Original Article

The Effect of Regular Family Appointments on Hope of Hospitalized Depressed Patients: a Randomized Clinical Trial

Roghaieh Keykha[1]* , Nasrin Rezaee[1] , Ali Navidian[2] , Elahe Moshtaghi[3]

[1]Department of Nursing, Nursing and Midwifery Faculty, Zahedan University of Medical Science, Community Nursing Research Center, Zahedan, Iran
[2]Department of Nursing, Pregnancy Health Research Center, Nursing and Midwifery Faculty, Zahedan University of Medical Science, Zahedan, Iran
[3]Department of Nursing, Zahedan Branch, Islamic Azad University, Zahedan, Iran

ABSTRACT

Introduction: Depression is one of the most common psychological disorders in the world. Many depressed patients are being hospitalized in psychiatric centers every year, which can lead to hopelessness and indifference. Considering the role of family as a support system in caring for depressed patients, the goal of the present study is to assess the effects of regular family appointments on the hope of hospitalized depressed patients.
Methods: This was a randomized clinical trial on 70 hospitalized depressed patients in the Baharan psychiatric hospital of Zahedan. Block Randomization was used to categorize the participants continuously into two groups intervention (n=35) and control groups (n=35). The data collection tools were demographic characteristics questionnaire and Schneider hope scale. The patients in the interventions group received 6 sessions of regular family appointments with first- degree relatives. The control group received freely and without any planning appointments. Hope level was measured and compared before and after the intervention for two groups. The data were analyzed by SPSS using the chi-square test, the independent t-test and the paired t-test.
Results: The results showed that both groups were homogeneous in terms of socio-demographic differences. The hope scores of patients in the intervention group significantly increased compared to those of the control group.
Conclusion: Encouraging family cooperation and using patient's choice in selecting visitors is recommended.

Introduction

Depression is one of the most common mental disorders worldwide which puts a huge psychological stress on people and community.[1] Currently, 350 million people worldwide are depressed[2] and it is expected to be the second common disease after cardiovascular diseases by 2020.[1] As a result, the number of depressed patients in need of hospitalization and long-term care is increasing every day.[3]

Results of a mental health survey conducted in 17 countries showed that on average one out of twenty people has experienced a period of depression.[2]

The prevalence of depression in various Iranian populations has risen from 69.5% to 73%.[4]

Hopelessness and anhedonia are symptoms of depression that not only affect patients' mental health, but also their social life experiences.[5] Hopelessness is one of the major aspects of depression[6] that reduces the life value[5] and involves a feeling of worthlessness, aimlessness, and inability to achieve goals. Studies showed that hopelessness can even increase the risk of suicide in patients.[3]

In contrast, hope is an accessible positive force that can decrease depression rate. This is achieved by helping people to define important goals in life on the one hand and have a strong motivation to reach those goals on the other.[7]

Hope can play a critical role in improving a person's quality of life. Some studies have reported mitigative effects of hope on depressive symptoms that are caused by failure to achieve important goals in life.[8] Others have found that hope is associated with more satisfaction in social life, better mental health and less likelihood of drug abuse.[4,9,10] Also, it was shown to be an important factor in improving health in chronic conditions.[11] Even during increased psychological stress, hopeful people experience fewer depression symptoms, which shows hope can act as a protective factor against threatening and stressful agents.[6,12]

Given all the positive effects associated with it, the intervention to improve hope in patients seems to be a promising direction. Theorists suggest that one of the ways to achieve hope is to focus on the basic human needs.[13] One of the basic needs of hospitalized patients is visiting their families.[14]

Iranian families have a vital and supportive role in the treatment process of the disease. In fact, they are the main member of treatment group. Most patients are in close contact with their families rather than with medical centers. This is specially the case with depressed patients where families are the main and most important sources

of support.[15] Previous studies have found that the number of visitors, after the disease is diagnosed, has a great impact on depression intensity.[16]

In fact, families in the mental health system are considered as a parallel health care system that can help patient's significantly.[17] So it is necessary to understand the patient's need for the family visits and its effect on their health.[18] Improvement of depression symptoms occurs when the level of affection and caring of families toward their patient is desirable.[19] However, depressed patients, due to the nature of their disease, are not interested in social interactions and communicating with others.[20] This can have a negative effect on family's inclination to visit their patient, consequently causing the patient to be further isolated.[19]

