device use and can result in a number of impairments in day-to-day functioning. Device use turns into a compulsive activity and is classified as an addiction. Another way to describe it is as an addictive disorder. Addiction defines someone's extreme dependence on a particular object. The development of an addiction causes people to lose control over their mental processes and responsibilities alongside their actions.

Screen addiction, has led to a reduction in physical activity; privacy concerns have become a major issue in the digital era. Overreliance on technology can affect mental health, interfere with social interactions, and expose individuals to cybersecurity threats. Based on the study given by young, adolescents are especially susceptible to technology addiction. Adolescents lack the coping skills necessary for healthy stress management. In times of stress, they resort to activities that provide immediate comfort and often mindless distraction, such as watching videos or scrolling through social media (Hegde, (2019)). Numerous fields rely solely on technology, which has led to numerous advancements in those fields. These technologies must be used responsibly by establishing boundaries which will balance their benefits against potential drawbacks. Children who utilize electronic devices throughout their early years develop attention deficit hyperactivity disorder (ADHD). Digital gadget screens emit blue light, a particular wavelength of light. A few consequences of blue light include eye strain, sleep disturbance, elevated risk of retinal damage, possible psychological effects, cognitive problems, anxiety, and sadness, which can result from irregular sleep habits. Sleep deprivation impacts brain activity and emotional control, and may increasing the risk of obesity and chronic illnesses; heart disease, diabetes, and weight gain are all associated with poor sleep quality brought on by exposure to blue light.

Technological advancements have transformed daily lives, including how individuals interact and relax. Nowadays, gadgets are become easily accessible. There are no age limits, no need of more knowledge and no need of more efforts to learn how to use a gadget. Although advancement of gadgets helps a person to improve their quality of life, negative effect of the gadget's usage is also more in person's life. One of the disadvantages was explained in a study that electromagnetic frequency (EMF) exposure at night affects the rhythm of melatonin and brain activity of a person, especially pineal gland activity, which leads to changes in cerebral blood flow and electrical activity of the brain and thus impairs sleep quality (Lemola, 2014). Other than this the use of gadgets affects one's knowledge, memory, problem solving ability, etc.

Among housewives' excessive usage of gadgets influence their marital relationships and sleep quality. For housewives, gadgets often serve as a tool for relaxation or household management, but prolonged use may lead to conflicts with their spouses and disrupted sleep patterns. According to Upadhyay, Jesudass and Chitale, gadget usage made person to forget their social life. As a result, they are lack in interaction and communication with others and detached themselves from the environment, because they become introvert and impatient (Upadhyay, 2014). Housewives frequently manage various tasks as primary caretakers and homemakers, making it critical to investigate how their use of technology outside of professional needs affects their marital relationships and sleep quality. According to previous studies marital relationship is a foundation of family stability and emotional health. A healthy relationship is a basic element for happy and satisfied families (Coyne S. M., 2011). The family plays a crucial role in society's survival and is considered one of its most vital components. The use of gadgets among housewives can affect both marital relationship and life satisfaction, which are key factors that contribute to strengthening the family unit. Marital satisfaction is the strength and quality of bond between partners, characterized by a positive and satisfying attitude towards each other. While marital happiness is easily

attainable, it lacks can dispute the couple's inner harmony and negatively impact the family structure and mental health of the children. A healthy marital relationship is dependent on love, mutual cooperation, compassion, understanding, forgiveness, and mutual sacrifices from both partners. Moreover, attachment styles, which are often formed during childhood, significantly impact marital satisfaction and evolve based on one's environment. Attachment is essentially a shared emotional connection that fosters security and plays a pivotal role in an individual's mental health. Interaction patterns between their spouses determine how satisfied they are with their marriage life (Shackelford, 2000). Bradbury, Fincham, and Beach (2000) identified interpersonal communication as one of the important factors in relationship satisfaction (Bradbury, 2000). Turkle (2011) argues that people are separating from each other because of media usage as it detaches them from others and social interactions. They are physically together but not mentally present for each other (BATOOL, 2020). Marital relationship is based on intimacy. It is possible that gadgets spice up every day experiences of a housewife beyond her professional engagement, but it takes cutting of interpersonal interaction. They discovered that the more hours a day people spend in front of a screen, the less time they spent in direct disagreements, which help to maintain an emotional connection with a partner and can lead to fights in a marriage. In contrast, adequate and appropriate use of gadgets may even strengthen a relationship since couples will spend time together watching movies or find interest through the internet.

