The Influence of Health Information Sources on Health Awareness among Athletes Practicing Bodybuilding

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Abstract:

This study aimed to examine the impact of health information sources on the level of health awareness among athletes practicing bodybuilding. The researchers adopted a descriptive methodology, and the study was conducted on a randomly selected sample of 60 athletes. The main instrument for gathering data was a questionnaire, and SPSS (version 29), a statistical program, was used to analyze the findings.

The findings of the study revealed that health information sources have varying effects on different dimensions of health awareness. The impact of these sources was found to be significantly strong in the domain of nutritional awareness, while their effect ranged from moderate to weak in areas related to awareness of infectious diseases, personal health, and daily habits.

Keywords: Health information sources, Health awareness, Bodybuilding.

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1. INTRODUCTION AND RESEARCH PROBLEM

Recently, there has been a marked increase in interest in bodybuilding. This growing attention is attributed to the physical and psychological benefits that the sport offers, in addition to its role in fostering a positive self-image among practitioners (C. Jubenville et al., 2021, p. 1). One of the primary goals sought by individuals engaging in this sport is to increase muscle mass and improve body composition through resistance training and weightlifting. These practices contribute to a reduction in body fat percentage and promote muscular symmetry (Schoenfeld, 2010, p. 2857). Furthermore, numerous scientific studies have indicated that consistent participation in bodybuilding can enhance physical strength and endurance, which positively affects motor functions and daily performance. Additionally, bodybuilding plays a significant role in promoting cardiovascular health, regulating blood glucose levels, enhancing bone density, and preventing osteoporosis (Westcott, 2012, p. 210).

Bodybuilding is a discipline that requires a high level of commitment in terms of practice, dietary regimen, and training program to achieve the desired goals (Kara, 2018, p.). The success of individuals in this sport largely depends on their in-depth understanding of health, nutritional, and training principles—an understanding commonly referred to as health awareness. This concept reflects the athlete's ability to comprehend health-related information, critically evaluate it, and apply it effectively in daily practice (Fellahi &Baali, 2022, p. 404).

The bodybuilder's awareness, understanding of the sport's principles, and ability to benefit from its advantages are significantly influenced by the quality of health information sources upon which their knowledge and practices are based. This is especially critical in the context of technological advancement and the widespread availability of information. Health information sources have proliferated to an unprecedented extent. In addition to traditional sources—such as specialists, scientific research, and professional trainers—a vast array of digital sources has emerged, including websites, online forums, and various social media platforms.

A review of the existing literature relevant to the present study reveals several similar investigations. One such study is by Al-Qaddoumi (2005), which aimed to examine the level of health awareness and the sources of health information among volleyball players in Arab clubs. Additionally, the study sought to identify differences in health awareness based on the variables of playing experience and educational attainment. Conducted on a sample of 90

players who participated in the 22nd Arab Clubs Championship held in Jordan, the study utilized a questionnaire to measure health awareness and sources of health information. The results indicated a high overall level of health awareness among the participants, with a response rate of 81%. Statistically significant differences were found among the domains of health awareness, with the highest being in the domain of social awareness and psychological stress control. However, no statistically significant differences were observed based on playing experience, educational qualification, or their interaction. Furthermore, the findings indicated that media outlets were the most commonly used source of health information among the players. Based on these results, the researcher recommended that athletes undergo a comprehensive medical examination at least once annually.

Another relevant study is that of Al-Arjan et al. (2013), which investigated the level of health awareness and sources of health information among students at Al-Balqa Applied University in Jordan. The study included a randomly selected sample of 1,916 male and female students, who completed a 62-item questionnaire covering seven domains. The findings showed a high level of overall health awareness, with an average response rate of 85.27%. Specifically, 90.55% of students exhibited a high level of health awareness, while 9.44% had a moderate level. The results indicated statistically significant differences in health awareness based on gender and academic level, in favor of female students and fourth-year students. Media sources emerged as one of the most utilized channels for obtaining health information. The study recommended the promotion of sports activities aimed at improving student health, the provision of appropriate facilities, and the integration of health, nutrition, and physical activity content into mandatory university curricula.

At the university student level, Abdel-Azim (2021) conducted a descriptive study focusing on the role of health information sources in shaping the health awareness of female students at Al-Azhar University. A questionnaire was distributed to a sample of female students, and the results were analyzed statistically. The study found that the Internet was one of the most relied-upon sources of health information. Moreover, the general level of health awareness among the students was reported to be moderate. Health-related social media pages and frequent visits to healthcare centers were identified as the most influential factors in shaping students' health awareness. A positive correlation

was observed between the level of health awareness and the extent to which students used health information sources.

In the specific context of bodybuilding, the study conducted by Fellahi and Baali (2022) examined the relationship between health awareness and health behavior among bodybuilding practitioners. The study involved a sample of 45 male athletes and employed a researcher-developed health awareness questionnaire, alongside the health behavior questionnaire developed by Al-Samadi and Al-Samadi. The results revealed a positive correlation between health awareness and health behavior among the participants. Statistically significant differences in health awareness were found in favor of athletes with secondary education, while differences in health behavior were in favor of those with university-level education.