Studies on the effect of social interaction and family support are limited to hospitalized patients with physical disorders, and are more focused on hemodynamic symptoms.[9] However, it is very important to pay attention to psychological symptoms in depressed patients where family support can play a big role. To the best of our knowledge, there has we haven't found no study on the effect of regular appointments from favorite people on specific symptoms of depression. Our goal is to study the effect of such appointments on hope of hospitalized depressed patients. We carried it out by encouraging patients and families to participate in regular schedule appointments as opposed to their usual spontaneous appointments.

Materials and methods

This is a randomized clinical trial which was conducted to assess the effect of regular family appointments on the hope of hospitalized depressed patients, and was registered in Iranian center for clinical trials (IRCT20180224038839N1).

The participants in this study were 70 depressed patients admitted to Baharan hospital in Zahedan. The inclusion criteria were: depression without psychotic symptoms, as diagnosed by a professional, which is recorded in patient's chart, being alert to be able to cooperate in planning appointments, not having visitor restrictions according to the physician's opinion and the ability to choose a convenience first- degree relative to appointment.

Exclusion criteria included leaving the study, early discharge and more than one absence in the scheduled meeting appointments.

To determine the sample size, a pilot study was conducted on 24 hospitalized depressed patients who met the inclusion criteria. At 5% statistical significance level and with a power of 0.9, and also regarding mean difference and standard deviation before and after the intervention for the study group (5.16 (2.77)) and control group (-2. 66 (2. 65)), 30 patients was estimated for each group. However, considering the attrition rate, a final sample of 70 eligible patients was included in the study. They were randomly allocated to intervention and control groups in 1:1 ratio and based on block randomization. We used "research randomizer" website (www.randomizer.org) for randomization. The researcher used 20 randomly numbered blocks (with the block size of 4 and different sequences of "A" and "B" groups) for allocating participants.

The present study received the ethical permission of number IR.ZAUMS.REC.1396.106 from the Ethics committee of research and technology department of Zahedan University of Medical Sciences. Ethical consideration included: an oral informed consent, reassuring the patients of the confidentiality of information and their freedom to leave the study at any point. This study is approved by the research department of Zahedan University of Medical Sciences number 8263.

Data collection tool for this study was a two part questionnaire. The first part is the demographic characteristics, including the patient's age, gender, marital status, education, job, visitor's age and relation. The second part is Schneider hope scale with 12 items. Each item has the answer in the range of totally disagree, disagree, no comment, agree, totally agree. Scoring is done on a Likert scale of 1 to 5 which is reversed for 3, 7, and 11 items. The overall range of score is from 12 to 60. The higher scores indicate higher hope level and vice versa.[21]The reliability of this questionnaire has also been evaluated in Iran. In a study by kermani et al., the reliability of the questionnaire was estimated to be 0.74 to 0.86, using Cronbach alpha, and 0.81 through test retest method.[21] In the current study, the validity of the translations and concepts was compared with that of the English original text, after translation to Persian. Then, the questionnaire was given to 10 faculty members of Zahedan University of Medical Sciences, Zahedan, Iran and any necessary corrections were applied after receiving their comments.

In current study the reliability of this tool was calculated by internal consistency method and total Cronbach alpha was 0.87.

In the process of the study, first the investigator identified depressed patients hospitalized in Baharan psychiatric center, and then she informed them about the study.

In the next step, the eligible patients who consented to participate in the study were randomly divided into intervention and control groups. Then, all patients completed the demographic and hope questionnaire before the intervention.

In the intervention group, after orientation and explanation of the method, the researcher asked the patients to give the name and phone number of two people from their first-degree relatives with whom they felt more comfortable and wish to appointment. After initial coordination, an orientation class was held by the researcher for visitors individually and in group for 15 to 30 minutes in hospital before the scheduled appointments.

In this session, different topics were explained to the visitors, including the time and duration of

appointments, role of family in the improvement of patient's status, and importance of keeping calm and not talking about negative topics with patients.