Another aspect of life affected by the gadgets is sleep, is one of the pillars of physical and mental health. Sleep is a reversible behavioural state of perceptual disengagement from and unresponsiveness to the environment (Carskadon, 2005). Humans require minimum 7-8 hours of sleep, which varies according to individual needs. The sleep cycle consists of a recurring sequence of sleep stages, with each repetition lasting between 90 and 110 minutes. It generally consists of four to six cycles, which include both Non-Rapid Eye Movement (NREM) sleep and Rapid Eye Movement (REM) sleep. NREM sleep is categorized into three phases: Stage 1, during which the body goes from being awake to sleeping; Stage 2, during which the body's temperature drops and the heart rate slows and Stage 3, known as deep sleep, which can last from 20 to 40 minutes. REM sleep, which last anywhere from 10 to 60 minutes, plays a vital role in cognitive abilities, emotional balance, and memory formation. Inadequate sleep quality can result in tiredness, diminished cognitive performance, emotional instability, and a compromised immune system. To enhance sleep quality, people should stick to a consistent sleep schedule, limit screen time before bed, avoid coffee and heavy meals, exercise regularly, and develop a calming bedtime ritual. Understanding and maintaining a good sleep cycle can enhance overall health and performance. Prioritizing adequate sleep is essential for preserving overall health and well-being. High-quality sleep energizes the body, leading to a refreshed and fit state upon awakening; in contrast, insufficient and substandard sleep can precipitate numerous physiological disorders, including fatigue, weakness, diminished daily functioning, impaired neuromuscular performance, compromised immune response, prolonged healing, irritability, rapid onset of stress, anxiety, lack of focus, and ineffective coping mechanisms (Nugraha, 2023) (Caesarridha D. K., 2021) (Wati, 2020). However, gadgets, that have become more lightweight and portable making them easier to use, have become such indispensable and a huge part of our daily lives including at bedtime (Jniene, 2019). Several elements that influence sleep, but as technology evolves and new gadgets are introduced, they are a primary source of sleep disturbances. Mobile phones, personal computers, tablets, and televisions emit blue light. The light from those illuminations has adverse effects on human body by suppressing melatonin production, eye discomfort, disrupting sleep, raising the risk of cancer, and disrupting circadian rhythms. Individuals' maladaptive use of smartphones and compulsive

social media use (CSMU) can result in negative consequences in their daily lives, such as social media fatigue (L.F. Bright, 2018), a "fear of missing out" (FOMO). FOMO has also been discovered that, despite its broad conceptualization, FOMO can appear as a unique workplace phenomenon that can lead to employee burnout (V. Apaolaza, 2019) (A. Dhir, 2018), and sleep disturbances (Tandon, 2020). For housewives, inadequate sleep can gradually increase daily stress and impair their ability to manage responsibilities effectively.

Purpose and scope of the study

This study aims to investigate the effects of gadget usage on marital relationship satisfaction and sleep quality among housewives. In the modern digital era, the increasing dependence on gadgets for communication, entertainment, and household management may significantly impact interpersonal relationships and overall, wellbeing. By examining these influences, this research seeks to provide empirical evidence on how gadget use in three different frequencies (less than 1 hour, 1-3 hours and more than 3 hours) affects marital relationship and sleep health among housewives.

The specific objectives of this study are to:

1. Assess the effect of different frequencies of gadget usage (less than 1 hour, 1-3 hours and more than 3 hours) on marital relationship satisfaction among housewives.
2. Examine the impact of different frequencies of gadget usage (less than 1 hour, 1-3 hours and more than 3 hours) on sleep quality among housewives.

This study is based on the idea that excessive gadget use may contribute to decreased face-to-face communication, emotional detachment, and disrupted sleep patterns, which could negatively affect marital harmony. The findings are expected to contribute to the body of knowledge on gadgets usage other than the professional use impact on family dynamics and sleep quality. This study takes a quantitative approach, utilizing standardized self-reported questionnaires to measure, marital relationship satisfaction, and sleep quality among housewives. The study will also examine various demographic variables includes age, education, socioeconomic details, number of children and frequency of gadgets usage to understand how the main variables relate to one another. The results of this research will be valuable to multiple stakeholders, including psychologists, marriage counsellors, healthcare professionals, and policymakers, who can use the findings to develop guidelines and interventions promoting healthier technology use, stronger marital relationships, and better sleep hygiene. By emphasizing the importance of digital well-being and balanced gadget use, this study aims to support happier marriages and improved overall health among housewives.

REVIEW OF LITERATURE

Marya, Kalhor & Nazila, Olyaie. (2024). Relationship between Marital Satisfaction and Mental Health of Married Women Referring to Health Centers in Sanandaj, Iran in 2014. Global Journal of Health Science. This study investigated the relationship between marital satisfaction and mental health of married women referred to health centers in Sanandaj, Iran in 2014. This study is a cross-sectional study conducted on 393 women referring to the health centers in Sanandaj, Iran who were selected randomly in 2014. ENRICH Marital Satisfaction Questionnaire and General Health Questionnaire (GHQ-28), used for data collection which was completed by the participants in the study. Data were analyzed using SPSS version 16, descriptive, and analytical statistics. Most of the participants enjoyed marital satisfaction and had good mental health. The results indicated there was a significant relationship between mental health and marital satisfaction.

The study conducted by Rakhshani T, Amirsafavi M, Motazedian N, Harsini PA, Kamyab A and Jeihooni AK (2024) on the title of Association of quality of life with marital satisfaction, stress, and anxiety in middle-aged women. This study examined the relationship between quality of life with marital satisfaction, stress and anxiety in middle aged women those who visiting health clinics in Ahvaz city, iran. The study conducted for 1000 middle aged married women about age of 30-59 years under the auspices of health centers of Ahvaz city. Using simple random sampling method collected data using standardized questionnaires: quality of life questionnaire, Enrich marital satisfaction questionnaire, Holmes-Raheh stress questionnaire, and Spielberger state-trait anxiety inventory. For data analysis SPSS 0.2 software used, mean, standard deviation, frequency, pearson correlation and regression. Concluded as there is a positive and significant relationship between quality of life and marital satisfaction.

Anandithа, Aries & Priyantini, Diah & Novelia, Ranty. (2024). The relationship between gadget addiction and interest in studying and sleep quality in school children. journal of vocational nursing. The study focus on the excessive use of gadgets in children can lead to addiction and their impact can influence students' academic and sleep quality. The research is quantitative and cross-sectional study. The population of the study are 6th grade school children with a sample size of 83 children. The tools used to measure the data: sleep quality questionnaire and modified gadget addiction questionnaire. The research data analysis used the spearmen rho corelation test. The result of the study shows there is a significant relationship between gadget addiction and students' interest in learning and sleep quality.

