



AROMA HAND MASSAGE ON STRESS AND FATIGUE AMONG CHRONIC KIDNEY DISEASE

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ABSTRACT

The study attempt to assess the effectiveness of aroma hand massage on fatigue and stress among patients with chronic kidney disease in selected hospital. Objectives to assess the fatigue and stress perceived among patients with CKD, to assess the effectiveness of aroma hand massage on fatigue and stress among patients with CKD and to find out the association between pretest scores on level of fatigue and stress among patients with CKD with their selected demographic variable. Conceptual framework used in the study was Betty Neumann's theory. Quasi experimental pretest posttest with control group design was used. The data was collected from 60 samples. Data was analyzed using descriptive and inferential statistics. The pretest score was obtained from each group using modified multidimensional fatigue assessment scale and Dave Smith Stress assessment questionnaire. After giving intervention to experimental group that posttest score also obtained from each group with modified multidimensional fatigue assessment scale and Dave Smith stress assessment questionnaire. This study concluded that aroma hand massage is effective on fatigue and stress among chronic kidney disease patients.

KEYWORDS :

1. INTRODUCTION

"Smell is a long distance sense, a way of stretching time and finding out in advance what lies ahead" -Lyall Watson.

Chronic Kidney disease involves progressive, irreversible loss of kidney function. The Kidney Disease Outcomes Quality Initiative (KDOQI) of the National Kidney Foundation defines CKD as either the presence of kidney damage or a decreased GFR less than 60 mL/min/1.73 m² for longer than 3 months. The last stage of kidney failure (EKSD), occurs when GFR is less than 15 mL/min. At this point, dialysis or transplantation is required to maintain life.

Adults with high blood pressure, diabetes or both have higher risk of developing CKD. The risk of developing CKD increases with age. Men with CKD are 50% more likely than women to have kidney failure. CKD impacts people differently depending on their life stage and may profound impacts on different aspects of a person's life. A young individual diagnosed with CKD would experience huge sense of stress, grief as their life expectancy would be seemingly cut short. This individual often feels loss of control over their life decisions.

People with early CKD tend not to feel ill or notice any symptoms. The only way to find out for sure whether the individuals have CKD is through specific blood and urine test. Once detected CKD is treated with medicines and lifestyle changes including making healthier choices about what you drink and eat. These treatment usually decrease the rate at which CKD worsens and prevent additional health problems.

1.1 NEED AND SIGNIFIANCE OF STUDY

As per World Health Record and Global Burden of Disease Project, disease of kidney and urinary tract contribute to global burden of diseases with approximately 850,000 deaths every year and 15,010,167 disability adjusted life every year. Kidney diseases are the 12th cause of death and 17th cause of disability.

According to World Health Organization in 2005 estimated that there were approximately 58 million deaths worldwide due to chronic diseases. CKD is reported to be a risk factor for adverse outcomes in other chronic diseases such as infections and cancer.

Fatigue can develop due to physical, mental exertion. Stress whether physical, mental or emotional, drains up of energy

.Fatigue may be defined as tiredness, weakness, a lack of energy, exhaustion, inability to concentrate, sleepiness, decreased mental acuity and pain like sensation interfering with individuals ability to perform tasks.

Aromatherapy is the use of essential oils, which are concentrated extracts of roots, leaves or blossoms to physical and mental wellbeing. It is the practice of using the natural oils extracted from flowers, bark, stems, leaves, roots or other parts of a plant to enhance psychological and physical wellbeing. Aroma is a good and easily relaxation technique that involves mostly the mind, which in turn affects the physical body as well. This technique can be as a good stress reducer.

Massage or touch therapy is natural and almost instinctive way to care. Massage can lower the heart rate and blood pressure, relax and increase the productions of endorphins, body's natural "feel good" chemical. Massage is also good option for patients who are not well enough to exercise because physical manipulations of the skin and muscles help promote good circulation. This technique targets the muscle tissues, which are located several layers below the skin surface. It is also very effective in improving blood circulation.

1.2 OBJECTIVES OF THE STUDY

1. To assess the fatigue and stress perceived among patients with chronic kidney disease.
2. To assess the effectiveness of aroma hand massage on fatigue and stress among patients with chronic kidney disease.
3. To find out the association between pretest scores on level of fatigue and stress among patients with chronic kidney diseases with their selected demographic variable.

1.3 HYPOTHESIS

H₁ – There will be a significant reduction of fatigue and stress among patients with chronic kidney disease after intervention.

H₂ – There will be significant association between pretest score on fatigue and stress among patients with chronic kidney disease with their selected demographic variables in experimental than control group.

1.4 CONCEPTUAL FRAMEWORK

The conceptual framework used in the study is based on Betty Neumann's (1980) system model which focuses person as complete system, the subpart of which are interrelated physiological, psychological, sociocultural, spiritual and

developmental factors.

2. MATERIALS AND METHODS

2.1. RESEARCH APPROACH

Quantitative and evaluative approach was adopted for this study to find out effectiveness of aroma hand massage on fatigue and stress among patients with chronic kidney disease.

2.2. RESEARCH DESIGN

Quasi experimental pretest/posttest with control group design

2.3. VARIABLES

Independent variable – aroma hand massage

Dependent variable - fatigue and stress

2.4. SETTING OF THE STUDY

The setting of the study in selected hospital NIMS hospital Neyyattinkara in Trivandrum district.

2.5. POPULATION AND SAMPLE

The population for the present study were patients with chronic kidney disease.

