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Factors Shaping University Students' Perceptions of Social Media's Role in Spreading Health Misinformation: A Field Study among Students of the Faculty of Humanities and Social Sciences at University of Souk Ahras

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Abstract:
This study explores the factors affecting university students' perceptions of health misinformation on social media, including exposure to health information, evaluation criteria, digital health literacy, and information-processing practices. A descriptive-analytical approach was applied through a questionnaire administered to 110 students from the Faculty of Humanities and Social Sciences at University of Souk Ahras, and analyzed using SPSS. The findings revealed high reliability of the instrument and a satisfactory level of digital health literacy among participants, who mainly depended on scientific indicators in evaluating health information. Significant correlations were identified between digital health literacy, evaluation criteria, and information-handling practices. However, no statistically significant direct effects of the independent variables on perceptions of health misinformation were found. The study concludes that perceptions of health misinformation are multidimensional and influenced by interacting cognitive and behavioral factors.

Keywords: digital health literacy; health information; health misinformation; information evaluation; misinformation management; social media.

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I. INTRODUCTION

In recent years, social media platforms have experienced unprecedented growth and have become among the primary sources individuals rely on for obtaining information, particularly in the health domain (Al-Muizz Abkar Ahmed Abdullah, 2022). This digital transformation has reshaped the production and dissemination of health knowledge by providing low-cost communication channels that facilitate interaction between physicians and patients, promote the exchange of information and experiences, and expand access to continuously updated medical knowledge (Zhou et al., 2018).

Despite these communicative and informational advantages, social media platforms have increasingly become fertile environments for the spread of health misinformation, which refers to the dissemination of inaccurate or misleading health-related information, whether intentional or unintentional. Such misinformation may contribute to the formation of false perceptions and inappropriate health-related decisions (Chen et al.). The danger of this form of misinformation lies in its direct impact on individual health and in the difficulty non-specialists face in distinguishing misleading information, particularly given the interactive nature of social media and the algorithms that amplify highly circulated content regardless of its accuracy or credibility (Zhao et al., 2022).

The influence of health misinformation is not confined to the cognitive dimension; rather, it also extends to individuals' health behaviors. Previous studies have demonstrated a relationship between exposure to misleading information and hesitancy in making critical health decisions, such as vaccination (Gaysynsky et al., 2024). In this context, university students are considered among the groups most vulnerable to health misinformation because of their heavy reliance on social media as a primary source of health information (Esmaeilzadeh et al., 2018). Furthermore, their evaluation of online content is often shaped by superficial indicators, such as the number of likes and the visual or emotional appeal of media messages (Oqba Abdelnafi Al-Ali, 2023; Sherif Abdel Salam, 2022). Students' perceptions of health information circulated through these platforms are also influenced by multiple factors, including digital literacy, prior knowledge, socio-cultural influences, and the characteristics of the content itself (Fouad Jalal et al., 2025).

Accordingly, investigating the factors that shape humanities students' perceptions at Mohamed Cherif Messaadia University–Souk Ahras regarding the role of social media in spreading health misinformation is of considerable importance for understanding the mechanisms underlying the perception of this phenomenon and the extent of its influence within the contemporary digital environment.

Accordingly, the study seeks to answer the following main research question:

What factors influence humanities students' perceptions at Mohamed Cherif Messaadia University–Souk Ahras of the role of social media in spreading health misinformation?

1. Sub-research Questions:

a. What is the level of exposure of humanities students to health information disseminated through social media platforms?
b. How do students assess the credibility of health information circulated on these platforms?
c. To what extent do students possess the skills necessary to distinguish between accurate and misleading health information?
d. What strategies and mechanisms do students employ when dealing with misleading health information?

2. Research Hypotheses

2.1. General Hypothesis

Statistically significant relationships and effects exist between the study variables—namely exposure to health information, superficial indicators, scientific indicators, digital health literacy, and information management mechanisms—and university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.

2.2. Relational and Causal Hypotheses

2.2.1. Relational Hypotheses

a. A statistically significant relationship exists between exposure to health information and university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
b. A statistically significant relationship exists between superficial indicators and university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
c. A statistically significant relationship exists between scientific indicators and university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
d. A statistically significant relationship exists between digital health literacy and university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
e. A statistically significant relationship exists between information management mechanisms and university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.

