

ASSESSMENT OF PSYCHOSEXUAL DYSFUNCTIONS AND COPING STRATEGIES AMONG HEMODIALYSIS MALE PATIENTS

¹Ahmed Hashem El-Sayed El-Monshed, ² Nelly Ahmed Mahgoub,

³Hassan Abol-Enein Abdel-Baky, ¹Samah Mohammed Taha;

¹Psychiatric and Mental Health Nursing Department, Faculty of Nursing-Mansoura University

²Psychiatric and Mental Health Nursing Department, Faculty of Nursing-Cairo University

³Nephrology and Urology Department, Faculty of Medicine - Urology and Nephrology Center - Mansoura University

Abstract:

Background: Sexual health is a basic human right and a fundamental part of a full healthy life. Patients with Chronic kidney disease (CKD) world-wide suffer many physical dysfunctions including sexual activity. Therefore, this study aims to assess the psychosexual dysfunctions experienced by hemodialysis male patients and their coping strategies.

Methods: A descriptive research design is conducted in the hemodialysis units at Urology and Nephrology Center at Mansoura University. The data were collected from 100 hemodialysis male patients. The study Tools included the Arizona Sexual Experience Scale (ASEX), the Psychosexual Dysfunction Questionnaire and the Brief Cope Scale (BCS).

Results: Obtained results revealed that most of the study of sample (94%) complained of many psychosexual dysfunctions while only 6% expressed no significant psychosexual dysfunctions. The studied patients used problem focused coping by 76% with total mean of (18.36) out of a possible score of (24). On the other hand, the studied patients used emotional focused coping by 57% with total mean of (50.24) out of a possible score of (88).

Conclusion: The vast majority of the study sample does suffer multiple psychosexual dysfunctions. Both physical and psychological distress increase CKD male patients' psychosexual dysfunctions and indicate the necessity of introducing psychiatric liaison nursing programs to enhance their coping strategies in the hemodialysis care units.

Keywords: Chronic Kidney Disease; Hemodialysis; Psychosexual dysfunctions; Coping

Introduction:

Chronic kidney disease (CKD) is a world-wide public-health problem. According to the World Health Organization (WHO), diseases of the kidney and urinary tract contribute to global burden with approximately 850,000 deaths every year and more than 115 million disability-adjusted life years^[1]. In Egypt, hemodialysis represents the main mode for treatment of CKD patients^[2]. The prevalence of dialysis patients in Egypt have increased from 10 per million population (pm) in 1974 to 225 pm in

1996, and then from 403 pm in 2003 to 483 in 2004^[1].

When patients develop kidney disease, every organ of the body is affected. One of the main dysfunctions is the sexual function Sexual dysfunction is very common in patients with kidney disease^[3,4]. Prevalence estimates of sexual dysfunction ranges from 9% in pre-dialysis to 70% in dialysis patients of either sex^[5].

Notably, sexuality is a basic human right and a fundamental part of a

full and healthy life^[6]. For most healthy men and women, sexuality is central to their lives and contributes to their personal and relational quality of life (QOL)^[7]. Accordingly, WHO define sexuality as an essential human characteristic that includes social, emotional, and physical components^[8]. Moreover, sexuality is a phenomenon in which biological and psychological factors interact, so both a person's physical condition and his or her psychological well-being represent interdependent cornerstones of sexual health. Physical condition refers to the physical state of the body and bodily functions^[9].

In other words, psychosexual dysfunction is a sexual dysfunction that is due to psychological causes rather than physical problems, medical illnesses, or the side effects of medication. Some of the psychological conditions include: depression anxiety (feelings of nervousness, fear, or worry) traumatic sexual experience (abuse, rape) guilty feelings stress or anxiety uncertainty about sexual orientation worry or fear about how you are able to perform sexually negative body image^[10].

Regarding the hemodialysis patients, researchers addressed the sexual dysfunctions namely alterations related to drive, subjective arousal, penile erection/vaginal lubrication, ability to reach orgasm and satisfaction with orgasm^[11]. In this respect, impotence or erectile dysfunction (ED) is reported to be the commonest sexual dysfunction complaint amongst men with renal failure^[12]. In Egypt 82.5% of hemodialysis patients have ED^[13]. In a similar study, it is found that, the prevalence of ED of any degree was 86.6% and the prevalence and the severity of ED showed significant increase as age increased^[14].

Several studies addressed causes that have been purported to contribute to sexual dysfunction in patients

with CKD include fatigue, co-morbid illness (such as diabetes mellitus and malnutrition), smoking, hyperprolactinemia, sex hormone disturbances, hyperparathyroidism, anemia, autonomic neuropathy, medications (including antihypertensive, antidepressant, and histamine receptor blockers), and psychosocial factors such as depression, anxiety, poor self-esteem, social withdrawal, marital discord, body image issues, fear of disability and death, loss of employment, and financial difficulties^[15,16,17]. At times discussion of causation falls into a chicken or egg debate as the dominance of physiological and psychological factors are discussed^[12].