Based on the foregoing discussion, it can be concluded that sources of health information constitute a fundamental pillar that enables athletes to form health awareness, which directly influences their decisions regarding diet, selected training programs, supplementation, and injury prevention. From this standpoint, the present study seeks to address the following central research question:

- ✓ What is the impact of health information sources on health awareness among bodybuilding practitioners?

This overarching question is further divided into the following sub-questions:

- ✓ What is the impact of health information sources on nutritional awareness among bodybuilding practitioners?
- ✓ What is the impact of health information sources on awareness of communicable diseases among bodybuilding practitioners?
- ✓ What is the impact of health information sources on personal health awareness among bodybuilding practitioners?
- ✓ What is the impact of health information sources on awareness of daily habits among bodybuilding practitioners?

2. Study Hypotheses

2.1.Main Hypothesis

- ✓ Health information sources have a significant impact on health awareness among bodybuilding practitioners.

2.2.Sub-Hypotheses

- ✓ Health information sources have a significant impact on nutritional

awareness among bodybuilding practitioners.

- ✓ Health information sources have a significant impact on awareness of communicable diseases among bodybuilding practitioners.
- ✓ Health information sources have a significant impact on personal health awareness among bodybuilding practitioners.
- ✓ Health information sources have a significant impact on awareness of daily habits among bodybuilding practitioners.

3. Objectives of the Study

Based on the proposed research questions, the current study aims to:

- ✓ Examine the impact of health information sources on the formation of nutritional awareness among bodybuilding practitioners.
- ✓ Investigate the role of health information sources in shaping awareness of communicable diseases among bodybuilding practitioners.
- ✓ Assess the influence of health information sources on the development of personal health awareness among bodybuilding practitioners.
- ✓ Explore the impact of health information sources on the formation of awareness related to daily health habits among bodybuilding practitioners.

4. Definition of Terms

4.1. Health Information Sources

These refer to the various channels or tools—formal or informal, governmental or non-governmental—used to disseminate health-related data and information to individuals. These sources aim to equip recipients with the necessary knowledge to improve their health, whether the information is delivered in printed or digital formats (Team of Experts, Saudi Ministry of Education, 2024, p. 31).

For the purposes of this study, the researchers define health information sources as the outlets through which bodybuilding practitioners acquire health-related information. These include various forms of media, friends, self-directed reading, healthcare professionals (such as physicians and allied health workers), social media platforms, websites, and YouTube.

4.2 Health Awareness

Health awareness refers to an individual's level of understanding and comprehension of essential information related to various health domains, including physical, mental, psychological, social, and environmental health. It is reflected in the individual's adequate and responsible adoption of such

information, as well as their ability to communicate it and guide others toward adopting health behaviors that contribute to the broader human goal of well-being.

For the purposes of this study, the researchers define health awareness as the value each participant (bodybuilding practitioner) obtains based on their responses to the administered questionnaire concerning health awareness and sources of health information.

4.3 Bodybuilding

Guillaume defines bodybuilding as a physical activity aimed at building the body through the principles and methodology of systematic training involving all major muscle groups (Medassi & Louati, 2023, p. 195).

For the purposes of this study, the researchers operationally define bodybuilding as referring to the individuals in the study sample who regularly attend bodybuilding gyms with the goal of developing their muscular structure, achieving physical fitness, and enhancing the aesthetic appearance of their bodies.

5. Methodological Procedures

5.1. Pilot Study

A pilot study was conducted to verify the validity and reliability of the research instrument. It was carried out on a sample of 35 bodybuilding practitioners during the period from February 3 to February 6, 2025.

5.2. Study Scope

5.2.1. Spatial Scope

The study was conducted in bodybuilding gyms located in the municipality of Ain Kercha, Oum El Bouaghi Province.

5.2.2. Temporal Scope

The research was carried out during the period from January 2025 to June 2025.

5.3. Research Methodology

The descriptive-analytical method was adopted, as it is most appropriate for the nature of this study.

5.4. Study Population

The population consisted of all bodybuilding practitioners in the municipality of Ain Kercha.

4.5. Study Sample

The sample included 60 bodybuilding practitioners (37 males and 23 females), aged between 18 and over 30 years. Participants were randomly selected through an electronic questionnaire distributed via social media platforms,

specifically in groups dedicated to bodybuilding in the municipality of Ain Kercha.

5.6. Psychometric Properties of the Instrument

Table (1): Results of Validity and Reliability Tests for the Research Instrument

Factors	Cronbach's Alpha	Face validity	Spearman / Guttman	The correlation coefficient ranges between
Nutritional awareness	0.77	0.88	0.83	0.40-0.81
Awareness of infectious diseases	0.75	0.87	0.64	0.36-0.69
Personal health awareness	0.72	0.85	0.73	0.37-0.56
Daily habits	0.62	0.79	0.84	0.37-0.69
Sources of health information	0.73	0.85	0.69	0.36-0.68

Source: Prepared by the researchers based on the outputs of SPSS 29.