2.2.2. Causal Hypotheses

a. Exposure to health information has a statistically significant effect on university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
b. Superficial indicators have a statistically significant effect on university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
c. Scientific indicators have a statistically significant effect on university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
d. Digital health literacy has a statistically significant effect on university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.
e. Information management mechanisms have a statistically significant effect on university students' perception of health misinformation at the significance level $\alpha \geq 0.5$.

2.3. Hypotheses of Differences Based on Demographic Variables

There are statistically significant differences in university students' perceptions of health misinformation attributable to demographic variables, namely gender, age, academic level, and duration of social media use, at the significance level: $\alpha \geq 0.5$.

II. Previous Studies

The following section presents a review of the most significant previous studies that have examined health misinformation on social media platforms. These studies are classified into Arabic and international research and are systematically organized in an analytical table outlining the reference, study topic, research methodology, and principal findings.

1. Review and Analysis of Previous Arabic Studies

Table (1): Review and Analysis of Previous Arabic Studies

Reference	Study Topic	Methodology	Principal Findings
(Al-Muizz Abkar Ahmed Abdullah, 2022)	Health misinformation on social media platforms	Descriptive	Health misinformation significantly influences individuals' attitudes and behaviors
(Safar Al-Mutairi, 2025)	Social perception and health behavior	Descriptive	Social factors play a critical role in shaping perceptions of health information
(Uqbah Abdulnafi Al-Ali, 2023)	Social media and youth culture	Analytical	Social media platforms influence social values and behavioral patterns among youth
(Sharif Abdel Salam &, 2023)	Digital media and value transformation	Analytical	Digital media contributes to value formation and facilitates the spread of misinformation
(Sharif Abdel Salam &, 2022)	Evaluation of digital information	Descriptive	Reliance on superficial indicators increases vulnerability to misinformation
(Mohammed Abdulrahman Rabih, Mustafa Karam Allah …, 2026)	Digital health media	Field study	Social media simultaneously promotes health awareness and the dissemination of misinformation
(Abdul Karim Al-Ashoush, 2022)	Psychological and social impacts during crises	Descriptive	Educational guidance reduces the influence of false information during crises
(Adel Al-Khudairi, 2026)	Digital cultural transformation	Analytical	The internet plays a transformative role in reshaping awareness and culture
(Maysoun Dhari & Lama Karim, 2025)	The impact of the internet on youth	Descriptive	Excessive internet use exerts psychological and social effects on youth
(Fouad Jalal, 1949)	Digital culture	Theoretical	Digital culture shapes individuals' perception of information
(Fares Said, 2023).	Digital behavior	Theoretical	Users' behaviors are influenced by the nature of digital content
(Al-Khudairi, Adel bin Abdulrahman, 2025)	Digital transformation	Analytical	The digital environment contributes to the reconstruction of human perception

The Source: Prepared by the Researchers.

2. Review and Analysis of Previous International Studies

Table (2) : Review and Analysis of Previous International Studies

Reference	Study Topic	Methodology	Principal Findings
(Chen et al., 2021)	The spread of misinformation during the COVID-19 pandemic	Descriptive-analytical	Health misinformation spreads rapidly during crises and is strongly associated with public health emergencies
(Zhao et al., 2022)	Networks of misinformation dissemination	Network analysis	Misinformation dissemination is systematically organized and relies heavily on influential actors
(Kemei et al., 2022)	Misinformation within communities	Literature review	Vulnerable populations are disproportionately affected by misinformation
(Feng, 2024)	Correction of health information	Analytical	Social capital plays a crucial role in countering health misinformation
(Gaysynsky et al., 2024)	Perception of health misinformation	Survey-based	Health misinformation significantly influences health-related decision-making
(Esmaeilzadeh et al., 2018)	Health information-seeking behavior	Analytical	The internet constitutes the primary source of health information for users
(Saadeh et al., 2020)	Students' use of social media platforms	Descriptive	Social media usage affects students' knowledge acquisition and behavioral patterns
(Ochoa Santamaría et al., 2016)	Students' engagement with health-related content	Descriptive	Students demonstrate lower levels of interest in health-related content compared to other types of digital content
(Alsaad & AlDossary, 2024)	Educational interventions against misinformation	Experimental	Digital education significantly improves individuals' ability to distinguish credible information from misinformation

The Source: Prepared by the Researchers.

