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Caffeine Usage and Effects on Quality of Life, Clinical Performance, and Safety Among Nurses

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BACKGROUND

The purpose of this investigation is to examine the effects of caffeine consumption on the nurse’s quality of life. It also will explore the relationship between caffeine consumption, nurses' clinical performance, and patient safety. Nurses often endure long hours with demanding tasks to ensure client health and safety. Long work shifts and low margins for error can be taxing, which could result in fatigue, poorer sleep, and increased risk for mistakes. Caffeine is an accepted and effective option for combating fatigue and boosting alertness short term. Questions arise about whether caffeine is beneficial or if consumption causes a decrease in the nurse’s clinical performance and safety over time.

RESEARCH QUESTION

Does caffeine consumption improve or negatively impact the quality of life of hospital nurses in the long term as compared to not consuming caffeine? What effect does caffeine have on the nurse’s clinical performance and safety during their shift as compared to nurses who do not consume caffeine?

METHODS

A Literature review was conducted related to topics of sleep, alertness, fatigue, nurses, nursing students, and caffeine consumption. Articles were found through the University databases including Iceberg, CINHAL, and PubMed. Search terms include *caffeine or energy drinks or tea or coffee or soda and nurses, alertness, fatigue or tiredness, sleep or sleep quality, and circadian rhythm*.

LITERATURE REVIEW

Six articles were found, analyzed, and placed into three categories related to caffeine consumption, sleep, alertness, education, and nurses.

Category 1 Caffeine Consumption and Perceptions of Sleep	Three articles. Main findings: Higher caffeine consumption negatively affects sleep quality, sleep quantity, and stress levels among nurses, midwives, and nursing students.
Category 2 Alertness of Hospital Nurses and Sleep	Two articles. Main findings: Low sleep quality, lacking sleep, or disruption in circadian rhythm could affect alertness during the day among nurses.
Category 3 Perceptions and Knowledge of Caffeine	One article. Main findings: Further need for caffeine and high-energy drink education among nurses.

DISCUSSION

Main findings from the three categories add to the discussion related to caffeine consumption among nurses. Sleep characteristics affect alertness levels during the day. If caffeine consumption can affect sleep, caffeine can play a factor in alertness. More gaps are identified that can address a further potential outcome if caffeine can affect clinical performance and patient safety due to decreased alertness over time. If caffeine can play a role in alertness and sleep, can changing its dosage influence these outcomes?

PROPOSED STUDY

The proposed study is a quantitative, comparative approach that will use an online self-reported survey to collect data. The targeted population includes working registered nurses. The sample involves 100 critical care nurses within Northern California’s Bay Area hospitals. There will be questions, using a numeric scale, about their background, demographics, caffeine consumption habits, sleep habits, perception of clinical performance, perception of work fatigue and stress, and perception of clinical safety. Descriptive and comparative statistics will be used to examine connections between caffeine consumption and perceptions of sleep, stress, fatigue, clinical performance, and patient safety.

CLINICAL SIGNIFICANCE

The results of this investigation may have the potential for increasing knowledge about relationships between nurses’ quality of life, caffeine use, clinical performance, and patient safety. This knowledge may change the perception of caffeine consumption as a countermeasure against fatigue.