In order to encourage the cooperation of patients and visitors, small snacks were available for them before appointment. Six scheduled appointments were conducted during 2 weeks, with each lasting for half an hour- from 5 pm to 5:30 pm in the hospital campus. The patients completed the questionnaires for the second time as a posttest 2 weeks later. The control group had appointments freely and without any prior planning during this time and took the posttest two weeks later at the same time.

To analyze the data, we used SPSS software (version 13.0, Chicago, IL, USA). Descriptive statistics including number, percentage, mean and standard deviation were used to describe the participants' characteristics and their hopes. Also, due to normal distribution of data in both groups within the hope variable by Kolmogorov-Smirnov test, to compare the hope scores before and after the intervention, we used paired t-test. Further, in order to compare the mean difference of hope between the two groups before and after the intervention, an independent t-test was used. Gender, marital status, job and educational status of both groups were compared with Chi-square test and age was compared independent test. P-value of <0.05 was considered in all the tests.

Results

A total of 186 patients were assessed for eligibility by convenience sampling method. Of this people only 70 patients were eligible (98 patients not meeting inclusion criteria and 18 patients refused to participate). Then through Block Randomization 35 patients were indiscriminately assigned to the intervention and 35 to the control group (Figure 1).
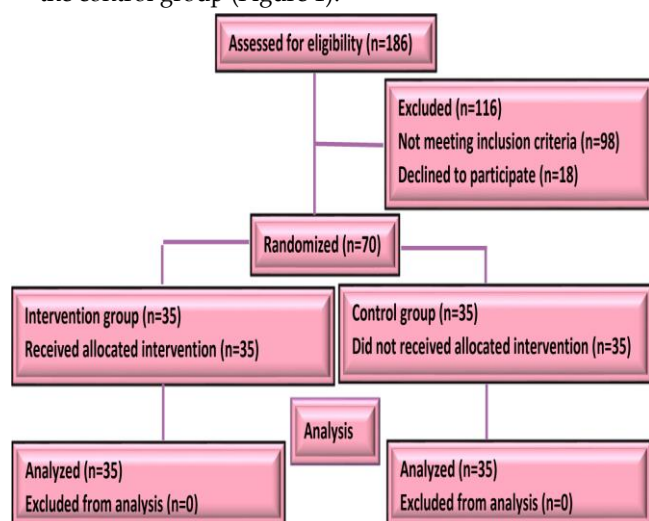

Figure1. Flowchart of the study

Results of Kolmogorov-smirnov showed normal distribution of data, so we used parametric tests in this study. The analysis of demographic characteristic of both

intervention and control groups by chi-square test revealed a significant statistical difference (P<0.05), regarding the relationship of visitors with patients while both groups were homogenous in terms of the socio-demographic characteristic such as gender, marital status, job, and education. Also, the independent t-test results showed no significant differences in the age distribution of patients and visitors in both intervention and control groups (P>0.05). Table 1 illustrates some sociodemographic characteristics of the participants.

Table 1. Demographic characteristics of intervention and control group

Variable	Intervention N (%)	Control N (%)	P-value
Education			0.3
Illiterate	8(22.9)	9(25.7)	
Primary	17(48.5)	11(31.4)	
Guidance	2(5.7)	2(5.7)	
Diploma	8(22.9)	10(28.6)	
Academic degree	0(0)	3(8.6)	
Marriage			0.4
Single	10(28.6)	13(37.2)	
Married	21(60.0)	16(45.7)	
Divorced	4(11.4)	6(17.1)	
Occupation			0.2
Employed	0(0)	2(5.7)	
Unemployed	11(31.4)	14(40.1)	
Jobless	24(68.6)	19(54.2)	
Gender			0.6
Male	19(54.2)	17(48.6)	
Female	16(45.8)	18(51.4)	
Visitor relation			0.00*
Mother	14(40.0)	3(8.6)	
Spouse	11(31.4)	10(28.6)	
Child	5(14.4)	5(14.4)	
Sister	4(11.4)	4(11.4)	
Brother	1(2.8)	1(2.8)	
Other	0(0)	12(34.2)	

*Statistically significant

According to the results, paired t-test showed a significant difference between the mean hope score in the intervention and control groups before and after the intervention. The independent t-test did not show any significant difference for the mean hope scores before the intervention between the intervention and control groups it while did show a significant difference for the mean hope scores between the two groups after the intervention (Table 2).

