

Faculty Awareness of the Necessity to Integrate Health Education into Algerian Higher Education Programs in the Post-COVID-19 Era: A Field Study

مستوى وعي الأساتذة الجامعيين الجزائريين بضرورة إدماج التربية الصحية في برامج التعليم العالي
بعد جائحة كوفيد-19: دراسة ميدانية

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Abstract:

This study aimed to assess university faculty members' awareness of the necessity to integrate health education into higher education programs post-COVID-19 and to analyze potential differences according to gender, professional experience, and academic rank. The study employed a descriptive-analytical methodology, with data collected via a structured questionnaire administered to a sample of university instructors and analyzed using SPSS. The findings revealed the following:

- Faculty members' awareness of the necessity to integrate health education is high.
- No statistically significant differences in awareness were found based on gender at the 0.05 significance level.
- No statistically significant differences were observed according to years of professional experience at the 0.05 significance level.
- No statistically significant differences were found according to academic rank at the 0.05 significance level.

These results indicate that faculty awareness of health education represents a shared cognitive and institutional dimension, grounded in professional training and university policies rather than individual demographic or professional characteristics.

Keywords: Health education, Faculty awareness, Higher education, COVID-19, Demographic differences

الملخص:

هدفت هذه الدراسة إلى قياس مستوى وعي الأساتذة الجامعيين بضرورة إدماج التربية الصحية في برامج التعليم العالي بعد جائحة كوفيد-19، وتحليل الفروق المحتملة وفقاً لمتغيرات الجنس، الخبرة، والرتبة الأكاديمية. اعتمدت الدراسة المنهج الوصفي التحليلي، وجمعت البيانات باستخدام استبانة على عينة من الأساتذة الجامعيين، وتم تحليلها باستخدام برنامج SPSS. أظهرت النتائج الآتي:

- مستوى وعي الأساتذة الجامعيين بضرورة إدماج التربية الصحي، مرتفع.
- لا توجد فروق ذات دلالة إحصائية في وعي الأساتذة الجامعيين حسب الجنس عند مستوى دلالة 0.05.
- لا توجد فروق ذات دلالة إحصائية حسب سنوات الخبرة عند مستوى دلالة 0.05.
- لا توجد فروق ذات دلالة إحصائية حسب الرتبة الأكاديمية عند مستوى دلالة 0.05.

تشير هذه النتائج إلى أن وعي الأساتذة بالتربية الصحية يمثل بعداً معرفياً ومؤسسياً مشتركاً، مستنداً إلى التكوين المهني والسياسات الجامعية، وليس إلى الخصائص الديموغرافية أو المهنية الفردية.

الكلمات المفتاحية: التربية الصحية، وعي الأساتذة، التعليم العالي، كوفيد-19، الفروق الديموغرافية

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Introduction

Health education is one of the essential pillars in shaping the contemporary individual, forming part of pedagogical strategies designed to instill preventive culture and enhance health awareness at physical, psychological, and social levels. It is not merely an educational activity providing health information, but rather a comprehensive formative process aimed at equipping individuals with knowledge, fostering decision-making skills, and cultivating positive attitudes toward healthy lifestyles. From this perspective, health education transcends its cognitive dimension to become a pedagogical and behavioral practice grounded in active participation and individual as well as collective responsibility for protecting health and safeguarding quality of life.

In higher education institutions, health education assumes heightened importance given the vital role these institutions play in shaping university students' personalities during a critical stage of cognitive and social development. Universities are not solely academic spaces but rather holistic socio-educational environments that contribute to identity formation and the shaping of values and behaviors. Accordingly, integrating health education into this environment is not a pedagogical luxury but a strategic necessity for investing in human capital capable of combining scientific competence with responsible health awareness.

University faculty members represent a central axis in this process. Beyond their role in knowledge transmission, they are regarded as role models and mentors for students. Therefore, their level of awareness of health education and their attitudes toward it constitute key determinants of the effectiveness of any health-related initiative within universities. A faculty member who is aware of the dimensions of health education and capable of embedding it into teaching practices contributes actively to reinforcing positive behaviors among students, while the absence of such awareness or the presence of weak attitudes undermines the success of programs regardless of available resources.