Additionally, primary depression or subclinical depression may also play a role in the reduction in frequency of intercourse. Organic factors may also cause a decline in the frequency of intercourse. Nearly all patients were undergoing dialysis sessions three times a week, which may play a role in diminished frequency of intercourse due to fatigue after dialysis^[14].

Furthermore, it is also not surprising, given this observed elevated stress experience, that individual with kidney disease report high rates of psychological distress^[18]. Major Depressive Disorder is the most common form of psychological distress, with 25% of those on dialysis treatment reporting clinically-significant level of depression. Additionally, 12% of dialysis users have significantly elevated anxiety symptoms^[19]. In this respect, researchers emphasized the association of higher depressive symptoms and sexual dysfunction in male hemodialysis patients. The depressive symptoms are independently associated with sexual dysfunction and subjects with sexual dysfunction had significantly lower QOL scores^[20].

A period of confusion and tension may occur as everyone tries to cope with the demands of the CKD, the anxiety of treatment, sexual difficulties and the disruption of everyday life. CKD requires changes in lifestyle^[21]. Research on coping with chronic illnesses such as CKD or organic dysfunction, and its complications, indicates that both cognitive, and affective coping strategies are used. Problem- focused coping, such as control, information seeking, cognitive restructuring, and seeking social support are more likely to be more effective, and adaptable, and correlate with fewer psychological symptoms, and a healthier psychological well-being^[22].

Nurses can use nursing process in determining and addressing the psychosexual problems of individuals. Nursing process occurs from four stages should be applied on psychosexual dysfunctions. Each stage is different but it also completes each other. These stages are assessment, planning, implementation and evaluation. In order to give effective and qualified psychosexual care to people, nurses working in accordance with nursing process play a key role in achieving success^[23].

Because of the high prevalence of sexual dysfunctions and psychiatric comorbidity in hemodialysis patients, psychiatric liaison nurses have a key role to play in patient education and coping enhancement with particular reference to sexual dysfunction affecting QOL with conditions such as depression and anxiety. Therefore it is deemed necessary to conduct this study.

Aim of the study: The study was conducted to assess the psychosexual dysfunctions experienced by hemodialysis male patients and their coping strategies

Subjects and Methods

The study was carried out using a descriptive research design at the hemodialysis units of Urology and

Nephrology Center at Mansoura University. A convenient sample included all male patients on hemodialysis treatment at Urology, and Nephrology Center - Dialysis Units of Inpatient and Outpatient Clinics, Mansoura University Hospitals over a period of six months. Sample size was 100 hemodialysis male patients who were corresponded the following **inclusion criteria:**

1. Male patients on hemodialysis not be the first session for the patient.
2. Both acute and chronic kidney disease.
3. Married before starting hemodialysis and still married after dialysis.
4. Aged 20-60 years.
5. Pre-morbid sexually active adult males.
6. Willing to voluntary participate in the study.
7. Under treatment at the time of data collection.

Tools for data collection:

In order to collect the necessary information for this study, four tools have been used. One tool were developed by the researcher and three tools were original standardized instruments. One of these standardized tools had to undergo some to link between both the psychological and sexual dysfunctions. In the following a brief description of these four tools.

1. Socio Demographic and Clinical Data Structured Interview Schedule: is designed by the researcher in Arabic and English language to assess all related demographic and clinical data of the sample including: age, address, duration of marriage, number of children, level of education, duration of hemodialysis treatment and medical history.

2. Arizona Sexual Experience Scale (ASEX): this is a 4-point self rating scale developed to assess the pre-morbid healthy sexual functioning^[24]. The ASEX was originally developed by them at University

of Arizona to evaluate sexual dysfunction induced by psychotropic medications. The ASEX is a brief 5-items designed to measure individual's satisfaction with his/her sexual functioning with regard to the following 5 domains: Sexual Drive, Arousal, Penile Erection, Reaching Orgasm, and Satisfaction with Orgasm.

The original scoring system used 6 point Likert scale; this was changed to be a 4-point Likert scale. This items of satisfaction are rated according to: 1- (Very Satisfied), 2- (Slightly Satisfied), 3- (Slightly Dissatisfied) and 4- (Very Dissatisfied), with a total score ranging between 5 and 20 degrees. A total score > 12 is indicative of clinically significant sexual dysfunction. Translation to Arabic language and back translation were done. Cronbach's Alpha test is (0.84). To meet the inclusion criteria, any patient has significant sexual dysfunction before starting hemodialysis treatment, has been excluded from the study.

3. Psychosexual dysfunction questionnaire (Male-Version): this questionnaire was originally developed under the name of Sexual Dysfunction Questionnaire (SDQ) to assess the presence of sexual problems and the associated personality traits in men and women by using the same assessment instrument^[25]. In the current study this questionnaires modified by the researcher to assess the psychosexual functioning of the male patients after starting hemodialysis with new name is Psychosexual Dysfunction Questionnaire (Male-Version). The questionnaire consists of 19 questions about sexual functioning (desire, arousal, erection, maintenance of erection and reaching orgasm) and psychological features. The researcher replaced items number 5, 7, 9, 11, 15, and 17 that aren't appropriate culturally for this study with items measuring (erectile functions, depression,

anxiety, hopelessness and suicidal ideation).

