Effects of Nursing Care on The Level of Depression and Nursing Diagnoses of Elderly People

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Abstract

Background. One of the major geriatric disorders is depression. Loneliness, despair and problems with performing basic activities of daily living are the major psychosocial and physical problems among elderly people which are also among risk factors of depression. Research in this area shows that depressive symptoms and bio-psychosocial problems are decreased by appropriate nursing interventions. Objectives. Our study aims to examine the effects of nursing care on the symptoms of depression in elderly people. In addition, changes in number of nursing diagnosis was also examined. Methods. Pretest-posttest one group quasi experimental model was used. The sample consisted of 36 elderly individuals residing at the Turkish Pension Fund's Narlidere Rest and Care Facilities. The study was carried out during the period May 5 – June 6, 2003 by a group of intern nursing students. Depression scores and nursing diagnoses of elderly people have been measured before and after a specific nursing intervention. Data analysis was done using, descriptive, student t, and McNemar (chisquare) test. Results. The depression scores in the Geriatric Depression Scale (GDS) were seen to decrease after intervention. The difference was statistically significant. Although there was a decrease in the number of nursing diagnoses after intervention, the differences in the number before and after intervention was statistically in the following areas: self-care deficit, interrupted the family process, deficient diversional activity and risk for loneliness. Conclusions. Nursing interventions given to the elderly has resulted in a decrease in depression points and number of the nursing diagnoses.

Key Words: Geriatric Depression, Elderly, Nursing Diagnosis, Nursing Interventions.

Yaşlılara Verilen Hemşirelik Bakımının Depresyon Belirti Düzeyine ve Hemşirelik Tanılarına Etkisi Özet

Giriş: Majör geriatrik hastalıklardan biri depresyondur. Yalnızlık, umutsuzluk ve temel günlük yaşam aktivitelerini yerine getirirken yaşanan sorunlar yaşlılarda görülen major psikososyal ve fiziksel problemlerdir. Bu sorunlar aynı zamanda depresyonun risk faktörleridir. Bu konuda yapılan araştırmalarda depresif semptomlar ve psikososyal problemlerin uygun hemşirelik müdahaleleriyle azaltılabildiği gösterilmiştir. Amaç: Bu çalışmanın amacı yaşlılarda depresyon belirtilerine hemşirelik bakımın etkisini incelemektir. Aynı zamanda hemşirelik tanılarının sayısındaki değişimi de incelemektir. Yöntem: Pretest-posttest tek grup yarı deneysel model kullanılmıştır. Örneklemi Narlıdere Huzurevinde kalan 36 yaşlı oluşturmuştur. Depresyon puanları ve hemşirelik tanı sayısı hemşirelik müdahalelerinden önce ve sonra ölçülmüştür. Verilerin değerlendirilmesinde tanımlayıcı istatistik, t testi ve McNemar testi kullanılmıştır. Sonuçlar: Geriatric Depresyon Ölçeğinden alınan puanlarda müdahaleden sonra istatistiksel olarak anlamlı bir azalma olmuştur. Aynı zamanda müdahaleden sonra hemşirelik tanılarının sayısında da farklılık olmuştur. Tüm tanıların sayısında girişim sonrası azalma olmasına karşın öz bakım yetersizliği, aile sürecinde değişiklik, boş vakitlerini değerlendirmede yetersizlik ve yalnızlık riski tanılarında girişim öncesi ve sonrası fark istatistiksel olarak anlamlı bulunmuştur. Yaşlılara verilen hemşirelik bakımı ile depresyon puanlarında ve hemşirelik tanılarının sayısında azalma olmuştur.

Anahtar Sözcükler: Geriatrik Depresyon, Yaşlı, Hemşirelik Tanısı, Hemşirelik Müdahalesi

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Introduction

Depression is an emotional illness that is frequently seen in the elderly. It may appear alone or in connection with other physical disorders. Further the physical, biological changes that aging individuals undergo lead to feelings of despair and failing strength and in turn disturb emotional balance. Thus, the individual senses changes in his self-perception and in the perception of his own wholeness. As the functional losses that accompany visible changes affect the way the elderly adapts to the changes, body image begins to threaten self respect. The defense mechanisms become inadequate depression begins to set in (Kaya, 1999; Onur, 1997; Yazgan, 2002). It has been stated that cases of clinical depression in the elderly are relatively few but that symptoms of depression are very widespread. At a time when the individual's daily life has already been restricted, these symptoms make the elderly person's life even more difficult. In a study of cases of depression, definitive depression was diagnosed in 36% and probable depression in 10% of a group of individuals of the ages 60 years of age and above (Kocataş, Güler, & Güler, 2002). In another study it was found that a proportion of 30-60% of the group of elderly individuals suffered at least one bout of depression that caused a restriction

in daily activities (Koçar, 2002). An epidemiological study also showed that the frequency of depressive symptoms in the elderly was 5-25%. The proportion of major depression was approximately 4%. As in all age groups, depression among the elderly is more frequently seen in women than in men (Ekinci, & Özdemir, 2002; Kaya, 1999).