The results presented in Table (1) indicate that the measurement instrument demonstrates a good level of validity and reliability. The self-validity coefficients for all dimensions were high, ranging between 0.79 and 0.88, which reflects the tool's ability to accurately measure the targeted constructs. Furthermore, the reliability coefficients (Cronbach's Alpha and Spearman-Brown) showed values ranging from acceptable to good, indicating an adequate level of internal consistency among the items. An exception was noted in the daily habits dimension, which exhibited relatively lower reliability. Overall, the instrument can be considered reliable and suitable for use in this research.

6. Presentation, Interpretation, and Discussion of Results

Table (2): Test of Normality

Variables	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Nutritional awareness	0,08	60	0,20	0,99	60	0,76
Awareness of infectious diseases	0,11	60	0,08	0,98	60	0,36
Personal health awareness	0,07	60	0,20	0,98	60	0,69
Daily habits	0,09	60	0,20	0,98	60	0,41
Sources of health information	0,12	60	0,04	0,97	60	0,11

Source: Prepared by the researchers based on the outputs of SPSS 29.

The results of the Shapiro-Wilk and Kolmogorov-Smirnov tests indicated that all p-values exceeded 0.05, suggesting that the data for all the study variables follow a normal distribution.

6.1. Presentation and Analysis of the First Hypothesis, which states:

Health information sources have an effect on nutritional awareness among bodybuilding practitioners.

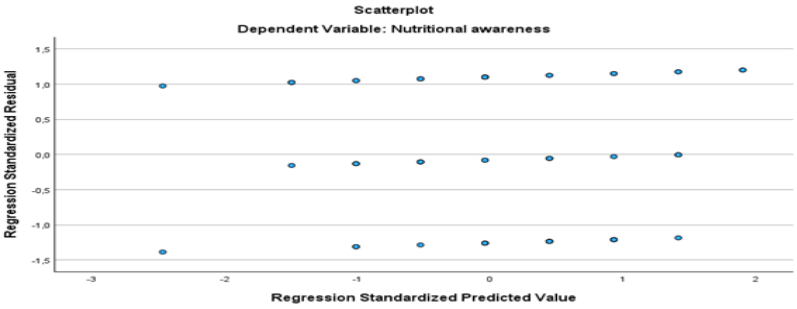


Figure (1): Homogeneity of the Study Variables

Source: Prepared by the researchers based on the outputs of SPSS 29

The homogeneity assumption was tested using a scatterplot displaying the residuals against the standardized predicted values. Upon examining the graph, it is observed that the data points are randomly scattered around the horizontal line representing zero on the vertical axis. This random distribution indicates that the residuals do not exhibit any specific pattern or asymmetrical change relative to the predicted values.

Moreover, there is no visible clustering of points in any particular region of the plot, which further supports the homoscedasticity (homogeneity of variance) assumption. This uniform spread of residuals across different levels of predicted values suggests that the variance is evenly distributed.

Based on this, it can be concluded that the data meet the homogeneity requirement, thereby enhancing the reliability of the results derived from the simple linear regression analysis.

Table (3): Results of the Simple Linear Regression Analysis of Health Information Sources on Nutritional Awareness

Variables	B	R	R Square	F	Sig	Beta	T	Sig
Constant	1,32						2,02	0,05
Sources of health information	2,98	0,99	0,98	3098,41	0.00	0,99	55,66	0.00

a. Dependent Variable: Nutritional awareness. b. Predictors: (Constant), Sources of health information.

Source: Prepared by the researchers based on the outputs of SPSS 29

Based on Table (3), which presents the results of the relationship between nutritional awareness (the dependent variable) and the explanatory variable (health information sources as the independent variable), the findings indicate that the regression model is statistically significant. This is evidenced by an F-value of 3098.41 with a p-value of 0.00, which is lower than the significance level of 0.05.

The results also show a very strong positive correlation between the two variables, as reflected by a correlation coefficient (R) of 0.99. The coefficient of determination (R^2) was 0.98, meaning that the model explains 98% of the variance in nutritional awareness.

The intercept (constant B) in the regression equation is 1.32, indicating that individuals who do not rely on health information sources have an average nutritional awareness level of 1.32. The regression coefficient (B) for health information sources is 2.98, implying that a one-unit increase in the use of health information sources leads to a 2.98-unit increase in nutritional awareness.

Moreover, the t-value was 55.66, with a p-value of 0.00, which confirms the existence of a statistically significant relationship between health information sources and nutritional awareness.

