

Predialysis Anxiety: What are the Concerns of Patients?

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The presence and intensity of predialysis anxiety was investigated. Forty-four people who attended a predialysis educational class were evaluated for anxiety before and after attending the class. The majority of participants reported having moderate anxiety. African Americans and women reported higher levels. Participants were most concerned about their level of functionality once they initiate dialysis. However, gender differences were noted with regard to the specific types of concerns. No statistically significant correlation was found between anxiety and educational level or anxiety and age. The class did appear to reduce the level of anxiety for most participants. The majority of those who did not believe that the class reduced their anxiety were women. Further investigation regarding the format of predialysis education is recommended along with more specific tailoring to individual learning needs.

Key Words: Anxiety, Predialysis, Education and Assessment

PREDIALYSIS ANXIETY: WHAT ARE THE CONCERNS OF PATIENTS?

The presence of psychiatric symptoms post-initiation of dialysis is well documented within the research literature (Mazella, 2004; Zimmerman, Figueiredo & Fonseca, 2001; Estrada & Hunt, 1998). Once a person begins dialysis they usually have frequent contact with medical professionals who can assist in the assessment and treatment of these ailments. The repetitive nature of this contact can lend itself to a person's adjustment to treatment through education, social support from other patients, relationships with staff and other facets. However, there is limited research regarding the presence of anxiety and specific patient concerns in the predialysis period. This can potentially be a very stressful, and possibly lengthy, time for someone who knows that they are near the end stage of renal disease. The proverbial fear of the unknown, concerns about finances, personal functional decline and worry about death are but a few of the possible anxiety inducing factors that a person might experience before starting dialysis. Depression has historically been more of a primary focus than anxiety in the research literature regarding dialysis. However, some studies have noted it to be more prevalent in the dialysis population than depression (Lye, Chan, Leong & van der Straaten, 1997). Predialysis anxiety has also been correlated with poorer ratings of ones' health (Klang, Björvell, Berglund, Sundstedt & Clyne, 1998).

Predialysis education has become an important part of many clinic programs and there are numerous ways in which it is provided. Research has been conducted to determine if it can positively influence treatment.

Predialysis education has been found to extend the time to treatment initiation and to reduce the number of emergent starts (Devins, Mendelssohn, Barré & Binik, 2003; Levin et al., 1997). It has also been noted to facilitate continued employment and aid in modality selection (Golper, 2001; Klang, Björvell & Clyne, 1999). Some clinics use formal classroom formats to educate patients while others use one-to-one meetings. Federal legislative efforts have been made to make it uniformly available, such as through the proposed Kidney Disease Educational Benefits Act of 2003 § (Senate Bill S. 1114). Overall, the collective body of investigative literature tends to show that predialysis education is beneficial.

Research Objective

The research presented here sought to answer four basic questions. First, what is the prevalence and level of anxiety? Second, are there demographic groups with higher levels? Third, what are the primary anxiety inducing concerns? Fourth, can a single educational session reduce anxiety? By answering these questions social workers will have a better understanding of the causes and nature of anxiety within the pre-dialysis population. This can better facilitate psychological assessment and treatment options, which will in turn improve the quality of life for those who have not yet started dialysis.

Design and Method

An informal inquiry was made with several people on dialysis and various clinic staff. They were asked to list the types of concerns that they often noted in the predialysis period. The 16 most common responses were obtained and placed into a questionnaire format.

Through the questionnaire respondents were asked to report if they were experiencing any of the 16 concerns. It also asked whether or not they were currently experiencing anxiety about starting dialysis and, if so, to denote their level of anxiety through the use of a seven-point Likert Scale. (See Appendix A.)

The questionnaire was given to 53 people who attended a predialysis educational class. The class was offered twice per month over the span of one year at one clinic. The people who attended had been referred to the class by their physician because they were expected to begin dialysis within six to twelve months. This represented a sample of convenience since they were not randomly selected. The data presented here is an aggregate of their responses. They were informed orally and in writing that participation in completing the questionnaire was voluntary and that their responses would be anonymous. It was also relayed to them that whether or not they participated, they would still receive all of the content of the class. The questionnaire was administered before the class started and 44 people completed it, resulting in a response rate of 83%.

The class was then held and it lasted approximately three hours. Educational instruction came from several different sources. First, the attendees watched a 30-minute videotape that provided basic information regarding the various dialysis modalities and renal transplantation. The clinic social worker then made a presentation and discussed general insurance issues, Medicare, transplantation, transportation and travel. The clinic dietitian discussed aspects of the renal diet and the differences that could be expected which each modality. The clinic nurse presented the various dialysis accesses and technical aspects of each modality. A question and answer period was provided by each staff person at the end of their presentation. A tour was then given of the facility. At the end of the class participants were administered a second brief questionnaire. They were asked to report whether or not the information provided to them had reduced their anxiety, and to rate their post-class anxiety level. Demographic data was collected on the questionnaires. The participants had an average age of 64 years and a high-school graduate level of education. There were slightly more men than women, and nearly 60% were African American. Half were married and half were single, divorced or widowed.

RESULTS

When asked if they were experiencing anxiety about having to start dialysis, 77% of women and 74% of men responded yes. The average level of anxiety was 3.6 on the seven-point Likert Scale, placing it near the moderate range. The average for women was 4.1 and for men it was 3.2. Higher levels were reported by women and African Americans.