The total sample consists of 60 patients with chronic kidney disease at NIMS, hospital, Neyyattinkara, who are willing to participate and present during the time of study.

Purposive sampling technique was used to select the samples for the present study.

2.6. SAMPLING CRITERIA

Inclusion criteria

Patients with chronic kidney disease

- Age group of 21-70 years
- Both the gender
- Who were willing to participate

Exclusion criteria

Patients with chronic kidney disease

- Who were critically ill
- Who can't tolerate the smell of eucalyptus oil

2.7. TOOLS AND TECHNIQUE

Part I

Structured questionnaire consists of sociodemographic data (10 items). It includes age in years, gender, education, occupation, family income ,religion, marital status ,type of family ,duration of illness ,co-morbidities

Part II

1. Modified Multidimensional Assessment of Fatigue Scale
2. Dave Smith Stress Assessment Questionare

2.8. DATA COLLECTION PROCEDURE

The data collection procedure was done for a period of 4 weeks in hospital. Permission was obtained from the ethical committee of hospital. The subject was informed by the researcher about the nature and purpose of the study. Informed consent obtained from 30 patients with CKD each were assigned to both experimental group and control group. The investigator assessed the level of fatigue with the use of modified multidimensional assessment fatigue scale and stress by Dave Smith assessment scale. After collecting the pretest scores from experimental and control group the investigator performed 5 steps of hand massage such as relax wrist, palmar stretching, thumb crawl, inter-phalangeal stretch, and finger pull gentle. Steps were done with 2-3 drops eucalyptus oil. Each step was done 3 times. Overall steps took 5 to 7 minutes for each hand. It was repeated 2 times for 3 consecutive days.

3. RESULTS AND DISCUSSION

3.1. Description of the socio demographic variables under study

- With regard to age majority in experimental group (43.3%) and control group (45.5%) belongs to the age group of 61-70 years
- With regard to gender majority of samples in experimental group (66.7) are males, whereas in control group (80.0%) are females.
- With regard to marital status majority of samples in experimental group (73.3%) and control group (60.0%) are married.
- With regard to education majority of samples in experimental group (40.0%) and control group (46.7%) have primary education.
- With regard to occupation majority of the samples in experimental group (73.3%) and control group (90.0%) are unemployed.
- With regard to religion majority of samples in experimental group (46.7%) and control group (40.0%) are Christians.
- With regard to family income majority of the samples in experimental group (70.0%) and in control group (86.7%) have family income <5000.
- With regard to type of family majority of samples in experimental group (60.0%) and control group (56.7%) belongs to nuclear family.
- With regard to duration of illness majority of samples in experimental group (30.0%) and control group (73.3%) have duration of illness is upto 1 year.
- With regard to presence of co morbidities majority of samples have comorbidities in both experimental and control group.

Table 1 Mean, Standard deviation, Mean Difference and t value and p value of pretest and posttest level on effectiveness of aroma hand massage on fatigue among patients with chronic kidney disease.

Fatigue	group	Mean	SD	N	t	P
Pre	Experimental	36.8	3.8	30	1.87	0.067
	Control	35.2	2.3	30		
Post	Experimental	28.2	2.4	30	13.58**	0.000
	Control	36.5	2.3	30		

Table 1 reveals that the average pretest scores of fatigue are 36.8 and 35.2 in experimental group and control group respectively. The independent sample t test (t=1.87, P>0.05) shows that the score on fatigue not significant differ between groups at pretest level. Independent t test (t=13.5, p<0.01) shows the fatigue is significantly less in experimental group when compared to control group. Hence it can be concluded that aroma hand massage I significantly effective in reducing fatigue.

Table 2 Effectiveness of aroma had massage on stress among patients with chronic kidney disease

Stress	Group	Mean	SD	N	T	P
Pre	Experimental	109.3	10.5	30	1.29	0.201
	Control	106.3	7.2	30		
Post	Experimental	76.3	6.1	30	1.29	0.000
	Control	108.0	5.8	30		

Table 2 shows that average pretest score of stress is 109.3 and 106.3 in experimental group and control group respectively. The independent sample t test (t=1.29, p <0.05) shows that the score on stress not differs between groups are pretest level. Hence it is homogenous with regard to stress level at pretest level.

After the intervention of aroma hand massage among CKD patients in experimental group, the average score of stress 76.3 in experimental (t=20.57,p<0.01) shows that the score significantly differ between the group at 0.01 level of

significance .Thus it can be concluded that the aroma hand massage is effective in decreasing fatigue among patients with chronic kidney disease.

CONCLUSION

The following conclusion were drawn based on findings of the study. The present study reveals the majority of the clients with the majority of the clients with chronic kidney disease experience moderate to severe fatigue and aroma hand massage had shown to decrease fatigue. The study also reveals that there is significant reduction in stress after implementing aroma hand massage.

Nursing implication

- The present study has got implications in the field of nursing research.
- Nursing personnel's can be trained in therapeutic and non-therapeutic intervention in reducing fatigue and stress.
- Nursing students can use the finding to recognize the prevalence of fatigue and stress among patients with chronic kidney diseases and the role of aroma and massage in reducing the fatigue and stress
- The nursing administration should concentrate on the proper selection, placement and effective utilization of the nurses in all areas, giving opportunities for creativities, creating interest ability in reducing the fatigue and stress among the patients with the chronic kidney disease.
- The study will be motivation for the beginning researchers to conduct similar studies.

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