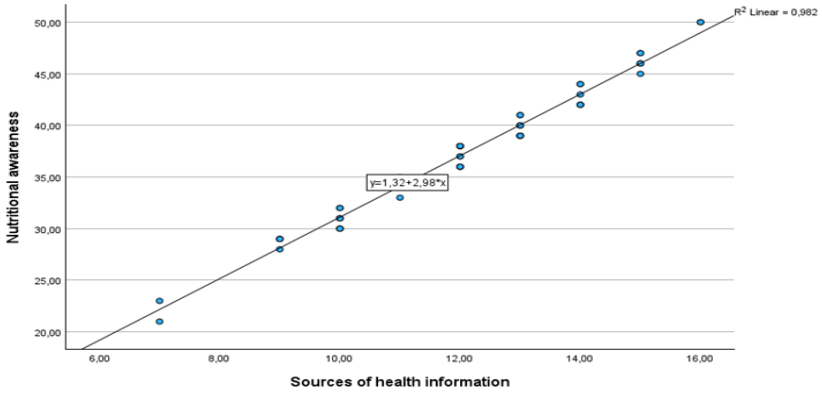


Figure (2): Linearity of the Relationship and the Regression Equation

Source: Prepared by the researchers based on the outputs of SPSS 29

With regard to the relationship between health information sources and nutritional awareness, simple linear regression analysis was employed to determine the nature of the relationship between the two variables. The line graph illustrates a positive linear relationship, confirming that the assumption of linearity is met. This relationship is represented by the following regression equation: $y = 1.32 + 2.98x$

6.2. Presentation and Analysis of the Second Hypothesis, which states: Health information sources have an effect on awareness of communicable diseases among bodybuilding practitioners.

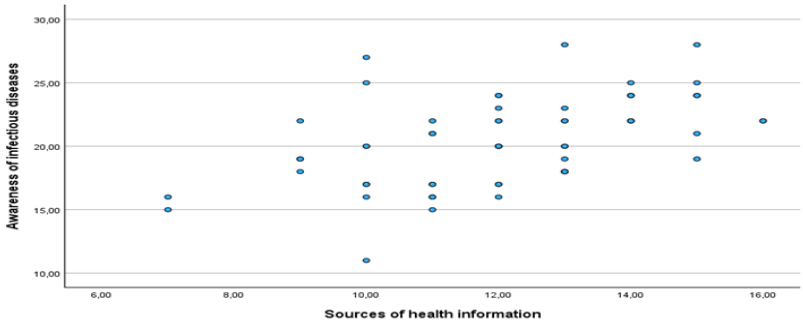


Figure (3): Homogeneity of the Study Variables

Source: Prepared by the researchers based on the outputs of SPSS 29

The homogeneity assumption was assessed using a scatterplot that displays the residuals against the standardized predicted values. Upon examining the graph, it is evident that the data points are randomly scattered around the horizontal line representing zero on the vertical axis. This random distribution indicates that the residuals do not follow any specific pattern, nor do they change asymmetrically with the predicted values.

Moreover, there is no visible clustering of points in any specific area of the plot, which reinforces the assumption of homogeneity of variance (homoscedasticity). This reflects an even distribution of residuals across various levels of the predicted values.

Based on this, it can be concluded that the data satisfy the homogeneity assumption, thereby supporting the reliability of the results obtained from the simple linear regression analysis.

Table (4): Results of the Simple Linear Regression Analysis of Health Information Sources on Awareness of Communicable Diseases

Variables	B	R	R Square	F	Sig	Beta	T	Sig
Constant	10,36						4,42	0,00
Sources of health information	0,83	0,50	0,25	18,95	0,00	0,50	4,35	0,00

a. Dependent Variable: Awareness of infectious diseases.

b. Predictors: (Constant), Sources of health information.

Source: Prepared by the researchers based on the outputs of SPSS 29

The results in Table (4) show that the regression model is statistically significant, as indicated by an F-value of 18.95 and a p-value less than 0.05. The relationship between the two variables is moderately positive, with a correlation coefficient (R) of 0.50. The coefficient of determination (R^2) is 0.25, meaning that the model explains 25% of the variance in awareness of communicable diseases.

The intercept (B) value is 10.36, which implies that individuals who do not rely on health information sources have an average awareness score of 10.36 regarding communicable diseases. The regression coefficient (B) for health information sources is 0.83, indicating that a one-unit increase in the use of health information sources leads to an increase of 0.83 units in awareness of communicable diseases.

The t-value was 4.35, with a p-value of 0.00, confirming the statistical significance of the relationship between health information sources and awareness of communicable diseases.

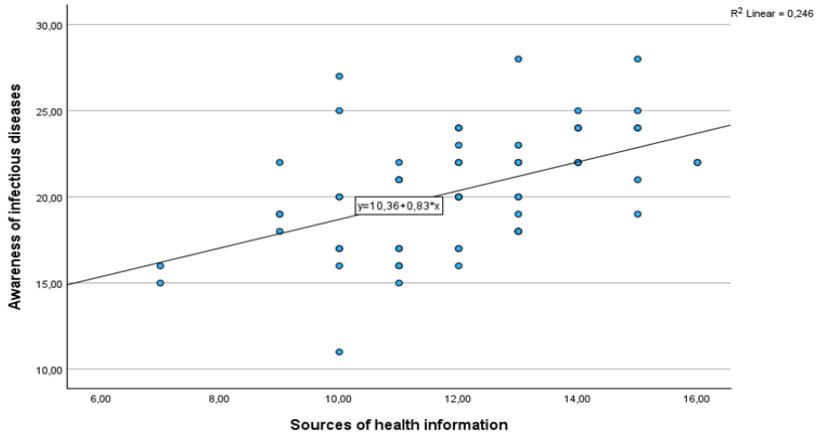


Figure (4): Linearity of the Relationship and the Regression Equation

Source: Prepared by the researchers based on the outputs of SPSS 29

The line graph illustrates a positive linear relationship between the two variables, confirming that the assumption of linearity is met. This relationship is represented by the following regression equation: $y = 10.36 + 0.83x$

6.3. Presentation and Analysis of the Third Hypothesis, which states: Health information sources have an effect on personal health awareness among bodybuilding practitioners.