Upreti, Manish & Dawadi, Ambika. (2022). Electronic gadgets use and sleep quality among medical students during COVID-19 Lockdown. The study focuses on the total screen time of electronic gadgets promote sleep quality for the betterment of physical and mental health. The study conducted during COVID-19 lockdown among 208 under graduation medical students of Lumbini medical college, tansen, Palpa. Tools for measure the data analysis are Smartphone addiction score-short version (SAS-SV) and Pittsburgh Sleep Quality Index (PSQI). The study shows smart phone addiction with higher number of male addicts and the respondents had impaired sleep according to PSQI global sleep score. Significant relation was present between most of the components of PSQI with addicts and non-addicts.

Nazari, Abouzar & Hosseinnia, Maede & Najafi, Elahe. (2024) a research work in Iran on Sexual satisfaction and attitude toward marital infidelity among married people, which exames the effects impact of social media and entertainment preferences among married couples. They employed an online questionnaire that comprised of four sections: demographic and background information, social media and entertainment preferences, sexual satisfaction, and attitude towards marital infidelity to gather data from 1,756 married participants. The study's results indicate a significant relationship between demographic and background information, social media and entertainment preferences, sexual pleasure, and attitudes about marital infidelity. Participants with shorter marriages, higher spouse education and more frequent Iranian social media usage reported higher sexual satisfaction.

The study conducted by Riahifar, Maryam & Abdollahi, Abbas & Vakili, Samira (2024) on the title of Determining the Relationship Between Interpersonal Mindfulness, Social Media Use, and Marital Satisfaction. This study is field study regarding the data collection and analysis. Using simple random sampling research employed for married residents of Tehran who are members of social networks among 106 participants. Data collected using the Interpersonal Mindfulness Questionnaire (IMQ), the Social Networks Questionnaire, and the ENRICH Marital Satisfaction Scale. The findings of the research indicates that interpersonal mindfulness correlates positively relationship with a marital satisfaction, while social media usage correlates negatively relationship with marital satisfaction.

Brigoli, minda & sandoval, loaida. (2023). The mediating effect of marital satisfaction on the relationship between quality family life and well-being of married couples. European journal of education studies. Quantitative study, non-experimental design through correlational technique, data collected from 300 married couples, in one of the cities in Davao Province. The research includes of stratified sampling technique and survey mode of data collection. The researcher also utilized the statistical tools mean, Pearson r and Med-graph using Sobel z-test. The study finds that married couples have really high mean scores for quality family life and well-being even as their degree of marital satisfaction is rather low. Revealed that there is a partial mediation of the effect of marital satisfaction on the relationship between quality family life and the well-being of married couples.

A study conducted by Brown and Johnson (2020) titled "Gender Roles, Domestic Responsibilities, and Sleep Quality Among Homemakers". The study aimed to explore how traditional gender expectations impact women's mental and physical well-being. The study includes 150 homemakers around age of 25-45 years. Tools used in study, Gender Role Belief Scale (GRBS) and Pittsburgh Sleep Quality Index (PSQI) were used to collect data. The results of the study showed the increased emotional and physical demands due to traditional gender role results in chronic fatigue and poor sleep quality. This study highlighted the unique stressors faced by housewives, linked with their disturbed sleep patterns.

Taylor et al. (2021) conducted a study titled "Effects of Marital Conflicts on Psychological Distress and Sleep." The purpose of this study was to examine the effects of marital discord on sleep quality through psychological distress. The study sample consisted of 120 married individuals. Tools like the Depression, Anxiety, and Stress Scale (DASS-21) and the PSQI were used to measure psychological distress and sleep disturbances. The results revealed a significant relationship between marital conflicts and poor sleep quality, mediated by increased psychological distress. This finding emphasizes the role of unresolved marital issues in aggravating sleep problems.

Chen, Waite, and Lauderdale (2015) conducted study on "Marriage, Relationship Quality, and Sleep among U.S. Older Adults". The study investigates the impact of marital status and relationship quality on sleep characteristics in older adults aged 62 to 90 years. The research uses data from the National Social Life, Health, and Aging Project (NSHAP) and actigraphy to measure sleep patterns. The study found that married individuals had better actigraphy-measured sleep quality compared to unmarried individuals, but self-reported sleep quality showed weaker associations. Negative aspects of the relationship were associated with poorer self-reported sleep quality, while positive relationship aspects correlated with improved actigraphy-measured sleep patterns. The study contributes to understanding the broader social determinants of health by integrating multidimensional perspectives on sleep, marriage, and aging. Its emphasis on psychosocial factors and health behaviors provides a framework that could be extended to other contexts, including younger populations navigating academic environments.

Michelle David, Sumayya Shurovi, Talea Cornelius, Joseph Schwartz, Marwah Abdalla, 0897 The Relationship Between Marital Satisfaction and Sleep, *Sleep*, Volume 47, Issue Supplement_1, May 2024. Relationship satisfaction affects once overall health. The study conducted to 472 participants without major cardiovascular disease from 10 New York City worksites during 4 waves over 11 years. The data collected using the Dyadic Adjustment Scale (DAS), which assesses MS, and a sleep questionnaire derived from the Sleep Heart Health Study. Greater marital satisfaction was associated with better sleep quality, however marital satisfaction is not associated with sleep duration.

