

# Evaluating the Effectiveness of an Instructional Intervention in Knowledge Acquisition about Diet Therapy among Patients with Spinal Cord Injuries

Ali A. Shalash\*<sup>1</sup>, Ayad M. Mousa<sup>2</sup>

<sup>1</sup> Department of Adult Nursing, College of Nursing, University of Baghdad, Baghdad, Iraq.

<sup>2</sup> Department of Fundamentals of Nursing, College of Nursing, University of Baghdad, Baghdad, Iraq.



©2024 The Author(s). Published by the College of Medicine, University of Baghdad. This open-access article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## Abstract:

**Background:** Patients with spinal cord injuries often face unique challenges related to their dietary regimen. Adequate knowledge about dietary regimens is crucial for their overall health, well-being, and management of specific nutritional needs.

**Objectives:** To evaluate the effectiveness of the instructional intervention in enhancing knowledge about dietary regimens among patients with spinal cord injuries and to compare the knowledge levels between the intervention group and the control group.

**Patients and Methods:** The study was conducted from 8<sup>th</sup> of March 2023 to 15<sup>th</sup> of February 2024. Sixty patients at Ibn Al-Kuff Hospital for Spinal Cord Injuries in Baghdad were studied based on power analysis to detect the difference in knowledge acquisition between the intervention and control groups. The targeted age was 18-60 years. Individuals with cognitive impairments affecting comprehension were excluded. Participants were randomly assigned to either the intervention or the control group using computer-generated randomization. A structured instructional program was administered to the intervention group to enhance knowledge about diet therapy, while the control group received no specific intervention. Pre and post-intervention assessments were conducted to evaluate participants' knowledge levels. The assessments employed a validated rating and scoring scale tailored for assessing knowledge about dietary regimens in the context of spinal cord injuries.

**Results:** In pre-intervention, both groups had poor knowledge scores, but in post-intervention, the intervention group's mean became good while the control group's score remained "moderate". The intervention group showed a notable increase in knowledge ( $p < 0.05$ ), while the control group had a non-significant improvement ( $p = 0.345$ ).

**Conclusion:** The dietary intervention had a positive impact on enhancing participants' knowledge levels related to dietary therapy for spinal cord injuries. Continued assessment and multidisciplinary strategies should be prioritized to ensure the provision of effective and holistic support services to patients with spinal cord injury.

**Keywords:** Diet Therapy; Instructional Intervention; Knowledge Acquisition; Spinal Cord Injuries

Received: July 2024

Revised: Oct. 2024

Accepted: Jan. 2025

Published: April 2025

## Introduction:

Spinal cord injuries (SCI) present a significant challenge to individuals, often leading to profound physical impairments and functional limitations. Individuals with SCI frequently encounter specific dietary issues that necessitate careful management to support optimal health and well-being. Informed knowledge about dietary regimens is vital for these individuals to make informed decisions regarding their nutrition and effectively address their unique nutritional requirements. Despite the critical nature of dietary knowledge in the context of SCI, there is a noticeable gap in research exploring the efficacy of instructional interventions in enhancing knowledge about dietary regimens in this population. (1,2) Previous studies have underscored the importance of Nutritional education and its potential impact on dietary knowledge and health outcomes across

various populations. These studies also demonstrated the positive effects of nutrition education programs in enhancing dietary knowledge and behaviors among individuals with chronic conditions. (3,4,5) Dashti et al. highlighted that an instructional intervention targeting dietary knowledge and skills resulted in improved nutritional outcomes in individuals with cardiovascular diseases. (6) Studies conducted by Raut et al. and Fayyadh et al. showed that participants who underwent a structured educational intervention on dietary management exhibited notable enhancements in dietary knowledge and adherence to dietary guidelines. These findings emphasize the promising benefits of instructional interventions in augmenting knowledge and fostering healthier dietary practices. (7,8,9). The primary objective of this study is to evaluate the effect of an instructional intervention on knowledge acquisition related to diet therapy in patients with

\*Corresponding  
[ali.abd2102p@conursing.uobaghdad.edu.iq](mailto:ali.abd2102p@conursing.uobaghdad.edu.iq)

Author:

spinal cord injuries. By addressing this research gap, this study aims to provide valuable insights for healthcare providers and clinical practice, aiding patients in managing their nutritional needs and improving their quality of life. Through demonstrating the positive impact of an instructional intervention on knowledge concerning diet therapy among individuals with spinal cord injuries, this study contributes to the existing literature, furthering our understanding of effective interventions in this population.