Despite the increasing importance of health education in improving quality of life and promoting sustainable health behaviors, faculty practices in universities continue to face challenges concerning health awareness and commitment to implementing health education programs for students. Recent studies highlight the pivotal role of faculty members' awareness of health concepts and their attitudes toward health education in determining the effectiveness of such programs in higher education. For instance, Al-Eisa & Al-Warjash (2024) demonstrated that professionals' awareness and positive attitudes toward health education enhance program efficiency and directly influence students' educational and behavioral outcomes. Similarly, Al-Mutairi et al. (2025) emphasized that developing university management in line with the requirements of the Fourth Industrial Revolution could strengthen faculty capacities to implement innovative and sustainable health education programs. Furthermore, Jourdan, Pironom, Simar, & Sormunen (2017) showed that institutional and social factors significantly shape teachers' and parents' perspectives on health education and their role in promoting student health, thereby underscoring the need for integrated strategies that align faculty awareness, university governance, and community engagement to ensure program success.

Based on these considerations, the central research problem can be articulated as follows:

- What is the level of university faculty members' awareness of the necessity of integrating health education?
- Are there statistically significant differences in faculty awareness of the necessity of integrating health education attributable to gender, years of experience, or academic rank?



Sub-questions

- Are there statistically significant differences in faculty awareness of the necessity of integrating health education attributable to gender at the 0.05 significance level?
- Are there statistically significant differences in faculty awareness of the necessity of integrating health education attributable to years of experience at the 0.05 significance level?
- Are there statistically significant differences in faculty awareness of the necessity of integrating health education attributable to academic rank at the 0.05 significance level?

Research Hypotheses

General Hypotheses

- University faculty members' awareness of the necessity of integrating health education is high.
- There are no statistically significant differences in faculty awareness of the necessity of integrating health education attributable to gender, years of experience, or academic rank at the 0.05 significance level.

Specific Hypotheses

- There are no statistically significant differences in faculty awareness of the necessity of integrating health education attributable to gender at the 0.05 significance level.
- There are no statistically significant differences in faculty awareness of the necessity of integrating health education attributable to years of experience at the 0.05 significance level.
- There are no statistically significant differences in faculty awareness of the necessity of integrating health education attributable to academic rank at the 0.05 significance level.

Research Objectives

This study aims to:

- Identify the level of university faculty members' knowledge of the concept and dimensions of health education.
- Determine faculty attitudes toward integrating health education into the educational process.
- Examine the extent of faculty awareness regarding the necessity of embedding health education within the university context.
- Highlight the challenges and obstacles that hinder the effective integration of health education.

Significance of the Study



The significance of this study lies in filling a notable gap in the literature by shifting the focus from students' health literacy and institutional policies to faculty members' awareness of health education. This perspective enriches educational research by linking pedagogical and health dimensions within a unified framework and underscoring their role in enhancing program quality and human capital development. Practically, the findings provide decision-makers with evidence to design professional development programs and strategies that strengthen faculty capacity to integrate health education into curricula, thereby fostering health-conscious learning environments and contributing to national and international agendas that view education and health as complementary foundations for sustainable development.

Operational Definitions of Key Terms

University Faculty Members

University teaching staff responsible for instruction, research, and supervision, serving as primary actors in integrating health education.

Health Education

Knowledge, skills, and practices that promote healthy lifestyles, prevent health problems, and foster responsibility for well-being in the university context.

Level of Knowledge

The degree of faculty understanding of health education concepts, dimensions, and standards for integration in higher education.

Attitudes toward Health Education

Faculty positions reflecting acceptance, rejection, or valuation of integrating health education into curricula and activities.

Awareness of the Necessity of Health Education

Faculty recognition of health education as essential for student development, campus life, and reducing unhealthy behaviors.

The Fieldwork Component of the Study

Research Design:

This study employed the descriptive-analytical method as the most suitable approach to examine faculty awareness of integrating health education and to analyze differences across demographic variables (gender, experience, academic rank). This design provides a systematic portrayal of the current situation through validated tools and statistical analysis, without intervening in the educational process. It was chosen for its ability to generate direct and objective data, test group differences, and ensure accurate, comparable results within the broader context of health and higher education research.