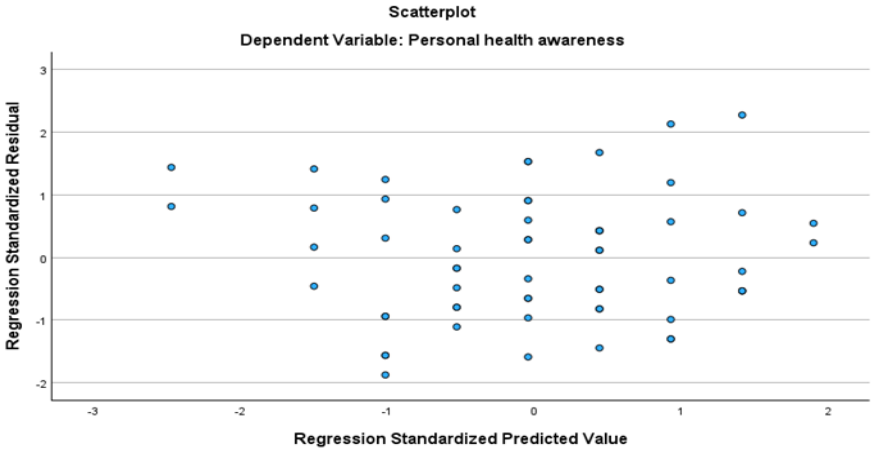


Figure (5): Homogeneity of the Study Variables

Source: Prepared by the researchers based on the outputs of SPSS 29

The homogeneity assumption was tested using a scatterplot displaying the residuals against the standardized predicted values. Upon examining the graph, it is observed that the data points are randomly distributed around the horizontal line representing zero on the vertical axis. This random dispersion suggests that the residuals do not follow any specific pattern and do not vary asymmetrically with changes in the predicted values.

Moreover, no clustering of points is observed in any part of the plot, further supporting the homoscedasticity assumption. This pattern reflects a consistent distribution of residuals across different levels of predicted values.

Accordingly, it can be concluded that the data meet the homogeneity of variance assumption, which supports the reliability of the results derived from the simple linear regression analysis.

Table (5): Results of the Simple Linear Regression Analysis of Health Information Sources on Personal Health Awareness

Variables	B	R	R Square	F	Sig	Beta	T	Sig
Constant	10,61						4,27	0.00
Sources of health information	0,54	0,33	0,11	7,11	0,01	0,33	2,67	0.01

a. Dependent Variable: Personal health awareness.

b. Predictors: (Constant), Sources of health information.

Source: Prepared by the researchers based on the outputs of SPSS 29

The results presented in Table (5) indicate that the regression model is statistically significant, as demonstrated by an F-value of 7.11 and a p-value less than 0.05. The analysis reveals a weak positive relationship between the variables, with a correlation coefficient (R) of 0.33. The coefficient of determination (R^2) is 0.11, which means that the model explains 11% of the variance in personal health awareness.

The intercept (B) was calculated at 10.61, indicating that individuals who do not rely on health information sources have an average personal health awareness score of 10.61. The regression coefficient (B) for health information sources is 0.54, suggesting that a one-unit increase in the use of health information sources results in a 0.54-unit increase in personal health awareness.

Furthermore, the t-value was 2.67, with a p-value of 0.01, confirming the presence of a statistically significant relationship between health information sources and personal health awareness.

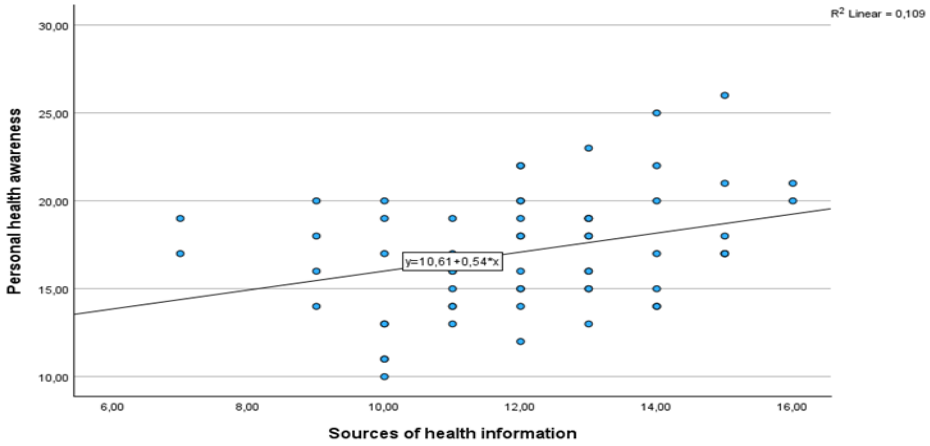


Figure (6): Linearity of the Relationship and the Regression Equation

Source: Prepared by the researchers based on the outputs of SPSS 29

The line graph illustrates a positive linear relationship between the two variables, confirming that the assumption of linearity is met. This relationship is represented by the following regression equation: $y = 10.61 + 0.54x$

6.4. Presentation and Analysis of the Fourth Hypothesis, which states: Health information sources have an effect on awareness of daily habits among bodybuilding practitioners.

