

## Promoting Resilience in ESRD: Evaluation of a Group Cognitive-Behavioral Intervention for Patients on Hemodialysis

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*This study examined the efficacy of a six-week group cognitive-behavioral intervention for mediating depression, perceived social support, and quality of life of patients on hemodialysis in west Central Florida. Length of time on dialysis varied from 30 days to over two years. A quasi-experimental multivariate design tested several hypotheses. It was predicted that patients in the experimental group would benefit from the social work intervention as evidenced by improved mood, increased social support, and better life quality than the patients in the control group. The sessions were called "Feeling Better Again: A Life Management Series for People With Chronic Kidney Disease." Patients completing fewer than six sessions were predicted to benefit less than patients completing all six sessions. Length of time on dialysis was also predicted to make a difference in patient responses at pre- and post-test. In this multimethod approach, qualitative data from patient surveys support the quantitative findings, giving the study methodological robustness. The authors propose linking biopsychosocial research with ESRD patients to the resilience construct in order to extend the knowledge base on biological contributors to resilience in adults with chronic kidney disease*

### INTRODUCTION

Dialysis significantly changes the lives it saves while creating unique challenges for patients with End-Stage Renal Disease (ESRD). Symptom management, limitations on lifestyle, ongoing uncertainty of life on dialysis, and increased dependence are prominent life-altering features in the lives of dialysis patients (Polaschek, 2003), potentially positioning them for depression. The occurrence of clinical depression, as defined in the *Diagnostic and Statistical Manual of the Mental Disorders, Fourth Edition (DSM-IV-TR)* of the American Psychiatric Association (2000), is common among patients on dialysis (Illic, Djordjevic, & Stefanovic, 1996; Kimmel, 2002; Kimmel, Peterson, Weihs, Simmens, et al., 1998; Mazzella, 2004). This study and others demonstrate the prevalence of depression and anxiety in dialysis patients (Beder, Mason, Johnstone, Callahan, & LeSage, 2003; Dobrof, Dolinko, Lichtiger, Uribarri, & Epstein, 2001; Estrada & Hunt, 1998; Lopes, Bragg, Young, Goodkin, Mapes, et al. 2002; Soykan, Arapaslan, & Kumbasar, 2003). Because the effects of depression influence patient motivation for dialysis treatment and adherence to renal regimes, nephrology social workers may need to intervene at different points along the dialysis continuum of care. When treated, depression has been shown to be a modifiable risk factor for cardiovascular disease in ESRD patients (Beder et al., 2003); left untreated, suicide ideation and lethal plan may result (Soykan et al., 2003). Accordingly, social workers are choosing interventions for depression to improve survival in ESRD because they recognize the traumatic life changes imposed on patients with chronic kidney disease. Nephrology social workers

in dialysis centers are particularly vigilant for the symptoms of depression in this population.

Depressive symptoms may be expressed as non-adherence to renal regimens or the wish to terminate dialysis altogether (Mazzella, 2004). In addition to changes in lifestyle, nutrition, and daily activities, dialysis schedules and severe fatigue related to anemia contribute to problems in maintaining relationships and employment (Estrada & Hunt, 1998). Nephrology social workers are challenged to identify effective interventions to restore ESRD patients to an optimal quality of life in spite of related restrictions. Risk factors for depression among dialysis patients include core beliefs (cognitive schema) related to the disease, perceived stigma associated with dialysis, poor body image, coping style, availability of social support, marital status, living arrangements, employment status, and previous history of mental illness (Callahan, 2001/2002). Since ESRD patients are unlikely to receive treatment for depression from a mental health professional outside of the dialysis center, on-site nephrology social workers have the unique opportunity to assess and monitor patients who may be experiencing depressive symptoms (Johnstone, 2002).

The purpose of the study was to examine the efficacy of a group cognitive-behavioral intervention in mediating depression, perceived social support, and quality of life of patients on hemodialysis in west Central Florida. Johnstone's (2002) qualitative analysis of the "Feeling Better Again" intervention with dialysis patients (n = 5) suggested positive outcomes on a number of measures,

including improved mental health, better outlook, and increased quality of life. Like Johnstone's original study, the research reported here was grounded in social work practice in dialysis centers. Similarly, the Florida researchers predicted that the social work intervention would make a difference in how dialysis patients felt about their health status, social support, and outlook on life. The investigators were intrigued to know if changes in these areas might translate into patient cost savings, as evidenced by fewer emergency room visits during the six-week intervention.