Study Population:

The study population consisted of university faculty members working in various Algerian universities. This included all teaching staff who are engaged in instructional duties, academic supervision, and participation in educational and pedagogical activities. This population was considered most relevant to the research topic, given their pivotal role in knowledge transmission, student guidance, and the influence of their awareness and attitudes on the effectiveness of integrating health education within the university environment.

Pilot Study and Instrument Validity:

Before data collection, a pilot study was conducted with seven faculty experts in social and educational sciences to evaluate the clarity, accuracy, and relevance of the questionnaire items. Content validity was objectively confirmed using Lawshe's CVR, with all items meeting the minimum threshold, ensuring the instrument's rigor in measuring knowledge, attitudes, and awareness of health education integration.

$$CVR = \frac{(n_e - N/2)}{N/2}$$

Table (01): Content Validity According to Lawshe's Formula

Study Instrument	Experts Who Accepted the Item	Validity Value	Study Instrument	Experts Who Accepted the Item	Validity Value
Item 01	7	1	Item 11	5	0.43
Item 02	7	1	Item 12	5	0.43
Item 03	7	1	Item 13	7	1
Item 04	7	1	Item 14	7	1
Item 05	7	1	Item 15	7	1
Item 06	6	0.71	Item 16	7	1
Item 07	5	0.43	Item 17	7	1
Item 08	5	0.43	Item 18	7	1
Item 09	6	0.71	Item 19	7	1
Item 10	7	1	Item 20	7	1

Overall CVR for the Questionnaire: 0.86

Prepared by the researcher based on the study outputs.

Commentary on Table (01):

Table (01) presents the results of calculating the Content Validity Ratio (CVR) for each item according to Lawshe's formula, following the review of the questionnaire by a panel of seven specialized faculty members. The results indicate that most items achieved high validity values ranging between 0.71 and 1, which reflects a strong consensus among experts that these items effectively measure the targeted variables.

Considering the overall CVR value of **0.86** for the questionnaire, it can be concluded that the instrument demonstrates a high level of content validity, thereby reinforcing its reliability in measuring faculty members' knowledge, attitudes, and awareness of the necessity of integrating health education. The distribution of values further suggests that certain items (scoring 0.43) may require minor revision to enhance clarity, yet the overall instrument remains within the accepted standards of validity, making it suitable for field application.

These results confirm that the instrument is capable of accurately distinguishing different levels of knowledge, attitudes, and awareness among participants, and that the included items were designed in alignment with the research objectives, representing the targeted variables with objectivity.

Field Study

Study Sample and Sampling Method:

The study sample consisted of 37 university faculty members, selected using the **Convenience Sampling** method. An electronic questionnaire was distributed to faculty members, and responses were obtained from those who were both willing and able to participate. This approach allowed for the collection of accurate and objective data regarding the level of knowledge and attitudes toward health education.

1. Distribution of the Sample by Gender

Table (02): Distribution of the Sample by Gender

Gender	Frequency	Percentage (%)
Male	23	62.2
Female	14	37.8
Total	37	100.0

Prepared by the researcher based on study outputs and SPSS software.

Commentary on the Table:

The table shows that **62.2% of the sample were male**, compared to **37.8% female**. This distribution indicates a relatively balanced representation of both genders, thereby allowing for the analysis of potential differences between male and female faculty members regarding their awareness of integrating health education into the teaching process.

2. Distribution of the Sample by Academic Experience

Table (03): Distribution of the Sample by Academic Experience

Academic Experience	Frequency	Percentage (%)
Less than 5 years	18	48.6
From 5 to 10 years	4	10.8
More than 10 years	15	40.5
Total	37	100.0

Prepared by the researcher based on study outputs and SPSS software.

Commentary on the Table:

The table highlights the diversity of academic experience among faculty members: **48.6% had less than five years of experience**, **10.8% had between five and ten years**, and **40.5% had more than ten years of experience**. This distribution makes it possible to examine the influence of academic experience on the faculty's level of awareness and attitudes toward health education.

3. Distribution of the Sample by Academic Rank

Table (04): Distribution of the Sample by Academic Rank

Academic Rank	Frequency	Percentage (%)
Assistant Professor	7	18.9
Lecturer B	14	37.8
Lecturer A	10	27.0
Full Professor	6	16.2
Total	37	100.0

Prepared by the researcher based on study outputs and SPSS software.

