

Research Article

Impact of Counseling in End Stage Renal Disease Patients of Riyadh (KSA)

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Abstract: Lack of patient's awareness on the importance of adherence to drug regimen is implicated as one among the several factors affecting patient safety. The impact of non-compliance increases substantially in compromised conditions such as end stage renal diseases (ESRD). It is necessary to explore all possible steps to improve patient compliance. Thus, the current study was carried out to investigate the impact of counseling on provisions of quality of life (QOL) in patients with ESRD on hemodialysis. The data in the present research was obtained from the questionnaire-based study from 150 patients at four different hospitals with inclusion criteria of suffering from kidney failure, receiving dialysis and residents of Riyadh. Our study shows that the vast majority (88%) of the patient under hemodialysis in ESRD are receiving counseling from health care professionals. Most of the patients express their satisfaction for the services provided by health care team (88.7%) and also satisfied with their QOL (78.7%). Patient's satisfactions were reflected by their daily activities, adherence to medications and enhanced awareness about negative impact of over the counter (OTC) medications. The outcome of the study is very encouraging as most of the patients express their satisfaction on the available counseling services and its impact on their QOL. However, there is a need for disseminating the counseling strategies among all patients in order to attain a widespread enhanced quality of life in patients with ESRD of Riyadh. This study cannot be generalized for the entire Kingdom of Saudi Arabia unless similar prevalence of counseling exists in other part of the Kingdom as seen in Riyadh.

Keywords: Dialysis, End stage renal disease, Patient counseling, Patient education, Riyadh

INTRODUCTION

Medication errors or inadequate medication use are the most common types of errors that affect patient safety. There are many causes of these medication errors. Some of the important causes of medication errors are inadequate/incomplete medication lists, inadequate patient information/lack of complete patient education and insufficient communication with the subsequent health care provider [1]. Hence a good knowledge to the patients on their medication and other health related issues are imperative factors to prevent medications errors.

Patient counseling is an important aspect in order to avoid medication errors and achieve a good quality of life. This issue is paramount in all patients; however, the importance of this issue raises several folds in patients with renal impairment. Life in end stage renal disease (ESRD) is poor, food and fluid restrictions are obligatory for the patients due to hyperkalemia, high blood pressure and fluid retention. Management may contain dietary changes, administration of sodium bicarbonate to avoid acidosis, and adjustment of systemic complications. In early renal disease, dietary modifications can decrease the impacts of kidney failure and may slow disease progression rate [2]. Patients are administered vitamin

D supplements to treat hypocalcaemia. Salt free diet, low potassium containing foods and decrease fluid intake are potential interventions, and even though protein adds up to uremia, ESRD patients have to take a high protein diet (i.e., 1-1.2gm/kg/day) so as to achieve the additional needs for improvement of body functions and immunity [3]. In other words, a very balanced life is required in this patient. Any non-adherence to the regimen or diet may have devastating impact.

In Saudi Arabia, the number of patients with ESRD, and the need of dialysis is increasing'. The exact incidence of ESRD in Saudi Arabia is unknown and little reports are obtainable. Most of these reports are hospital-based studies, and some were conducted in the early eighties previously to the amplification of dialysis facilities throughout the country [4].

As stated above, patient counseling play a pivotal role in combating medication errors. Patient education and counseling is usually done at the time of dispensing prescriptions by pharmacist but it may also be provided as separate service. A systematic review finding signalize that pharmacists counseling improves clinical outcomes, quality of life and drug/disease knowledge[5].

Promotion of the quality of life is estimated as one of the major goals in treatment of chronic patients. In patients with chronic and debilitating end stage of renal diseases under long term hemodialysis, the need to educate for improving the quality of life is well documented. Patient education in ESRD includes improving self-care behaviors, control of fluid intake, food and medicinal regime and so on [6].

Health-related quality of life (QOL) suggest to the gauge of a patient's functioning, comfort, and general health conception in each of three domains: physical, psychological, and social. Forever with permanence and other kinds of clinical outcomes, patient QOL is an important index of the effectiveness of the medical care they receive. QOL of patients with ESRD is affected by the disease itself and by the type of replacement therapy[7]. Quality of Life in patients with ESRD is an important measure of appropriate dialysis. Health related QOL is an autonomous risk factor for mortality in ESRD [8]. Thus the current study was carried out to explore the implication of counseling on patients with end stage renal disease on hemodialysis for their quality of life in Riyadh region.

