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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии

საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

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GMN: Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНИТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНИТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman** (**Кириллица**), для текста на грузинском языке следует использовать **AcadNusx.** Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - http://www.spinesurgery.ru/files/publish.pdf и http://www.nlm.nih.gov/bsd/uniform_requirements.html
В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректура авторам не высылается, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

При нарушении указанных правил статьи не рассматриваются.

REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or compu-ter-printed on a single side of standard typing paper, with the left margin of **3** centimeters width, and **1.5** spacing between the lines, typeface - **Times New Roman** (**Cyrillic**), print size - **12** (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform_requirements.html
http://www.icmje.org/urm_full.pdf
In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

Articles that Fail to Meet the Aforementioned Requirements are not Assigned to be Reviewed.

ავტორთა საყურადღებოდ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დავიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე,დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx.** შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფჩხილებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

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Содержание:

EFFECT OF A TRAINING PROGRAM ON REDUCING HEALTH COMPLICATIONS AFTER OPERATIONS OF PROXIMAL FEMORAL NAILING (PFN) TECHNIQUE

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Abstract.

Introduction: The proximal femoral fracture patients in particular fractures in the trochanteric region of the femur could have treatment under the title proximal femoral nailing (PFN)—this operation is a less invasive type. The proximal femoral nail, an osteosynthetic implant, has been investigated to produce positive heeling to ensure a better fixation, several advantages of PFN include such as bleeding time during operation which leads to the need to perform reaming on the femoral canal during surgery.

Methods: the study was carried out at three teaching Hospitals in Mosul City from the period of January 2022 to December 2022, fourteen nurses from orthopaedic wards were subjected to this study, all the nurses were evaluated by the checklist, and they attended the training program which was taken from the Iraqi Ministry of Health guide for organizing nursing operations and practices inside the hospitals and medical departments.

Results: More than (50%) of the study sample had a poor score in the initial evaluation for Post-operative steps and after submitting the training program, the performance and practices of the nursing staff have improved significantly where the poor score decreased to approximately (25%) at P value (0.0001).
Conclusion: The study concluded that there is a significant and clear weakness in the performance and practices of the nursing staff towards patients with upper femoral fractures in the fracture wards and that the training program that was given to them improved their performance and practices significantly and effectively.

Key words. Effect, training program, PFN technique.

Introduction.

Fractures of the proximal femur are prevalent among the elderly and may result from osteoporosis, disease, or injury. The pain, oedema, and trouble walking that can result from these breaks are significant. Avascular necrosis (bone tissue death due to lack of blood flow) and non-union (failure of the shattered bone to mend) are two additional problems that may result [1]. Assessing the patient's status and implementing measures to promote healing and minimize complications are essential tenets of nursing care for patients with proximal femoral fractures [2]. A safe and successful procedure is dependent on proper preoperative treatment for proximal femoral fractures. The optimum surgical strategy can't be decided on without first getting a full picture of the patient's health, both past and present. A thorough physical examination and imaging investigations are necessary for this evaluation. Patient education should also include a discussion of any potential complications that may arise during or after the surgery [3]. The nurse's duties may also include educating the patient and their family, keeping tabs on the patient's recovery, and arranging for further care as needed. The patient must understand the significance of postoperative care in achieving the desired results [3,4]. The PFN is introduced directly without the need for reaming, resulting in a streamlined surgical process that minimizes blood loss [5]. The device incorporates a hip pin to ensure rotational stability and a femoral neck screw to bear the load, so ensuring safety throughout both the surgery and the recovery period. The PFN offers the option of either static or dynamic distal interlocking, allowing for primary or secondary axial dynamization [6]. The PFN is indicated for a variety of fractures, including per trochanteric, intertrochanteric, and high subtrochanteric fractures [7]. The other indications encompass imminent or pathological fractures, prolonged subtrochanteric fractures, and trochanteric fractures accompanied by fractures in the same side shaft [8]. This study aimed to evaluate the nursing procedures in the orthopaedic wards in the post-operative phase.

Materials and Methods.