Commentary on the Table:

The table indicates that the sample includes faculty members from various academic ranks: **Lecturer B (37.8%)**, **Lecturer A (27.0%)**, **Assistant Professor (18.9%)**, and **Full Professor (16.2%)**. This diversity provides a suitable basis for analyzing the relationship between academic rank and the faculty's level of awareness and attitudes toward integrating health education in higher education.

Study Instrument:

The study relied on an **electronic questionnaire** as the primary tool for data collection, aimed at measuring knowledge, attitudes, and awareness of the necessity of integrating health education among university faculty members. The questionnaire was designed on a scientific basis to ensure clarity of items and ease of response. It was divided into three main dimensions, comprising a total of **20 items**, distributed as follows:

-Dimension 1: Knowledge of the Concept and Dimensions of Health Education – 7 items designed to assess faculty members' understanding of the fundamental concepts of health education and its educational and social dimensions.

-Dimension 2: Attitudes Toward the Integration of Health Education – 7 items aimed at measuring the degree of acceptance of and importance attributed to the integration of health education into the teaching process, as well as faculty perceptions of their role as role models in promoting health within the university setting.

-Dimension 3: Awareness of the Necessity of Health Education Integration – 6 items intended to evaluate faculty members' awareness of health education as an essential component of higher education, and their perception of its strategic impact on the quality of education and students' behaviors.

A **three-point Likert-type scale** was adopted:

1 = Disagree – 2 = Neutral – 3 = Agree.

This scale facilitated the classification and statistical analysis of data, providing clear responses that accurately reflect faculty members' attitudes and awareness toward health education.

Analysis and Discussion of the Results in Light of the Study Hypotheses

Analysis and Discussion of the Results in Light of the First Hypothesis

-Null Hypothesis (H0): The level of university faculty members' awareness of the necessity of integrating health education is low or moderate.

-Research Hypothesis (H1): The level of university faculty members' awareness of the necessity of integrating health education is high.

Table (05): Mean and Standard Deviation of the Health Education Variable and Its Dimensions

Dimension	N	M	SD
Integration of Health Education	37	18.62	1.52
Knowledge of Health Education	37	16.11	1.59
Practical Challenges	37	18.92	2.01
Health Education as a Whole	37	53.65	3.92

Prepared by the researcher based on study outputs and SPSS software.

Commentary on the Table:

The results show that the **overall mean score of faculty awareness of health education was 53.65 out of a possible 60 points**, reflecting a very high level of awareness approaching the upper limit of the scale. This finding highlights a clear recognition of the importance of integrating health education as a vital variable in the university context.

-Integration of Health Education (18.62): This result indicates that faculty demonstrate a strong readiness to integrate health-related concepts into teaching practices, underscoring their awareness of the university's pedagogical role beyond the narrow scope of academic knowledge.

-Knowledge of Health Education (16.11): Although this mean is relatively high, it is the lowest among the three dimensions, suggesting that some faculty may lack specialized training or sufficient exposure to recent theoretical advances in the field.

-Practical Challenges (18.92): This dimension achieved the highest mean, reflecting faculty's deep awareness of the obstacles facing implementation, such as limited resources, lack of institutional policies, or insufficient coordination among stakeholders. This practical awareness shows that faculty adopt a realistic stance, recognizing that the success of any initiative depends not only on individual awareness but also on a supportive institutional environment.

Thus, the overall mean (53.65) exceeds the theoretical midpoint of the scale (30 points) and is very close to the maximum possible (60 points). This significant difference in favor of the actual mean indicates that faculty awareness was not low or moderate but rather markedly high.

Accordingly, the **null hypothesis (H0) is statistically rejected**, and the **research hypothesis (H1)**—which posits that faculty members' awareness of the necessity of integrating health education is high—is accepted. This conclusion is supported not only by the elevated mean but also by the relatively low standard deviation (3.92), which indicates a degree of homogeneity in the responses, meaning that most faculty share a similarly high level of awareness of health education's importance.

Analysis and Discussion of the Results in Light of the Second Hypothesis

-Null Hypothesis (H0): There are no statistically significant differences in the level of faculty members' awareness of the necessity of integrating health education attributable to gender.

-Alternative Hypothesis (H1): There are statistically significant differences in the level of faculty members' awareness of the necessity of integrating health education attributable to gender.