Krisnana, I., Hariani, V., Kurnia, I. D., & Arief, Y. S. (2022). The use of gadgets and their relationship to poor sleep quality and social interaction on mid-adolescents: a cross-sectional study. The study aims to

find the relationship between the intensity of the use of gadgets and the quality of sleep and social interaction in adolescent. The sample size including in this research is 250 adolescents who are aged 15-18 years and adolescents who owned and used gadgets. Data collection focused on the intensity of gadget use using questionnaires and it was analyzed using the Pittsburgh Sleep Quality Index (PSQI) and the Social Interaction Anxiety Scale (SIAS). The study result showed that the gadget intensity was positively related to poor sleep quality in adolescents. Higher intensity of use of gadgets, lower the social interactions in adolescents.

Handayani, O. W. K., Yuniastuti, A., Abudu, K. O., & Nugroho, E. (2021). GADGET addiction and the effect of sleep habit, stress, physical activity to obesity. Descriptive study, conducted on college students from Pondicherry engineering college with the sample size of 240 students who are selected using a stratified random sampling technique. Data collected using structured questionnaire for assessing gadget usage and Pittsburgh sleep quality index (PSQI) to measure sleep quality. For statistical analysis, descriptive statistics, chi-square test and spearman correlation coefficient are used. The study results weaker correlation between gadgets usage and sleep quality.

Jose, S. A. (2021). Effect of Electronic Gadgets on Quality of Sleep Among College Students. This study observes junior and senior high school adolescents from the age group of 12-18 years in Yogyakarta, Indonesia. Research conducted for 150 students who are selected using simple random sampling. Self structured questionnaires, physical activity recall forms, food recall forms and weight scales are used for data collection. The statistical method involves chi-square test, independent T-test and multivariate path analysis. The study highlights that excessive usage of gadgets indirectly contribute to obesity through its effects on sleep, stress and physical activity.

De Niro, A. J. N., Pawitra, A., Faizah, N. N., Putra, R. D., Arfiputri, V. F., Sihombing, R. V., ... & Martha, L. (2020). Correlation of gadgets addiction with sleep quality in 4th–6th grade students at SDN 01 Srigading Lawang in 2019. Cross- sectional design conducted on the population of 4^{th}-6^{th} grade students. The sample size of the study is 126 are selected using total sampling technique. Data collected using smartphone addiction scale (SAS) questionnaire and Pittsburgh sleep quality index (PSQI) questionnaire. The use descriptive statistics and RxC contingency statistical test for data analysis. The study shows a significant correlation between gadget addiction and sleep quality but the correlation strength was weak.

Mohammadbeigi, A., Absari, R., Valizadeh, F., Saadati, M., Sharifimoghadam, S., Ahmadi, A., ... & Ansari, H. (2016). The study investigates the sleep quality in medical students; the impact of over-use of mobile cellphone and social networks. Cross- sectional study conducted on the population of undergraduate's students from Qom university of medical sciences, Qom, Iran. The sample size of the study is 380 students are selected using proportional stratified sampling. Cell phone over use scale (COS), Pittsburgh sleep quality index (PSQI) and additional questionnaire for collect demographic data and mobile social network usage are used for data collection which was completed by the participants in the study. Descriptive statistics, T-test and ANOVA, pearson correlation coefficient and multivariate logistic regression are methods involved in data analysis. The result indicates that excessive smartphone usage at night disrupted sleep pattern, likely due to melatonin suppression and cognitive dysfunction.

METHODOLOGY

RESEARCH METHODOLOGY

The term "research methods" or "techniques" refers to the strategies that researchers employ when conducting their investigations. A particular approach for systematically solving the research test is

research methodology. It might be viewed as a science that studies scientific research methods. (Kothari, 2004)

PROBLEM STATEMENT

To find out the relationship between the effect of gadget usage on marital relationship satisfaction and sleep quality among housewives.

AIM

To examine the effect of gadget usage on marital relationship satisfaction and sleep quality among housewives. It seeks to determine whether different levels of gadget usage (less than 1 hour, 1-3 hours, and more than 3 hours) influence these two variables.

OBJECTIVES

1. To analyze the effect of different frequencies of gadget usage (less than 1 hour, 1-3 hours, and more than 3 hours) on marital relationship satisfaction.
2. To analyze the effect of different frequencies of gadget usage on sleep quality.

HYPOTHESES

- H_{01} (Null Hypothesis): There is no significant difference in marital relationship satisfaction among housewives across different gadget usage frequencies.
- H_{02} (Null Hypothesis): There is no significant difference in sleep quality among housewives across different gadget usage frequencies.

RESEARCH DESIGN

The study is done using quantitative research design to examine the impact of gadget usage frequency on marital relationship satisfaction and sleep quality among housewives. A detailed analysis of the dataset is conducted using descriptive statistics, including distributions and measures of variability, to provide an in-depth understanding of the data. T-test is used to identify the differences in marital satisfaction and sleep quality across different levels of gadget usage.

POPULATION AND SAMPLING

The sample for this study includes housewives of age 25 to 50 years. The total sample size for this study is 173

SAMPLING TECHNIQUE:

Stratified Random Sampling The sample is divided into three groups based on daily gadget usage:

- Less than 1 hour per day
- 1-3 hours per day
- More than 3 hours per day

INCLUSION CRITERIA:

- The study includes housewives
- Aged between 25-50 years.

