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# Prevalence of Distress Financing and Catastrophic Health Expenditure among end Stage Renal Disease Patients Attending A Tertiary Care Teaching Hospital of North India

# Abas Khan\*, Farooq A Jan and Haroon Rashid

Department of Hospital Administration, SKIMS, Srinagar, India

\*Corresponding author: Abas Khan, Department of Hospital Administration, SKIMS, Srinagar, India



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#### ABSTRACT

Chronic kidney disease (CKD) is a worldwide public health problem, both for the number of patients and the cost of treatment involved. A retrospective study of 2 years was conducted among CKD Stage-V (End stage renal disease) patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS between 1st October 2015 and 30st September 2017. The prevalence of catastrophic health expenditure on ESRD patients was 95% in our retrospective study. The prevalence of distress financing on ESRD patients was 70% in our both retrospective studies.

Keywords: End Stage Renal Disease; Health; Distress; Financing, Expenditure

## Introduction

Chronic Kidney Disease (CKD) is a worldwide public health problem, both for the number of patients and the cost of treatment involved. In India, it is reported that the progression of CKD to End Stage Renal Disease (ESRD) is rapid due to the factors such as lack of medical facilities, poor control of risk factors and delayed referral to nephrologists [1]. The prevalence of CKD and ESRD are estimated at 7852 and 1870 per million respectively [2,3]. In India, the number of deaths due to ESRD was 3.78 million in 1990 (40.4% of all death) and is expected to increase up to 7.73 million in 2020 (66.7% of all death) [4]. It is estimated that only 10-20% of ESRD patients in India continue long term Renal Replacement Therapy (RRT). It is estimated in India in 1 year, there are 3,500 new renal transplants + 3,000 new Continuous Ambulatory Peritoneal Dialysis (CAPD) initiation + 15,000 new Maintenance Hemodialysis (MHD) patients [5].

Limited resources for health care and lack of protection against catastrophic health spending have led to over-reliance on Out of Pocket (OOP) health expenditure in India [6]. This in turn results in exposure to high financial risk, which pushes patients and their families into catastrophic poverty following diagnosis of life consuming diseases like cancer & ESRD [7]. With this background, the present study was undertaken with the prevalence of distress financing and catastrophic health expenditure among ESRD patients.

# Aims and Objectives

To Study prevalence of distress financing and catastrophic health expenditure among ESRD patients attending SKIMS.

## **Material and Methods**

# **Study Design and Duration**

A retrospective study of 2 years was conducted among CKD Stage-V (End stage renal disease) patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS between 1st October 2015 and 30st September 2017.

#### Sampling

Using simple random sampling, 20% of the patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS.

#### **Study Tool**

After obtaining the list of patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS, the patients were contacted, consent taken from them after explaining the scope and purpose of study and were subjected to a questionnaire which was pretested by conducting a pilot study. The response rate was 86%. Out of pocket expenditure, catastrophic health expenditure and distress financing was studied.

#### **Exclusion Criteria**

Those patients who refuse to participate in the study were excluded from the study

## **Statistical Analysis**

Data was analyzed with the help of SPSS software (version 23.0). All the categorical data was shown in the form of frequency and percentages & continuous data was shown in the form of averages and standard deviations.

#### Results

A total of 200 patients were studied.

# **Distress Financing**

It is defined as borrowing from family/friends, selling possessions, or taking out loans to fund expenditure of the disease (Table 1).

Table 1.

Sources of finances	Frequency(n=200)
Selling assets	125(62.5%)
Borrowing	140(70.00%)
Prevalence	70.00%

# **Catastrophic Health Expenditure**

Table 2: Showing Monthly Income in Rupees.

Monthly income in rupees	Frequency(n=200)
1000-2000	125
2001-5000	35
>5000	40
Total	200

In our study we used definition of Catastrophic health expenditure: monthly out of pocket expenditure > 25% of monthly household income. It was observed that 80% of the patients had monthly income less than or equal to 5000 rupees while 85% of

the patients had monthly health expenditure more than fifteen thousand rupees. Overall prevalence of catastrophic health expenditure was found to be 95% (Tables 2,3).

Table 3: Showing Monthly expenditure in Rupees.

Monthly income in rupees	Frequency(n=200)
<15000	30
15001-30000	150
>30000	20
Total	200

# Discussion

Health care delivery in India is going through a process of transition, more so the tertiary specialty care of chronic diseases like diabetes, hypertension, cardiac diseases, kidney or liver failure, mental illness and cancer. Patients, more commonly those from the lower economic strata, have difficulty in availing the health care services because of the costs involved in diagnostic and curative procedures. Even in public hospitals where the cost of care is low, patient had to bear several direct and indirect costs, commonly referred to as out-of-pocket expenditure (OOPE), which impoverish them further. As a result, patients with life threatening diseases requiring tertiary care often go untreated even if they are aware of the availability of high-quality services. It can also lead to delay in diagnostic and curative procedures and even causing deaths of several thousands of poor patients. This issue has been a concern for nation's health policy, which should address the cost, quality and accessibility of health care [8].

The prevalence of catastrophic health expenditure on ESRD patients was 95% in our retrospective study and 96% in our prospective study. Christina Bradshaw et al in their study reported that 91% of ESRD patients had catastrophic health expenditure [9]. Gunjeet Kaur et al reported in their study catastrophic health expenditure in 40-50% patients [10]. The prevalence of distress financing on ESRD patients was 70% in our both retrospective and prospective studies. Christina Bradshaw et al in their study reported that 77% of ESRD patients had distress financing [9]. The study by Gunjeet Kaur et al reported that 60% patients had distress financing [10].

# Conclusion

Chronic kidney disease (CKD) is a worldwide public health problem, both for the number of patients and the cost of treatment involved. The prevalence of catastrophic health expenditure on ESRD patients was 95% in our retrospective study. The prevalence of distress financing on ESRD patients was 70% in our both retrospective studies.

#### **Conflict of Interest**

None

# **Source of Funding**

None

#### **Ethical Clearance**

Taken

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