



Libyan International Medical University
Faculty of pharmacy
Literature Evaluation



Impact of pharmaceutical care intervention on health-related quality of life in hemodialysis patients in Benghazi

Presented by 2nd year students:

Shahd Alathram 3418

Rawan Faiz 3571

Mawada Nasr 3422

Abdulsalam Othman 3215

Safaa Mailod 3269

Aisha Ibrahim 3219



Introduction

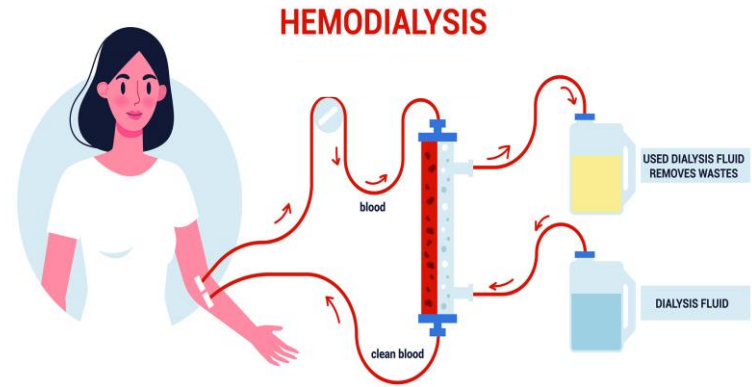
- ❖ End-stage kidney disease (**ESKD**) refers to the final stage of chronic kidney disease (**CKD**) when kidneys no longer function at a level needed for survival.
- ❖ Kidney transplantation in Libya is limited owing to the lack of availability of suitable a living-related donor.
- ❖ Hemodialysis process is considered as a complicated procedure for patients that require frequent visits to hospitals or dialysis centers, thus implying substantial changes in the normal way of patients' living.



Introduction



- ❖ Most of the patients with ESKD within Libya remain dialysis-dependent.
- ❖ The prevalence of dialysis treated ESKD in Libya is 624 per million population; 85% of the prevalent patients were aged below 65 years and 58% were **male**.
- ❖ The hemodialysis patients (**HD**) suffer from poor health-related quality of life (**HRQoL**) which results in a higher risk of hospitalization and mortality.



Introduction



- ❖ Pharmaceutical care (PC) is the direct interaction between pharmacist and patient; in order to improve the therapeutic outcomes and patient compliance, a pharmacist promotes adequate follow-ups, provides counseling and thereby improves the quality of life (QoL) of the patient.
- ❖ Health education is needed for patients to assist them in self-care, also motivation plays an important role among dialysis patients.



Materials and methods

This study was planned to assess the impact of PC on the HRQoL among HD patients. Thus, a randomized control study was carried out after getting an ethical approval from the ethical committee of Hospital administration (2020/4) at different HD centers in Benghazi, Libya (Kidney Center and Eleithy polyclinic).

Firstly, the data was collected from **80 HD** patients using the reliable and validated Arabic version of SF36 questionnaire.

-The questionnaire consists of **36 items** divided **into eight scales**:

- ❖ Physical Functioning (PF): 10 items.
- ❖ Bodily Pain (BP): 3 items.
- ❖ Social Functioning (SF): 2 items.
- ❖ General Health Perception (GH): 5 items.
- ❖ Role- physical (RP): 4 items.
- ❖ Role-emotional (RE): 3 items.
- ❖ Vitality (VT): 4 items.
- ❖ Mental Health (MH): 5 items.



From these factors, item scores are coded, summed and transformed to a scale ranging from **0 (worst health status)** to **100 (best health status)**.

Materials and methods

- ❖ After collecting data from 80 patients, **40 patients** of them were randomly selected to receive pharmaceutical care such as motivation and patient education regarding knowledge about disease, medications, lifestyle changes, nutritional information and medication review from March 2021 until end of June 2021.
- ❖ The demographic profile of all the patients was described using percentage and frequency for the categorical variables and means for the continuous variables.

- To assess the item analysis, the mean of each item was calculated and transformed to **percentage** by computed scale scores by the following equation:

$$[\text{scale} = ((\text{mean of all items} - 1) / 4) * 100].$$

- The scale scores ranged from 0 - 100.