Table (06): Mann–Whitney Test Results for Gender-Based Differences in Faculty Awareness of Health Education Integration

Statistical Test	Mann–Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. [2*(1-tailed)]
Value	136.000	241.000	-0.788	0.431	0.448

Prepared by the researcher based on study outputs and SPSS software.

Statistical Analysis and Interpretation:

The results of the Mann–Whitney test indicate a value of **U = 136.000**, with **Z = -0.788**, and significance levels of **Sig. = 0.431 (asymptotic)** and **Sig. exact = 0.448**, all of which are greater than the adopted significance threshold ($\alpha = 0.05$). This means that there are statistically no significant differences between male and female faculty members in terms of their awareness of the necessity of integrating health education.

Consequently, the **null hypothesis (H0)**—which asserts the absence of differences—is accepted, while the alternative hypothesis (H1) is rejected.

This result suggests that gender is not a determining factor in shaping faculty awareness of health education. Rather, this awareness appears to be founded on shared professional and cognitive backgrounds across all faculty, regardless of gender. Therefore, the integration of health education is perceived as a scientific and pedagogical requirement that asserts itself within the university context beyond individual gender-based differences.

Analysis and Discussion of the Results in Light of the Third Research Hypothesis

The third hypothesis posited that there are statistically significant differences in university faculty members' awareness of the necessity of integrating health education, attributable to professional experience.

-Null Hypothesis (H0): There are no statistically significant differences in university faculty members' awareness of the necessity of integrating health education attributable to professional experience.

-Alternative Hypothesis (H1): There are statistically significant differences in university faculty members' awareness of the necessity of integrating health education attributable to professional experience.

Table (07): Kruskal–Wallis Test Results for Faculty Members' Awareness of the Necessity of Integrating Health Education According to Professional Experience

Professional Experience	N	Mean Rank	H Value	df	Sig.
Less than 5 years	18	20.03	0.537	2	0.765
5–10 years	4	20.25			
More than 10 years	15	17.43			
Total	37	—			

Prepared by the researcher based on SPSS outputs.

Statistical Analysis and Interpretation:

The Kruskal–Wallis test results show that $H = 0.537$ with 2 degrees of freedom ($df = 2$) and a significance level of $Sig. = 0.765$, which is well above the conventional threshold ($\alpha = 0.05$). This indicates that the observed differences in mean ranks among the three groups (less than 5 years, 5–10 years, and more than 10 years of professional experience) are not statistically significant.

When examining mean ranks, faculty with 5–10 years of experience had the highest rank (20.25), followed by those with less than 5 years (20.03), while those with more than 10 years had the lowest (17.43). Despite this numerical variation, the Kruskal–Wallis test demonstrates that these differences are not significant and may be attributed to random variation within the sample rather than substantive disparities in awareness.

Accordingly, the null hypothesis (H0) is accepted, confirming that professional experience does not produce significant differences in faculty awareness regarding the necessity of integrating health education. Conversely, the alternative hypothesis (H1) is rejected.

Analysis and Discussion of the Results in Light of the Fourth Research Hypothesis

The fourth hypothesis posited that there are statistically significant differences in university faculty members' awareness of the necessity of integrating health education, attributable to academic rank.

-Null Hypothesis (H0): There are no statistically significant differences in university faculty members' awareness of the necessity of integrating health education attributable to academic rank.

-Alternative Hypothesis (H1): There are statistically significant differences in university faculty members' awareness of the necessity of integrating health education attributable to academic rank.

Table (08): Kruskal–Wallis Test Results for Faculty Members' Awareness of the Necessity of Integrating Health Education According to Academic Rank

Academic Rank	N	Mean Rank	H Value	df	Sig.
Assistant Professor	7	18.64	0.291	3	0.962
Lecturer “B”	14	19.61			
Lecturer “A”	10	19.60			
Full Professor	6	17.00			
Total	37	—			

Prepared by the researcher based on SPSS outputs.

Statistical Analysis and Interpretation:

The Kruskal–Wallis test results reveal that $H = 0.291$ with 3 degrees of freedom ($df = 3$) and a significance level of $Sig. = 0.962$, which far exceeds the significance threshold ($\alpha = 0.05$). This indicates that the differences in mean ranks across the four groups (Assistant Professor, Lecturer “B,” Lecturer “A,” and Full Professor) are not statistically significant.