A review of the international literature demonstrates that foreign studies have examined the phenomenon of health misinformation in a more rigorous and systematic manner. These studies have focused extensively on the dynamics of misinformation dissemination within digital environments, particularly during public health crises, emphasizing both the rapidity of its spread and the breadth of its societal impact (Chen et al., 2021). Furthermore, several studies have revealed the highly organized nature of health misinformation, highlighting its reliance on influential networks and key actors that contribute to its amplification and circulation (Zhao et al., 2022).

Other studies have concentrated on identifying the populations most vulnerable to health misinformation, particularly university students who depend heavily on the

internet as a primary source of health-related information (Esmaeilzadeh et al., 2018; Saadeh et al., 2020). These studies also indicated that students often exhibit limited engagement with health-related content in comparison with other forms of digital media content (Ochoa Santamaría et al., 2016). In addition, previous research has underscored the significant influence of health misinformation on individuals' health-related decisions and behavioral practices (Gaysynsky et al., 2024). Conversely, other studies have emphasized preventive and corrective mechanisms, particularly the role of social capital and digital literacy education in enhancing individuals' capacities to differentiate between credible and misleading information (Feng, 2024; Alsaad & AlDossary, 2024).

Overall, these studies reflect an increasing tendency toward quantitative and analytical approaches aimed at understanding both the mechanisms underlying the dissemination of health misinformation and user behavior within digital environments.

3. Research Gap

Despite the richness of the literature addressing health misinformation on social media platforms, a critical review of previous studies reveals several conceptual and methodological limitations. The majority of existing studies have primarily concentrated on patterns of misinformation dissemination and their effects on health-related behaviors, particularly during periods of crisis, while devoting comparatively limited attention to individuals' perceptions of health misinformation and the factors shaping such perceptions, especially among university students.

Moreover, most prior studies have adopted fragmented analytical approaches by examining variables such as exposure to information or credibility evaluation in isolation, without proposing an integrated explanatory framework capable of linking these variables to the perception of health misinformation. A further limitation lies in the scarcity of Arabic studies investigating this phenomenon within university contexts, particularly among students in the humanities, despite their influential role in producing, interpreting, and circulating digital discourse.

In addition, insufficient scholarly attention has been devoted to digital health literacy and users' information-management practices—such as verification, sharing, and intentional avoidance—as explanatory factors influencing perceptions of health misinformation. Accordingly, the present study seeks to address these gaps by adopting an analytical framework that explains university students' perceptions of health misinformation through examining the interrelationships among exposure to health information, credibility evaluation, digital health literacy, and mechanisms of engagement with health-related content.

III. The Conceptual Framework of the Study

The conceptual framework of the present study is founded on the central assumption that university students' perceptions of health misinformation are not formed spontaneously; rather, they result from the interaction of multiple factors associated with the digital environment and users' behavioral practices within it. In light of the findings of previous studies, these factors can be classified into three principal dimensions: exposure to health information, criteria for evaluating information credibility, and the level of digital health literacy. Furthermore, the framework takes into account the role of information-management mechanisms as a mediating variable that may either enhance or weaken students' perceptions of health misinformation.

1. Components of the Framework

Based on the reviewed literature, the conceptual framework is structured as follows:

1.1. Independent Variables

a. Level of exposure to health information on social media platforms.

b. Criteria for evaluating credibility (superficial indicators / scientific criteria).

c. Digital health literacy skills.

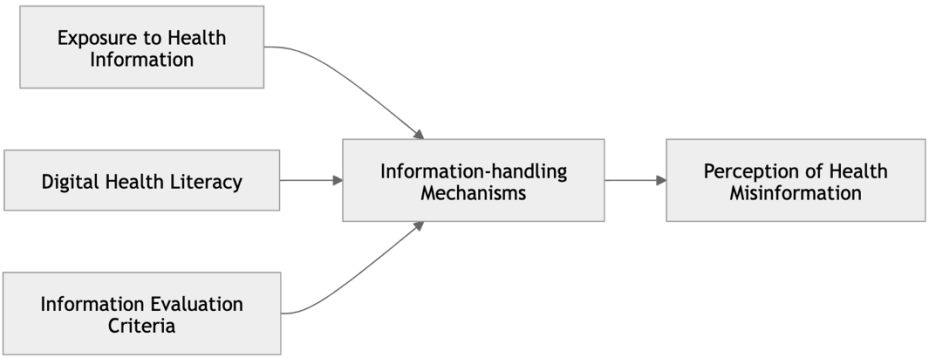
1.2. Dependent Variable

a. University students' perception of health misinformation.