## METHODOLOGY

A six-week cognitive-behavioral intervention, developed by Johnstone (2002) for ESRD patients, was used with a convenience sample of self-selected study participants. The investigative team used a quasi-experimental, multivariate research design to compare pre-test and post-test scores on depression, social support, and health quality measures. Analysis of variance was used to measure the strength of the associations, and regression analysis was used to determine the effect of length of time on dialysis (LTOD) on depression. Institutional review and approval preceded patient recruitment and the informed consent procedure. A licensed on-site nephrology social worker and MSW intern collected the data to test three hypotheses: (1) The experimental group will show greater improvement in their post-test depression and quality of life (QOL) scores following the six-week cognitive-behavioral group intervention than the control group; (2) patients participating in all six sessions of the cognitive-behavioral group intervention will show greater improvement in their post-test depression and QOL scores than patients attending fewer than six sessions; and (3) social support will emerge as a significant predictor of improved depression and QOL for the experimental group. The independent variables were socio-demographic and background variables (gender, age, race/ethnicity, education, marital status, current living arrangements, availability of social support, employment status, medications, and mental health status). The dependent variables included depression as measured by the seven-item BDI-FastScreen, developed by Beck, Steer, and Brown (2000) for medical patients; self-reported social support as measured by the Multidimensional Scale of Perceived Social Support (MSPSS), developed by Zimet, Dahlem, Zimet and Farley (1988); and patient QOL as measured by the SF-36v2 Health Survey available from QualityMetric, Incorporated. Lower BDI scores indicate low patient distress. The MSPSS scores indicate the adequacy of support from a specific source (e.g., family,

friends or significant other) on a 12-item Likert-type scale. Higher scores on the SF-36v2 indicate better health. The data was collected before the first structured class of the six-week intervention and following the last class. The content of each group session is identified below. Smaller groups (< 10) facilitate higher levels of individual participation.

Class 1: Understanding Depression and How to Feel Better Again

Class 2: Cognitive-Behavioral Training: How It Works

Class 3: Balancing Your Thinking

Class 4: Practicing New Skills

Class 5: Reducing Worry

Class 6: Maintaining and Moving Forward

In appreciation for patient participation, gift cards worth 10 dollars from local supermarkets were distributed to patients in the experimental and control groups upon completion of the pre- and post-tests. In addition, during each of the six classes, one participant in the experimental group received by random drawing a gift card, valued at 20 dollars, for dinner for two at a local restaurant.

### *Sample Characteristics*

Twenty-three patients (n = 13 males and 10 females), ranging in age from 30 to 84 years, participated in the study from October to December 2004. About 56% (13) were 49 years and younger. The majority of patients (70%) were African American followed by 17% Caucasian. Native Americans accounted for nine percent, with mixed race accounting for four percent. Nearly 70% reported completing 12 years or less of schooling; 26% reported having completed some college. Concerning marital status, 43% were divorced or separated while 35% had never been married; 13% were widowed; and 9% were married. Forty-eight percent of patients lived alone; nearly 44% lived with a family member; and fewer than 10% lived with a spouse or partner. Sixty-five percent reported having social support; 35% either reported no available support or did not respond to this question. The majority of patients (65%) had been on dialysis from one to two years; 17% had been on dialysis for at least six months but less than one year; and nine percent reported being on dialysis for at least one month but less than six months. Nearly all (87%) were unemployed at the time of the study. Most patients reported taking five or fewer medications, with 39% reporting taking six to 11 or more. When asked about prior treatment to maintain mental health, 78.3% denied any mental health treatment while 21.7% responded affirmatively. The sample characteristics are illustrated at **Table 1**.