- The study includes who use gadgets

EXCLUSION CRITERIA:

- Respondent who are below 25 are excluded for this study
- Respondent who are above 50 are excluded for this study
- Housewives who do not use gadgets

VARIABLES

Independent variable - The independent variable is the variable the experimenter manipulates or changes, and is assumed to have a direct effect on the dependent variable.
Dependent variable - The dependent variable is the variable being tested and measured in an experiment, and is 'dependent' on the independent variable.
Independent Variable - Gadget usage frequency (Categorized as: Less than 1 hour, 1-3 hours, more than 3 hours).
Dependent Variables:

- Marital relationship satisfaction (measured using the Relationship Assessment Scale).
- Sleep quality (measured using the Pittsburgh Sleep Quality Index).

STATISTICAL ANALYSIS

- Descriptive Statistics: Mean, Median and standard deviation.
- T- test: To compare marital satisfaction and sleep quality across the three groups of gadget usage.

TOOLS USED

- Relationship assessment scale (RAS): A 7-item scale designed to measure general relationship satisfaction
- Pittsburgh Sleep Quality Index (PSQI): A standardized tool to measure sleep quality.

TOOL DESCRIPTION

RELATIONSHIP ASSESSMENT SCALE

The Relationship Assessment Scale (RAS), developed by Susan S. Hendrick in 1988, is a widely used tool for measuring general relationship satisfaction. It consists of seven items rated on a 5-point Likert scale, where higher scores indicate greater satisfaction. The questions assess aspects such as the partner's ability to meet needs, overall satisfaction, the relationship's quality compared to others, and alignment with expectations. Items 4 and 7 are reverse-scored to maintain consistency in interpretation. The scale is concise and user-friendly, making it suitable for research on romantic relationships. Its scoring remains continuous, allowing for nuanced evaluations of satisfaction. The RAS has been used extensively in studies related to relationship dynamics, providing reliable and valid insights into satisfaction levels

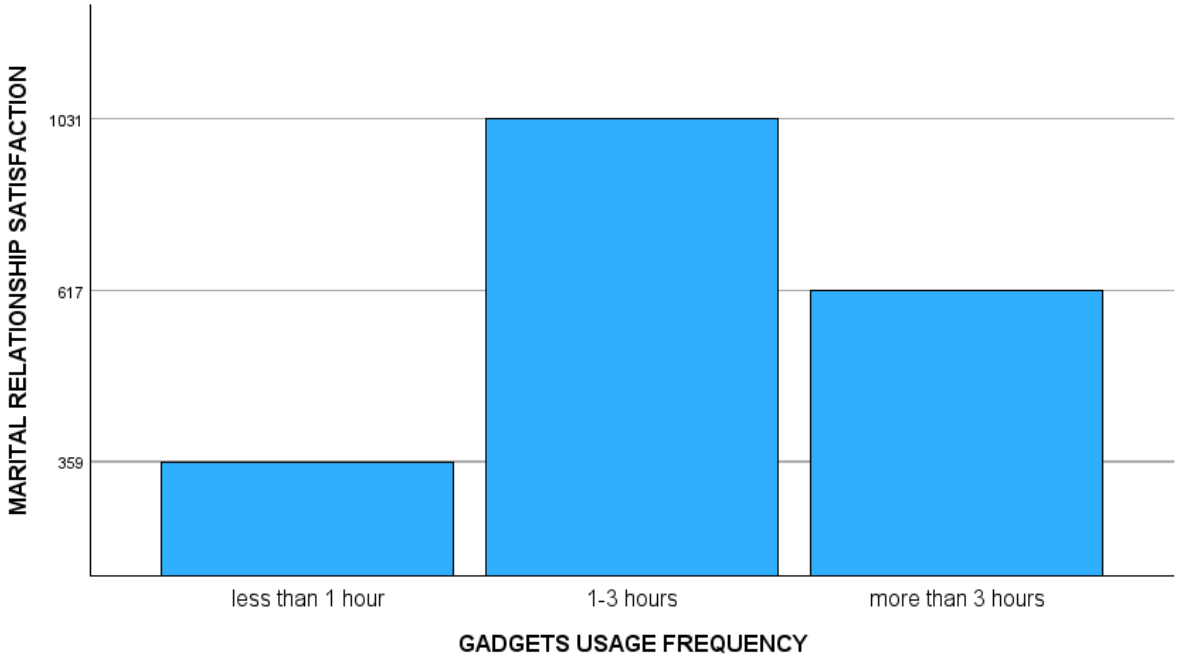
PITTSBURGH SLEEP QUALITY INDEX (PSQI)

The Pittsburgh Sleep Quality Index (PSQI), developed by Buysse in 1989, is a self-reported questionnaire designed to assess sleep quality and identify sleep disturbances in clinical populations. It includes 19 items categorized into seven components: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. The PSQI is validated

for individuals aged 24–83 years and has been used in various clinical contexts, such as depression, insomnia, cancer, and fibromyalgia. It takes 5–10 minutes to complete, with a scoring system ranging from 0 to 3 for each item, culminating in a global score where a cut-off of 5 indicates poor sleep quality. The instrument has demonstrated strong reliability (Cronbach's alpha = 0.83) and validity (sensitivity: 89.6%, specificity: 86.5%).