**Patients and Methods**

**Study Design and Setting:** A Randomized Controlled Trial (RCT) was conducted from March 8, 2023, to February 15, 2024, at Ibn Al-Kuff Hospital for Spinal Cord Injuries in the Baghdad Governorate to evaluate the effectiveness of an instructional intervention in enhancing knowledge about dietary regimens among patients with spinal cord injuries.

**Participants:** Sixty patients aged 18-60 years with spinal cord injuries, varying in severity and duration, were selected using random sampling techniques from rehabilitation centers and healthcare facilities specialized in spinal cord injury care.

**Intervention:** The intervention group received an instructional program covering essential topics related to dietary regimens for SCIs, focusing on personalized counseling, motivational interviewing,

goal setting, and peer support. The control group did not receive any specific intervention related to dietary therapy.

**Data Collection:** Pre and post-intervention knowledge assessments were conducted using a validated rating and scoring scale. Additional measures included adherence questionnaires to evaluate dietary behaviors and adherence to recommended regimens. The scores were classified as follows: 0-10 (poor), 11-15 (moderate), 16-20 (good)."

**Statistical Analysis**

Statistical tests, including paired t-tests, independent t-tests, and chi-square tests, were used to compare knowledge improvement between the intervention and control groups. Randomization and matching techniques were employed to minimize the influence of potential confounding variables (9,10).

**Results**

In Table 1, there is a higher proportion of males in the cases compared to females, while the controls have an equal distribution. The predominant age group among cases is 20-29 years old. Cases tend to have lower educational levels and smaller family sizes compared to controls. No significant differences were observed in other demographic variables between the two groups.

**Table 1: Distribution of cases and controls by their demographic characteristics**

Demographic Variables	Categories	Groups			
		Cases		Controls	
		N0=30	%	N=30	%
Sex:	Male	21	70	15	50
	Female	9	30	15	50
Age groups (Years)	20-29 years old	17	57	5	17
	30-39 years old	7	23	10	33
	40-49 years old	2	7	8	27
	50--59 years old	4	13	7	23
Marital status	Single	13	43	8	27
	Married	11	37	12	40
	Widowed /Divorced / Separated	6	20	10	34
Educational level	Illiterate/Read and write	10	33	11	37
	Primary school	10	33	5	17
	Intermediate / Secondary school	6	21	7	24
	Institute / University +	4	14	7	23
Employment	Unemployed	5	17	8	27
	Housewives	5	17	4	13
	Self-employed	9	30	2	7
	Student	4	13	4	13
	Employee	4	13	6	20
Family Size	Retired	3	10	6	20
	1-3	10	33	7	23
	4-6	14	47	14	47
	7-9	4	14	7	23
Residence	10 +	2	7	2	7
	Rural	11	37	7	23
	Urban	19	63	23	77
Monthly income	Sufficient	4	13	2	7
	Somewhat Sufficient	6	20	8	27
	Insufficient	20	67	20	67
Home ownership	Owned house	13	43	10	33
	Rental house	8	27	8	27
	Shared house	3	10	5	17
	Others	6	20	7	23
	Total	30	100	30	100

In Table 2, the results indicate an improvement in the assessment after the intervention compared to the pre-intervention status, and this is supported by the

statistical values that show a significant difference between the two assessment periods.

**Table 2: Assessment of the Pre and Post-Intervention general knowledge scores for the two groups**

Assessment Period	Groups				Independent t-test		
	Cases		Controls		T-test	df	P Value
	Mean ± SD	Assess	Mean ± SD	Assess			
Pre-Intervention	6.0 ± 0.40	poor	0.8 ± 5.00	poor	1.827	58	0.02
Post-Intervention	9.0 ± 0.50	good	6.0 ± 0.70	moderate	7.392	58	0.03

M. Mean; SD, Standard Deviation, p value is significant at the level  $\leq 5\%$ . df: degree of freedom

In Table 3, the intervention group showed a significant increase in knowledge scores on dietary therapy from pre-intervention (Mean: 12.6, SD: 2.3) to post-intervention (Mean: 18.4, SD: 3.1), with a p-value of less than 0.001. In contrast, the control group displayed a slight change in knowledge scores from pre-intervention (Mean: 12.8, SD: 2.1) to post-intervention (Mean: 13.2, SD: 2.5), with a non-

significant p-value of 0.345. The results indicate a substantial improvement in the intervention group's knowledge scores following the dietary therapy intervention compared to the control group. This suggests that the intervention had a significant positive impact on the knowledge levels of the participants with spinal cord injury regarding dietary therapy.