1.3. Mediating Variable

a. Information-management mechanisms (verification – ignoring – sharing).

Figure (1): Conceptual Framework of Factors Influencing Perceptions of Health Misinformation



The Source: Prepared by the Researchers.

IV. Methodological Framework of the Study

1. Research Approach

The present study adopted a descriptive-analytical approach due to its appropriateness for investigating complex social phenomena. This methodological approach facilitates both the description of health misinformation as manifested within contemporary digital environments and the analysis of the relationships among its underlying variables, thereby contributing to a deeper understanding of university students' perceptions of health misinformation within the context of social media platforms (Mukhtar Mohammed Khalil Ibrahim, 2022; Al-Abd Othman Asma …, 2023; Abdel Jawad & Mervat Ezmi Zaki Abdel Jawad, 2024).

2. Population and Sample of the Study

The study population consisted of students enrolled in the humanities disciplines at University of Souk Ahras. A simple random sampling technique was employed to ensure adequate representation of different participant groups and to minimize sampling bias (Bouslam, 2024; Khairallah Hassan Dawood Khaskiyah, 2025). The final sample comprised 110 participants.

3. Research Instrument

The study employed a quantitative research design based on an online questionnaire developed in accordance with the relevant literature. The questionnaire encompassed dimensions related to exposure, evaluation, discrimination, and mechanisms for dealing with misleading information. A five-point Likert scale was utilized to measure respondents' attitudes due to its methodological flexibility and suitability for social science research.

4. Validity and Reliability of the Instrument

The validity of the research instrument was established through expert evaluation, while its reliability was assessed using Cronbach's alpha coefficient. The obtained results demonstrated high reliability values, indicating a strong degree of internal consistency (Abdullah Mohammed Al-Qarni, 2025).

4.1. Overall Reliability of the Scale

Table (3): Overall Reliability Coefficient of the Scale

Variable	Number of Items	Cronbach's Alpha Coefficient	Reliability Level
Overall Scale	28	0.85	Very High

The Source: Prepared by the Researchers Based on the SPSS Results.

The results presented in the table reveal that the overall reliability coefficient of the scale reached (0.85), which is considered a high value and indicates a strong degree of internal consistency among the questionnaire items. This finding confirms that the research instrument employed in the present study demonstrates a very high level of reliability, thereby ensuring its suitability for data analysis and the derivation of scientifically robust conclusions.

4.2. Reliability Across the Study Dimensions

Table (4): Reliability Coefficients Across the Study Dimensions

Dimension	Number of Items	Cronbach's Alpha Coefficient	Reliability Level
Exposure to Health Information	4	0.59	Acceptable
Perception of Health Misinformation	5	0.76	Good
Superficial Indicators	4	0.68	Acceptable
Scientific Indicators	4	0.75	Good
Digital Health Literacy	5	0.75	Good
Information-Management Mechanisms	6	0.73	Good

The Source: Prepared by the Researchers Based on the SPSS Results.

The results presented in the table above indicate that the reliability coefficients for the study subdimensions ranged between (0.59) and (0.76), reflecting a relative variation in the degree of internal consistency among the items associated with each dimension. The dimension of health misinformation perception recorded the highest coefficient value at (0.76), indicating that the items constituting this dimension demonstrate a strong degree of homogeneity and accurately capture the construct under investigation. In addition, the dimensions of scientific indicators, digital health literacy, and information-management mechanisms achieved coefficient values of (0.75), (0.75), and (0.73), respectively. These values fall within the range of good reliability, suggesting that these dimensions possess satisfactory internal consistency and can therefore be confidently employed in subsequent statistical analyses.

4.3. Data Analysis Procedures

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) through the application of descriptive statistics, correlation analysis, and regression analysis. These analytical procedures enabled the identification of the relationships among the study variables and the determination of the factors influencing university students' perceptions of health misinformation (Mostafa et al., 2024; Abdullah Hamed, 2024; Ajmi et al., 2025).