RESULT AND DISCUSSION

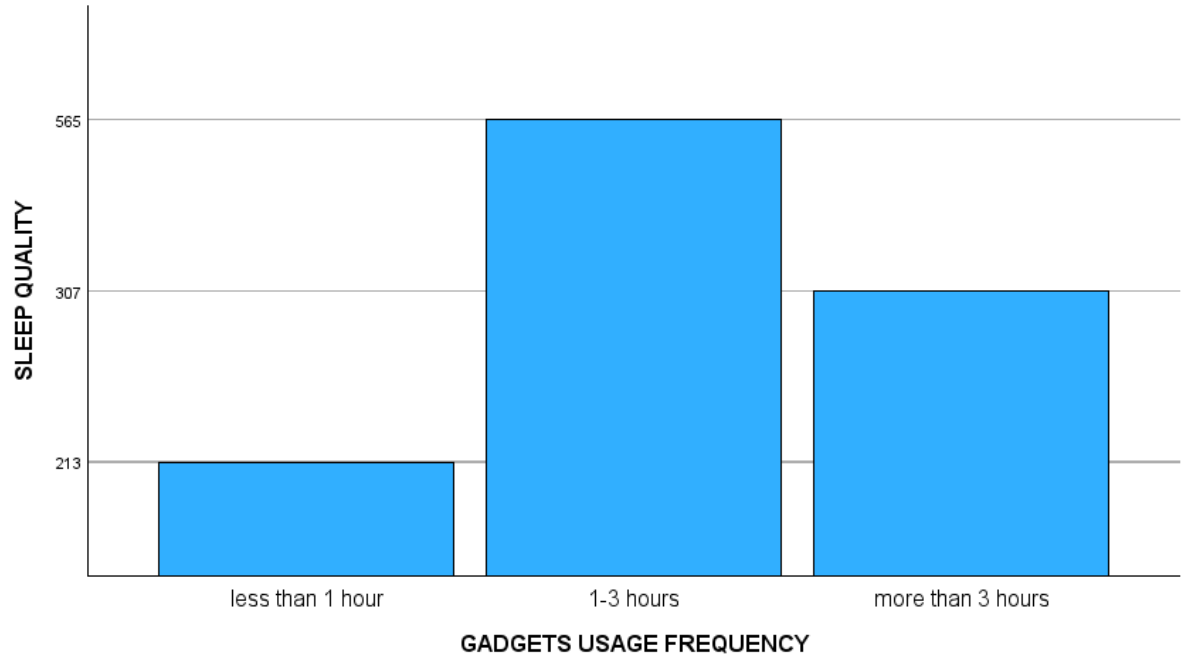
GRAPH 1



MARITAL RELATIONSHIP STATISFACTION

The bar graph displays the relationship between gadget usage frequency and marital relationship satisfaction among housewives based on their total score under each category of gadgets usage. The x-axis categorizes gadget usage into three groups: less than 1 hour, 1-3 hours, and more than 3 hours, while the y-axis represents marital relationship satisfaction total scores of housewives under each category of gadgets usage. The graph shows that majority (1031) of housewives who use gadgets for 1-3 hours per day, as this category has the tallest bar. Less number (359) of use gadgets for less than 1 hour per day report the high marital relationship satisfaction, represented by the shortest bar. Moderate (617) number of housewives who use gadgets for more than 3 hours per day have a lower satisfaction level than those in the 1–3-hour category but higher than those in the less-than-1-hour category.

GRAPH 2



SLEEP QUALITY

The bar graph shows the relationship between gadget usage frequency and sleep quality among housewives. The x-axis categorizes gadget usage into three groups: less than 1 hour, 1-3 hours, and more than 3 hours, while the y-axis represents sleep quality total scores of housewives under each category of gadgets usage. The graph shows that majority (565) of housewives who use gadgets for 1-3 hours per day, as this category has the tallest bar. Less number (213) of use gadgets for less than 1 hour per day report the high marital relationship satisfaction, represented by the shortest bar. Moderate (307) number of housewives who use gadgets for more than 3 hours per.

TABLE 1

DESCRIPTIVE TABLE

This table explains the descriptive statistics, mean and standard deviation of Marital relationship satisfaction and Sleep quality among housewives.

	FREQUENCY USED	MARITAL RELATIONSHIP TOTAL	SLEEP TOTAL
N	LESS THAN 1 HOURS 1-3 HOURS MORE THAN 3 HOURS	39 77 56	39 77 56
MEAN	LESS THAN 1 HOURS 1-3 HOURS MORE THAN 3 HOURS	26.3 22.2 17.8	11.1 10.5 11.0
MEDIAN	LESS THAN 1 HOURS 1-3 HOURS	25 22	12 10

The table shows the mean and median for the variable's marital relationship satisfaction and sleep quality under the three categories of frequency of gadgets usage: less than 1 hour, 1-3 hours and more than 3 hours. In total (N), there were 39,77, and 56 participants in each category.

The mean scores for marital relationship satisfaction: housewives who use gadgets for a relatively smaller amount of time, specifically less than an hour per day, have the absolutely highest average score (26.3), followed by those using them for a relatively greater amount of time, specifically 1-3 hours (22.2), and the greatly lowest scores belong to those who use gadgets for a relatively larger amount of time, specifically more than 3 hours (17.8). This suggests that more device usage could impact on marital relationship. The median values: for less than 1 hour is 25 along with 1-3 hours is 22.

The median scores for sleep quality remain relatively consistent among the differing levels of use. The average sleep scores for the three groups of people are 11.1, 10.5, and 11.0, which implies that the use of gadgets does not greatly affect a person's sleep quality. The median scores for sleep: 12 for less than 1 hour and 10 for 1-3 hours, it shows that sleep is not as powerfully affected by screen time as marital relationships are.