MATERIALS AND METHODS

Study design and setting

A cross-sectional survey was conducted during February to April 2016 in Riyadh city, Kingdom of Saudi Arabia.

Exclusion and Inclusion criteria

In our survey, only residents of Riyadh region, suffering from end stage renal disease and on regular hemodialysis were included. The exclusion criteria were: refusal to participate and people who were mentally incapable to communicate. The objectives of the study were stated clearly to the participants before commencement of the interview process.

Data collection

The data in the current research were obtained from closed format questionnaire study. A few minor changes were made to the items of the questionnaire after pilot study. The final version of the questionnaire was translated into Arabic language using forward-backward translation method. The study was carried at centers where hemodialysis is routinely done for ESRD patients. Subsequent to the consent and approval of hospital authorities, questionnaire was administered to 150 patients at four different hospitals of Riyadh based on the allotted timing during February to April 2016. The hospitals were King Salman Bin Abdulaziz Hospital, National Health Care Hospital, King Saud Medical Complex Hospital and National Guard Hospital. The questions were administered by personally visiting them (interview based) with an assurance about confidentiality of information they

share with us. The questionnaire was composed of four sections to collect data on:

Participant's demographic characteristics:

Gender, age in years and educational level

Assessment of disease state:

This is to collect information on the duration of their sufferings with kidney disease with or without other concurrent illness.

Evaluation of counseling:

Patients were asked questions about their habit of carrying medicines to the dialysis centers, source of counseling at the dialysis center and their feedback on counseling.

Determination of quality of life:

Quality of life (QOL) was determined based on provisions such as adherence to the medications, satisfaction with their daily activities and avoidance of over the counter drugs.

Ethical approval

Ethical approval for the conduction of the research was obtained from the Research Unit, College of Pharmacy, Al-Maarefa Colleges for Science and Technology, Riyadh, KSA.

RESULTS

Demographic characteristics

Out of 150 patients with ESRD who participated in the study, 60% of them were male while 40% were females. The participants of the study were in a wide age group between less than 30 years to more than 50 years, wherein, majority (63.3%) of them were >50 years old, which followed 24.7% in age group of 41-50, 9.3% in age group 30-40 and 2.7% with less than 30 years age. Most of the patients responded to our questionnaire were uneducated (47.3%), whereas, only 7.3% possessed academic degrees and 10%, 17.3% as well as 18% of them were qualified with primary, intermediate and high school education respectively (Table-1).

Assessment of disease state:

As evident from the table 02, 38.7% of them were suffering from kidney failure since 1-5 years, 37.3% had been diagnosed with this problem since 6-10 years and only 20% have this illness for less than 1 year. Only 4% of the surveyors found to suffer from kidney dysfunction for more than 10 years. An exorbitantly high percentage (79.3%) of patients was concurrently suffering from other diseases (Table-2).

Evaluation of counseling:

An excessively large percentage (86.7%) of the participants does not carry their medication to the dialysis unit when they visit. A vast majority of the

patients (88%) who participated in our study agreed that they receive counseling from health care professional about appropriate method of using their medicine to achieve enhanced efficacy and reduce medication errors. Physicians (76.7%) play a vital role in educating patients about the proper use of medicine, followed by this are pharmacist (7.3%) and nurses (4%). As evident from the table 03, 50% of the participant's rate services provided by health care professionals as excellent, 30% of them say very good, 8.7% term it as good, while only 11.3% says poor services (Table-3).

Determination of quality of life:

Most of the patients claim that they use their medications regularly (94%). An extremely good percentage (78.7%) of patients expresses satisfaction with their daily activities while receiving hemodialysis. As demonstrated by our study, 95.3% of the respondents avoid taking any OTC medications (Table 04).

Table -1: Demographic characteristics

| Demographic characteristics | Frequency (Number) | Percentage (%) |
|-----------------------------|--------------------|----------------|
| Gender | | |
| Male | 90 | 60 |
| Female | 60 | 40 |
| Age (years) | | |
| <30 | 4 | 2.7 |
| 30-40 | 14 | 9.3 |
| 41-50 | 37 | 24.7 |
| >50 | 95 | 63.3 |
| Educational level | | |
| Uneducated | 71 | 47.3 |
| Primary | 15 | 10 |
| Intermediate | 26 | 17.3 |
| High school | 27 | 18 |
| Academic degree | 11 | 7.3 |