4.4. Descriptive Characteristics of the Data

Table (5): General Description of the Data

Indicator	Value
Sample Size	110
Number of Items	28
Minimum Value	1
Maximum Value	5
Overall Mean	3.58
Standard Deviation	1.39

The Source: Prepared by the Researchers Based on the SPSS Results.

The overall mean response score reached (3.58), indicating a moderate tendency with a relatively high orientation among the study participants. Meanwhile, the standard deviation value of (1.39) reflects a moderate degree of variability in participants' responses, suggesting the presence of relative differences in response patterns across the sample.

4.5. Testing the Normality of the Data

The Shapiro–Wilk test was utilized to examine the normality of the data distribution.

Table (6): Results of the Shapiro–Wilk Normality Test

Variable	Significance Value (Sig.)	Distribution
Exposure to Information	< 0.05	Non-normal
Perception of Health Misinformation	< 0.05	Non-normal
Remaining Variables	< 0.05	Non-normal

The Source: Prepared by the Researchers Based on the SPSS Results.

The results indicated that all statistical significance values were below the threshold of (0.05), demonstrating that the data did not conform to a normal distribution and could therefore be classified as non-normally distributed data.

4.6. Analysis of Distribution Shape

Furthermore, skewness and kurtosis coefficients were calculated to provide additional support for the findings of the normality test.

Table (7): Indicators of Distribution Shape

Indicator	Range
Skewness	Between -0.21 and 0.41
Kurtosis	Between -1.51 and -1.23

The Source: Prepared by the Researchers Based on the SPSS Results.

The results indicate that the skewness values fall within statistically acceptable limits, suggesting that the data exhibit a relatively symmetrical distribution. In contrast, the kurtosis values indicate a relatively platykurtic distribution, a characteristic commonly observed in questionnaire-based datasets.

Based on the foregoing results, it can be concluded that the research instrument demonstrates a satisfactory level of reliability and that the analyzed data are quantitative in nature, derived from a five-point Likert scale, and non-normally distributed. Accordingly, the subsequent statistical analyses relied on non-parametric techniques, including Spearman's rank-order correlation coefficient, in addition to regression analysis, in order to test the study hypotheses and examine the nature of the relationships among the study variables.

V. Results and Discussion

1. Descriptive Analysis of the Study Variables

This analysis is based on identifying the levels of participants' responses across the study dimensions through the use of mean scores and standard deviations, thereby enabling a comprehensive description of students' orientations and the degree of variability in their responses.

Table (8): Means and Standard Deviations Across the Study Dimensions

Dimension	Mean	Standard Deviation	Evaluation Level
Exposure to Health Information	3.07	1.51	Moderate
Perception of Health Misinformation	3.41	1.43	Moderate

Superficial Indicators	2.98	1.52	Moderately Low
Scientific Indicators	4.02	1.31	High
Digital Health Literacy	3.74	1.30	High
Information-Management Mechanisms	4.03	1.31	High

The Source: Prepared by the Researchers Based on the SPSS Results.

The results reveal noticeable variation across the study variables. University students appear to rely more substantially on scientific indicators and digital health literacy skills when evaluating health information, accompanied by a high level of competence in information-management mechanisms. In contrast, both exposure to health information and perceptions of health misinformation remain at a moderate level, whereas reliance on superficial indicators appears comparatively low. These findings reflect a generally positive orientation toward the critical, informed, and conscious evaluation of health information.

2. Analysis of the Relationships Among the Study Variables

To examine the nature of the relationships among the study variables, Spearman's rank-order correlation coefficient was employed, given that the data did not conform to a normal distribution. Consequently, this statistical test was deemed the most appropriate method for analyzing the associations among the study variables.

Table (9): Spearman Correlation Matrix

Variable	Exposure	Perception of Health Misinformation	Superficial Indicators	Scientific Indicators	Digital Health Literacy	Information-Management Mechanisms
Exposure	1.00	0.18	0.06	0.45**	0.45**	0.27**
Perception of Health Misinformation	0.18	1.00	0.10	0.21*	0.16	0.22*
Superficial Indicators	0.06	0.10	1.00	0.27**	0.12	0.14
Scientific Indicators	0.45**	0.21*	0.27**	1.00	0.54**	0.48**
Digital Health Literacy	0.45**	0.16	0.12	0.54**	1.00	0.43**
Information-Management Mechanisms	0.27**	0.22*	0.14	0.48**	0.43**	1.00

** Statistically significant at the 0.01 level

* Statistically significant at the 0.05 level

The Source: Prepared by the Researchers Based on the SPSS Results.