Ethical consideration: Official permission was taken from the Ethical Research Committee of the Iraq and Nineveh Health Department, and the approval of the nursing staff working in the field of orthopaedic wards was obtained after the first observations were made and the results appeared. Explanation of the purpose of the study and agreement to participate in the program. For the staff. The questionnaire will be confidential, and no one is allowed to reveal the names mentioned in it or use it for research purposes only.

Design of the Study: Pre-experimental design, using a non-probability (purposive) approach, the study was carried out at three teaching Hospitals in Mosul City from the period of January 2022 to December 2022.

Sample of the Study and Instrument: A purposive sample of (40) nurses were collected from orthopaedic wards. We relied on the guide of the Iraqi Ministry of Health regarding the job description and basic duties of nurses within the hospital departments in making the work form (checklist), The nurses' performance was evaluated based on it. After end the first evaluation a training program has been implemented to enhance the nurses' skills when receiving the patient after an operation. The training program (an educational program on nurses 'practices toward patients with proximal femur fractures treated by proximal femoral nailing) was implemented over two months with six sessions to include all study samples, then another evaluation was done after this program (post 1 test), then second evaluation was done after two months (post 2 test) To know the stability and success of the training program.

The guide of the Iraqi Ministry of Health includes post-operative steps (Routine nursing interventions post-operative care, Checking the recovery status according to (A, B, and C), Checking the wound site and dressing, Re-Check and documenting the vital signs and giving the medication according to the physician's orders).

Inclusion Criteria: The study sample was chosen based on the following criteria:

1. Nurses who are working morning and evening shifts at orthopaedic wards in three Teaching Hospitals.
2. All the Nurse's levels (Bachelor's degree in nursing, Diploma in nursing and secondary school nurses).
3. Both male and female nurses.
4. Orthopaedic nurses exclusively in the study

Exclusion criteria:

1. Nurses working in the field of other surgeries
2. Nurses with less than one year of experience in orthopaedic wards
3. Nurses who are absent from attending the sessions of teaching and applying the skills of the program during the study period.

Data analysis: The "Statistical Package for Social Science" (SPSS) program was used to examine the data (Version 26). For the data analysis, frequency, percentage, Friedman test.

Results.

Table 1 presents that 42.5% are between 30-39. In terms of gender, 77.5% are male, while 22.5% are female. Regarding qualifications, the majority of Nurses hold a Diploma in Nursing (47.5%). In marital status, the majority of Nurses are married (77.5%), The distribution of years of experience shows that among Nurses 45% have over 10 years of experience. In working workplace, 50% of Nurses work at Al-Salam Teaching Hospital. Finally, 72.5% of them have not attended training courses.

This table shows that 40.0% of participants demonstrated No proficiency in routine care, in checking the recovery status according to (A, B, C), the distribution of proficiency levels indicates that 56.7% of participants had No proficiency, regarding checking the wound site and dressing, the findings reveal that 42.5% of participants had No proficiency, For re-checking and documenting the vital signs, the results show that 29.2% had Limited proficiency and in giving medication according to the physician's orders, the distribution of proficiency levels indicates that 69.2% of participants had No proficiency.

Table 3 shows that 7.5% achieved competent, For the step of checking the recovery status according to (A, B, C) a "competent" level (17.5%), In the step of checking the wound site and dressing, the majority of participants achieved an "acceptable" level of proficiency (38.1%), In the re-checking and documenting the vital signs step, the highest percentage of participants achieved an "acceptable" level (37.5%) and In giving medication according to the physician's orders, the greatest proportion of participants achieved an "acceptable" level (35.0%).

Table 4 illustrates the majority of the participants achieved a "limited" level of proficiency in routine post-operative care (43.1%), in the step of checking the recovery status according to (A, B, C), the largest number of participants achieved the "limited" level of proficiency (33.3%). In checking the wound site and dressing, a higher percentage of participants attained the "acceptable" level of proficiency (33.8%). Regarding re-checking and documenting vital signs, 35.4% of the participants achieved an "acceptable" level of proficiency. The majority of participants in the step of giving medication according to the physician's order achieved the "acceptable" level (32.5%).

Table 1. Demographic Characteristics of the Study Sample.