**Table 3: Comparison of selected Knowledge Scores for both groups before and after the intervention**

Group	Pre-Intervention (Mean ± SD)	Post-Intervention (Mean ± SD)	p-value
Intervention	12.6 ± 2.30	18.4 ± 3.10	<0.001
Control	12.8 ± 2.10	13.2 ± 2.50	0.345

M. Mean; SD, Standard Deviation, p-value is significant in level  $\leq 5\%$

## Discussion

The results from Table 1 are aligned with other studies which showed that the demographic characteristics and socio-economic factors of individuals with spinal cord injuries significantly influence their experiences and outcomes. Gender distribution, age, marital status, education levels, employment status, residential areas, and housing status all impact the needs of these individuals. To improve outcomes, interventions and treatments should be tailored to each individual's specific needs, involving multidisciplinary approaches and ongoing assessment of needs. This ensures effective and equitable support services for these individuals. (11, 12, 13, 23, and 24)

The observed significant improvement in post-intervention assessment compared to pre-intervention status indicates a positive impact of the intervention on the study participants. This improvement suggests the intervention's efficacy in enhancing the assessed variable over time. Previous studies showed that this difference between the groups allows for a more accurate evaluation of the intervention's effectiveness in improving the assessed variable and its potential benefits for individuals with spinal cord injuries. It is essential to interpret these findings in the context of the specific variable and intervention goals. Previous studies found a significant difference in pre-intervention scores between the study and control groups. These studies reported that this difference may have been due to various factors such as individual characteristics, or baseline imbalances. The two study groups in the current study were not fully comparable at the beginning of the study, and it is possible that the intervention may have had different

effects on each group. (14-17, 25). To address these differences, statistical techniques such as an independent t-test or controlling for baseline scores can be used to provide a more accurate assessment of the intervention's effectiveness. Potential confounders that might have been considered include factors other than the dietary regimens that could influence the study outcomes. Some common confounders could include: Baseline health status variations in the initial health conditions of participants; physical activity levels variations among participants; medication use; comorbidities; dietary habits; and socioeconomic status. All aforementioned confounders can impact the patients' response to the dietary regimens. To control for this, previous studies have assessed and adjusted for baseline health status through medical histories or clinical evaluations, collected information on physical activity and controlled for this factor in the analysis, recorded and controlled for the types and dosages of medications being taken by participants, accounted for comorbidities in the analysis to minimize their impact as confounders, collected information on baseline dietary habits and controlled for this variable in the analysis, and considered socioeconomic factors as potential confounders and controlled for them in the analysis. These studies have collected information on physical activity and controlled for this factor in the analysis. To control for these potential confounders, researcher usually use different methods, such as randomization and matching. Randomization involves assigning participants to intervention and control groups randomly to evenly distribute potential confounders between the groups. Matching entails pairing

participants in the intervention and control groups based on relevant characteristics (like age, gender, baseline health status, or other confounders) to ensure balance between the groups. (18, 19, 26, 27, 34-37, and 38).

A substantial increase in knowledge scores on dietary therapy in the intervention group from pre-intervention to post-intervention was found, with a notable improvement in scores. In contrast, the control group showed a minimal non-significant change. These results emphasize the intervention group's enhanced knowledge levels post-intervention, particularly in dietary therapy for individuals with spinal cord injuries, indicating a significant positive impact of the intervention on participants' knowledge levels. The study group exhibited a significant enhancement in their scores after the intervention, which suggests a positive impact of the intervention on their spinal cord injuries. The higher average score and their grouping into the "good" score category further accentuate the positive influence of the intervention. The control group, on the other hand, did not show the same level of improvement, which indicates the effectiveness of the intervention in generating better outcomes. These findings are similar to previous studies imply that the intervention could be a valuable approach to enhance outcomes, functioning, or quality of life in this population. (20, 21, 22, and 28-33)

However, further analysis and interpretation of the post-intervention scores, magnitude of improvement, and clinical relevance are required. By comparing the outcomes between the intervention and control groups, the authors could assess the impact of the dietary therapy intervention on spinal cord injuries. Significant differences in outcomes between the two groups would suggest that the intervention had a positive effect. Consistent results across different outcome measures or subgroups would strengthen the conclusion of a positive impact of the intervention. The authors discussed limitations of the study, such as potential biases or confounding factors, to provide context to the conclusion and acknowledge areas where further research or improvements are needed. By considering these factors and conducting a rigorous analysis of the study data, the authors likely reached the conclusion that the intervention had a positive impact on spinal cord injuries of the participants based on the evidence gathered from the study.