The original scoring system used 5 point Likert scale, this was changed to be a 4-point Likert scale: Always, Often, Sometimes, and Never. Subjects were required to fill the 19-item questionnaire based on their experiences after starting hemodialysis treatment sessions. Men with score ≥ 45 (the optimal cut-off score) have the risk to have psychosexual dysfunctions than those with scores ≤ 44 . Translation to Arabic language and back translation were done. Reliability has been done by the researcher for this tool (19 items). Cronbach's Alpha test is (0.81).

4. Brief Cope Scale (BCS): this is a self-report questionnaire has been developed originally by Carver^[26] to assess a 14 coping strategies, and thoughts a person may have in response to a specific stressful situation. After reading a situational-specific scenario, 28 coping behaviors, and thoughts (2 items for each subscale) are rated on frequency of use by the participant with a scale of: 1 (I haven't been doing this at all) to 4 (I've been doing this a lot). The higher score represents greater coping strategies used by the respondents.

Scoring system based on the definitions of problem-based and emotion-based coping. Active coping, Use of instrumental support, and Planning subscales are classified as problem-based coping with total score (24), while Self-distraction, Denial, Substance use, Use of emotional support, Behavioral disengagement, Venting, Positive reframing, Humor, Acceptance, Religion, and Self-blame subscales are classified as emotion-based coping with total score (88)^[27]. Translation into Arabic language was done through following Back Translation Procedure. Reliability has been done by the researcher for this tool. Test-retest-reliability coefficient exhibited

acceptable scale reliability. Test for the problem focused coping strategies ($r=0.80$) and for the emotional focused coping strategies ($r=0.73$).

Methods:

Official permission was obtained from the head of the hemodialysis department and from the head nurse at the three study settings to conduct the study. A verbal consent obtained from the respondents before their inclusion in the study. Nature and aim of the study was explained to each member of the participants. Each patient was individually interviewed to collect the necessary data in privacy. Ethical consideration was obtained from the Research Ethics Committee of the Faculty of Nursing – Mansoura University.

Statistical analysis:

Data were analyzed with SPSS version 21. The normality of data was first tested with one-sample Kolmogorov-Smirnov test. Qualitative data were described using number and percent. Continuous variables were presented as mean \pm SD (standard deviation) for parametric data and Median for non-parametric data.

Results

In relation to the socio-demographic data of the study sample, results demonstrate that more than two thirds of the study sample (67%) age 30 to 49 years old. As regard the residence, more than half of the study sample (55%) are living in rural areas while (45%) are living in urban. In relation to the marriage duration, two fifth of the study sample (40%) are married for 5 to 15 years. Concerning the educational level, more than half of the study sample (59%) is middle educated. (Table, 1). Regarding the clinical data, more than half of the study sample (62%) undergoes hemodialysis for more than 3 years. As regard the hemodialysis co-morbidity, more than half of the study sample (58%)

suffers from medical disease while (42%) are medically free (Table, 2).

Concerning the psychosexual dysfunction score, the findings reveal that the vast majority of the study sample (94%) complains of psychosexual dysfunctions while only 6% expressed good psychosexual functions (Table, 3). On the part of physical symptoms, fatigue, difficulty in reaching orgasm, difficulty in keeping erection, low sexual desire, impaired sexual arousal and difficulty in beginning erection are the most common physical symptoms expressed by the studied sample with mean of (3.76), (3.34), (3.32), (3.31), (3.29) and (3.14) out of a possible score of (4) respectively (Table, 4). On the part of psychological symptoms, low self-esteem during sexual intercourse, sexual dissatisfaction and feeling inhibited towards sex are the most common psychological symptoms expressed by the studied sample with mean of (3.45), (3.3) and (3.28) out of a possible score of (4) respectively while symptoms; loss of hope, anxiety and fear of sex, blaming self for sexual failure and depressed mood are moderately expressed by the studied sample with mean of (2.93), (2.84), (2.74) and (2.66) respectively. Suicidal ideation was the lowest prevalent psychological symptom with mean of (1.1) (Table, 5).

Concerning the score of coping strategies, the study results reveal that the studied patients use problem focused coping by 76% with total mean of (18.36) out of a possible score of (24). On the other hand, the studied patients use emotional focused coping by 57% with total mean of (50.24) out of a possible score of (88). Problem focused coping strategies (Active coping, Planning for personal management of the problem, and Instrumental support) have high scores with mean of 6.13, 6.13, and 6.1 respectively out of a possible score of (8), while acceptance is the highest emotional

focused coping strategy that was used by the studied patients, followed by Religion, and Positive Reframing with mean of 7.44, 7.22, and 6.5 respectively out of a possible score of (8), while " Humor, and Denial " are the least coping strategy used by them with mean of 2.47, and 2.52 respectively out of a possible score of (8) (Table, 6).