Many studies showed that there was an association between, depression and specific symptoms such as frequent crying spells, sleeping problems, loss of appetite and weight loss, lower extremity functioning, decreasing social participation, constipation, loneliness, social isolation, anxiety and pain (Aksüllü, & Doğan, 2002; Cankurtaran et al., 2002; Drageset, 2004; Jongenelis et al., 2004; Koch, & Hudson, 2000; Minardi, & Blanchard, 2004; Ostir, Ottenbacher, Fried, & Guralnik, 2007; Prince, Blizard, Thomas, & Mann, 1997).

Depression and Nursing Interventions

Although the principles of the treatment of depression in the elderly does not differ from the treatment of young adults in depression, the metabolic alterations, the accompanying medical diseases, and the cognitive and social changes in this group necessitate a unique application of the treatment in the elderly. The fundamental aims of the treatment of depression are to diminish the symptoms, lower the risk of relapse, decrease health expenses, reduce mortality rates and increase the quality of life. Family and social support systems must be activated and a bio-psychosocial approach must be taken in problem-solving during treatment. Pharmacological, cognitive-behavioral, electro-convulsive and psychosocial treatment all are used. Different noninvasive treatment techniques may also be used. Verbal therapy, group reminiscence therapy, encouraging the expression of emotions with empathy, relaxation techniques, rhythmic breathing exercises and widening the support network have been seen to be beneficial (Chao et al., 2006; Koçar, 2002; Lewelleyn, Robert, & Baikic, 1999; Mc Curren, Dowe, Rattle, & Looney, 1999; Remington, 2002).

Research in this area shows that depressive symptoms and bio-psychosocial problems are decreased by appropriate nursing interventions. Reed (2008), Reed et al (2008) suggest to investigate the ways the older people maintain well being. Slama (2000) also suggested that nurses have important role in the prevention and treatment of depression, in determining risk groups, as well as in organizing individual care and activity programs. effective in Hence. nurses can be diminishing geriatric depression and risk factors such as loneliness, low social support, low self esteem, and self care

deficit (Chao et al., 2006; Dragest, 2004; Karaaij, & Pruymboom, 2002; Lewelleyn, Robert, & Baikic, 1999; Mc Curren et al., 1999: Slama. 2000). Α study Remington (2002),established that agitated elderly people could be soothed by music and massage. Lewelleyn et al. (1999) found that an experimental group who were cared for by health professionals that were trained in diagnosing and managing (exercises, coping with stress, education about the disease, activity groups, emotional support) depression were at a lower level of depression than the control group.

Kaas and Lewis (1999) found that cognitive-behavioral therapy was an effective nursing intervention in treatment of geriatric depression. Further, in the research conducted by McCurren et al. (1999) showed that the nursing interventions directed at establishing and answering the individual needs of the elderly were effective in diminishing symptoms of depression. The researchers showed that walks with guided imagery and art therapy relieved depression (McCaffrey, 2007)

When studies related to geriatric depression are reviewed, it can be seen that in Turkey all research conducted in this area has been descriptive. These studies carry great importance as the topic of geriatrics becomes an area of a greater interest. They provide valuable information in determining the risk factors of geriatric depression in our country and planning for further work in this area.

Hence, the present study has been undertaken to determine the effect of individual and group biopschosocial nursing care on the level of depression symptoms and number of nursing diagnose among by the elderly diagnosed with depression.

Hypotheses

Hypothesis 1. The depression points of the elderly after intervention will lower than they were before intervention.

Hypothesis 2. The number of individuals with the following nursing diagnosis will be lower after the nursing intervention:

- a. "effective individual coping"
- b. "risk for loneliness"
- c. "deficient diversional activity"
- d. "disturbed sleep pattern"
- e. "constipation"
- f. "self care deficit

(bathing/hygiene)

(dressing/grooming) (feeding)

(toileting)"

- g. "imbalanced nutrition: less than body requirements"
- h. "interrupted family processes"
- 1. "hopelessness"

Method

Sample

The study sample consisted of 36 elderly individuals residing at the Turkish Pension Fund's Narlidere Rest and Care Facilities, and the study (intervention) was carried out during the period May 5 – June 6, 2003 by a group of intern nursing students who received special training in carrying out nursing interventions specific to the treatment of the elderly (see interventions).