Table 1

Average Level of Predialysis Anxiety

African-American Females:	4.4
Caucasian Females:	4.0
African-American Males:	3.5
Caucasian Males:	2.8

Using a seven-point Likert Scale with
1 = Slightly anxious and 7 = Severely anxious

(Among those reporting the presence of anxiety)

A Spearman Rank Correlation was performed to determine whether there was a connection between age and anxiety level as well as years of education and anxiety level. Both tests showed insignificant results. Age and anxiety level had a correlational value of $r_s = .08$ while years of education and age had a value of $r_s = -.06$.

The five most common concerns about having to start dialysis, and the percentage of participants noting them, were: I might not be able to care for myself (45%), Not being able to perform my usual daily tasks (43%), It will make me feel ill (38%), Dialysis will take up a lot of my time (34%), Not having enough money to pay my bills (31%) and Cost of dialysis (31%). Analysis of the most common concerns based on gender showed notable differences. The main concerns among women were: I might not be able to care for myself (57%) followed by It will make me feel ill (47%) and Dialysis will take up a lot of my time (42%). For men, the main concerns were: Not being able to perform my usual daily tasks (50%), followed by Not having enough money to pay my bills (37%) and It will make me feel ill (37%).

When asked if they believed that the educational class had reduced their anxiety, 70% of participants responded yes. The majority of those who responded negatively were women. When asked to rate their level of anxiety after the class, the level had dropped to an average of 2.8 on the

seven-point Likert Scale placing it at the 'somewhat anxious' level. For women, the average was reduced to 3.2 and for men it was 2.7.

DISCUSSION

Three-fourths of participants reported having anxiety about having to start dialysis. Gender did not appear to have much of an influence on the presence of this symptom, but it did on the level of anxiety. Whether this represents an under-reporting bias by the male participants is unknown. Race appeared to be an important factor with regard to the level of anxiety, with African American women and men having higher levels than Caucasians. It is noted that nearly 67% of the people on dialysis in the End-Stage Renal Disease Network region in which this research was conducted are African American (National Institutes of Health, 2002). A higher prevalence of dialysis within the African American population might lead to more individual exposure to it, in turn causing more anxiety about having to start it. This would be supported by the fact that the African American participants in this research reported a significantly higher degree of knowledge about dialysis as compared to the Caucasians prior to taking the educational class.

Globally, participants were most concerned about their functionality after they begin dialysis treatment. They were worried about not being able to care for themselves, not being able to perform daily tasks and feeling ill. However, women were more concerned about not being able to care for themselves while men were more concerned about not being able to perform daily tasks. Concerns regarding how dialysis might impact relationships with friends was low, with only two participants endorsing this. None of the participants reported dialysis as being a potential problem with their spousal relationship. Concerns regarding death and physical scarring were also low, which was somewhat of an unexpected finding.

Provision of education reduced the level of anxiety across all genders and races within the participating sample. Similar findings have been found with educational programs for people who are about to undergo treatment for cancer (Thomas, Daly, Perryman & Stockton, 2000; McQuellon, Wells, Hoffman, Craven, Russell, Cruz, Hurt, DeChatelet, Andrykowski & Savage, 1998). Various methods have been used to prepare people with cancer for the therapy that they are about to receive, and education seems to reduce their anxiety as well as increase satisfaction with treatment.

There is always a risk that the provision of information might actually increase the level of anxiety for some people. This was noted by 5% of the cancer patients in the study by Thomas, Daly, Perryman & Stockton (2000) but overall the majority of participants felt that it was beneficial.

In this study, women were less likely to report that the class reduced their anxiety. Therefore, it is possible that other formats might be better suited to their needs. This knowledge will hopefully allow for tailoring of predialysis education to the individual. Though most research seems to show a benefit from education, the way in which it is presented is likely to be a more important variable than just its provision. Gender and racial differences regarding the main concerns about starting dialysis should be taken into consideration since it appears that predialysis concerns are not homogenous. Other formats for predialysis education, such as one-to-one sessions or those that use nothing but videotaped presentations, will need to be further investigated to determine if they also decrease anxiety and if they are better able to do so. There are numerous other factors that need to be examined with regard to anxiety. The concerns of partners, family members and friends need further investigation since chronic illness affects the whole family. Patients' children and parents are also likely to have a unique set of anxiety inducing concerns. Overall, assessing and treating anxiety only after treatment has been initiated is shortsighted and overlooks the predialysis period.

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APPENDIX A

Potential Concerns About Having to Start Dialysis
 What concerns do you have about starting dialysis?
 (Check all that apply. You may choose more than one.)

- Not being able to work or go to school.
- Not being able to do my usual daily tasks such as shopping, driving, hobbies, etc.
- Cost of dialysis treatment.
- Not having enough money to pay my bills.
- It will require more surgery.
- Dialysis will take up a lot of my time.
- It will make me feel ill.
- Pain of the dialysis treatment.
- My friends might not want to continue being my friends.
- My husband/wife/companion might leave me.
- Dialysis will affect my ability to think or make decisions.
- Dialysis will change the way I look or how others will look at me.
- Starting dialysis means that my health is getting worse.
- Dialysis will scar or disfigure me.
- I might die.
- I might not be able to care for myself.