Table2. Hope score in the intervention and control groups before and after the regular appointments

Group	Before intervention Mean(SD)	After intervention Mean(SD)	Changes Mean(SD)	P
Intervention	34.25(5.48)	43.65(5.56)	9.40(2.07)	<0.001*
Control	36.62(5.70)	37.42(5.43)	0.80(1.77)	0.01*
Independent t-test	P=0.08	P=0.00*		P=0.00*

SD: standard deviation, *Statistically significant

Discussion

The comparison of the mean score of hope showed that there was a significant difference before and after the intervention in both control and intervention groups.

Mean score of hope in the intervention group had a significant increase but in the control group there was a

slight increase. Overall, the mean difference between the two groups before and after the intervention was significantly different.

The likely cause of the slight increase in hope score of the control group is that they were hospitalized and received necessary medical and therapeutic care while their appointments were conducted freely and without any planning. Also, the significant increase in hope score of intervention group could be due to the chance we gave them to decide on the first- degree relative that is more comfortable with along with receiving necessary therapeutic treatments. The support from these people help recovery and returning to the family.

Chi square test showed a significant statistical difference on visitor's relationship with the patients in both groups the fact is that intervention. In the control group, each individual appointment with the patient freely and without planning in the intervention group were planned and performed by first-degree relatives of the patient. Therefore, the differences in the type of appointments and the people visiting make a statistical difference. The findings of this study suggest that close family members and their supportive role are effective in promoting hope of depressed clients.

A study by Hellemans et al.,[22] reported eight recurring therapeutic factors in a specific period as effective factors in treatment including: 1)presence of others, 2)cohesion and understanding, 3)self-disclosure, 4)openness, 5)discussion, 6)insights, 7)observational experiences and 8)guidance from the therapist. According to the results of their study, the presence of people whom a patient is comfortable with leads to self-report and expression of experiences and is an effective factor in the treatment. Our results confirm a similar conclusion that family presence can have a positive effect on depression patients' hope.

In another study Radfar et al.,[23] revealed that family is the main member of the therapeutic team and in the caring process of depressed patients, and that the presence and cooperation of families during hospitalization is necessary. This study was also conducted on depressed patients to investigate the effect of family visits during hospitalization and receiving treatment interventions.

The effect of regular visits with families on patients was studied by Basiri moghadam et al.[9] Their results indicated that this kind of visits can balance patient's physiological indicators.

Moreover, another study conducted by Lolaty et al., who showed that hemodynamic symptoms and Spo2 of arterial blood sample within 10 minutes of the visit, as well as 10 and 30 minutes after that, reached the normal level and also after visits the patients expressed a feeling of well-being and anxiety reduction.[24]

In the above-mentioned investigations, families had regular appointments with physiological patients and the effect of the appointments was evaluated on physiologic indicators which showed a positive effect while, in current study, we studied the effect of the intervention on hope indicator of the depressed patients.

Although previous studies on physical patients showed the effect of their intervention on both physical and psychological aspects. For example the study by Lolaty et al., showed a positive impact on hemodynamic situation and also a positive impact on reducing anxiety and sense of wellbeing.

The nature of the appointment, the patient and the family experience are significant in both physical and mental disorders.

A qualitative study was conducted by Erickson et al., in 2011. The study included 12 interviews with 7 patients and 5 visitors in ICU. The findings suggested that visiting is a process that can transform unrealistic thoughts of patient and family into real ones. As a result, after visits the feeling of support toward patients by families had increased.[25] Also, in the present study it also seems that the realization of unrealistic thoughts of families and their increased sense of patient's support could enhance the hope of depressed patients.

Among the limitations of this study was the lack of cooperation of a number of patients and relatives on regular appointments, which was partially controlled by explaining the importance of the presence and role of the family to the patient and their relatives. Moreover, according to the social and cultural difference, the study's results may have limited the generalizability.