**Table 1. Sample Characteristics (n=23)**

	<i>n</i>	<i>Mean Age</i>
<i>Gender</i>		
Male	13	48.8
Female	10	46.8
<i>Ethnicity</i>		
African American	16	49.1
Caucasian	4	44.8
Native American	2	49.5
Other	1	32
<i>Education</i>		
	<i>Male (%)</i>	<i>Female (%)</i>
12 yrs or less	85	50
Some College	15	50
<i>Living Arrangements</i>		
Live alone	77	10
With family member(s)	23	70
With spouse/partner	0	10
With other(s)		10
<i>Length of Time on Dialysis</i>		
1-6 months	23	0
7-12 months	15	20
Over 1 year	31	30
Over 2 years	31	50
<i>Daily Medications</i>		
0-5	61	50
6-10	31	50
More than 10	8	0
<i>Prior Mental Health Txmt</i>		
No	85	70
Yes	15	30

### Data Analysis

The data were analyzed using SPSS statistical software and SF-36v2 scoring software. A t-test analysis was used to determine between-group differences. *Chi square* analysis was used to determine within-group differences. Analysis of variance (ANOVA) was applied for interaction effects among the variables. Regression analysis was used to determine the effect of length of time on dialysis. The SF-36v2 pre- and post-tests were scored using a logarithmic computer program available for purchase from QualityMetric. A bivariate analysis, using Pearson's correlation coefficient, identified relationships among the variables. The experimental group's responses on confidential Patient Satisfaction Surveys, with comments about the "Feeling Better Again" classes and recommendations, were summarized as qualitative data. Patient responses on the BDI-FastScreen for Medical Patients (The Psychological Corporation, 2000) were analyzed for its test-retest reliability. Cronbach's alpha coefficient

( $r = .654$ ) suggested only moderate reliability for our sample, appreciably less than the reliability coefficient ( $r = .84$ ) reported for sample of psychiatric outpatients in the accompanying BDI manual. This finding is thought to be an artifact of the study reported here and not a reflection of the instrument. The Multidimensional Scale of Perceived Social Support (MSPSS) yielded a high Cronbach's alpha coefficient ( $r = .914$ ), suggesting very satisfactory test-retest reliability over six weeks.

### Results

Patients participating in the experimental group reported that "the most helpful thing about the class is getting together and [having] discussion[s] about depression and how to reduce worry"; "redirecting my thoughts was especially helpful." They expressed that being with others with the same disease helped them to realize that "I'm not alone," what Yalom (1985) refers to as universality. The results of the qualitative data, culled from the Patient Satisfaction Surveys, revealed very positive patient responses to the "Feeling Better Again" classes. The patient surveys are summarized in **Table 2**. One of the most salient quantitative findings to emerge from the study was the difference in post-test depression scores of the experimental and control groups. The mean depression score decreased for the experimental group upon post-test administration of the BDI. This finding demonstrates the effectiveness of the six-week group intervention. The control group mean on the post-test depression measure was 2.62; the experimental group post-test mean depression score was 1.33. Thus, we reject the null hypothesis. These data are shown in **Table 3**.

The QOL indicators, measured by the SF-36v2, revealed changes in personal functioning, physical role limitations, body pain, general health perceptions, vitality, social functioning, emotional role limitations, and mental health. A comparison of the experimental and control group pre-test and post-test scores on the SF-36v2 are found in **Table 4**. Overall, the findings suggest that the social work intervention helped to improve the perceptions of physical role limitations, general health, vitality, social functioning, and emotional role limitations of participants in the experimental group. All but two participants in the experimental group ( $n = 13$ ) completed the six-week group cognitive behavioral sessions. There was no evidence to support the hypothesis that those completing fewer than six sessions showed less improvement in their post-test depression and QOL scores than those patients completing all six sessions. Therefore, we accept the null hypothesis.