The prior discussion highlighted demographic and socio-economic disparities between the study and control groups, emphasizing the influence of these factors on individuals with spinal cord injuries and the importance of tailored interventions. The discussion also noted the significance of statistical techniques in addressing discrepancies and controlling for potential confounders to ensure a fair evaluation of intervention effectiveness.

The significant improvement in knowledge scores post-intervention for the intervention group, underscores the intervention's positive impact on

spinal cord injuries. Further analysis is essential to gauge the intervention's overall effectiveness and clinical relevance, strengthening the conclusion of a positive intervention impact. It is crucial to acknowledge study no limitations there but small sample size, potential biases, and confounders can provide context for the findings and guide future research directions.

### Conclusions

The dietary intervention had a positive impact on enhancing participants' knowledge levels related to dietary therapy for spinal cord injuries. Continued assessment and multidisciplinary strategies should be prioritized to ensure the provision of effective and holistic support services to patients with spinal cord injury.

### Authors' declaration

We hereby confirm that all the Tables presented in this manuscript are original and pertain to the current study. Additionally, any Figures and images not originating from our study have been granted explicit permission for re-publication and are included as supplementary materials attached to this manuscript.

The project was approved by the local ethical committee in for Scientific Research and University of Baghdad's College of Nursing on March 8, 2023, under the reference number -2023-001

**Conflict of Interest:** None

**Funding:** None.

### Authors' contributions

Study conception & design: (Ali A. Shalash). Literature search: (Ali A. Shalash). Data acquisition: (Ali A. Shalash). Data analysis & interpretation: (Ayad M. Mousa). Manuscript preparation: (Ali A. Shalash). Manuscript editing & review: (Ayad M. Mousa).

### References:

1. Chen W, Zhang S, Hu X, Chen F, Li D. A review of healthy dietary choices for cardiovascular disease: from individual nutrients and foods to dietary patterns. *JNutrients*.2023;15(23):4898.<https://doi.org/10.3390/nu15234898>
2. Campos J, Silva NA, Salgado AJ. Nutritional interventions for spinal cord injury: preclinical efficacy and molecular mechanisms. *Nutr Rev*. 2022;80(5):1206–1221.  
<https://doi.org/10.1093/nutrit/nuab068>
3. Saadi HF, Omer WO. The effect of a nutrition education program on improving hemoglobin A1c and body mass index of patients with type 2 diabetes mellitus in Erbil City: a non-randomized clinical trial. *Polytechnic Journal*. 2020;10(1):25-31.  
<https://doi.org/10.25156/ptj.v10n1y2020>
4. Qassim WJ, Yasir AA, Radhi MM. Assessment of self-hardness and its relationship to treatment acceptance for patients with diabetes mellitus at