Results

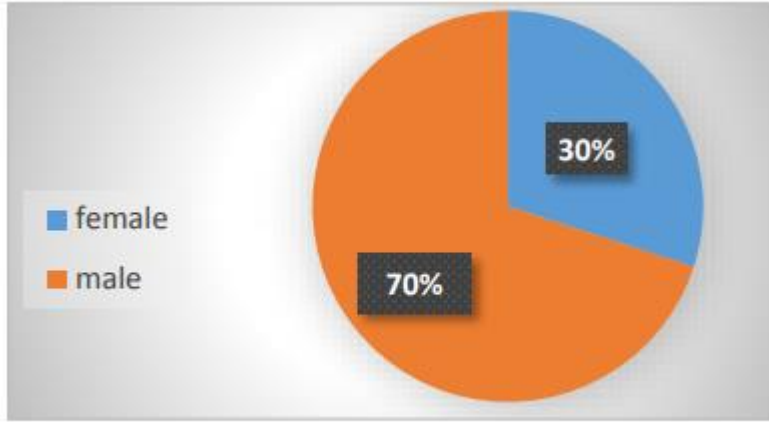


Figure 1: Gender distribution of the patients



Shows that patients' gender which indicates the males are almost twofold of the females (70.0% male and 30.0% female).

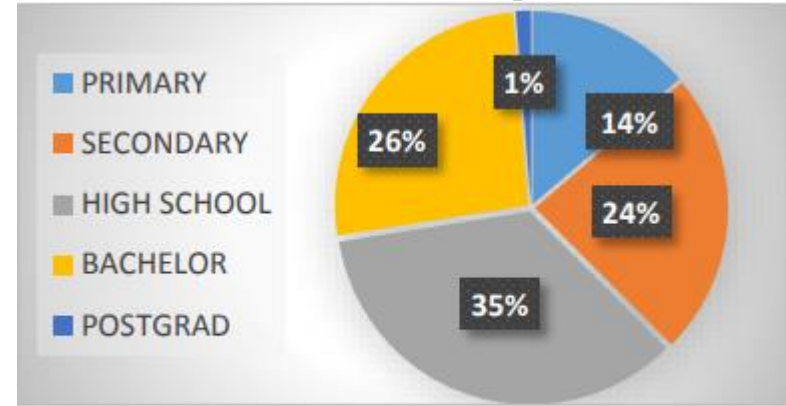


Figure 2: Education levels of hemodialysis patients



Shows that the most range of patients' qualification (degree of education) are nearly equal in percentage between the patients, high school education is **35.0%**, bachelor degree is **26.0%** and secondary school education is **24.0%**, respectively.

Results

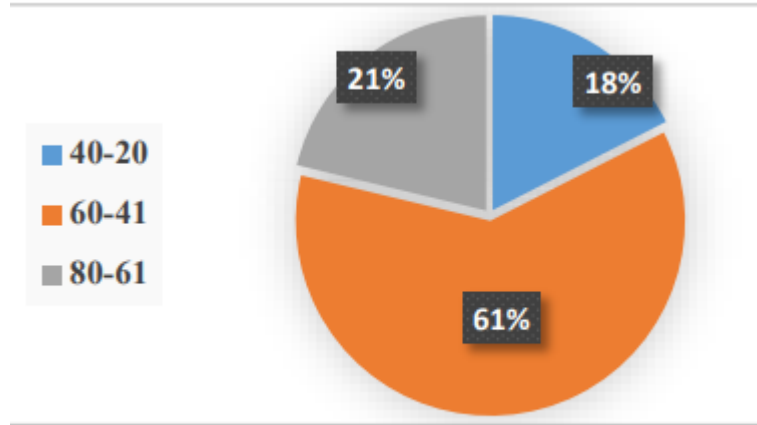


Figure 3: Age distribution of the hemodialysis patients



Shows age of the participant patients. Thus, the most age range for the patients is between 41 years and 60 years old which was account for 61.0% while less than 40 years account for less than 20.0% as over 60 years old.