Overall, the relationships among the study variables ranged from weak to moderate, with scientific indicators and digital health literacy emerging as particularly influential factors associated with the remaining variables, especially in relation to information-management mechanisms.

The findings reveal varying relationships among the study variables in terms of both strength and direction, reflecting the interactive dynamics underlying the perception of health misinformation. The relationship between exposure to health information and perceptions of health misinformation yielded a weak coefficient value

(0.18), indicating a limited association. In contrast, moderate relationships were identified between exposure and both scientific indicators (0.45) and digital health literacy (0.45), suggesting that increased exposure is associated with stronger cognitive evaluation processes and more advanced digital competencies.

The strongest relationship was observed between scientific indicators and digital health literacy (0.54), followed by moderate relationships between scientific indicators and information-management mechanisms (0.48), as well as between digital health literacy and information-management mechanisms (0.43). These findings underscore the important role of scientific knowledge and digital competencies in shaping individuals' behaviors toward health information. Conversely, the relationships associated with superficial indicators remained weak (≤ 0.27), indicating their comparatively limited influence on students' perceptions and behavioral responses.

3. Multiple Linear Regression Analysis

To investigate the effects of the independent variables on perceptions of health misinformation, a multiple linear regression analysis was conducted. In this analytical model, perceptions of health misinformation were treated as the dependent variable, whereas the independent variables included exposure to information, superficial indicators, scientific indicators, digital health literacy, and information-management mechanisms.

Table (10): Results of the Multiple Linear Regression Analysis

Variable	Regression Coefficient (B)	T-Value	Significance Level (Sig.)
Constant	1.73	3.25	0.002**
Exposure to Information	0.15	1.43	0.157
Superficial Indicators	0.03	0.35	0.727
Scientific Indicators	0.15	1.17	0.246
Digital Health Literacy	-0.02	-0.18	0.861
Information-Management Mechanisms	0.15	1.07	0.287

** Statistically significant at the 0.01 level

The Source: Prepared by the Researchers Based on the SPSS Results.

Table(11): Model Fit and Quality Indicators

Indicator	Value
R^2	0.10
Adjusted R^2	0.06
F	2.44
Sig.	0.038*

* Statistically significant at the 0.05 level

The Source: Prepared by the Researchers Based on the SPSS Results.

The results of the regression analysis indicate that the statistical model, as a whole, is statistically significant (Sig. = 0.038), suggesting that the independent variables collectively contribute to explaining university students' perceptions of health misinformation. Nevertheless, the explanatory power of the model remains relatively limited ($R^2 = 0.10$), as the model accounts for only 10% of the total variance observed in the dependent variable.

At the level of individual effects, none of the independent variables demonstrated statistical significance, given that all significance values exceeded the threshold of 0.05. Specifically, exposure to information (0.157), superficial indicators (0.727), scientific indicators (0.246), digital health literacy (0.861), and information-management mechanisms (0.287) did not exhibit statistically significant direct effects on perceptions of health misinformation, despite the positive direction observed in some of the relationships.

Accordingly, these findings suggest that perceptions of health misinformation are not shaped solely through the direct effects of the variables examined in the present study. Rather, the phenomenon appears to be considerably more complex, indicating the potential existence of additional mediating or explanatory variables, such as trust in information sources, psychological factors, or levels of digital expertise. These factors may constitute critical determinants in shaping individuals' perceptions of health misinformation.

4. Testing the Hypotheses Related to Demographic Variables

Given that the data did not conform to a normal distribution, non-parametric statistical tests were employed. Specifically, the Mann–Whitney test was applied to the gender variable, whereas the Kruskal–Wallis test was used for the remaining demographic variables (Field, 2018).