Table(1): Socio - demographic characteristics of the studied sample (n=100):

Item	Number	%
Age in years		
20 – (< 30)	5	5
30 – (< 40)	30	30
40 – (< 50)	37	37
50-60	28	28
Residence		
Rural	55	55
Urban	45	45
Marriage Duration in years		
< 5 years	14	14
5 – (< 15)	40	40
15-25	29	29
> 25	17	17
Educational Level		
Illiterate	9	9
Non-educated (Read and write)	12	12
Middle education	59	59
High education	20	20

Table (2): Clinical data of the studied sample (n=100):

Item	Number	%
Hemodialysis duration in years		
< Year	16	16
1 – (< 3) years	22	22
3-6 years	33	33
> 6 years	29	29
Hemodialysis Co-morbidity		
Free	42	42
Endocrinal (Diabetes Mellitus and thyroid diseases)	15	15
Circulatory (Hypertension and cardiac diseases)	12	12
Hepatitis (B or C)	25	25
Others (Osteoporosis, rheumatoid arthritis)	6	6

Table (3): Frequency and percentage distribution of the studied sample with regard to Psychosexual Dysfunctions (n=100):

Psychosexual Dysfunctions		Good Psychosexual Functioning	
Number	%	Number	%
94	94	6	6

Table (4): Physical symptoms of Psychosexual Dysfunctions of the studied sample (n=100):

Symptoms of Psychosexual Dysfunctions (Physical symptoms)	Mean ± SD
1. Fatigue	3.76±0.49
2. Doesn't like talking about sex before intercourse	3.35±0.74
3. Difficulty in reaching orgasm	3.34±0.69
4. Difficulty in keeping erection	3.32±0.78
5. Low sexual desire	3.31±0.72
6. Impaired sexual arousal	3.29±0.75
7. Inhibition toward sex	3.28±0.76
8. Difficulty in beginning erection	3.14±0.66

Table (5):

Symptoms of Psychosexual Dysfunctions (Psychological symptoms)	Mean ± SD
1. Psychosexual discomfort	3.81±4.12
2. Low self-esteem during sex	3.45±0.74
3. Sexual dissatisfaction	3.3±0.93
4. Decrease sexual Fantasies	3.29±0.72
5. Doesn't express feeling with wife	2.99±0.92
6. Loss of hope	2.93±0.90
7. Anxiety, and fear of sex	2.84±0.92
8. Blaming self for sexual failure	2.74±1.08
9. Depressed Mood	2.66±0.97
10. Losing interest	2.11±0.87
11. Suicidal ideation	1.1±0.33

Psychological symptoms of Psychosexual Dysfunctions of the studied sample (n=100):

Table (6):
Using of Problem Focused Coping strategies and Emotional Focused Coping strategies by the studied patients:

Coping Strategy	%	Mean ± SD	Range
Problem Focused Coping:	76.5	18.36 ± 4.27	6 – 24
Active coping		6.13±2.41	2-8
Planning		6.13±2.49	2-8
Instrumental support		6.1±2.49	2-8
Emotional Focused Coping:	57	50.24 ± 6.82	28 – 67
Acceptance		7.44±1.36	2-8
Religion		7.22±1.38	2-8
Positive reframing		6.5±1.66	2-8
Self-blame		5.47±2.35	2-8
Self-distraction		4.15±2.4	2-8
Emotional support		3.8±2.19	2-8
Substance use		3.74±2.21	2-8
Behavioral disengagement		3.61±2.42	2-8
Venting		3.15±1.69	2-8
Denial		2.52±1.27	2-8
Humor		2.47±1.58	2-8

Discussion

Sexual health is an important component to a hemodialysis patient's overall QOL. Liaison nurse can provide supportive and confidential counseling to hemodialysis patients and their partners who require help with intimacy and sexuality with a thorough assessment and differential diagnosis before addressing psychological and sexual issues^[28]

Several definitions have been proposed for sexual dysfunction according to its different causes (endocrinological, urological, psychological and neurological). Psychosexual dysfunctions are "all disturbances of one or more stages of the sexual response caused by psychological factors rather than physical factors that results in a disturbance of the patient's sexual and psychological life"^[10]. The prevalence of sexual dysfunction among patients with CKD was first studied

in 1973 when Levy conducted the first epidemiological survey of sexuality in patients with CKD as cited in Al Khallaf^[29].

The current study documents that the vast majority of the study sample (94%) complain of psychosexual dysfunctions while only 6% expressed good psychosexual functions (Table, 3). These findings are attributed to the high prevalence of psychosexual dysfunctions among hemodialysis male patients. Reasons given for this high prevalence of psychosexual dysfunctions were claimed to be due to increased stress, depression and anxiety, drugs, diet, anemia, insomnia, insufficient hemodialysis, uremia, and hormonal change. Successful dialysis improves most symptoms of CKD, yet many patients continue to experience many forms of sexual dysfunction during dialysis treatment.

This finding is closer to a study^[30] conducted in Morocco which reported that 81% of hemodialysis patients suffered from a decrease in sexual activity after the onset of hemodialysis treatment. Additionally, Doss & Polaschek^[31] found that 78% of patient in New Zealand reported some degree of sexual dysfunctions, despite being medically stable, and adequately dialyzed, having no significant anemia, and only mild inflammation. In other words, the incidence rate of sexual dysfunction reported to be 9% before the initiation of hemodialysis and increases to 60%-70% during hemodialysis treatment^[32].