**Table 2. “Feeling Better Again” Patient Satisfactory Survey Results  
Experimental Group (n = 11)**

	<b>Do Not Agree</b>	<b>Neither Agree nor Disagree</b>	<b>Somewhat Agree</b>	<b>Yes, I Agree</b>
1. The class was valuable to me as a kidney patient.			9%	91%
2. I would recommend this class to other kidney patients.				100%
3. It helped me to communicate with other patients struggling with depression issues.		9%	18%	73%
4. I am more satisfied with my care at this clinic as a result of the class.		9%	18%	73%
5. I feel more able to manage my depression as a result of the class.		9%	36%	55%
6. I understand more about how depression can interfere with my quality of life as a result of the class.		9%		91%
7. I think my mood is better as a result of this class.			36%	64%
<p>8. What was the most helpful thing about this class for you? (n = 10)</p> <ul style="list-style-type: none"> <li>a. Learn[ed] to control myself when I am mad at others.</li> <li>b. Help[ed] me overcome my depression and look at my life as a test.</li> <li>c. I better understand my emotional state.</li> <li>d. The most helpful thing about this class is getting together and [the] discussion about depression and how to reduce worry. I learned a lot. And another thing—I was able to get out more and do things for myself.</li> <li>e. Each class was helpful in general, but redirecting my thoughts was especially helpful. The information was clear and well organized. Also, being with other people with the same illness and listening to their problems made me feel that I was not alone.</li> <li>f. The class helped me to understand better about my kidney problem and the problems that comes [sic] with it.</li> <li>g. [I learned] that you are not the only one going through the situation.</li> <li>h. Knowing [from the class] that you are not the only one struggling. Being able to express and learn from other patients.</li> <li>i. Listening to others about their situations.</li> <li>j. It learned [sic] me to be a better person.</li> </ul> <p>What could we do to make the class better? (n = 8)</p> <ul style="list-style-type: none"> <li>a. Have more classes.</li> <li>b. I think the class was excellent and wouldn't change it.</li> <li>c. I think a little more that [sic] [time than] an hour would improve the class because sometimes we had so much to say with little time.</li> <li>d. To make the class better, I would have more classes.</li> <li>e. Keep having a class on different discussion [topics].</li> <li>f. Have it continuously.</li> <li>g. I don't know.</li> <li>h. Keep have[ing] class[es].</li> </ul>				

**Table 3. Comparison of Experimental and Control Group Mean Depression Scores**

	Control		Experimental	
	Depression 1	Depression 2	Depression 1	Depression 2
Mean	1.6667	2.6250	3.5455	1.3333
N	9	8	11	12
Std. Deviation	1.32288	3.06769	2.50454	1.61433

**Table 4. SF-36v2 Mean Summary Scores**

	Experimental Group		Control Group	
	Pre-test	Post-test	Pre-test	Post-test
PF	32.31	32.31	38.09	36.09
RP	39.71	35.83	37.02	36.0
BP	45.57	50.36	44.16	46.95
GH	35.51	38.58	42.64	46.95
VT	43.25	49.49	48.66	47.58
SF	39.58	42.31	44.85	43.52
RE	40.33	39.03	40.33	45.51
MH	46.16	47.43	46.91	49.69

**Note:**

PF = Physical functioning  
 RP = Role limitations (physical)  
 BP = Body pain  
 GH = General health perceptions  
 VT = Vitality  
 SF = Social functioning  
 RE = Role limitations (emotional)  
 MH = Mental health

As hypothesized, social support emerged as a salient factor in improved mental health for patients in the experimental group. The null hypothesis is therefore rejected. There was also a statistically significant interaction effect between living arrangement, marital status, and mental health, which accounted for 23% of the variance explained in pre-test depression and MSPSS scores. Similarly, an interaction effect emerged between living arrangement, marital status, and medications, accounting for 16 percent of the variance explained in the post-test scores on the BDI-FastScreen and MSPSS. This finding suggests that collapsing the sociodemographic variables (e.g., living arrangement and marital status) might reduce the ambiguity of an interaction. There was no finding of within-group differences. When pre-test depression was

submitted to regression analysis by length of time on dialysis, LTOD approached statistical significance (.91).

Bivariate analysis, using Pearson's  $r$ , revealed a moderately strong, significant, negative association between depression at post-test (Time 2) and perceived social support at Time 2 ( $r = -.581, p \leq .01$ ), suggesting that as depression decreases patients experience more adequate support of family, friends, and significant others. A similar association was found between number of medications that patients reported taking and perceived social support at Time 2 ( $r = -.446, p \leq .05$ ). The finding of a significant inverse relationship suggests that patients taking fewer medications feel more adequately supported by family, friends, and significant others.

**DISCUSSION**

A convenience sample of dialysis patients were invited to attend a series of six classes called "Feeling Better Again: A Life Management Series for People With Chronic Kidney Disease." Flyers were posted in common areas of the dialysis center and distributed to each patient as well. The nephrology social workers explained the aim of the research and were the point of contact for additional information. The posters encouraged the patients to sign up and become eligible for a gift certificate drawing. As the patients seldom received gifts while being dialyzed, the research selection process generated some patient excitement and enthusiasm. In a quasi-experimental research design, 23 patients self-selected and were randomly assigned to the experimental or control group. Those in the experimental group received the six-week group intervention and opportunities to win a weekly raffle drawing for dinner for two; the control group participated in the normal schedule of dialysis center activities with no other patient incentives available to the group until post-test completion.