An examination of mean ranks shows that Lecturer “B” obtained the highest rank (19.61), followed closely by Lecturer “A” (19.60). Assistant Professors ranked third (18.64), while Full Professors had the lowest mean rank (17.00). Although there are slight numerical variations, the Kruskal–Wallis test demonstrates that these differences lack statistical significance, suggesting they may be due to random sample variation rather than meaningful differences linked to academic rank.

Therefore, the null hypothesis (H0) is accepted, affirming that academic rank does not significantly influence faculty awareness regarding the integration of health education. Conversely, the alternative hypothesis (H1) is rejected.

Discussion of the Results in the Context of the Hypotheses and Previous Literature

Interpretation and Discussion of the Results in Light of the First General Hypothesis and Previous Literature



The findings of the present study revealed that university faculty members' awareness of the necessity of integrating health education was very high. This aligns with the results of *Al-Eisa & Al-Warjash (2024)*, which emphasized that educators' awareness of health concepts constitutes a fundamental prerequisite for developing their professional competencies and ensuring their capacity to effectively transfer health education within educational environments. The high mean score (53.65 out of 60) observed in this study may be explained by faculty members' recognition of the central role that health education plays in supporting their pedagogical mission. This is consistent with *Al-Eisa & Al-Warjash*, who argued that such awareness is not merely theoretical knowledge but rather a practical dimension reflected in actual teaching practices.

Furthermore, the current results resonate with *Al-Mutairi et al. (2025)*, who stressed that engaging faculty members in promoting health culture within universities constitutes a strategic dimension for the success of health programs. The results of this study indicate that faculty not only demonstrate theoretical awareness but also recognize the practical challenges that may hinder the integration of health education. This realistic stance mirrors the argument of *Al-Mutairi et al.* regarding the necessity of establishing supportive institutional environments that enable faculty to translate awareness into sustainable practices.

Thus, the present study not only confirms the elevated awareness level of faculty members but also situates this awareness within a broader context supported by contemporary literature, which views faculty as strategic actors in ensuring the successful integration of health education at the university level. This reinforces the validity of accepting the alternative hypothesis, which posits a high level of awareness, while rejecting the null hypothesis.

Interpretation and Discussion of the Results in Light of the First Specific Hypothesis and Previous Literature

The results of the Mann–Whitney test indicated no statistically significant differences between male and female faculty members in their awareness of the necessity of integrating health education. This finding confirms that such awareness is not shaped by demographic factors but rather grounded in shared cognitive and professional determinants common to all faculty members. This observation is consistent with recent literature, which underscores that health education at the university level represents an institutional and collective demand rather than an individual response.

In this context, *Al-Eisa & Al-Warjash (2024)* demonstrated that educators' awareness of health concepts is a key component in developing their professional competencies and enhancing their ability to transmit such concepts to students effectively. Similarly, *Al-Mutairi et al. (2025)* argued that involving faculty in disseminating health culture constitutes a strategic factor in the success of health programs within universities. Supporting this view, *Jourdan et al. (2017)* highlighted that equipping higher education instructors with tools and content related to health education directly contributes to improving the quality of training programs and ensuring the sustainability of health awareness within educational institutions.

Accordingly, the current result is significant not only because it affirms the neutrality of gender in shaping faculty members' awareness, but also because it underscores their role as pivotal agents in embedding health education in higher education. This suggests the necessity of directing further applied and field research toward analyzing faculty members' practical roles and exploring training strategies aimed at strengthening their professional capacities.

Interpretation and Discussion of the Results in Light of the Second Specific Hypothesis and Previous Literature



The results of the Kruskal–Wallis test ($H = 0.537$, $df = 2$, $Sig. = 0.765$) revealed that years of professional experience do not constitute a differentiating factor in faculty members' awareness of health education. This indirectly reflects that health education is not an automatic outcome of accumulated experience; rather, it is a knowledge-based and institutionalized process that requires structured mechanisms for continuous professional training and development.