The Institutional Nurse was consulted and those of the elderly who did not suffer from dementia and wished to participate in the study were included in the research. Of those in the study (36), 27.5% (n=10) were under 75 years of age, 72.2% (n=26) were over 75. A proportion of 58.3% (n=21) were women, 41.7% (n=15) were men. The educational background of 47.2% (n=17) was high school or higher. Out of the group, 30.5% (n=11) were married, 72.2% (n=26) had roommates.

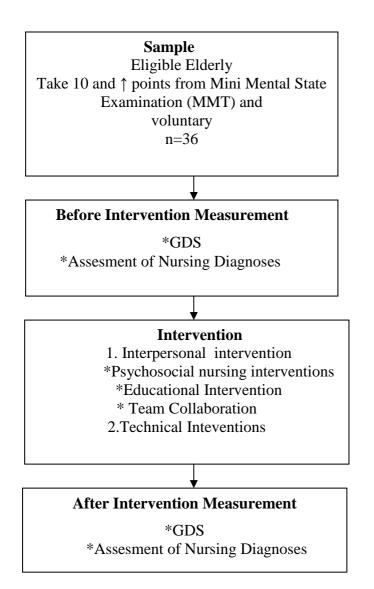
Research Design

This research was conducted as a single group, quasi-experimental research utilizing pre-and post-testing (See Figure 1).

Figure 1. Research Design Model

	Dependent Variable	Independent Variable	Dependent Variable		
	Measurement	Control	Measurement		
	(GDS and Nursing		(GDS and Nursing		
	Diagnoses)		Diagnoses)		
Experimental	PRE-TEST	INTERVENTION	POST-TEST		
Group					

Figure 2. Flow Chart of Study Plan



Nursing Interventions

Interventions were given by 18 student nurses for a period of five weeks. were provided training in Students interview techniques, empathy, and in the American Nursing Diagnosis North Association (NANDA) classifications by the research team. Student nurse were trained to keep the elderly as active as possible in this process. Interventions are designed to be appropriate for both elderlys' developmental level and elderlys' unique needs and thus support and promote normal developmental process. Selection of the type of nursing intervention to be used was determined by the dysfunction and functional status of the elderly (Craven, & Hirnle, 1996). The students were further guided to formulate nursing diagnoses then carry out and interventions for that diagnosis. Each student formulated a 45-minute health training session and 45 minutes of social activity for the elderly per week. At the end of each training (see below) and social activity session, oral feedback obtained from the elderly. The results were evaluated at the end of the fifth week according to the Nursing Outcomes Classification (NOC) results criteria. There are three major categories of interventions (Craven, & Hirnle, 1996). In our study we provided interventions in two major categories: 1) Interpersonal,

2) Technical. We deleted the category cognitive due to difficulty in training the students in this category.

Interpersonal interventions: Coordinating care, providing support and using specific psychosocial skills were the interventions. Supportive nursing interventions emphasize the use of communication skills, relief of spiritual disterss, and caring behaviors and include the following:

Psychosocial interventions: Psychosocial nursing interventions included emotional support, information giving, social support, humor, role modelling social skills, exploring feelings facilitating and planing care and health promotion activities. These intervention were applied to individuals and groups.

Educational Interventions: Educational nursing interventions are carried out by applying general principles about the teaching and learning process. Teaching plans are developed, and instruction is provided about health promotion or specific healthcare problems and their management.

Group Health Education: These include weekly 45-minute health education sessions. The health education topics were related to the needs of the elderly. Active learning methods were used in the training sessions and the elderly were urged to attend. Education subjects were in two

major areas those related to depression and those related to depression risk factors.

Subjects Related to Depression:

- a) Stress and stress management
- b) Old Age and Psychiatry. These subjects were presented by specialist RN and an MD in psychiatry.