The center nutritionist was aware of the study and encouraged the social workers to purchase gift cards to restaurants where the patients might make healthy, nutritious food selections. The nutritionist then discussed health food choices during chair-side visits with each patient, irrespective of the patient's status as a study participant, to ensure equal treatment. Patient inducements, such as gift cards, may have influenced patient decisions to participate in the study. It may be argued that the results were biased by the patient incentives, thereby creating a methodological constraint. To examine this issue further, the authors exhort research that replicates the study, both with and without patient inducements.

In this study, the majority of females were women of color. They were more highly educated and tended to live with family members. These women were younger than their male counterparts, but had been on dialysis for longer than two years, at a rate higher than the male study participants. This finding has implications for community-based prevention strategies in west Central Florida to target women at risk for kidney disease toward the goal of reducing gender and racial disparities in ESRD.

### CONCLUSION

Attending six weekly structured, group cognitive-behavioral classes had the intended effect of improving depressed mood, increasing social support and social functioning, and helping dialysis patients to feel better again. The findings of the research suggest consistency between the qualitative and quantitative data, adding to the robustness of the research design and providing a multimethod approach for replication by nephrology social workers. The experimental group felt that the class was valuable to them as ESRD patients, and all experimental participants indicated that they would recommend the class to other dialysis patients. The majority recommended more classes to deal with a range of issues pertinent to kidney disease. The self-reported findings suggest that the experimental group benefited at both the individual and group levels. Individual patients realized that they “were not alone” dealing with issues of chronic kidney disease and, collectively, they benefited from some therapeutic aspects of group process (e.g., instillation of hope, universality, imparting information, interpersonal learning, altruism, and development of socializing techniques (Yalom, 1985)). None of the participants in the experimental group were hospitalized during the first six weeks following the study. This finding has the potential for cost savings associated with emergency department visits and hospital re-admissions. More research is needed to determine if there is an association between the intervention and lower hospital utilization.

One of the study’s limitations is the small sample size. This precludes generalizing the findings beyond the west Central Florida sample. Statistically significant associations were also limited to bivariate analysis of the independent and dependent variables. A larger sample might ensure greater significance, allowing the investigators to make a definitive statement regarding within-group and between-group differences as well as re-test the efficacy of the intervention. Nephrology social workers are encouraged to replicate the study as confirmation of evidence-based practice.

The findings of improved mood, positive changes in perceived social support, and improved quality of life are consistent with the extant literature on resilience. Resilience refers to the human capacity to overcome traumatic or aversive events (Curtis & Cicchetti, 2003; Egeland, Carlson, & Sroufe, 1993; Fine, 1991; Luthar, Cicchetti, & Becker, 2000; Masten, Best, & Garmezy, 1990). Over the past 30 years, the empirical literature examining the resilience construct has shown strong associations between internal factors, such as cognitive schema resulting in depressive disorder and low self-esteem (e.g., Cicchetti, Rogosch, Lynch, & Holt, 1993; Luthar, Cicchetti, & Becker, 2000; Rutter, 1987; Werner, 1993), and external factors, such as biological conditions, social support of family, friends, teachers, significant others and social networks (e.g., Curtis & Cicchetti, 2003; McMillen, 1999; Palmer, 1999). Although the preponderance of resilience research has examined outcomes with neglected and maltreated children and adolescents (e.g., Masten, Hubbard, Gest, Tellegn, Garmezy, & Ramirez, 1999; McGloin & Widom, 2001), there is beginning evidence to support the inclusion of resilience, as process and outcome, in research with ESRD patients. White, Richter, Koeckeritz, Lee, & Munch (2002) point to the need to examine cross-cultural differences in family resiliency of hemodialysis patients. Dobrof and her colleagues (2001) write that “the majority of patients do have the familial and social supports that in other studies have been shown to buffer against depression, increase compliance, and contribute to positive health outcomes.” In the present study, the nephrology social workers promoted resilience in ESRD patients through the use of a highly effective weekly group cognitive-behavioral intervention. Replication of the study is encouraged to compare the research findings, refine the instruments as needed, and examine the utility of the resilience construct in ESRD.

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### REFERENCES

1. American Psychological Association. (2000). *Diagnostic and statistical manual of the mental disorders (DSM-IV-TR)*. Washington, DC: Author.
2. Beck, A. T., Steer, R.A., Brown, G. K. (2000). *BDI-FastScreen for medical patients manual*. The Psychological Corporation.
3. Beder, J., Mason, S., Johnstone, S., Callahan, M.B., & LeSage, L. (2003, May). Effectiveness of a social work psychoeducational program in improving adherence behavior associated with risk of CVD in ESRD patients. *The Journal of Nephrology Social Work*, 22, 12-27.