Table-2: Assessment of disease state

| Disease state | Frequency (Number) | Percentage (%) |
|--|--------------------|----------------|
| Since when suffering from kidney failure? | | |
| <1 year | 30 | 20 |
| 1-5 year | 58 | 38.7 |
| 6-10 year | 56 | 37.3 |
| >10year | 6 | 4 |
| Do you suffer from other diseases? | | |
| Yes | 119 | 79.3 |
| No | 31 | 20.7 |

Table-3: Evaluation of counseling

| Counseling status | Frequency (Number) | Percentage (%) |
|---|--------------------|----------------|
| Will you carry your medicine while going to dialysis center? | | |
| Yes | 20 | 13.360 |
| No | 130 | 86.7 |
| Was there any counseling on the use of these medications? | | |
| Yes | 132 | 88 |
| No | 10 | 6.7 |
| No answer | 8 | 5.2 |

| | | |
|--|-----|------|
| Who among the following healthcare professional counsel you the most for proper medication use? | | |
| Physician | 115 | 76.7 |
| Pharmacist | 11 | 7.3 |
| Nurse | 6 | 4 |
| No answer | 18 | 12 |
| What is your rating for services that you received from your healthcare provider? | | |
| Excellent | 75 | 50 |
| Very good | 45 | 30 |
| Good | 13 | 8.7 |
| Poor | 17 | 11.3 |
| Very poor | 0 | 0 |

Table-4: Determination of quality of life

| QOL status | Frequency (Number) | Percentage (%) |
|---|--------------------|----------------|
| Do you use your medications regularly | | |
| Yes | 141 | 94 |
| No | 09 | 6 |
| Are you satisfied with your daily activities | | |
| Yes | 118 | 78.7 |
| No | 32 | 21.3 |
| Did you receive any OTC medications? | | |
| Yes | 7 | 4.7 |
| No | 143 | 95.3 |

DISCUSSION:

It is unequivocal fact that obviating medication errors will have its significant impact on improving quality of life of patients. Alleviating medication errors would be more important in compromised patient like ESRD. They possess a very delicate margin between safety and risk. Any accumulation of medicine or interacting of drug with another drug/food or non-compliance of medications and so on may lead to significant health hazard. One of the best ways to overcome this menace is induction of patient counseling programs and regular counseling by health care providers. Current study was designed to elucidate impact of counseling on quality of life of patients with ESRD in Riyadh region of Saudi Arabia.

The study populations in this research were patients with end stage renal disease who are regular visitors to the dialysis center at any of the four different hospitals of Riyadh region. As evident from our research, an exorbitantly great number of participants of the study were more than 50 years of age and uneducated. Also found that they were concurrently suffering from another illness apart from renal dysfunction. The above three characters are indicators that they warrant regular counseling from health care providers in order to attain a good quality of life. Regular counseling has a positive impact on quality of life as demonstrated by our study as well as by an

earlier study available in the literature. A prospective interventional study [3] carried out elsewhere for six months using Karnofsky Performance Status (KPS) scale showed an improvisation in quality of life in ESRD patients who received counseling when compared to patients who did not received counseling at multiple centers of the region.

The patients who are suffering from ESRD for less than 1 year need more education about their disease and medication use because they may have less knowledge about their disease and medications. Suffering from another disease in addition to ESRD indicates patients' needs to be provided with more education and counseling about their current medications. This will help them to increase their knowledge about their medications, possible interaction and importance of adherence drug regimen.

Carrying of medications to hospital by ESRD patient while visiting dialysis center is an important step to check the medication physically by health care professionals as most of the patient are illiterate as well as unification of medical records are not available in many hospitals of Riyadh. Hence encouraging patients to bring their medications should be done in order to improve quality of life.

The level of services provided to ESRD patients at different dialysis centers in Riyadh are termed by majority of the patients as excellent and very good, however, there are some patients who term the services provided by health care professionals as poor. It is a matter of concern. Thus it is imperative to understand the reason behind such a kind of rating by the patient.

CONCLUSION:

The outcome of the study is very encouraging as most of the patients express their satisfaction on the available counseling services and its impact on their QOL. The study limitations were small sample size and confinement to Riyadh region of the Kingdom of Saudi Arabia. Being an urban area, in general and capital city, in particular, it is a fact that the best medical facility including the high quality of counseling is possible to be provided to the patients, however, it is a time to disseminate similar facility to other parts of the Kingdom to achieve good quality of life in patients with ESRD under dialysis.

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