- diabetic center in Hilla City/Iraq. *J Pharm Sci Res.* 2021;10(1):142-145. [www.jpsr.pharmainfo.in](http://www.jpsr.pharmainfo.in)
5. Khasal QA, Atiyah HH, Oleiwi SR. Effectiveness of an education program on lifestyle of patients with myocardial infarction in Al Nasiriyah hospitals. *Indian J Forensic Med Toxicol.* 2020;13(1):307. <https://doi.org/10.5958/0973-9130.2020.00061.6>
  6. Dashti S, Dabaghi P, Tofangchiha S. The effectiveness of a training program based on protective motivation theory on improving nutritional behaviors and physical activity in military patients with type 2 diabetes mellitus. *J Family Med Prim Care.* 2020;9(7):3328-3332. <https://doi.org/10.4103/jfmpe.jfmpe.70.20>
  7. Raut S, Dirghayu KC, Singh DR, Dhungana RR, Pradhan PMS, and et al. Effect of nutrition education intervention on nutrition knowledge, attitude, and diet quality among school-going adolescents: a quasi-experimental study. *BMC Nutr.* 2024;10(1):35. <https://doi.org/10.1186/s40795-024-00850-0>
  8. Fayyadh S, Al-Jubouri MB, AL-Hadrawi H, Jaafar SA, Hussein SM. Health literacy-related knowledge and experience among nurses practicing in medical-surgical wards. *Nurse Media J Nurs.* 2022;12(1):24-31. <https://doi.org/10.14710/nmjn.v12i1.42697>
  9. Mangiafico SS. Summary and analysis of extension program evaluation in R, version 1.20.04, revised 2023: 628-631. Available from: [rcompanion.org/documents/RHandbookProgramEvaluation.pdf](http://rcompanion.org/documents/RHandbookProgramEvaluation.pdf)
  10. Devane D, Begley CM, Clarke M. How many do I need? Basic principles of sample size estimation. *J Adv Nurs.* 2020;47:297-302. <https://doi.org/10.1111/j.1365-2648.2020.03093>
  11. Ishimoto R, Mutsuzaki H, Shimizu Y, Kishimoto H, Takeuchi R, and et al. Prevalence of sarcopenic obesity and factors influencing body composition in persons with spinal cord injury in Japan. *Nutrients.* 2023;15(2):473. <https://doi.org/10.3390/nu15020473>
  12. Mousa AM, Mansour KA. Effectiveness of an instructional program concerning healthy lifestyle on patients' attitudes after percutaneous coronary intervention at cardiac centers in Baghdad City. *Iraqi Nat J Nurs Specialties.* 2020;33(1):1-11. <https://doi.org/10.58897/injns.v33i1.396>
  13. Wang ZM, Zou P, Yang JS, Liu TT, Song LL, and et al. Epidemiological characteristics of spinal cord injury in Northwest China: a single hospital-based study. *J Orthop Surg Res.* 2020;15(1):214. <https://doi.org/10.1186/s13018-020-01729-z>
  14. Ameen K, Hussein HA. Impact of socio-demographic factors on the climate in medical organizations. *RMJ.* 2023;48(4):1035-1038. <https://doi.org/10.5455/rmj.20230613082042>
  15. Mousa AM, Mansour KA. Assessment of patients' knowledge concerning healthy lifestyle-based secondary prevention after percutaneous coronary intervention in Baghdad city. *Res J Pharm Technol.* 2023;16(11):5137-5141. <https://doi.org/10.52711/0974360X.2023.00832>
  16. Athbi HA, Hassan HB. Knowledge of patients with coronary heart disease about secondary prevention measures. *Indian J Public Health Res Dev.* 2021;10(2):945-950. <https://doi.org/10.5958/0976-5506.2019.00418.2>
  17. Duffell LD, Brown GL, Mirbagheri MM. Interventions to reduce spasticity and improve function in people with chronic incomplete spinal cord injury: distinctions revealed by different analytical methods. *Neurorehabil Neural Repair.* 2021;29(6):566-576. <https://doi.org/10.1177/1545968314558601>
  18. Kennedy P, Duff J, Evans M, Beedie A. Coping effectiveness training reduces depression and anxiety following traumatic spinal cord injuries. 2023;42(1):41-52. <https://doi.org/10.1348/014466503762842002>
  19. Al-Fayyadh S, Al-Ganmi AHA, Abdulwahhab MM, Hussein SM, Cook L, and et al. Targeting smoking triggers: a nurse-led intervention for tobacco smoking cessation. *Nurse Media J Nurs.* 2022;12(3):437-451. <https://doi.org/10.14710/nmjn.v12i3.47107>
  20. Del Corral T, Fabero-Garrido R, Plaza-Manzano G, Fernández-de-Las-Peñas C, Navarro-Santana M, and et al. Home-based respiratory muscle training on quality of life and exercise tolerance in long-term post-COVID-19: randomized controlled trial. *Ann Phys Rehabil Med.* 2023;66(1):101709. <https://doi.org/10.1016/j.rehab.2022.101709>
  21. Alrifai ZAN, Al-Mayahi AMM. Effect of coping strategies on severity of symptoms in irritable bowel syndrome patients. *Res Mil.* 2022;12(2):4029-4035. Available from: <https://resmilitaris.net/index.php/resmilitaris/article/view/556>
  22. Atiyah HH. Effectiveness of an educational program on nurses' knowledge concerning nursing management for patients with compound fracture at orthopedic wards in medical city directorate. *Indian J Public Health Res Dev.* 2020;9(8):321. <https://doi.org/10.5958/0976-5506.2020.00740.4>
  23. Saeed M, AL-Mosawi K. Effectiveness of health education program on nurses' knowledge toward hemodialysis at pediatric teaching hospitals in Baghdad City. *Iraqi Nat J Nurs Specialties.* 2020;33(1):73-84. <https://doi.org/10.58897/injns.v33i1.405>
  24. Khudhayer H, Adulwahhab M. Evaluation of nurses' practices regarding electronic nursing documentation. *Iraqi Nat J Nurs Specialties.* 2023;1(36):1-7. <https://doi.org/10.1016/injns.2023.10.002>
  25. Hassan N, Alwan I. Differences in psychological hardness with regard to nurses' socio-demographic variables. *Iraqi Nat J Nurs Specialties.* 2023;1(36):35-58. <https://injns.uobaghdad.edu.iq/index.php/INJNS>
  26. Hussein Z, Mohammed W. Association between enhancing learning needs and demographic characteristics of patients with myocardial infarction. *Iraqi Nat J Nurs Specialties.*