Results

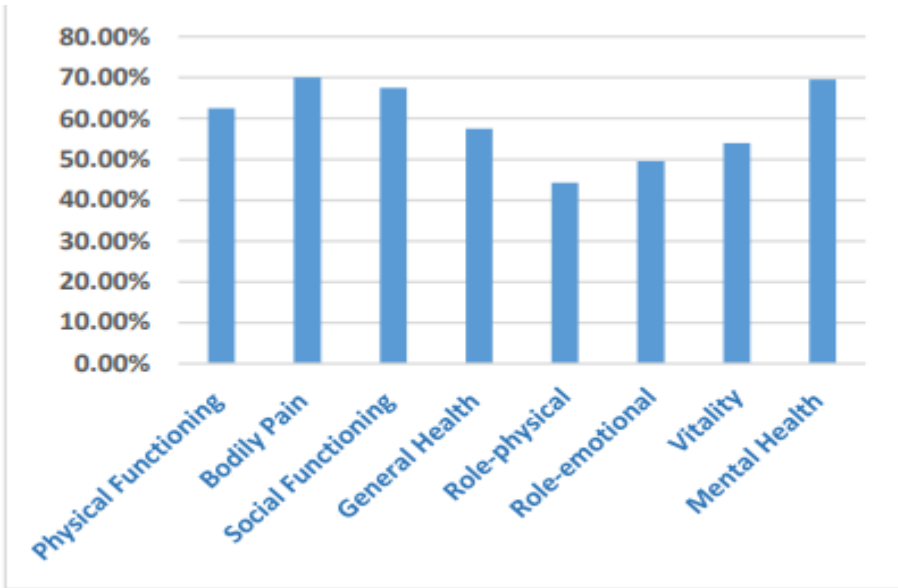


Figure 4: Quality of life of hemodialysis patients

The lowest scales were both role of physical and role of emotional aspects and account for **44.3** and **49.6**, respectively of HRQoL in the HD patient.

Also, this study's mean vitality QoL score was **54.0** which is only slightly more **than half** of the QoL score in a healthy human.

Other scale is higher than **50.0**.

Results

❖ With regard to the patients who received pharmaceutical care: +

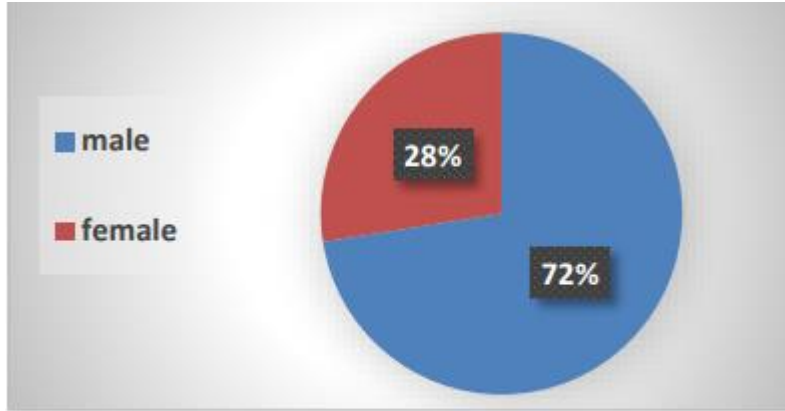


Figure 5: Gender distribution for patients under pharmaceutical care



Shows that the gender percentage distribution of the **40** patients was found to be **72.0%** male and **28.0%** female, with males are higher than females by two and half fold.

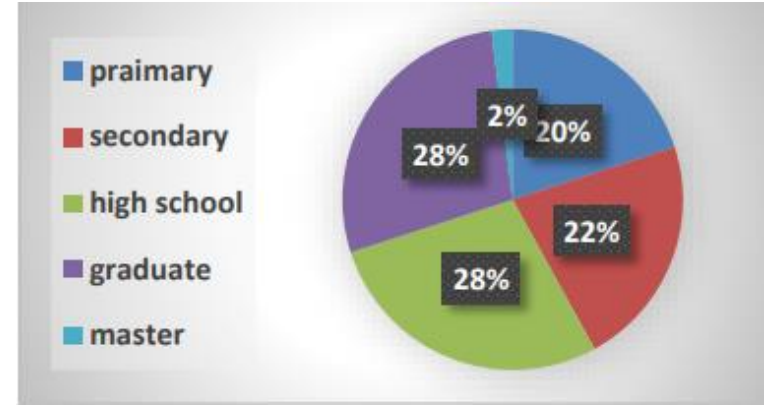


Figure 6: Education level for patients with pharmaceutical care



Shows the higher percentage of patients' education levels (degree of qualification) are in high school is **28.0%**, bachelor degree (university) is **28.0%** and secondary school is **22.0%**.

Results

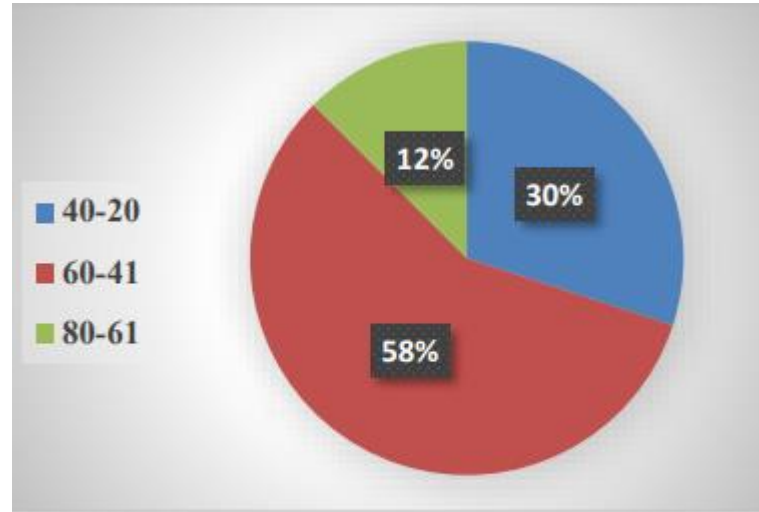


Figure 7: Age distribution for patients with pharmaceutical care



Shows that the most age range for the 40 patients is between 41 years - 60 years old which was accounted for **58.0%**.

