

**SOCIAL WORK ABSTRACTS FROM THE NATIONAL KIDNEY FOUNDATION
2010 SPRING CLINICAL MEETINGS**

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University of Michigan Dialysis Services, Ann Arbor, MI, USA
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Carla Ford-Anderson
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1. REDUCING BEHAVIOR-BASED MISSED HEMODIALYSIS TREATMENTS

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Hemodialysis (HD) patients not receiving their full prescribed treatment or complete treatment schedule have been associated with a higher mortality risk. We examined the missed treatment rate and performed a root cause analysis for missed treatments in 11 North Carolina HD centers. We then provided focused patient education and individualized social work interventions for a period of 12 months to reduce the rate of missed treatments. This education focused on the impact of patient non-adherence on their health and included interventions such as teaching patients relaxation techniques, providing direction for substance abuse treatment, or solving scheduling issues within the clinic. Centers also offered rescheduled appointments when a treatment was missed. Our assessment found that "problems adjusting to their treatment lifestyle" was the top self-reported reason for missed treatments within a patient's control. Previously diagnosed mental health issues were also common in patients who frequently missed treatments. Of the patients who received a Social Work intervention, missed treatments were reduced or eliminated in 71% of patients. The overall missed treatment reschedule rate doubled from 0.35% of total treatments in the clinics during July 2007 to 0.68% in June 2008. In June 2008, the combined missed treatment rate for non-adherence was 1.77% compared to a baseline rate of 4.22% in July 2007. Social work intervention reduced the rate of missed treatments and improved the reschedule rate. This improved patient adherence, especially in patients deemed "unreachable," was a key component to improving treatment outcomes and decreasing mortality thus highlighting the valuable role of social workers within the interdisciplinary dialysis team.

2. HELPING ADULT HEMODIALYSIS PATIENTS SELF-MANAGE ORAL MEDICATIONS: RECOMMENDATIONS FROM THE LITERATURE

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Adult hemodialysis patients take a variety of oral medications to manage their kidney disease and concurrent illnesses, with one recent study reporting that one-half of patients take 19 pills or more per day (almost half of these pills are phosphorous binders).¹ Despite the fact that self managing these medications is a critical component of good clinical outcomes, more than half of hemodialysis patients may not take their medications as prescribed. A literature review was conducted to examine adult hemodialysis patient barriers to oral medication self management. An online search was conducted from March 2009 to May 2009 using MEDLINE, PubMed, Ovid, CINAHL, and PsychLIT databases to identify research and summarize findings from meta-analyses, systematic reviews, clinical reviews, and clinical trials published in English between January 1985 and May 2009, as they relate to oral medication adherence in kidney disease and other chronically ill populations. The results of this literature search suggest that barriers to adult hemodialysis oral medication self-management are multi-faceted, and relate to the burden of taking pills, demographic and socioeconomic variables, psychosocial factors, health literacy, patient satisfaction, and health beliefs. In addition to future research in this area, hemodialysis teams can help patients ameliorate these barriers through interdisciplinary interventions related to self-management training, medication dosing, health literacy, improving communication, and increasing patient self-efficacy.

1. Chiu Y-W, Teitelbaum I, Misra M, de Leon EM, Adzize T, Mehrotra R. Pill burden, adherence, hyperphosphatemia, and quality of life in maintenance dialysis patients. *Clinical Journal Of The American Society Of Nephrology: CJASN*. 2009;4(6):1089-1096.

3. IMPROVING THE DIALYSIS EXPERIENCE WITH THE USE OF TECHNOLOGY

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Certain distraction methods have been reported to reduce pain, lower blood pressure, decrease anxiety, and improve overall sense of well-being. In dialysis units, the addition of televisions has provided a welcomed distraction for patients that sit for 3, 4 or more hours each treatment.

In order to expand upon some of these benefits, additional distraction methods were introduced at University of Michigan Dialysis Services. In particular, we made digital music players (Apple's iPod Touch™) and Internet-connected laptop computers available for patients to use during dialysis. Our initial observations show that these technologies offer potential benefits to patients.

Digital music players such as the iPod allow patients to listen to their favorite artist/genre, guided imagery, and relaxation music. Music can be a stimulus for active focus, redirection, or distraction from dialysis. As a result it may have the capacity to reduce pain, lower blood pressure, decrease anxiety and improve overall sense of well-being, all of which may decrease shortened and missed treatments.