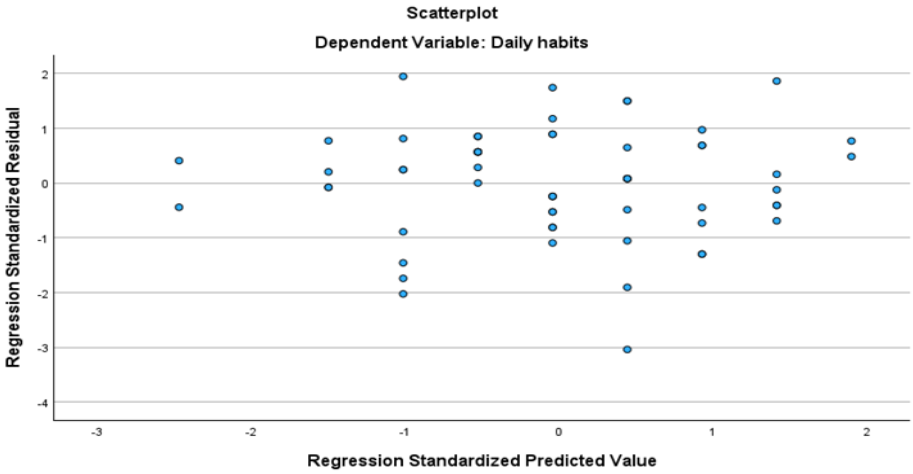


Figure (7): Homogeneity of the Study Variables

Source: Prepared by the researchers based on the outputs of SPSS 29

The homogeneity assumption was tested using a scatterplot displaying the residuals against the standardized predicted values. Upon examining the graph, it is observed that the data points are randomly distributed around the horizontal line representing zero on the vertical axis. This random dispersion indicates that the residuals do not exhibit any discernible pattern and do not vary asymmetrically with changes in the predicted values.

Additionally, there is no clustering of points in any particular area of the plot, which further supports the assumption of homoscedasticity. This reflects a consistent distribution of residuals across various levels of predicted values.

Accordingly, it can be concluded that the data meet the homogeneity of variance assumption, which enhances the reliability of the results obtained from the simple linear regression analysis.

Table (6): Results of the Simple Linear Regression Analysis of Health Information Sources on Daily Habits

Variables	B	R	R Square	F	Sig	Beta	T	Sig
Constant	11,55						4,23	0,00
Sources of health information	0,86	0,45	0,20	14,89	0,00	0,45	3,86	0,00

a. Dependent Variable: Daily habits.b. Predictors: (Constant), Sources of health information.

Source: Prepared by the researchers based on the outputs of SPSS 29.

The results presented in Table (6) indicate that the regression model is statistically significant, as shown by an F-value of 14.89 and a p-value less than 0.05. The analysis reveals a moderate positive relationship between the variables, with a correlation coefficient (R) of 0.45. The coefficient of determination (R^2) is 0.20, meaning that the model explains 20% of the variance in daily habits.

The intercept (B) is 11.55, indicating that individuals who do not rely on health information sources have an average score of 11.55 in terms of daily habits. The regression coefficient (B) for health information sources is 0.86, suggesting that a one-unit increase in the use of health information sources leads to an increase of 0.86 units in daily health habits.

Furthermore, the t-value was 3.86, with a p-value of 0.00, confirming the statistical significance of the relationship between health information sources and awareness of daily habits.

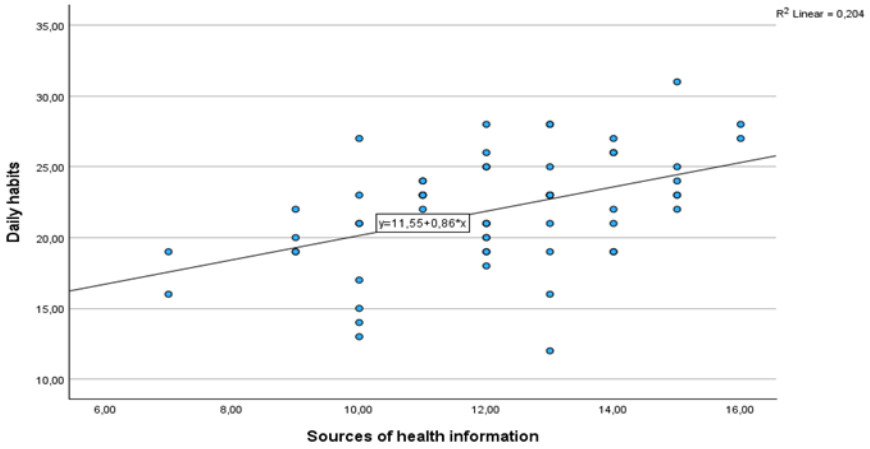


Figure (8): Linearity of the Relationship and the Regression Equation

Source: Prepared by the researchers based on the outputs of SPSS 29

The line graph demonstrates a positive linear relationship between the two variables, confirming that the linearity assumption is satisfied. This relationship is represented by the following regression equation: $y = 11.55 + 0.86x$