Conclusion

The findings revealed that regular appointments with families can enhance hope in hospitalized depressed patients. Bearing in mind that depression is one of the common mental diseases in different societies, and one aspect of the disease is hopelessness and anxiety which endangers the mental health and social life and destroys the meaning of life, providing interventions to increase hope in these patients seems to be important.

Family in Iranian society has an important supportive role in the treatment process and is considered as the main member of the treatment group. Providing applicable interventions related to their duties like regular meeting due to ease and efficacy can play an important role.

Based on our observation in our mental center, depressed patients, due to the nature of their disease, do not like to communicate with others and there is no systematic attempt to improve it. On the other hand, the patients' problems in social behaviors affect their families and consequently reduce their interest in visiting the patient in the hospital. In spite of the fact that depressed patients are reluctant to meet people, the use of systematic scheduled appointments with first-degree and favorite relatives in order to increase hope and motivation, interest in daily activities, determination of important life goals and ways to achieve them, is vital. It is recommended that the effectiveness of this

intervention be investigated in different and larger groups and in relation to other mental disorders.

Acknowledgments

Ethical issues

None to be declared.

Conflict of interest

The authors declare no conflict of interest in this study.

Research Highlights

What is the current knowledge?
Depressed patients, due to the nature of their disease, are not interested in social interactions and communicating with others. This can have a negative effect on family's inclination to visit their patient, consequently causing the patient to be further isolated.

What is new here?
In spite of the fact that depressed patients are reluctant to meet people, the use of systematic scheduled appointments with first-degree and favorite relatives in order to increase hope and motivation, interest in daily activities, determination of important life goals and ways to achieve them, is vital.

Author's contributions

Conception and design of the study RK, provided critical revision of the article and final version to publish, accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved collaborating in study design and writing of article N R, perform statistical analysis and collaborating interpretation A N, data collection EM.