The prevalence of psychosexual dysfunction of the current study result (94%) is higher than the other studies because the current study doesn't focus on the physical functions solely, but evaluate both physical and psychological functions together in one questionnaire. In addition, most of studies that conducted on male hemodialysis patients focus on ED not on sexual dysfunction as a general.

On the part of physical functions, the current study shows that fatigue, difficulty in reaching orgasm, difficulty in keeping erection, low sexual desire, impaired sexual arousal and difficulty in beginning erection are the most common symptoms expressed by the studied sample (Table, 4). These physical symptoms may be due to organic causes affected CKD patients such as decreased arterial blood flow, venous leakage due to shunts, altered penile smooth muscle function, hormonal disturbances, side effect of medications, and neurogenic dysfunction, or may be due to psychological factors such as depression, and anxiety^[33]. These sexual dysfunctions can erode one's sense of self-esteem, and lead to emotional, and marital tension, so it has great impact on the psychological state of the patients who become more stressed and more anxious

This result is consistent with a recent study^[34] in Jamaica which reported that ED, desire disorder and orgasmic disorder were found respectively in 91.4%, 88.3%, and 81.6% of male subjects indicating that the majority of male patients were dissatisfied with their performance at intercourse after progressing to CKD. In addition, several studies focused on the prevalence of ED among hemodialysis patients. In Egypt the prevalence of ED in hemodialysis patients is (86%)^[13]. The similar prevalence of ED was observed internationally in Iran^[35] (87.5%), and in Brazil^[36] (86.4%).

On the part of psychological symptoms expressed by the studies sample, the current study shows that there are many psychological symptoms expressed by the studies sample. Most of them expressed low self-esteem during sexual intercourse, not satisfying with their sexual functions and feeling inhibited towards sex while symptoms; loss of hope, anxiety and fear of sex, blaming self for sexual failure and depressed mood are moderately expressed by the studied

sample. Suicidal ideation was the lowest prevalent psychological symptom (Table, 5). Most probably, these psychological symptoms are more specific due to sexual dysfunctions not to other stressors of hemodialysis. Nonetheless, it is also noted that hemodialysis patients expressed psychological symptoms related to other stressors and complications of hemodialysis such as sleep abnormalities, fluid loss, job loss, the cost of treatment, lifestyle change, time wasted, symptom-related suffering, and marital and family role disruption^[37]. The presence of anxiety and depression could be explained by the fact that these patients tend to distort their appraisal of sexual problems due to negative expectations and feelings of hopelessness, helplessness, and low self-esteem. Suicidal ideation was the lowest prevalent psychological symptom because Egyptian people have strong religious beliefs. Religious beliefs are protective factors of suicide risk among hemodialysis patients^[38]. All such of these psychological symptoms produce difficulties in maintaining adequate sexual relationships. Social withdrawal further impairs the ability to form, and maintain intimate relationships.

These results are consistent with Charnow^[39] who stated that the strongest predictor of sexual dysfunctions were depressive symptoms. Sexual dysfunctions were 2.4 times more likely to occur in hemodialysis male patients with depressive symptoms than in those without these symptoms. Moreover, the rates of depression are 26% in sexual dysfunctional hemodialysis patients^[40]. The rate of anxiety disorders (27%) was somewhat higher than the expected rate (18%) on the basis of the "The Structured Clinical Interview for DSM-IV". These rates indicate that sexual dysfunctions are strongly associated with psychological state of hemodialysis patients.

In other words, Čengić & Resić^[41] in Bosnia and Herzegovina reported that the most psychological symptoms emphasized were: anhedonia (84.5%), pessimism (74.5%), low self-esteem (64%), anxiety (63.5%), indecisiveness (51.5%), irritability (43%), depressive mood (41.5%), feeling unsuccessful (35.5%), reduced concentration (35%), self-criticism (22%), feeling of punishment (19.5%), feelings of guilt (18%), and suicidal ideation (11%).

Coping is constantly changing cognitive and behavioral efforts to manage specific external, and/or internal demands that are appraised as taxing or exceeding the resources of the person. Term coping takes two major forms. A person can focus on the specific problem or situation that has arisen, trying to find some way of changing it or avoiding it in the future. This is called problem-focused coping. A person can also focus on alleviating the emotions associated with the stressful situation, even if the situation itself cannot be changed. This is called emotion-focused coping

The current study shows that the studied patients used different coping methods. The choice of coping strategy is dependent upon the importance of sexual functioning as perceived by every patient of the studied patients. Problem focused coping patterns (involve strategies to solve problems including defining these problems, generating alternatives, weighing problems in terms of cost and benefits, and choosing an action such as Instrumental Support, Active Coping, and Planning for personal management of the problem. These problem focused coping strategies are highly used by 76% with total mean of (18.36) out of a possible score of (24; Table, 6). The studied patients tries to seek useful ways for solving these problems. As all patients of the current study are men at young, productive age. It seems that those groups

of patients believe that sexual problems are problems affecting their masculinity and their basic role in the family. Accordingly they tried to solve these sexual problems by using problem focused coping strategies rather than to deny them or cope with them emotionally. Validity of this explanation given in the above paragraph is apparent in table (6) in the current study which shows that emotional focused coping patterns (involve strategies that replace negative emotions, and prevent engagement in actions to solve psychosexual dysfunctions) are moderately used by the studied patients by 57% i.e. emotional focused coping strategies are less used than problem focused coping strategies by the current studied patients.