Variables		Ward Nurses N: (40)	
		F.	%
Age	20-29	7	17.5%
	30-39	17	42.5%
	40-49	11	27.5%
	>50	5	12.5%
Gender	Male	31	77.5%
	Female	9	22.5%
Qualification	Secondary Nursing School	12	30%
	Diploma of Nursing	19	47.5%
	Bachelor of Nursing	8	20%
	Master's degree	1	2.5%
Marital status	Single	6	15%
	Married	31	77.5%
	Widowed	1	2.5%
	Divorces	2	5%
Years of Experience	<5 years	8	20%
	5-10 years	14	35%
	>10 years	18	45%
Working Place	Al-Salam teaching hospital	20	50%
	Al-Jumhoury hospital	15	37.5%
	Al- Mosul General hospital	5	12.5%
Training Courses	Present	11	27.5%
	Absent	29	72.5%

Table 5 presents routine post-operative care steps, there is a statistically significant difference between Pre and Post1 and Pre and Post2 ($p = 0.0001$), indicating that there are improvements in proficiency. The results of checking recovery status show statistically significant differences between Pre and Post1 and Pre and Post2 ($p = 0.002$), suggesting that there are improvements in proficiency. The check wound site and dressing step do not show statistically significant differences except for Post1 - Post2 measurements ($p = 0.342$). Moreover, there are significant differences in Re-Check and document vital signs ($p = 0.0001$), indicating improvement between Pre and Post1 and Pre and Post2. Compared to the other steps, there are more differences in the medication given according to the physician's orders step in Pre and Post1 and Pre and Post2, with significant differences between Pre - Post1 ($p = 0.0001$), Pre - Post2 ($p = 0.009$), and Post1 - Post2 ($p = 0.004$).

Discussion.

Mortality and morbidity rates rise after hip fractures and the treatments for them, especially in the older population [9-11]. Hemiarthroplasty (HA) is typically used to treat femoral head and neck fractures in individuals over the age of 65, while proximal femoral nailing (PFN) is used to treat trochanteric fractures [12,13]. The researchers started by evaluating the performance and practices of nurses in the orthopaedic wards when admitting patients and preparing them for surgeries according to a standard checklist It was found that there is a weakness in the performance efficiency of the nurses in all aspects: axes of admission items, vital signs and complete

Table 2. *Distribution of Pre-test for Proficiency Levels in Post-operative Steps.*

	Nursing procedure	No%	Limited%	Acceptable%	Competent%	Total%
Post-operative steps	Routine post-operative care	40.0	40.3	18.6	1.1	100.0
	Check the recovery status according to (A, B, C)	56.7	27.5	15..8	0.0	100.0
	Check the wound site and dressing	42.5	17.5	35.6	4.4	100.0
	Re-check and document the vital signs	27.5	29.2	37.1	6.3	100.0
	Give the medication according to the physician's orders	69.2	19.2	11.7	0.0	100.0

Table 3. *Distribution of Post-test 1 for Proficiency Levels in Post-operative Steps.*

	Nursing procedure	No%	Limited%	Acceptable%	Competent%	Total%
Post-operative steps	Routine post-operative care	24.2	36.7	31.7	7.5	100.0
	Check the recovery status according to (A, B, C)	32.5	26.7	23.3	17.5	100.0
	Check the wound site and dressing	28.8	18.1	38.1	14.4	100.0
	Re-check and document the vital signs	20.8	27.9	37.5	13.8	100.0
	Give the medication according to the physician's orders	33.3	20.0	35.0	11.7	100.0

Table 4. *Distribution of Post-test 2 for Proficiency Levels in Post-operative Steps.*

	Nursing procedure	No%	Limited%	Acceptable%	Competent%	Total%
Post-operative steps	Routine post-operative care	23.1	43.1	30.0	3.9	100.0
	Check the recovery status according to (A, B, C)	24.2	33.3	28.3	12.2	100.0
	Check the wound site and dressing	21.3	26.9	33.8	18.1	100.0
	Re-check and document the vital signs	19.2	35.4	35.4	10.0	100.0
	Give the medication according to the physician's orders	25.0	29.2	32.5	13.3	100.0

Table 5. *Comparing Pre, Post1, and Post2 Measurements using Friedman's Two-Way Analysis of Variance by Ranks.*