Subjects Related to Risk Factors

- a) Adaptation process of chronic illness in old age (Individual education)
- b) Quality of life and old age (Individual education)
- c) Coping with loneliness (Individual education)
- d) Physical care (About Nutrition, Hygiene, activity, constipation, sleep pattern disturbance, dressing-Individual education)
- e) Hypertension and how to live with it (School of Nursing Public Health Nursing Dept.- Group education)
- f) Cardiac diseases and regulating one's life (School of Nursing Public Health Nursing Dept.- Group education)

Social Activities. Social activities included weekly music, poetry reading, theater and dancing. In addition, backgammon or playing cards were provided during free hours.

Team Collaboration. Collaboration with a variety of health team members' facilities the provision of optimal care for the elderly. Teams shared information and ideas with each other.

Nurses provide a holistic assessment of health care issues and information about the elderly situations.

Technical Interventions

Technical interventions include: maintaining psychological and physiologic wellbeing, monitoring client status, and performing psychomotor skills. The goal is to help the client retain a certain state of health including maintaining basic hygiene, skin care, and other routine nursing activities.

Measurement

Assessment of Nursing Diagnosis and Depression

Geriatric Depression Scale (GDS). This form of measurement was developed by Yesavage et al. (1983) and a validity/reliability study was made for a Turkish version by Ertan et al. (1997) (α : 0.91 test-re test r: 0.74). The measurement is based on yes/no statements given in answer to 30 questions. High points indicate a high level of depressive symptoms. A cut-off point has not been specified in the Turkish version of the research. The application of the GDS takes 15-20 minutes.We measured the depression points on the Geriatric Depression Scale and the number of nursing diagnoses of the elderly patients before and after the intervention.

Establishment of Nursing Diagnosis

The nursing diagnoses in relation to depression of each individual elderly were established through the use of the Functional Health Patterns a nursing assessment tool developed by Marjory Gordon (1987), and stated according the NANDA. The appropriate interventions and outcomes were established according the NIC and the NOC (Wilkinson, 2000). The defining characteristics/risk factors of the appropriate NANDA diagnoses, and the indicators of the NOC outcomes were used as a frame of reference for the judgment of (NO) diagnosis or (YES) diagnosis existence.

Dependent/Independent Variables

The dependent variable of the research is the geriatric depression point and nursing diagnosis number, the independent variable is nursing interventions.

Statistical Analysis

Paired-Samples t -Test was used in order to determine whether or not there was a significant difference between the level of depression in the elderly before and after intervention. The McNemar Test Chi-Square test was used to determine whether or not there was a significant difference in nursing diagnosis before and after intervention.

Ethics

Approval was obtained from the ethics committee of the Nursing School, Residential Home and elderly.

Results

The t-test analyses showed that the depression points before and after the interventions were significant different indicating that interventions lowered depression. Specifically, the mean depression points before the intervention was 10.5 but after the interventions was 8.1 (see Table 1).

Table 1. Mean Depression Points Before/After Intervention

	Before Intervention		After Inte	rvention			
	Mean	SD	Mean	SD	p	t	
Depression Points	10.5	0.8	8.1	0.9	0.00	4.3	

^{*} p<0.05

Table 2 shows nursing diagnosis before and after intervention. The diagnoses that were most frequently made by the students before intervention were, in descending order, 47.2% ineffective individual 47.2% risk for coping, loneliness, 38.5% deficient diversional activity. After intervention, the diagnoses were, again in descending order, 41.6% ineffective individual coping, 13.8% disturbed sleep patterns and constipation. The McNemar test analyses showed that the nursing diagnosis related to depression before and after the interventions were significant different. Hence, there was a decrease in all of the diagnoses after intervention, the differences before and after intervention in the diagnoses of self-care deficit, interrupted family process, deficient diversional activity and risk for loneliness were found to be statistically significant (Table 2).

Table 2. Nursing Diagnosis Before/After Intervention

	Before Intervention			1	After Intervention			MC	
Nursing Diagnosis	Yes			No		Yes		No	p
	n	%	n	%	n	%	n	%	
Ineffective Individual Coping	17	47.2	19	52.7	15	41.7	21	58.3	0.77
Hopelessness	9	25.0	27	75.0	4	11.1	32	88.9	0.06
Self Care Deficits	8	22.2	28	77.8	2	5.6	34	94.4	0.03*
Disturbed Sleep Patterns	9	25.0	27	75.0	5	13.9	31	86.1	0.21
Interrupted Family Processes	9	25.0	27	75.0	1	2.8	35	97.2	0.008*
Constipation	9	25.0	27	75.0	5	13.9	31	86.1	0.34
Imbalanced Nutrition: Less	5	13.9	31	86.1	2	5.6	34	94.4	0.25
Than Body Requirements									
Deficient Diversional Activity	14	38.8	22	61.2	2	5.6	34	94.4	0.002*
- Risk for Loneliness	17	47.2	19	52.8	7	19.5	29	80.5	0.03*

^{*} p<0.05

Discussion

The results show that the psychosocial and physical care provided by the nurses, both individually and in a group, was effective in bringing down reducing depression scores and also had an influence on the risk for loneliness, the

interrupted family process, the self-care deficit and the deficient diversional activity.