Table 10. Results of the Differences Tests According to Demographic Variables

Variable	Test Type	Test Value	Significance Level (Sig.)
Gender	Mann–Whitney	0.00	1.000
Age	Kruskal–Wallis	2.97	0.226
Educational Level	Kruskal–Wallis	3.86	0.277
Duration of Use	Kruskal–Wallis	2.73	0.098

The Source: Prepared by the Researchers Based on the SPSS Results.

The results of the statistical tests indicate the absence of statistically significant differences in perceptions of health misinformation across the examined demographic variables, as all significance values exceeded the threshold of 0.05. No statistically significant differences were identified according to gender (Sig. = 1.000), age (0.226), or educational level (0.277). Likewise, no statistically significant differences were observed according to duration of use, despite its relative proximity to the significance threshold (0.098).

Accordingly, the null hypothesis is accepted and the alternative hypothesis is rejected, indicating that perceptions of health misinformation are not significantly influenced by the demographic characteristics investigated in the present study. These findings are consistent with the results reported by Saadeh et al. (2020), who found that demographic variables exerted limited influence on students' perceptions of online misinformation due to similarities in digital environments and patterns of media exposure.

5. Discussion

The present study examined the factors shaping university students' perceptions of health misinformation on social media by analyzing the relationships among several

cognitive and behavioral variables and testing differences across demographic characteristics. The findings provide multiple indicators that can be interpreted within established theoretical and empirical frameworks.

5.1. Reliability and Descriptive Analysis

The instrument demonstrated strong internal consistency ($\alpha = 0.85$), indicating a high level of reliability and suitability for measurement purposes. This result is consistent with methodological standards suggesting that Cronbach's alpha values above 0.70 indicate acceptable reliability in social science research (Hair et al., 2019).

The descriptive results further indicated that students exhibited relatively high levels of scientific literacy, digital health literacy, and information-processing skills, while their levels of information exposure and perceived misinformation remained moderate. This suggests that students possess adequate evaluative abilities, although such abilities are not necessarily associated with greater exposure to misleading content or clearer perceptions of misinformation. Similar findings were reported by Gaysynsky et al. (2024), who observed variations in misinformation perception according to levels of awareness, and by Chen et al. (2021), who emphasized that exposure to information does not automatically ensure critical differentiation between reliable and unreliable sources.

5.2. Correlation Analysis

The results revealed weak to moderate correlations among the study variables, with scientific indicators and digital health literacy emerging as particularly influential factors, especially in relation to information-handling mechanisms. These findings suggest that stronger scientific evaluative standards, combined with higher digital literacy, enhance individuals' ability to respond critically to misinformation, which supports the conclusions reached by Feng (2024).

Conversely, superficial indicators demonstrated relatively weak associations with the remaining variables, indicating that students rely less on surface-level cues when evaluating health information. This result aligns with the findings of Sherif Abdel Salam (2022), who highlighted the limited influence of superficial cues among individuals possessing higher levels of knowledge and awareness.

5.3. Regression Analysis

The regression model was statistically significant ($p = 0.038$), although its explanatory power remained limited ($R^2 = 0.10$). This indicates that the independent variables collectively contributed to explaining perceptions of health misinformation but accounted for only a small proportion of the total variance. Moreover, none of the individual predictors demonstrated statistically significant direct effects, suggesting that the observed relationships are indirect or mediated by additional latent variables not included in the model.

This interpretation is consistent with Zhao et al. (2022) and Kemei et al. (2022), who conceptualized health misinformation as a multidimensional phenomenon shaped by indirect cognitive and behavioral interactions rather than isolated direct determinants.

5.4. Differences According to Demographic Variables

No statistically significant differences were identified according to gender, age, academic level, or duration of social media use. These findings indicate that perceptions of health misinformation are not directly influenced by demographic characteristics. Such results may be explained by the similarity of digital environments and media exposure patterns among university students, leading to relatively homogeneous perceptions of misinformation, as suggested by Saadeh et al. (2020).

5.5. Overall Interpretation and Theoretical Integration

Overall, the findings suggest that perceptions of health misinformation cannot be explained through a single determinant but instead emerge from complex interactions among cognitive and behavioral variables, particularly digital health literacy and scientific evaluation criteria. The weak direct effects observed alongside meaningful correlations support a mediation-based interpretation, whereby the influence of information exposure operates indirectly through cognitive evaluation and information-processing mechanisms.