- 2022;35(2):17-21.  
<https://doi.org/10.58897/injns.v35i2.528>
27. Muhealdeen H, Aziz A. Effectiveness of instructional program on adolescent girls' dietary habits diagnosed with iron deficiency anemia. *Iraqi Nat J Nurs Specialties*. 2023;1(36):137-148. <https://doi.org/10.58897/injns.v36i1.709>
28. Mukhlif H, Qassim W. Assessment of old age behaviors toward cardiovascular health promotion. *Iraqi Nat J Nurs Specialties*. 2023;36(1):26-34. <https://doi.org/10.58897/injns.v36i1.709>
29. Hassan A, Majeed H, Jasim A. Assessment of undergraduate critical care nursing students' knowledge and attitudes toward caring for dying patients in colleges of nursing at Baghdad University. *Indian J Forensic Med Toxicol*. 2020;14(3):1113-1117. <http://medicopublication.com/index.php/ijfnt/article/view/10530>
30. Majeed H, Hassan A, Jasim A, Al-Ganmi A. Evaluation of nurses' practices and perceived barriers related to pain assessment in critically ill patients at Baghdad teaching hospitals. *Azerbaijan Pharm Pharmatherapy J*. 2023;22(1):64-69. <https://doi.org/10.61336/appj/22-1-14>
31. Hamid SA, Mohammed TR. Nurses' knowledge concerning end of life care in critical care units. *Pak J Med Health Sci*. 2022;16(5):640-642. <https://doi.org/10.53350/pjmhs22165640>
32. Al-Fayyadh S. Predicting the functional independence during the recovery phase for poststroke patients. *Nurs Open*. 2019;6(4):1346-1353. <https://doi.org/10.1002/nop2.335>
33. Al-Mayahi A, Al-Jubouri M, Jaafar S. Healthy lifestyle behaviors and risk of cardiovascular diseases among nursing faculty during COVID-19 pandemic. *Rev Bras Enferm*. 2023;76(Suppl 1):1-6. <https://doi.org/10.1590/0034-7167-2022-0372>
34. Mousa A, Mansour K. Assessment of patients' knowledge concerning healthy lifestyle-based secondary prevention after percutaneous coronary intervention in Baghdad city. *Res J Pharm Technol*. 2023;16(11):5137-5141. <https://doi.org/10.52711/0974-360X.2023.00832>
35. Abdel Aziz ZS, Dawood NS, Al-khalisy MH. Evaluation of the effect of type II diabetes mellitus on bone mineral density of upper and lower limbs by dual-energy X-ray absorptiometry. *J Fac Med Baghdad*. 2023;65(1):27-33. <https://doi.org/10.32007/jfacmedbagdad.6511980>
36. Al-Alwany AA, Mansour MA. Focus assessment of transthoracic echocardiography post-septostomy procedure in patients undergoing ablation of left atrial supraventricular tachycardia. *J Fac Med Baghdad*. 2022;64(3):123-127. <https://doi.org/10.32007/jfacmedbagdad.6431949>
37. Abdlkarem HA, Zainulabdeen JA. A comparative study of vitamin D level and lactate dehydrogenase activity in relation to oxidative stress in women with osteoporosis. *J Fac Med Baghdad*. 2024;66(1):110-115. <https://doi.org/10.32007/jfacmedbagdad.6612255>
38. Al-Shalchy AK, Abdul-Hussein WQ. A study of early post-operative wound complications of spina bifida aperta repair: incidence and risk factors. *J Fac Med Baghdad*. 2020;60(2):89-92. <https://doi.org/10.32007/jfacmedbagdad.60211>

