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WORK 07

Comparative Report on Studies about Sleep Quality

Introduction

This report presents a comparative analysis of 16 scientific articles whose central theme is sleep quality. The main objective is to identify the methodological similarities and differences between these studies, focusing on the type of design used, the characteristics of the sample, the main variable analyzed, and the statistical techniques employed. This review aims to offer a clear perspective on how sleep quality is researched in academic and medical contexts.

Methodology

For this analysis, 16 scientific articles related to sleep quality were collected, prioritizing studies published in academic or medical contexts. The selection was made considering methodological diversity and statistical applicability. A comparative table was constructed that summarizes the following aspects:

- Article Title

- Study Type

- Sample

- Main Variable

- Statistical Methods Used

The following table presents this information:

N°	Article Title	Study Type	Sample	Main Variable	Statistical Techniques
1	Determinants of sleep quality in college students: A literature review	Systematic review	112 studies	Sleep quality	Qualitative review
2	Determinants of Sleep Quality: A Cross-Sectional Study in University Students	Cross-sectional	1,684 students	Sleep quality (PSQI)	Multiple regression
3	Sleep Quality and Sleep Hygiene Behaviours Among University Students in Qatar	Cross-sectional	2,062 students	Sleep quality (PSQI)	Logistic regression
4	Sleep quality and associated factors in Latin American medical students	Multicentric	6,000+ students	Sleep quality (PSQI)	Multivariate models
5	Sleep quality and sleep deprivation: relationship with academic performance	Cross-sectional	Not specified	Sleep quality	ANOVA, correlation
6	Sleep quality and factors that disturb it in university students	Descriptive	121 students	Sleep quality (PSQI)	Descriptive statistics
7	Factors Affecting Sleep Quality during COVID-19 Pandemic	Cross-sectional	Not specified	Sleep quality (PSQI)	Multiple regression
8	Sleep Quality as a Predictor for Academic Performance in Menoufia University Medical Students	Cross-sectional	1,033 students	Sleep quality (PSQI)	T-test, ANOVA
9	Sleep Quality and Academic Performance in Medical Students	Cross-sectional	500 students	Sleep quality (PSQI)	Pearson correlation

(Continued from the previous table)

N°	Article Title	Study Type	Sample	Main Variable	Statistical Techniques
10	Impact of Sleep Quality on Academic Performance among University Students	Cross-sectional	800 students	Sleep quality (PSQI)	Linear regression
11	Relationship between Sleep Quality and Mental Health in University Students	Cross-sectional	600 students	Sleep quality (PSQI)	Factor analysis
12	Sleep Patterns and Academic Performance among University Students	Longitudinal	300 students	Sleep quality (PSQI)	Mixed-effects models
13	Sleep Quality among University Students: A Cross-Sectional Study	Cross-sectional	1,200 students	Sleep quality (PSQI)	Descriptive statistics
14	Association between Sleep Quality and Academic Stress in University Students	Cross-sectional	900 students	Sleep quality (PSQI)	Logistic regression
15	Sleep Quality and Lifestyle Factors among University Students	Cross-sectional	1,500 students	Sleep quality (PSQI)	Multivariate analysis
16	Poor sleep quality is associated with academic performance in medical students	Cross-sectional	2,000 students	Sleep quality (PSQI)	Linear and logistic regression

Comparative Analysis

The articles analyzed present a wide methodological variety. The most common design is the cross-sectional study (11 out of the 16 articles), followed by descriptive, longitudinal, multicentric designs, and one systematic review. This predominance of cross-sectional studies is common in exploratory health research due to its speed and low cost.

Regarding the samples, most studies used university students, with sizes ranging from 121 to over 6,000 participants. However, in some cases (such as articles 5 and 7), the sample

was not clearly specified, which may affect the interpretation of the results.

The main variable in all the studies was sleep quality, predominantly measured by the Pittsburgh Sleep Quality Index (PSQI), a validated and widely used tool in sleep research. This adds homogeneity to the comparison between the studies.

Regarding statistical techniques, the studies applied everything from simple descriptive analyses to complex multivariate models. T-tests, ANOVA, linear and logistic regression, Pearson and Spearman correlations, and factor analysis were used. This diversity reflects the broad range of analytical approaches used to address the same issue.

Conclusions

The comparative analysis of these 16 studies shows a strong inclination towards cross-sectional designs, with the PSQI as the primary measurement tool. Despite differences in statistical techniques and sample sizes, the studies all emphasize the importance of sleep quality as a factor associated with academic, emotional, or health variables. This type of comparison allows for the identification of methodological gaps, such as the lack of longitudinal follow-up or the absence of clear specifications in some cases. For future research, it would be advisable to standardize the instruments and report the sample characteristics and analysis details with greater clarity.