Laptop computers provide multiple opportunities for distraction, allowing patients to watch movies, play games, check email, or do personal business. As an additional benefit, laptops in the clinic can help to enhance the technological skills of patients, allowing them to learn to use the Internet, and access renal consumer education and support websites. This can increase self-efficacy and enhance skills that have value outside the clinic.

Our project has revealed both benefits and challenges. Patients have reported several positive impacts, including increased motivation to complete their treatment, improved night time sleep, and improvements in mood. Some patients have shown reluctance to adopt the new technology, possibly due to embarrassment around their limited computer skills. While several staff members are enthusiastic, others have expressed concern about the increased burden on their time and responsibilities. Thus far, the positives have outweighed the negatives and have proved significant enough to sustain this beneficial program.

5. CKD AND OLDER ADULTS: A REVIEW AND IMPLICATIONS FOR SOCIAL WORK PRACTICE AND RESEARCH

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Purpose: The elderly are the fastest growing segment of the ESKD population. By the year 2030, older adults will constitute well over half of persons living with CKD. In light of the increased prevalence of older persons in all stages of CKD, social work interventions must apply to older adults. The purpose of this review is to address two important questions: (1) to what extent do social work journals contain research about older adults with CKD?; and (2) does the research offer implications for social work practice and research?

Methods: Articles published between the years 1998 and 2008 were reviewed. Scholarly articles were selected from health-related social work journals: Health & Social Work, Journal of Nephrology Social Work, Social Work in Health Care; and The Journal of Gerontological Social Work Table of contents and abstracts were reviewed for aging and kidney content using the search terms, "renal", "nephrology", "kidney", "aging", "elderly", "older", "gerontology", and "geriatrics". An article met the criteria if the content was research based and addressed implications for social work practice with older adults in dialysis and transplant patients or implications for research on older adults with CKD.

Results: Close to 1,000 articles were reviewed. Of those, 4 articles met the review criteria. These articles addressed practice implications such as the need for psychosocial evaluation, assessment, and education. Implications for research were provided in 1 abstract.

Conclusion: There is a remarkable gap in research with older adults with kidney disease. The majority of health and aging social work research focuses on persons with cancer, diabetes, and HIV/AIDS. Geriatric kidney patients experience visual and hearing impairment, malnutrition, cognitive impairments, urinary incontinence, and limited functional status and psychosocial issues including lack of social support, economic hardships, and isolation. Social work interventions on self-care, functioning, and quality of life are critical to the well-being of a burgeoning high risk and vulnerable population.

4. HEALTH DISPARITIES/INEQUITIES IN END STAGE RENAL DISEASE

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The purpose of this study is to examine the differences in the rate of increase of End Stage Renal Disease between Whites, African-Americans and Hispanics and the rate of increase in diabetes and hypertension, two of the main causes of ESRD. In the United States, as of December 31, 2007, there were 527,283 people with ESRD. In 2007, 111,000 people started dialysis. There were 57,213 people with ESRD in 1980 (USRDS, 2009).

Methods: Examination of the data compiled by the USRDS in their Annual Data Report for 2007 provides information about the incidence and prevalence of ESRD by race and ethnicity and by primary cause. This information allows one to observe the differences and draw inferences from the data.

Results: The median age for ESRD patients in 2007 was 59.1 years, varying among ethnic groups from a high of 60.3 years for Whites to a low of 57.1 years for African-Americans. The point prevalence rate among African-Americans was 5,111 per million population compared to 1,911 for Asians and 1,231 for non-Hispanic Whites. The point prevalence rate for Hispanics was 2,408 per million population, almost 50% higher than that of non-Hispanic Whites (1,613). In 1980 glomerulonephritis was the leading (42%) cause of ESRD, with diabetes a distant second at 17%. In 2007, diabetes was the primary cause of ESRD. African-Americans begin dialysis at an earlier age and also have the highest rate of diabetes and hypertension, followed by Hispanics. Both groups have a higher rate of diabetes and hypertension than Whites (USRDS, 2009).

Conclusions: Based on the information in the USRDS, one can infer that the rate of ESRD, diabetes and hypertension is greater in minorities than in Whites. One can then conclude that health disparities and inequities exist between Whites and minorities living with ESRD.