Results

❖ With regard to the quality of Life for 40 HD patients before and after pharmaceutical care:

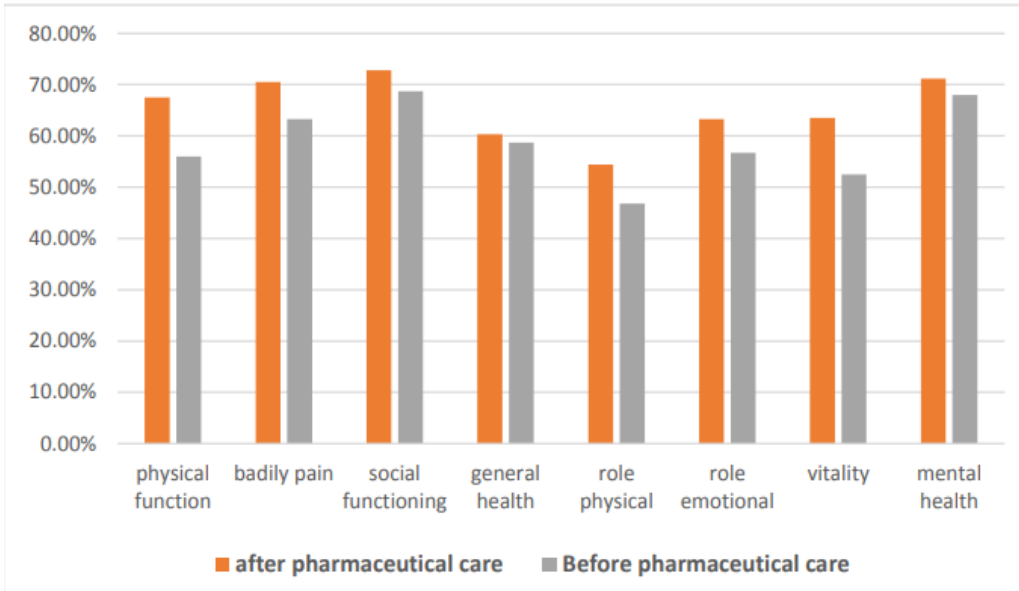


Figure 8: Quality of Life for HD patients before and after pharmaceutical care.

- Shows the quality of life before and after pharmaceutical care for **40 HD** the results show that the lowest scales before pharmaceutical care is role physical aspect of health-related quality of life.
- The mean vitality and role emotional quality of life score were slightly **more than half** of the quality of life score in a healthy human. Other scale is **higher than 50**.
- The results show also that the quality of life **after** pharmaceutical care is **better** than **before** pharmaceutical care.

Discussion



- ❖ Regarding the impact of PC on the QoL of HD patients, the current study found that the QoL after PC is better than before care.
- ❖ The same finding regarding the impact of patient counseling on the QoL of HD patients found that the impact of patient counselling in the QoL of HD patients indicated a significant improvement in each domain after counselling.



Discussion



- ❖ Other study conducted in India revealed that the HRQoL scores were significantly improved over time in the domains noticed with regard to the physical functioning, general health, emotional well-being, social functioning, symptom/problem list, and effects of kidney disease in all the three centers of PC group compared to usual care group.
- ❖ Several studies have provided insight into several associations between patient variables such as demographics, clinical factors and their HRQoL is highly recommended because this type of study reveals some significant results that can be taken into consideration when dealing with HD patients.



Conclusion



- ❖ Health-related quality of life is an important determinant of treatment effectiveness in dialysis patients and the major scales were physical and emotional aspects of HRQoL in the HD patients.
- ❖ This study evaluated the impact of PC on QoL of Libyan HD patients and showed QoL after pharmaceutical care is better than before pharmaceutical care.



References



- ❖ Maryam S.E. Hussein, Hiba Alshami , Eyad I.M. Amer, Ali A. Eltarhoni, S.F.A. (2022) ‘Impact of pharmaceutical care intervention on health-related quality of life in hemodialysis patients in Benghazi’, *Mediterr J Pharm Pharm Sci*, 2 (4), pp. 25–30.
Available at: <https://doi.org/10.5281/zenodo.7479713.%0D>.



thank
you!