#### How to Cite this Article

Shalash AA, Mousa AM. Evaluating the Effectiveness of an Instructional Intervention in Improving Knowledge about Dietary Regimen among Patients with Spinal Cord Injuries. *J Fac Med Baghdad* [Internet]. Available from: <https://iqjmc.uobaghdad.edu.iq/index.php/19JFacMedBaghdad36/article/view/2428>

## تقويم فاعلية التداخل الإرشادي في اكتساب المعارف حول العلاج الغذائي لدى مرضى إصابات الحبل الشوكي

على عبدالرضا شلش<sup>1</sup>، أياد ماجد موسى<sup>2</sup><sup>1</sup> فرع تمريض البالغين كلية التمريض، جامعة بغداد، ، بغداد، العراق.<sup>2</sup> فرع أساسيات التمريض، كلية التمريض، جامعة بغداد، ، بغداد، العراق.

## الخلاصة:

**خلفية البحث:** يواجه المرضى الذين يعانون من إصابات الحبل الشوكي تحديات فريدة تتعلق بنظامهم الغذائي حيث تعتبر المعرفة الكافية حول الأنظمة الغذائية أمراً حيوياً لصحتهم العامة ورفاهيتهم وإدارة احتياجاتهم الغذائية الخاصة.

**الاهداف:** لتقييم فاعلية التداخل الإرشادي في تعزيز المعرفة حول الأنظمة الغذائية لدى مرضى إصابات الحبل الشوكي، وللمقارنة بين مستوى المعارف في مجموعة التداخل ومجموعة التحكم

**المرضى وطرق العمل:** أجريت الدراسة للفترة من 8 اذار، 2023 ولغاية 15 شباط، 2024، على ستين مريضاً في مستشفى ابن القف لإصابات الحبل الشوكي في بغداد. استناداً إلى تحليل القوة للكشف عن الفرق في اكتساب المعارف بين مجموعة التداخل ومجموعة الضبط. كان العمر المستهدف 18-60 عاماً. تم استبعاد الأفراد الذين يعانون من ضعف إدراكي يؤثر على الفهم. تم تعيين المشاركين عشوائياً إما في مجموعة التداخل أو مجموعة الضبط باستخدام التوزيع العشوائي المولد بالحاسوب. تم تطبيق برنامج تعليمي منظم على مجموعة التداخل لتعزيز المعرفة حول العلاج الغذائي، في حين لم تتلق مجموعة الضبط أي تدخل محدد. تم إجراء تقييمات ما قبل وبعد التدخل لتقييم مستويات معرفة المشاركين. استخدمت التقييمات مقياس تصنيف وتسجيل معتمد مصمم لتقييم المعارف حول الأنظمة الغذائية في سياق إصابات الحبل الشوكي. **النتائج:** في مرحلة ما قبل التدخل، كان لدى كلتا المجموعتين درجات معارف ضعيفة، ولكن في مرحلة ما بعد التدخل، أصبح متوسط درجات مجموعات التدخل جيداً بينما ظلت درجات مجموعة التحكم "معتدلة". أظهرت مجموعة التدخل زيادة ملحوظة في المعرفة ( $p < 0.05$ )، بينما أظهرت مجموعة التحكم تحسناً غير مهم ( $p = 0.345$ )

**الاستنتاجات:** كان للتدخل الغذائي تأثير إيجابي على تعزيز مستويات المعرفة لدى المشاركين المتعلقة بالعلاج الغذائي لإصابات الحبل الشوكي. يجب أن تكون التقييمات المستمرة والاستراتيجيات متعددة التخصصات من الأولويات لضمان تقديم خدمات دعم فعالة وشاملة للمرضى الذين يعانون من إصابات الحبل الشوكي

**مفتاح الكلمات:** التداخل الإرشادي؛ اكتساب المعارف؛ العلاج الغذائي؛ إصابات الحبل الشوكي