The depression points were seen to decrease after intervention and the difference was found to be statistically significant. Hypotheses 1 was accepted.

Slama (2000) indicates that the nurse plays an important role in the prevention of depression in the elderly and in treatment through an organized and individual care and activity program. McCurren et al. (1999)determined that nursing intervention carried out according to the needs of individual aged patients causes depression symptoms to diminish. In our study, the decrease in depression points after intervention may be due to the way individual needs have been determined and because appropriate activities, as suggested by NIC, have been applied to each individual.

The nursing diagnoses established by the nurses in this study were ineffective individual coping, an interrupted family process, risk for loneliness, self-care deficit, deficient diversional activity, feelings of hopelessness, diturbed sleep patterns and imbalanced nutrition and constipation (Table 2). These diagnoses point out the symptoms and the risk factors of depression. Hence, it is important to assess, determine and treat these conditions at an early date. In their respective studies, Aksayan, Yıldız and Ergün (1998), Aksüllü and Doğan (2002), Aydın and Işleyen (2004), Cankurtaran et al. (2002), Drageset (2004), Durgun (1999), Koch and Hudson (2000), Khorsid et al. (2002), et al. (2002), Minardi and Kocoğlu Blanchard (2004), corroborate our the

finding that these nursing diagnoses were the most frequently encountered problems in old age. Although there have been studies in Turkey attempting to define the problems of old age, no experimental study by nurses has been conducted. As Slama (2000), Mc Curren et al. (1999) have found, however, the bio-psycho-social care that nurses can individually provide to the elderly can be effective in alleviating these problems. More specifically, intervention by nurses has been effective in reducing risk for loneliness, self-care deficit, deficient diversional activity and interrupted family process (Table 2). This results support hypotheses 2b, 2c, 2f, 2h. Working with a focus on individuals, students have determined the problems of the elderly under their care, then organized individual and group health education sessions and social activities. Determining and providing individualized needs personal care to the elderly person, the effective use of social activities and the organization of pastimes as well as the interaction that these nurses achieved with the aged were perceived as a source of social support and thus may have been effective in reducing feelings of loneliness in the aged. It has reported that social support reduces feelings of loneliness and depression (Aksüllü, & Doğan, 2002; Lewelleyn et al., 1999; Minardi, &

Blanchard, 2004). The results of our research are similar to the literature.

The problems that showed a numerical decrease after nurse's intervention but not a statistically significant reduction were feelings of ineffective hopelessness, individual coping, constipation, and disturbed sleep patterns and imbalanced nutrition (Table 2). These results rejected hypotheses 2a, 2d, 2e, 2g, 21. These problems were chronic issues and more related to changing lifestyles. Hence need more time to be eliminated. It is believed that the short period of interventions (five weeks) minimize effectiveness also the oftreatments. There examples are in literature, for example, that point to studies where nurses have played effective roles in dealing with such problems (Drageset, 2004; Kaas, & Lewin, 1999; Karaaij, & Pruymboom, 2002; Koch, & Hudson, 2000; Minardi, & Blanchard, 2004).

In conclusion, The study has shown that the psycho-social and physical care provided to the elderly either individually or in a group decreases depression scores and is particularly effective in feelings of loneliness, the effects of the interrupted family process, the ability to engage in deficient diversional activity and improving self-care deficit. **Findings** indicate the importance of nurses working within nursing home settings of making early diagnosis and reducing problems of elderly.

Limitations

The study had several limitations. Because the Public Health Internship period is only five weeks and there were small number of student nurse interns, the study could only be conducted with a small sample. Hence, this study should be repeated with longer periods with a large sample. Nevertheless, these findings provide encouragement to nurses, and other healthcare professionals to apply study interventions for elderly who are living in nursing homes.

Implications for Practice

The study offers a direction for further research into nursing care in an area that has not previously been examined. It is identified clearly that there is a population of older adults attending nursing homes who have been undiagnosed and untreated for depression and risk factors. Further research is clearly needed in the area of biopsychosocial interventions by nursing professional in nursing homes.

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