



THE RELATIONSHIP BETWEEN CAFFEINE INTAKE AND COGNITIVE ABILITIES IN OFFICE WORKERS

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ABSTRACT

This article examines the connection between office workers' cognitive function and coffee intake. The study uses the Cognitive Failures Questionnaire (CFQ) to measure cognitive failures in people between the ages of 20 and 40. Although there were no discernible relationships between caffeine intake and cognitive function, the results indicate that moderate caffeine use may improve cognitive attention. These results underline the need for more research and show how complex caffeine's effects on job productivity are.

Introduction:

One common psychoactive chemical that is essential in contemporary workplaces is caffeine. It is frequently commended for enhancing mood, cognitive function, and alertness. The degree to which it affects higher-order cognitive processes, particularly in actual office environments, is still up for debate. We went through different articles related to the consumption of caffeine and its affect on neurocognition, cognitive abilities and the failures. This study investigates how different caffeine intake levels affect office workers' cognitive function.

Objectives and Hypotheses:

The primary objective of this research was to examine how caffeine intake influences cognitive abilities. Two hypotheses were tested:

Caffeine significantly enhances cognitive performance.

There is no meaningful relationship between caffeine intake and cognitive performance.

Methodology:

A cross-sectional observational design was used in the study. Fifty full-time office professionals between the ages of 20 and 40 who had consumed caffeine for at least six months took part. Cognitive function was assessed using the CFQ, and caffeine consumption was self-reported. Surveys were used to gather information on demographics, sleep patterns, and caffeine consumption patterns.

Exclusion criteria:

To reduce confounding variables, those with chronic illnesses, cognitive impairments, or caffeine sensitivity were eliminated.

Statistical Analysis:

Data analysis was conducted using IBM SPSS Statistics software. The associations between caffeine consumption and cognitive function were evaluated using Pearson correlation tests.

Results:

A mean score of 38.86 (± 14.35) on the CFQ indicated that participants had moderate cognitive deficits. There were modest and non-significant correlations between caffeine intake levels and CFQ scores, according to Pearson correlation analyses:

Reduced consumption of caffeine ($r = 0.121$, $p = 0.398$).

Increased use of caffeine ($r = 0.049$, $p = 0.732$).

These results lend credence to the null hypothesis, which states that caffeine consumption has no discernible impact on cognitive function in the sample under investigation.

Discussion:

The lack of significant results indicates that the effects of caffeine may vary depending on individual factors including tolerance, heredity, and frequent usage, even if moderate caffeine intake was linked to fewer cognitive failures. Overindulging in caffeine may counteract any possible advantages since negative effects like anxiety and disturbed sleep may outweigh any cognitive benefits.

These results are supported by existing research, which highlights the benefits of caffeine for improving alertness and reaction speeds, particularly when fatigued. Higher order cognitive processes like memory processing and decision-making, however, react inconsistently to caffeine consumption.

Conclusion:

The complex relationship between caffeine and cognitive function in the workplace is highlighted by this study. While moderate caffeine use may improve concentration and output, larger doses don't seem to have any discernible benefits. To learn more about caffeine's involvement in cognitive improvement, future studies should examine long-term effects and take individual differences into consideration.

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