7. Discussion of Results in Light of the Hypotheses and Previous Studies

7.1. First Hypothesis: Health information sources have a significant impact on nutritional awareness among bodybuilding practitioners.

Health information sources have an effect on nutritional awareness among bodybuilding practitioners.

The results revealed a very strong positive relationship between the variables, with an R value of 0.99 and a coefficient of determination (R^2) of 98%,

indicating a clear and substantial impact of health information sources on enhancing nutritional awareness. The regression coefficient (B = 2.98) suggests that any increase in the use of these sources leads to a significant improvement in this type of awareness.

This finding is consistent with Al-Arjan et al. (2013), who reported that media outlets were among the most relied-upon sources for acquiring health information among students. Similarly, Abdel-Azim (2021) found a positive relationship between Internet usage and health awareness, with a particular emphasis on the role of health-related social media pages in shaping nutritional understanding. Furthermore, Al-Qaddoumi (2005) highlighted media as a primary source for volleyball players to access health information.

The exceptionally strong relationship observed between health information sources and nutritional awareness may further be interpreted through the lens of goal-directed cognition. In bodybuilding contexts, nutrition is not perceived as a secondary health concern but rather as a strategic performance determinant. Therefore, health-related information concerning diet, supplementation, and macronutrient regulation is processed with heightened attention and intentionality. This cognitive prioritization enhances both retention and application. Theoretically, when health information aligns directly with an individual's core motivational structure, the probability of behavioral translation significantly increases. Consequently, the strong explanatory power of information sources in this domain reflects the convergence of motivational relevance, repeated exposure, and measurable reinforcement outcomes.

Moreover, nutritional awareness in bodybuilding is frequently reinforced through observable physical changes. Such tangible feedback loops strengthen cognitive-behavioral integration, thereby amplifying the influence of informational inputs. This dynamic illustrates that awareness is not solely a product of exposure but is solidified through experiential validation. Hence, the theoretical construct of health awareness is fully activated when information is continuously supported by visible results and performance gains.

7.2. Second Hypothesis: Health information sources have a significant impact on awareness of communicable diseases among bodybuilding practitioners.

Health information sources have an effect on awareness of communicable diseases among bodybuilding practitioners.

The findings indicated a moderate positive relationship, with an R value of 0.50 and an R^2 of 25%. The regression coefficient (B = 0.83) reflects a moderate effect of health information sources on awareness of communicable diseases.

These results align with Abdel-Azim (2021), who showed that visiting health centers and following medical content online contribute to individuals' awareness of diseases. They are also supported by Al-Arjan et al. (2013), who emphasized the role of media as a crucial source of health knowledge.

A possible explanation for the moderate influence lies in the specialized nature of information regarding communicable diseases, combined with relatively lower interest in such topics compared to nutrition among bodybuilding practitioners. This may reduce the effectiveness of available sources despite their accessibility.

In contrast, the moderate influence of health information sources on awareness of communicable diseases suggests that informational exposure alone may be insufficient in domains requiring technical comprehension and risk perception. Awareness of infectious diseases involves understanding abstract concepts such as transmission mechanisms, preventive protocols, and epidemiological risk. These concepts demand a higher degree of cognitive processing and often require authoritative validation to achieve internal acceptance.

From a theoretical perspective, disease-related awareness is mediated by perceived susceptibility and perceived severity. If individuals do not perceive communicable diseases as an immediate threat within their athletic environment, the motivational drive to deeply process related information diminishes. Therefore, even when information is accessible, its transformation into structured awareness may remain partial. This partially explains the moderate statistical relationship observed in this study.

7.3. Third Hypothesis: Health information sources have a significant impact on personal health awareness among bodybuilding practitioners.

Health information sources have an effect on personal health awareness among bodybuilding practitioners.

The results indicated a weak positive relationship, with an R-value of 0.33 and an R^2 of only 11%. The regression coefficient (B = 0.54) suggests a limited direct impact of health information sources on this dimension of awareness.

This result supports the findings of Hallab (2018), who reported generally low levels of health awareness among university students, despite the availability of multiple information sources. Likewise, Abdel-Azim (2021) emphasized that access to information alone is not sufficient to improve awareness unless supported by structured guidance and education.

This weak effect can be partially explained by the behavioral nature of personal health awareness, which requires practical application of knowledge. Additionally, it may fall outside the core focus of bodybuilding practitioners, who tend to prioritize physical performance over preventive or personal health concerns.