TABLE 2

Table 2 shows the statistical analysis comparing marital relationship satisfaction and sleep quality between housewives with lower (less than 1 hour) and moderate (1-3 hours) levels of gadget usage. The table gives the test statistic, degrees of freedom (df), and p-values for the two variables.

	statistic	Degrees of freedom	P
Marital relationship satisfaction	3.713[a]	114	<.001
Sleep quality	-0.739[a]	114	0.461

Note. H_a $\mu_{lower} \neq \mu_{moderate}$

For marital relationship satisfaction, the test statistic is 3.713 with 114 degrees of freedom, and the p-value is less than.001. This shows a statistically significant marital satisfaction difference between lower (less than 1 hour) and moderate (1-3 hours) levels of gadget use. A p-value of less than.001 indicates that the probability of this outcome by chance is very low, so gadget use frequency has a strong correlation with marital satisfaction. Since Levene's test for equality of variances is significant ($p < .05$), it indicates that the equal variances assumption is not met, and thus the variability in marital satisfaction varies across the groups. For sleep quality, the test statistic is -0.739 with 114 degrees of freedom, and the p-value is 0.461. Because this p-value is significantly larger than the conventional significance level (0.05), it indicates that there is no statistically significant variation in sleep quality between lower (less than 1 hour) and moderate (1-3 hours) levels of gadget use. This implies that sleep quality does not seem to be significantly affected by how much time housewives spend on their gadgets. Like marital satisfaction,

TABLE 3

Table 3 shows the statistical analysis comparing marital relationship satisfaction and sleep quality between housewives with high (more than 3 hours) and moderate (1-3 hours) levels of gadget usage. The table includes the test statistic, degrees of freedom (df), and p-values for both variables.

	Statistic	Degree's freedom	p
Marital relationship satisfaction	-6.145	131	<.001
Sleep quality	-0.753[a]	131	0.453

Note. H_a $\mu_{high} \neq \mu_{moderate}$

For marital relationship satisfaction, the test statistic is -6.145 with 131 degrees of freedom, and the p-value is less than .001. This indicates a highly significant difference in marital satisfaction between housewives with high (more than 3 hours) and moderate (1-3 hours) level of gadget usage. Since the p-value is well below the standard threshold of 0.05, it strongly suggests that higher gadget usage is associated with lower marital satisfaction. The negative test statistic implies that the group with high gadget usage reports significantly lower marital satisfaction compared to the moderate usage group.
For sleep quality, the test statistic is -0.753 with 131 degrees of freedom, and the p-value is 0.453. Since this p-value is much greater than 0.05, it indicates that there is no significant difference in sleep quality between housewives with high (more than 3 hours) and moderate (1-3 hours) level of gadget usage. This shows that, unlike marital satisfaction, sleep quality is not substantially affected by increased gadget use.

TABLE 4

Table 4 shows the statistical analysis comparing marital relationship satisfaction and sleep quality between housewives with high (more than 3 hours) and low (less than 1 hour) levels of gadget usage. The table includes the test statistic, degrees of freedom (df), and p-values for both variables.

	Statistic	Degree's freedom	p
Marital relationship satisfaction	-6.7911[a]	93.0	<.001
Sleep quality	0.0399	93.0	0.968

Note. H_a $\mu_{high} \neq \mu_{lower}$

For marital relationship satisfaction, the test statistic is -6.7911 with 93.0 degrees of freedom, and the p-value is less than .001. This indicates a highly significant difference in marital satisfaction between housewives with high (more than 3 hours) and low (less than 1 hour) levels of gadget usage. Since the p-value is well below the 0.05 threshold, it strongly suggests that higher (more than 3 hours) gadget usage is associated with lower marital satisfaction. The negative test statistic implies that housewives with high gadget usage report significantly lower marital satisfaction compared to those with lower gadget usage.
For sleep quality, the test statistic is 0.0399 with 93.0 degrees of freedom, and the p-value is 0.968. Since this p-value is much greater than 0.05, it indicates that there is no significant difference in sleep quality between housewives with high (more than 3 hours) and low (less than 1 hour) levels of gadget usage. This suggests that, unlike marital relationship satisfaction, sleep quality remains unaffected by increased gadget use.

RESULTS

The results of the study indicate a significant relationship between gadget usage frequency and marital relationship satisfaction and no significant relationship between gadget usage frequency sleep quality among housewives. The study findings explain rejecting H_{01} (null hypothesis for marital relationship

satisfaction) because the result shows a statistically significant difference in marital relationship satisfaction across different levels of gadget use. Higher gadget usage linked with lower marital relationship satisfaction. However, the results fail to reject H_{02} (null hypothesis for sleep quality), as there is no statistically significant difference in sleep quality among housewives across different levels of gadgets usage.

Table 2 illustrates that marital satisfaction significantly differs based on gadget usage frequency, with a test statistic of 3.713 and a p-value of <0.001, indicating a strong statistical significance. However, sleep quality does not exhibit a significant difference among groups, as shown by a test statistic of -0.739 and a p-value of 0.461. Furthermore, the results of Table 3 show a strong negative relationship between excessive gadget usage and marital satisfaction, with a test statistic of -6.145 and a p-value of <0.001, confirming a statistically significant difference. Sleep quality remains unaffected, as reflected by a non-significant test statistic of -0.753 and a p-value of 0.453.

Additionally, Table 4 compares high and low gadget usage groups, revealing a significant disparity in marital satisfaction (test statistic = -6.791, p-value < 0.001), suggesting that excessive gadget use negatively impacts marital relationships. However, sleep quality does not show a statistically significant difference (test statistic = 0.0399, p-value = 0.968). The graphical representations further support these findings, as the highest levels of marital satisfaction and sleep quality are observed among those using gadgets for 1–3 hours per day, while both variables decline among those who use gadgets for either shorter or longer durations.