References

1. Kashani Nassab Z, Allahvirdiyani K. The effects of fordyce's happiness training on decreasing depression among elderly women. Procedia Soc Behav Sci 2013; 84 (19): 501-3. doi: 10.1016/j.sbspro .2013.06.592
2. World Health organization. Sixty-fifth world health assembly [Internet] [2012 cited 20 Feb 2017]. Avaiable From: http://www.who.int/mediacentre/events/2012/wha 65 /journal /en/index4.html Accessed 16.6.20120
3. Khodayarifard M. 256–family therapy based on cognitive-behavioral approach for depressed adolescent: a case study. European Psychiatry 2013; 28 (1): 1. doi:10.101 6/S0924-9338(13)75 713-4
4. Montazeri A, Mousavi SJ, Omidvari S, Tavousi M, et al. Depression in Iran: a systematic review of the literature. Health Monitor Iranian Institute for Health Sciences 2013; 12 (6): 567-94. (Persian)
5. Valois RF, Zullig KJ, Huebner ES, Drane JW. Physical activity behaviors and perceived life satisfaction among public high school adolescents. J Sch Health. 2004; 74 (2): 59-65. doi:10.1111 /j.1746-1561.2004.tb04201.x
6. Geiger KA, Kwon P. Rumination and depressive symptoms: evidence for the moderating role of hope. Personality and Individual Differences 2010; 49 (5): 391-5. doi: 10.1016/j.paid.2010.04. 004
7. Manoochehri M, Golzari M, Nikozade EK. The Effectiveness of Hope Therapy on Reducing Depressive in Women That Have Addict Husband. Journal of Psychological Models and Methods 2015; 5 (18): 25-38. (Persian)
8. Seligman ME, Csikszentmihalyi M. Positive psychology: an introduction, in flow and the foundations of positive psychology.1st ed. Germany: Springer, Dordrecht; 2014.
9. Basiri Moghadam M, Jani M, Razm Ara M, Mohsenizade S, Hamzei A, Mohseni M. The effect of regular family caregivers' supportive meeting on physiologic parameters in CVA patients in intensive care unit. Medical-Surgical Nursing Journal 2015; 4 (3): 61-8.(Persian)
10. Rezaee N, Navidian A, Moshtaghi E. The effectiveness of life skills training on the level of hope in recovering addicts referring to the Zahedan psychiatric center. Sadra Medical Sciences Journal 2017; 5(4): 187-98. (Persian)
11. Venning A, Eliott J, Wilson A, Kettler L. Understanding young peoples' experience of chronic illness: a systematic review. Int J Evid Based Healthc 2008; 6 (3): 321-36. doi: 10.1111/j.1744-1609.2008.00107.x
12. Arnau RC, Rosen DH, Finch JF, Rhudy JL, Fortunato VJ. Longitudinal effects of hope on depression and anxiety: a latent variable analysis. J Pers 2007; 75 (1): 43-64. doi: 10.1111/j.1467-6494 .2006.00432.x
13. Maltby J, Day L. Depressive symptoms and religious orientation: examining the relationship between religiosity and depression within the context of other correlates of depression. Personality and Individual Differences 2000; 28 (2): 383-93. doi:10.1016/S0191-8869(99)00108-7
14. Azoulay E, Pochard F, Chevret S, Lemaire F, Mokhtari M, Le Gall JR, Dhainaut JF, Schlemmer B; French Famirea Group. Meeting the needs of intensive care unit patient families: a multicenter study. Am J Respir Crit Care Med 2001; 163 (1): 135-9. doi: 10.1164/ajrccm.163.1.2005117
15. Murray-Swank AB, Dixon L. Family psychoeducation as an evidence-based practice. CNS Spectr 2004; 9 (12): 905-12. doi: 10.1017/S109285290000972X
16. Meunier MR, Angstman KB, MacLaughlin KL, Oberhelman SS, Rohrer JE, Katzelnick DJ, Matthews MR.Impact of symptom remission on outpatient visits in depressed primary care patients treated with collaborative care management and usual care. Popul Health Manag 2014; 17 (3): 180-4. doi: 10.1089/pop.2013.0057
17. Roick C, Heider D, Toumi M, Angermeyer MC, et al. The impact of caregivers' characteristics, patients' conditions and regional differences on family burden in schizophrenia: a longitudinal analysis. Acta Psychiatr Scand 2006; 114 (5): 363-74. doi: 10.1111/j.1600-0447.2006.00797.x
18. Gonzalez CE, Carroll DL, Elliott JS, Fitzgerald PA, Vallent HJ. Visiting preferences of patients in the intensive care

unit and in a complex care medical unit. Am J Crit Care 2004; 13 (3): 194- 8.

19. Sartorius N, Leff J, López-Ibor JJ, Maj M, Okasha A. Families and mental disorders: From burden to empowerment. 1st ed. United States: John Wiley & Sons; 2008.

20. Katon WJ. Clinical and health services relationships between major depression, depressive symptoms, and general medical illness. Biol Psychiatry 2003; 54 (3): 216-26. doi: 10.1016/S0006-3223(03)00273-7

21. Kermani Z, Khodapanahi M, Heidari M. Psychometrics features of the snyder hope scale. Journal of Applied Psychology 2011; 5 (3): 7-23. (Persian)

22. Hellemans S, De Mol J, Buysse A, Eisler I, Demyttenaere K, Lemmens GM. Therapeutic processes in multi-family groups for major depression: results of an interpretative phenomenological study. J Affect Disord 2011; 134 (1-3): 226-34. doi:10.1016/j.jad.2011.05.050

23. Radfar M, Ahmadi F, Fallahi-Khoshknab M. Family: the main shelter of depression patients. Archives of Rehabilitation 2013; 14 (1): 108-19. (Persian)

24. Lolaty HA, Bagheri-Nesami M, Shorofi S A, Golzarodi T, Charati J Y. The effects of family-friend visits on anxiety, physiological indices and well-being of MI patients admitted to a coronary care unit. Complement Ther Clin Pract 2014; 20 (3): 147-51. doi: 10.1016/j.ctcp.2014.03.002

25. Eriksson T, Bergbom I, Lindahl B. The experiences of patients and their families of visiting whilst in an intensive care unit–a hermeneutic interview study. Intensive Crit Care Nurs 2011; 27 (2): 60-6. doi: 10.1016/j.iccn.2011.01.001