The weak association between health information sources and personal health awareness highlights the distinction between informational awareness and behavioral embodiment. Personal health awareness encompasses preventive care, recovery management, medical consultation, and stress regulation—areas that require sustained behavioral discipline rather than episodic informational engagement.

Theoretically, deeply rooted health behaviors are influenced by long-standing cognitive schemas and lifestyle patterns. Information, while necessary, does not automatically override entrenched habits or performance-centered priorities. In bodybuilding culture, aesthetic and strength outcomes may overshadow preventive or long-term health considerations. As a result, informational exposure does not proportionally translate into personal health vigilance. This finding supports the theoretical assertion that awareness becomes operational only when supported by structured guidance, behavioral reinforcement, and value internalization.

7.4. Fourth Hypothesis: Health information sources have a significant impact on awareness of daily habits among bodybuilding practitioners.

Health information sources have an effect on awareness of daily habits among bodybuilding practitioners.

The findings revealed a moderate positive relationship, with an R value of 0.45 and an R^2 of 20%. The regression coefficient (B = 0.86) indicates a moderate positive impact of health information sources on daily health behaviors.

This outcome is consistent with the study of Fellahi and Baali (2022), which found a positive relationship between health awareness and health behavior among bodybuilding practitioners, confirming that increased awareness translates

into healthier daily practices. It also supports the recommendation by Al-Arjan et al. (2013) to promote health-related activities to reinforce daily habits.

However, the moderate impact may be partially explained by other influencing factors, such as learned behaviors, social background, and environmental context. Moreover, adopting new habits often requires repetition and consistent effort, rather than mere exposure to information.

General Conclusion of the Discussion

Based on the above findings, it is evident that health information sources exert a variable impact on different dimensions of health awareness among bodybuilding practitioners. Their influence is particularly strong on nutritional awareness, while it ranges from moderate to weak across other domains. This highlights the importance of information quality, its relevance to context, and the readiness of the recipient to internalize and translate that information into action.

These factors should be carefully considered when designing awareness and education programs targeted at bodybuilding practitioners.

The moderate relationship observed between health information sources and awareness of daily habits reflects the transitional nature of habitual behaviors. Daily practices such as sleep hygiene, hydration, and recovery routines are influenced by information, yet they are equally shaped by environmental constraints and social rhythms.

Theoretically, habit formation requires repetition and contextual stability. Informational inputs may initiate behavioral intention; however, sustained implementation depends on reinforcement mechanisms and supportive surroundings. Thus, while health information sources contribute meaningfully to shaping daily habits, their influence remains moderated by lifestyle structure and environmental factors. This explains why the statistical effect, although significant, does not reach the strength observed in the nutritional domain.

8. Conclusions and Recommendations

- ✓ Health information sources represent a highly influential factor in raising the level of nutritional awareness among bodybuilding practitioners.
- ✓ These sources contribute moderately to enhancing awareness of communicable diseases.
- ✓ The influence of health information sources on personal health awareness appears to be weak.

- ✓ Health information sources have a moderate impact on shaping awareness of daily habits.
- ✓ The impact of these sources varies depending on the dimension of health awareness and its relevance to the practitioners' interests.
- ✓ Providing health information alone is insufficient; it must be accompanied by educational and behavioral activation to achieve meaningful and sustainable impact.
- ✓ Expand health awareness programs to cover all dimensions of health awareness.
- ✓ Develop digital health content that aligns with the specific interests of bodybuilding practitioners.
- ✓ Integrate preventive health and personal wellness concepts into training and sports education programs.
- ✓ Utilize sports clubs as platforms for disseminating health knowledge through regular educational activities.
- ✓ Strengthen collaboration between health institutions and media outlets to provide reliable and accessible health information.

9. CONCLUSION

The findings of this study of health information sources in promoting health awareness among bodybuilding practitioners. However, this influence is not evenly distributed across all dimensions of awareness; rather, it is strongly linked to individual interests, preferences, and focal areas within the athletic context. The results revealed that practitioners place significant emphasis on nutrition, due to its direct connection with achieving physical goals. Explains the strong relationship between health information sources and nutritional awareness, while the effect was notably lower in other areas—such as personal health—which may not receive equivalent attention in daily practice or coaching frameworks.

The study also demonstrated that the mere availability of health information—whether through the internet or media outlets—is insufficient to ensure a comprehensive level of health awareness. The effectiveness of these sources depends not only on the quality of the information provided but also on its capacity to influence practical behavior. is to re-evaluate the mechanisms through which health messages are produced and disseminated for this demographic, emphasizing the importance of adapting health communication to practitioners' real-life needs and incorporating public health concepts within the training environments and routines of bodybuilding.

Moreover, the findings highlight the importance of integrating self-education with pedagogical support to foster a balanced level of health awareness. They emphasize that investing in digital platforms and media channels must be accompanied by structured guidance that encourages the practical application of knowledge, transforming health literacy into conscious and sustainable daily behavior.

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