"Acceptance, Religion, and Positive Reframing " are the most commonly used by the patients while " Humor, and Denial " were least used by these patients. Other explanation may reveal that most patients would accept the psychosexual problems because very little can be done for these problems. Because the Egyptian people are religious naturally, most patients resort to religious coping through praying, and praising for Allah. Patients said that "Allah, gives us patience, and strength". Accordingly Abdel-khalek^[42] mentioned that patients felt the serenity, and rest after praying that can reduce anxiety, and depression. The presence of „praying and trusting in God" in the top three emotional focused coping mechanisms seems to support cultural notions regarding the role of religion in the lives of Egyptian hemodialysis patients. Muslim patients undergoing hemodialysis used religion to cope with stressful situations. Praying and trusting in God might give them peace of mind and hope. They might also obtain support from frequent religious activities or gatherings.

From the perspective of psychological health, Shinde & Mane^[43]

mentioned that although it is expected that patients would try to use healthier coping strategies, for example, positive thinking, planning or problem-solved coping strategies when facing a serious stressor such as psychosexual dysfunctions, it would be arbitrary to say that using coping strategies that are emotion-oriented or that involve avoidance or isolated thoughts would harm their psychological well-being.

This study results are congruent with the results of the study conducted by Kohli, Batra & Aggarwal in India^[44] in Taiwan mentioned that seeking guidance and support, and problem solving were higher in hemodialysis patients, implying that patients made more behavioral attempts to seek information, guidance, or support as well as could take prompt actions, to deal directly with the problem. It meant that the patients made more cognitive attempts to look at the problem in a positive way, and could reframe their problem for better adjustment. In contrast to the present study results, Shinde & Mane^[43] in India and Nasiri, et. al.^[45] in Iran demonstrated that always 50% of patients undergoing hemodialysis adopt emotion focused, and problem orientation as their coping strategies in response to hemodialysis stressors. Moreover, Dehkordi & Shahgholian^[46] in Iran stated that in their study, most of the hemodialysis patients used emotion – focused coping styles to adapt with their stressors. Patients showed that selection of a coping strategy by the individuals depends on the type of stressful event.

Conclusion

The current study demonstrated that most of the studied patients of hemodialysis male patients suffer from psychosexual dysfunction. The studied patients use problem focused coping strategies more than emotional focused coping strategies to solve their psychosexual dysfunctions.

Recommendation

The study recommends that, psychiatric liaison nursing programs should be planned in hemodialysis units to educate nursing staff about how to manage psychosexual dysfunctions and how to enhance their coping strategies. In addition Liaison psychiatric nurse should be available in hemodialysis units to deal with the psychiatric problems of these patients with chronic hemodialysis.

Limitations

Some patients refused to participate in the study. They avoid talking about their psychosexual dysfunctions because of feelings of shame or because of their several failed tries to manage it.

Acknowledgements

We would like to thank all the patients who participated in the study and dialysis staff of Urology and Nephrology Center for their help and cooperation during the study period and appreciate the great efforts of our supervisors in this work.

Corresponding author:

Ahmed Hashem El-Sayed El-Monshed
Lecturer of Psychiatric and Mental Health
Nursing, Faculty of Nursing -Mansoura
University.

ahmed_elmonshed@mans.edu.eg

drahmed014@gmail.com

drahmed014@yahoo.com

References

1. **Kamal N. N., Kamel E. G., Eldessouki Kh. H. & Ahmed M. G., (2013).** *Health-Related Quality of Life among Hemodialysis Patients at El-Minia University Hospital, Egypt, Journal of Public Health; 21(2): 193-200.*
2. **Ahmed A., Allam M., Habil E., Metwally A., Ibrahiem N., Radwan M., El-Gaafary M., Afifi A. & Gadallah A., (2010).** *Development of Practice Guidelines for Hemodialysis in Egypt, Indian Journal of Nephrology; 20(4): 193-202.*
3. **Palmer B. F., (2003).** *Sexual Dysfunction in Men and Women with*