Nursing procedure	Sample 1-Sample 2	Test Statistic	P-value	Sig.
Routine post-operative care	Pre - Post1	-1.312	0.0001	H.S.
	Pre - Post2	-1.312	0.0001	H.S.
	Post1 - Post2	0.0001	1.000	N.
Check the recovery status according to (A, B, C)	Pre - Post1	-0.750	0.002	S.
	Pre - Post2	-0.750	0.002	S.
	Post1 - Post2	0.0001	1.000	N.
Check the wound site and dressing	Pre - Post1	0.0001	0.0001	H.S.
	Pre - Post2	0.0001	0.0001	H.S.
	Post1 - Post2	0.342	0.342	N.
Re-check and document the vital signs	Pre - Post1	-1.237	0.0001	H.S.
	Pre - Post2	-1.500	0.0001	H.S.
	Post1 - Post2	0.262	0.240	N.
Give the medication according to the physician's orders	Pre - Post1	-1.725	0.0001	H.S.
	Pre - Post2	-0.825	0.009	S.
	Post1 - Post2	0.900	0.004	S.

laboratory tests in pre-operative and there is the same weakness in the axes of post-operative steps: routine post-operative care, check the recovery status according to (A, B, C), check the wound site and dressing, re-check and document the vital signs and give the medication according to the physician's orders. See Table (2), these results came in agreement with the article of Mohamady, M. et al. (2020) which mentioned in their research that there is weakness in the nursing practices and procedures that deal with patients inside orthopaedic wards [14]. Morbidity after surgery still ranges from 24% to 44%, with variations seen among definitions, procedures, and patient demographics [15-17]. Complications after surgery significantly worsen patients' postoperative outcomes, increasing the length of their ICU and hospital stays as well as their risk of death [18]. Postoperative problems place a strain on both the individual patient and the healthcare system as a whole due to the high volume and

rising expense of surgical procedures around the world [19]. Postoperative consequences after intracapsular fractures are fracture-specific and include avascular necrosis and non-union. Instead, mechanical issues with load bearing are at the root of extracapsular fractures, making fixation failure a serious problem. In addition to these, some factors determine the postsurgical outcome, including surgical, anaesthetist skill and time laps between fracture to surgery, duration of the hospital stay, good peri- and post-operative management of premorbid conditions and postoperative complications, respectively, prevention of deep vein thrombosis and pulmonary embolism [20,21]. Therefore, postoperative problems must be avoided at all costs. Improvements in surgical, anaesthetic, technological, and pharmacological methods, as well as shifts in the availability of health services, have led to an increase in the number and complexity of surgical procedures performed, as well as improved patient outcomes, including shorter hospital stays, lower infection rates, and lower overall costs [20]. Home postoperative care is common, which is good for promoting outpatient surgery and independent recovery [22]. Nurses play a critical role in identifying and coordinating appropriate interventions to speed recovery and decrease complications after surgery for elderly patients with complex health needs and requirements [23]. For nurses to provide optimal care in this setting, they need in-depth familiarity with guidelines and standards covering a wide range of topics, including but not limited to surgical techniques, anaesthesia, invasive diagnostics, instrumental and surgical equipment, infections, and patient safety. From this point Nursing program was applied we have given a comprehensive and approved training program for nursing staff working in orthopaedic wards, which includes all nursing procedures and measures necessary that must be given and applied to patients after surgical operations for a full month [4]. Then we conducted a second evaluation of the performance, and it was found that there is a clear improvement in the nurses' practices according to table (3). Then a third evaluation was conducted to check the stability of performance two months after the second examination, it appeared that the results were generally stable according to Table (4). When making a statistical comparison between the first pre and post-check and the second post-check according to Table (5) it was found that the program has achieved significant development and improvement in the performance and practices of the nursing staff in providing health care to patients to improve the quality of life and reduce the percentage of potential postoperative complications. Finally, through all of the above, it has become very important to train the nursing staff to apply continuous development and organize annual programs for this, which rely on several forms of training, especially the use of simulation in training in parallel with clinical training.

Conclusion.

The study concluded that there is a significant and clear weakness in the performance and practices of the nursing staff towards patients with upper femoral fractures in the orthopaedic wards, and the training program that was given to them improved their performance and practices significantly and effectively.

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