The literature supports this interpretation, emphasizing that professional seniority alone is a “quantitative” indicator that does not sufficiently explain variations in pedagogical and health-related competencies. For instance, *Al-Eisa & Al-Warjash (2024)* found that continuous training and engagement with updated educational resources are decisive factors in enhancing educators' awareness of health issues. Similarly, *Al-Mutairi et al. (2025)* argued that fostering health culture in higher education institutions requires institutional strategies that transcend individual attributes, through embedding health education into academic policies and equipping faculty with clear methodological tools and teaching resources. Furthermore, *Jourdan et al. (2017)* stressed that the sustainability and effectiveness of health programs depend on systematic pedagogical support provided to instructors. This is consistent with the current findings, which show that faculty members, regardless of professional seniority, share a comparably high level of awareness of health education.

Interpretation and Discussion of Findings in Light of the Third Sub-Hypothesis and Previous Literature

The results of the Kruskal–Wallis test ($H = 0.291$, $ddl = 3$, $Sig. = 0.962$) indicate the absence of statistically significant differences among university faculty members according to academic rank, as the mean rank differences proved marginal and did not exceed the limits of random variation. This outcome confirms that academic rank is not a determining factor in the level of awareness of health education, and that awareness is distributed relatively evenly across all groups regardless of their hierarchical position. Such a result reflects that this awareness is grounded in deeper determinants than professional rank, namely continuous professional development, institutional culture, and pedagogical support.

The literature supports this perspective. For example, *Al-Eisa and Al-Warjash (2024)* demonstrated that educators' awareness of health issues is primarily linked to continuous training and the renewal of professional competencies, rather than to years of service or academic seniority. Similarly, *Al-Mutairi et al. (2025)* emphasized that embedding health culture within higher education requires a holistic institutional approach that empowers all faculty members equally with clear tools and content, irrespective of rank, to ensure an equitable ability to effectively transfer health knowledge. In the same vein, *Jourdan et al. (2017)* highlighted that the effectiveness and sustainability of health education programs depend on pedagogical support and structured guidance provided to instructors, rather than their hierarchical position—thus underscoring the importance of institutional factors in shaping health awareness.

Interpretation and Discussion of Findings in Light of the Second General Hypothesis and Previous Literature

The findings demonstrate that faculty members' awareness of integrating health education is not influenced by gender, years of professional experience, or academic rank. Results from the Mann–Whitney and Kruskal–Wallis tests confirmed the absence of significant differences across these variables, indicating



that such awareness is shaped by collective cognitive, professional, and institutional factors rather than individual characteristics. These results suggest that health education in universities is best understood as a structural and shared process, supported by continuous professional development, institutional policies, and pedagogical resources. Faculty thus emerge as strategic actors in embedding health concepts into curricula and ensuring the sustainability of health programs. This study contributes to the literature by underscoring the centrality of institutional support and systematic training in fostering health awareness, while highlighting avenues for future research on the role of educational policies, integrated curricula, and innovative teaching strategies in advancing health education within higher education.

Conclusion:

The study reveals that university faculty members demonstrate a consistently high awareness of the importance of integrating health education, an awareness that appears largely independent of gender, professional experience, or academic rank. Rather than being shaped by individual characteristics, this awareness reflects deeper cognitive, professional, and institutional dynamics that have been reinforced in the post-COVID-19 context, particularly through professional development opportunities, pedagogical support structures, and institutional policies. The absence of significant differences across demographic variables suggests a process of institutional normalization, whereby health education has gradually become embedded within the professional identity of university faculty.

Faculty members thus emerge not merely as implementers, but as strategic actors in embedding health education into curricula, promoting interactive and participatory teaching practices, and contributing to the long-term sustainability of health-related educational initiatives. However, the high level of awareness identified in this study does not necessarily guarantee uniform pedagogical enactment, pointing to a potential gap between professional conviction and actual classroom practices—an issue that warrants further empirical investigation.

The findings further underscore the decisive role of higher education institutions in sustaining and transforming this awareness into effective educational action. Sustainable health education in universities depends on coherent institutional frameworks that align individual faculty engagement with continuous training, supportive policies, adequate resources, and applied research agendas. From a policy perspective, this implies that health education should be integrated into university quality assurance systems, professional development programs, and curricular reform strategies, rather than remaining dependent on isolated or voluntary initiatives.

By framing health education as a collective and structurally mediated process, this study contributes to the literature on higher education transformation in the post-pandemic era. It opens avenues for future research focusing on institutional training models, pedagogical innovation, and the digital transformation of health education within diverse university contexts.

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