- Chronic Kidney Disease and End-Stage Kidney Disease, *Advanced Renal Replacement Therapy*; 10(1): 48–60.
4. **Finkelstein F. O., Shirani S., Wuerth D. & Finkelstein S. H., (2007).** Therapy Insight: Sexual Dysfunction in Patients with Chronic Kidney Disease, *National Clinical Practice Nephrology*; 3: 200 – 207.
 5. **Ayub W. & Fletcher S., (2000).** End Stage Renal Disease and Erectile Dysfunction. Is There Any Hope? *Nephrology Dialysis Transplantation*: 15: 1525-1528.
 6. **Verschuren J. E. A., Enzlin P., Dijkstra P. U., Geertzen J. H. B. & Dekker R., (2010).** Chronic Disease and Sexuality: A Generic Conceptual Framework, *Journal Of Sex Research*; 47: 1–18.
 7. **Laumann E. O., Nicolosi A., Glasser D. B., Paik A., Gingell C. & Moreira E., (2005).** Sexual Problems among Women and Men Aged 40–80 Y: Prevalence and Correlates Identified in the Global Study of Sexual Attitudes and Behaviors, *International Journal of Impotence Research*; 17: 39–57.
 8. **World Health Organization (2002).** : Sexual Health. Available at: <http://www.who.int> Accessed October 10, 2013.
 9. **WordWeb Online, (2013).** Physical Condition, Available at: <http://wordwebonline.com> Accessed December 1, 2013.
 10. **Safer D. A., (2012).** Psychosexual Dysfunction (Sexual Aversion; Sexual Apathy; Hypoactive Sexual Desire). Available at: <http://psych.med.nyu.edu> Accessed December 25, 2013.
 11. **Soykan A., Boztas H., Kutlay S., Ince E., Nergizoglu G., Dileko'z A. Y. & Berksun O., (2005).** Do Sexual Dysfunctions Get Better During Dialysis? Results of A Six-Month Prospective Follow-Up Study from Turkey, *International Journal of Impotence Research*; 17: 359–363.
 12. **Black K., (2008).** Sexual Function and End Stage Renal Failure, *Educational Supplement, Renal Society of Australasia Journal*; 5(1): 27-30.
 13. **Ali M., Abdel-Hafez H., Mahran A., Mohamed A., Mohamed H., El-Shazly A., Gadallah A. & Abbas A., (2005).** Erectile Dysfunction in Chronic Renal Failure Patients Undergoing Hemodialysis in Egypt, *International Journal of Impotence Research*; 17(2): 180–185.
 14. **Makarem A. R., Karami M. Y. & Zekavat O. R., (2011).** Erectile Dysfunction among Hemodialysis Patients, *International journal of Urology and Nephrology*; 43: 117–123.
 15. **Navaneethan S. D., Vecchio M., Chem P., Johnson D. W., Saglimbene V., Graziano G., Pellegrini F., Lucisano G., Craig J. C., Ruospo M., Biol M., Gentile G., Manfreda V. M., Querques M., Stroumza P., Torok M., Celia E., Gelfman R., Ferrari J. N., Bednarek-Skublewska A., Dulawa J., Bonifati C., Hegbrant J., Wollheim C., Jannini E. A. & Strippoli G. F. M., (2010).** Prevalence and Correlates of Self-Reported Sexual Dysfunction in CKD: A Meta-analysis of Observational Studies, *American Journal of Kidney Diseases*; 56(4): 670-685.
 16. **Vecchio M., Navaneethan S. D., Johnson D. W., Lucisano G., Graziano G., Saglimbene V., Ruospo M., Querques M., Jannini E. A. & Strippoli G. F. M., (2010).** Interventions for Treating Sexual Dysfunction in Patients with Chronic Kidney Disease, *Cochrane Database of Systematic Reviews, Clinical journal of the American Society of nephrology*; (5)6: 985-995.
 17. **Moriyama T., (2011).** Sexual Dysfunction in Chronic Renal Failure, *Journal of Men's Health*; 8 (1): 29–S32.
 18. **Cos T. A., (2008).** Stress, Coping and Psychological Distress: An Examination into the Experience of Individuals Utilizing Dialysis For End-Stage Renal Disease, *Journal of NEFROLOGÍA*; 26(4).