DISCUSSION

The findings highlight the impact of gadget usage on marital satisfaction and sleep quality among housewives. There is a moderate gadget usage (1–3 hours per day) that positively correlates with marital satisfaction, whereas both lower and higher usage patterns correspond to decreased satisfaction. This may be because moderate gadget use allows for a balanced integration of technology into daily life without significantly disrupting interpersonal relationships. Excessive gadget use, however, likely contributes to decreased marital satisfaction due to reduced quality time spent with spouses and potential distractions from meaningful interactions.

The statistical findings indicate a significant difference in marital satisfaction based on gadget usage, reinforcing the hypothesis that excessive screen time negatively affects marital relationships. These results align with previous research indicating that prolonged screen exposure can lead to emotional disconnect, reduced communication, and increased conflicts in marital relationships. On the other hand, sleep quality does not show a significant difference based on gadget usage frequency, suggesting that other external factors, such as stress, lifestyle habits, or environmental conditions, may play a more influential role in determining sleep patterns among housewives.

The graphical analysis further reinforces the statistical findings, with the highest levels of satisfaction observed among individuals who use gadgets less. The decline in marital satisfaction among those who use gadgets excessively may be attributed to decreased in-person interactions, which are crucial for maintaining emotional intimacy in a relationship. Additionally, lower gadget usage may indicate a lack of digital engagement, potentially leading to feelings of isolation or reduced connectivity with spouses.

This pattern suggests a non-linear relationship between gadget usage and marital satisfaction. Moderate gadget use (1-3 hours) associates with higher relationship satisfaction, possibly because it allows couples to balance digital engagement with quality time. On the other hand, very low gadget usage (less than 1

hour) indicates limited digital communication or entertainment, which may reduce shared experiences and connection between partners. Conversely, excessive gadget use (more than 3 hours) leads to reduced quality time, causing a decline in marital satisfaction, though not as significant as in the low-usage group. These findings highlight the importance of maintaining a balanced approach to gadget usage to foster healthy marital relationships.

In general, the results imply that frequencies of gadget usage can be linked to affect marital relationship quality, perhaps by way of lowered communication or elevated distractions. However, its effects on sleep quality are minimal, suggesting that additional factors might better determine sleep behaviors among housewives. The three different levels of frequencies of gadgets usage did not shows any effects towards sleep quality. The sleep quality can be affected due to other factors like physical illness, medications, family problems and other personal reasonings. These results highlight the importance of maintaining a balanced approach to gadget usage, ensuring that digital engagement supports relaxation rather than disrupting sleep patterns.

SUMMARY AND CONCLUSION

SUMMARY

This study examines the effects of gadget usage frequency on marital satisfaction and sleep quality among housewives. The findings indicate that moderate gadget usage (1–3 hours per day) is associated with the highest levels of marital satisfaction, whereas both lower and higher usage patterns correspond to reduced satisfaction. Statistical analysis confirms a significant difference in marital satisfaction based on gadget usage, with excessive gadget use negatively impacting marital relationships. However, sleep quality does not significantly differ based on gadget usage, suggesting that other factors may contribute to sleep disturbances. The results highlight the importance of balanced technology use in maintaining healthy relationships and overall well-being.

CONCLUSION

The study concludes that gadget usage significantly influences marital satisfaction among housewives, with moderate usage being the most beneficial. Excessive gadget use negatively affects marital relationships, likely due to decreased face-to-face interactions and increased distractions. However, sleep quality remains unaffected by gadget usage, suggesting that other external factors may play a more dominant role in sleep patterns. These findings emphasize the need for mindful gadget use to maintain a healthy balance between technology and interpersonal relationships. Future research should explore additional factors influencing sleep quality and investigate strategies for promoting responsible digital consumption in marital relationships.

LIMITATIONS

One major limitation of this study is its limited population scope, as it only focuses on housewives aged 25-50. This makes it difficult to generalize the findings to other demographics, such as working women, men, or younger individuals, who may have different patterns of gadget usage and its effects on relationships and sleep. Additionally, the study relies on self-reported data, which may introduce biases such as exaggeration, underreporting, or inaccuracies due to memory recall issues or social desirability. Another key limitation is the cross-sectional nature of the research, which captures data at a single point in time. This approach does not account for long-term behavioral changes in gadget usage, marital

satisfaction, or sleep patterns. Furthermore, the study does not consider other influencing factors, such as stress levels, childcare responsibilities, or pre-existing sleep disorders, which may play a significant role in both marital relationships and sleep quality.

RECOMMENDATION

To address these concerns, several recommendations are proposed. Implementing screen time management is essential for maintaining a balance between gadget usage and personal relationships. Housewives and their spouses should establish clear boundaries for gadget use, especially during family interactions and bedtime, to improve relationship quality. Enhancing couple communication is another important strategy, as prioritizing face-to-face conversations over digital distractions can help strengthen emotional bonds and marital satisfaction. Since the study found limited evidence linking gadget use to sleep quality, further research on sleep factors should explore other possible contributors, such as stress, mental health, and lifestyle habits. A longitudinal study approach is also recommended to observe the long-term effects of gadget usage on marital relationships and sleep, providing deeper insights into behavioral changes over time. Lastly, awareness campaigns on digital well-being should be introduced to educate families about maintaining a healthy balance between technology use and interpersonal relationships. These strategies can help mitigate the negative impacts of excessive gadget usage while promoting overall well-being and stronger marital relationships.

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