This interpretation is consistent with the conceptual framework of the present study, which assumes that exposure to health information does not directly shape misinformation perception but instead influences it through intermediary evaluative processes. Similar theoretical arguments have been advanced within digital media and information-processing research, emphasizing that media effects are mediated by cognitive interpretation and selective evaluation processes (Feng, 2024; Zhao et al., 2022).

Accordingly, the findings highlight the importance of adopting more advanced analytical approaches in future research, particularly structural equation modeling, in order to examine mediating and interactive effects more precisely.

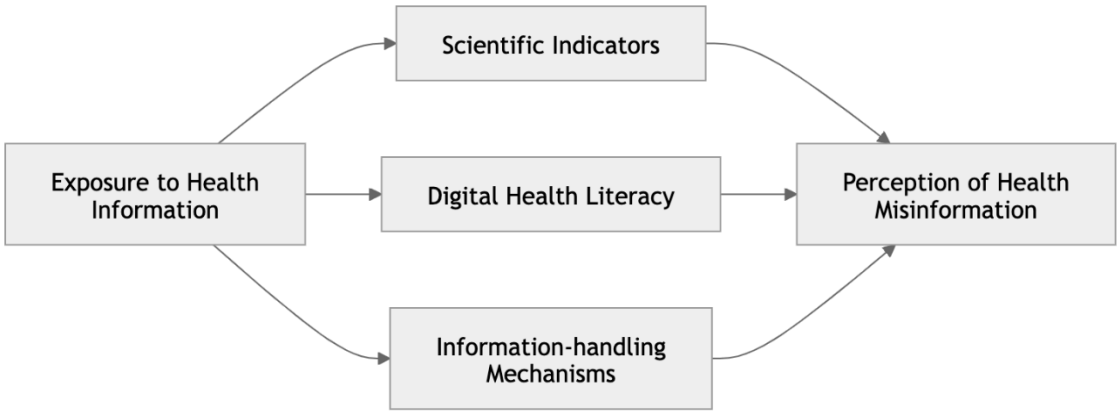
5.6 Proposed Explanatory Model in Light of the Findings

In light of the statistical findings, which revealed significant correlations among variables alongside the absence of statistically significant direct effects in the regression model, the study proposes a revised explanatory framework based on mediation processes.

The divergence between correlation and regression results suggests that the relationships among the study variables are not strictly direct or linear but rather interactive and mediated in nature. In this context, exposure to health information does not directly determine misinformation perception; instead, its influence is transmitted through intermediary cognitive and evaluative mechanisms. This interpretation is consistent with information-processing theories, which argue that media effects are shaped through processes of selection, interpretation, and evaluation rather than through automatic exposure effects (Chen et al., 2021; Feng, 2024).

Accordingly, the proposed explanatory model positions scientific indicators, digital health literacy, and information-management mechanisms as mediating constructs through which exposure to health information influences perceptions of misinformation. From this perspective, misinformation perception represents the outcome of sequential cognitive and evaluative processes rather than a direct consequence of information exposure.

The proposed model may therefore be summarized as follows:



The Source: Prepared by the Researchers

This revised framework aligns with the empirical findings of the study and supports future research employing advanced analytical techniques, such as structural equation modeling, to investigate mediating and interactive relationships more comprehensively.

VI. Conclusion

The study concludes that university students demonstrate a relatively strong level of awareness in evaluating health information disseminated through social media platforms. Students rely considerably on scientific indicators and digital competencies when distinguishing between accurate and misleading health information. The findings further revealed moderate levels of both exposure to health misinformation and awareness of it, alongside significant correlations among digital health literacy, information evaluation mechanisms, and information-handling practices. However, none of the examined variables exerted an independent statistically significant direct effect on perceptions of health misinformation. Moreover, demographic characteristics were not found to substantially influence such perceptions, underscoring the multidimensional and complex nature of the phenomenon.

In light of these findings, the study recommends strengthening health and digital literacy programs within universities and encouraging students to rely on credible scientific sources. It also highlights the importance of developing digital awareness campaigns aimed at enhancing students' ability to identify and critically evaluate misleading information. Furthermore, future studies should incorporate additional explanatory variables, such as trust in information sources, motivation, and prior digital experience, in order to develop more comprehensive explanatory models of health misinformation (Zhao et al., 2022; Kemei et al., 2022).

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