19. **Anantharaman P. & Schmidt R. J., (2007).** Sexual Function in Chronic Kidney Disease, *Advances in Chronic Kidney Disease*; 14 (2): 119–125.
20. **Peng Y., Chiang Ch., Hung K., S Chiang Sh., Lu Ch., Yang Ch., Wu K., Yang Ch., Lin R., Chang Ch., Tsai T. & Chen W., (2007).** The Association of Higher Depressive Symptoms and Sexual Dysfunction in Male Haemodialysis Patients, *Nephrology Dialysis Transplantation*; 22: 857–861.
21. **National Kidney Foundation, (2013).** Coping Effectively: A Guide for Patients and their Families. Available at <http://www.kidney.org> Accessed August 28, 2013.
22. **Watson D. C. & Sinha B. (2008).** Emotion Regulation, Coping, and Psychological Symptoms, *International Journal of Stress Management*; 15: 222-234.
23. **Ayaz S., (2013).** Sexuality and Nursing Process: A Literature Review, *Sexual Disability*; 31: 3–12.
24. **McGahuey C. A., Gelenberg A. J., Laukes C. A., Moreno F. A., Pedro L., Delgado P. L., McKnight K. M. & Manber R., (2000).** The Arizona Sexual Experience Scale (ASEX): Reliability and Validity, *Journal of Sex & Marital Therapy*; 26: 25–40.
25. **Infrasca R., (2011).** Sexual Dysfunction Questionnaire: Scale Development and Psychometric Validation, *Giom. Ital. di Psicopatol*; 17: 523-260.
26. **Carver C. S., (1997).** You Want to Measure Coping but Your Protocol's Too Long: Consider the Brief COPE, *International Journal of Behavioral Medicine*; 4 (1): 92-100.
27. **Yusoff N. , Low W. Y. & Yip C. H., (2010).** Reliability and Validity of the Brief COPE Scale (English Version) among Women with Breast Cancer Undergoing Treatment of Adjuvant Chemotherapy, *Medical Journal of Malaysia*; 65(1).
28. **Fortinash K. M., Worret P. A. H., (2008).** *Psychiatric Mental Health Nursing*, 4th edition, USA: 427-611.
29. **Al Khallaf H. H., (2010).** Analysis of Sexual Functions in Male Nondiabetic Hemodialysis Patients and Renal Transplant Recipients, *European Society for Organ Transplantation*; 23: 176–181.
30. **Zamd M., Gharbi M. B., Ramdani B. & Zaid D., (2005).** Sexual Dysfunction in Male Patients Undergoing Hemodialysis in Morocco, *Saudi Journal of Kidney Diseases and Transplantation*; 16(1): 33-39.
31. **Doss F. & Polaschek N., (2012).** Assessing Sexual Dysfunction in People Living on Dialysis in A New Zealand Renal Service, *Renal Society of Australasia Journal*; 8(3): 104-110.
32. **Özdemir C., Eryılmaz M., Yurtman F. & Karaman T., (2007).** Sexual Functioning after Renal Transplantation, *Transplantation Proceedings*; 39: 1451–1454.
33. **Rathi M. & Ramachandran R., (2012).** Sexual and Gonadal Dysfunction in Chronic Kidney Disease: Pathophysiology, *Indian Journal Endocrinology Metabolism*; 16(2): 214–219.
34. **Hoe K. K., Soyibo A. K., James K. & Barton E. N., (2013).** The Prevalence of Sexual Dysfunction among Patients with End Stage Renal Disease in Jamaica, *The West Indian Medical Journal*; 62(9): 234-247.
35. **Mehrsai A., Mousavi S., Nikoobakht M., Khanlarpoor T., Shekarpour L. & Pourmand G., (2006).** Improvement of Erectile Dysfunction after Kidney Transplantation: The Role of the Associated Factors, *Urology Journal*; 3(4): 240-244.
36. **Neto A. F., Rodrigues M. A., Fittipaldi J. A. & Moreira E. D., (2002).** The Epidemiology of Erectile Dysfunction and Its Correlates in Men with Chronic Renal Failure on Hemodialysis in Londrina, Southern Brazil, *International Journal Impotence Research*; 14(2): 19-26.
37. **Al Nazly E., Ahmad M., Musil C. & Nabolsi M., (2013).** Hemodialysis Stressors and Coping Strategies among Jordanian Patients on Hemodialysis: A

-
- Qualitative Study, *Nephrology Nursing Journal*; 40(4): 321-327.
38. **Martiny C., De Oliveira S. A. C., Neto J. P. & Nardi A. E., (2011).** Factors Associated with Risk of Suicide in Patients with Hemodialysis, *Comprehensive Psychiatry Journal*; 52: 465-468.
39. **Charnow J. A., (2014).** Erectile Dysfunction Highly Prevalent among Men on Hemodialysis, Available at: <http://www.renalandurologynews.com> Accessed July 1, 2014.
40. **Watnick S., Wang P. L., Demadura T. & Ganzini L., (2005).** Validation of Two Depression Screening Tools in Dialysis Patients, *American Journal of Kidney Diseases*; 46: 919-924.
41. **Čengić B. & Resić H., (2010).** Depression in Hemodialysis Patients, *Bosnian Journal of Basic Medical Sciences*; 10(1): 74-78.
42. **Abdel-Khalek A., (2010).** Quality of Life, Subjective Well-Being, and Religiosity in Muslim College Students, *Quality of Life Research*; 19, 1133-1143.
43. **Shinde M. & Mane S. P., (2014).** Stressors and the Coping Strategies among Patients Undergoing Hemodialysis, *International Journal of Science and Research*; 3(2): 266 – 275.
44. **Kohli S., Batra P. & Aggarwal H. K., (2011).** Anxiety, Locus of Control, and Coping Strategies among End-Stage Renal Disease Patients Undergoing Maintenance Hemodialysis, *Indian Journal of Nephrology*; 21: 177-81.
45. **Nasiri M., Kheirkhah F., Rahimiyan B., Ahmadzadeh B., Hasannejad H. & Jahfari R. M., (2013).** Stressful Factors, Coping Mechanisms and Quality of Life in Hemodialysis Patients, *Iran Journal of Critical Care Nursing*; 6(2): 119-126.
46. **Dehkordi L. M. & Shahgholian N., (2013).** An investigation of coping styles of hemodialysis patients, *Iranian Journal of Nursing and Midwifery Research*; 18(1): 42-46.