4. Callahan, M. B. (2001/2002). The role of nephrology social workers in optimizing treatment outcomes for end-stage renal disease patients. *The Journal of Nephrology Social Work, 21*, 41-50
5. Cicchetti, D., Rogosch, F. A., Lynch, M., & Holt, K. D. (1993). Resilience in maltreated children: Processes leading to adaptive outcome. *Development and Psychopathology, 5*, 629-647.
6. Curtis, W. J. & Cicchetti, D. (2003). Moving research on resilience into the 21st century: Theoretical and methodological considerations in examining the biological contributors to resilience. *Development and Psychopathology, 15*, 773-810.
7. Dobrof, J., Dolinko, A., Lichtiger, E., Uribarri, J., & Epstein, I. (2001). Dialysis patient characteristics and outcomes: The complexity of social work practice with the end-stage renal disease population. *Social Work in Health Care, 33*(3/4), 105-128.
8. Egeland, B., Carlson, E., & Sroufe, L. A. (1993). Resilience as process. *Development and Psychopathology, 5*, 517-528.
9. Estrada, R. M., & Hunt, M. E. (1998). A study of pre-disposing factors of depression in in-center chronic hemodialysis. *The Journal of Nephrology Social Work, 18*, 103-112.
10. Fine, S. B. (1991, June). Resilience and human adaptability: Who rises above adversity? *The American Journal of Occupational Therapy, 45*(6), 493-503
11. Illic, S., Djordjevic, V., & Stefanovic, V. (1996). Psychological status of ESRD patients on hemodialysis. *Dialysis & Transplantation, 25*(2), 871-880.
12. Johnstone, S. (2002). Outcome of a group cognitive-behavioral intervention on depression and quality of life in hemodialysis patients: A practice outcome evaluation.
13. Johnstone, S., & LeSage, L. (1998). The key role of the nephrology social worker in treating the depressed ESRD patient: Patient utilization preferences and implications for on-sitestaffing practices. Unpublished manuscript. FMC San Diego.
14. Kimmel, P. L. (2002). Depression in patients with chronic kidney disease. *Journal of Psychosomatic Research, 53*(4), 951-956.
15. Kimmel, P. L., Peterson, R. A., Weihs, K. L., Simmens, S. J., Alleyne, S., Cruz, I., & Veis, J. H. (1998). Psychosocial factors, behavioral compliance and survival in urban hemodialysis patients. *Kidney International, 54*, 245-254.
16. Lopes, A. A., Bragg, J., Young, E., Goodkin, D., & Mapes, D. (2002, July). Depression as an indicator of mortality and hospitalization among haemodialyzed in the United States and Europe. *Kidney International, 62*(1), 199-207.
17. Luthar, S. S., Cicchetti, D., & Becker, B. (2000, May/June). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543-562.
18. Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathways to resilience and maladaptation from childhood to late adolescence. *Development and Psychopathology, 11*, 143-169.
19. Mazzella, A. (2004). Psychosocial factors in treating the depressed renal patient. *The Journal of Nephrology Social Work, 23*, 40-47.
20. McGloin, J. M. & Widom, C. S. (2001). Resilience among abused and neglected children grown up. *Development and Psychopathology, 13*, 1021-1038.
21. McMillen, J. C. (1999). Better for it: How people benefit from adversity. *Social Work, 44*(5), 455-467.
22. Palmer, N. (1999). Fostering resiliency in children: Lessons learned in transcending adversity. *Social Thought, 19*(2), 69-87.
23. Soykan, A., Arapalsan, B., & Kumbasar, H. (2003, June). Suicidal behavior, satisfaction with life, and perceived social support in end-stage renal disease. *Transplantation Proceedings, 35*(4), 1290-1291.
24. White, N., Richter, J., Koeckeritz, J., Lee, Y. A., & Munch, K. L. (2002, July). A cross-cultural comparison of family resiliency in hemodialysis patients. *Journal of Transcultural Nursing, 13*(3), 218-227.
25. Yalom, I.D. (1985). *Group psychotherapy*. NY: Basic Books, Inc.
26. Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*, 30-41. 