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A Study of Depression in Elderly Persons with Low Vision

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A Study of Depression

in Elderly Persons with Low Vision

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Abstract

Analysis of 67 elderly persons with low vision to determine if depression existed and to evaluate their social support networks was done by using the Center for Epidemiologic Studies Depression Scale (CES-D) and the Medical Outcomes Study Social Support Measure. It was found that elderly patients with low vision are no more depressed than other groups provided they have a support network. It was also found that these patients were less depressed as a result of possessing a positive self-evaluation of their health. Finally, a support network will increase the likelihood that a positive self-evaluation of health will occur.

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Chapter 1
Introduction

Statement of the Problem

Of the 11.4 million persons in the United States who have some kind of visual impairment, approximately 1.4 million have vision loss that interferes with normal living (American Foundation for the Blind, 1987). About one-half of all visual impairments occur in persons who are older than age 65 (National Advisory Eye Council, 1983). These elderly people are described as having low vision.

By definition, low vision is a serious visual impairment that cannot be corrected by medical or surgical procedures or by conventional eyeglasses (American Foundation for the Blind, 1987). Low vision affects the ability to perform basic day-to-day tasks in the home, in social settings, and on the job. This disability is also associated frequently with diminished ability to read, to recognize faces and facial expressions, to perform visually-guided motor tasks, to recognize the important features of the primary environment, and to see at night.

Low vision can result in major psychological adjustment problems (Foxall, et. al., 1992). Problems exacerbated by low vision include grief, confusion, anger, fear, anxiety, depression, social isolation problems, loss of control, and loss of self-esteem (Becker et al.,1984; Carrol, 1961; Cholden, 1978; Golden, et al.,1984; Heppen & Petersen,1979; Wineburg, 1981). Low vision has also been shown to be associated with lower morale (Gillman, et al., 1986) as well as reduced feelings of self-worth, diminished

emotional security, and low levels of social interaction (Anderson & Palmore, 1974). An association between low vision and mental status has also been documented within a sample of nursing home residents (Snyder et al., 1976). As demonstrated by Oppegard, et. al., (1984), vision loss relates moderately to depression and anxiety among older adults. Although the literature suggests that psychosocial problems exist with low vision elderly people, the evidence has not been documented adequately with systematic studies (Foxall, et al., 1992). The purpose of the present study is to analyze one problem, depression, as it relates to the aged with low vision.

The Significance of the Study

The significance of the study is to add to the body of evidence regarding the psychosocial effects upon older people who develop vision loss. The psychosocial aspects of aging and vision loss have a considerable impact on the individual's readiness needed to learn new ways of accomplishing routine activities with limited vision and the types of assistance needed by the older visually impaired person (Orr, 1991). Establishing the significance that various problems (in this study, depression) have on the lives of these individuals will make it easier for care providers to determine which services are required.

It is important for professionals and organizations working with elderly people to have a knowledge base of the issues associated with aging and vision loss and an understanding of the psychosocial aspects of vision loss as part of the aging process. Those that will benefit include eye care specialists, social workers, and low vision clinics that orchestrate the individual's rehabilitation. Others might include senior centers, transportation services, home health care services, individual counselors

members or friends who form the support group for these people.

This research will help to establish baseline data which will assist subsequent researchers in determining the effectiveness of rehabilitation and support for low vision elderly. Additional research may point out changes that are necessary in existing systems.

Chapter 2
Literature Review

Depression and the Elderly

By definition, depression is a morbid sadness, dejection, or melancholy, distinguished from grief, which is realistic and proportionate to a personal loss (Miller & Keane, 1987). The essential feature of major depression is the existence of a marked loss of interest in activities for at least two weeks (Butler, et al., 1991). In addition, depression may present itself differently among different cohort groups. Epstein (1976) reports that older clinically depressed patients report feelings of listlessness, apathy, and self-deprecation more than younger individuals. Salzman and Shader's (1979) symptom list includes feelings of worthlessness, helplessness, pessimism, suicidal thoughts, and guilt over failure.

According to Butler, et al., in their text Aging and Mental Health (1991), depression is the most common of the emotional disorders found in older people and can occur at any time in life. Depression varies all the way from transient "blues," which we all experience, to the extremes of psychotic withdrawal or suicide. The findings of Butler and his colleagues challenge previous conventional wisdom and show that depression among the elderly people is not significantly different from depression among the young.

Things that depress elderly people include chronic health problems (Hankin, 1980), stressful life events including marital, parental, and financial problems (Husaini, 1983), and loss of social support (Sauer and Codward (1985). Moss et al. (1991) demonstrated that chronic pain causes depression. Disability and depression are also related (von Korff et al., 1991).

Butler, et al., stated that depressive reactions increase in degree and frequency with old age as a corollary to the increased loss of much that is emotionally valued by the older person. Unresolved grief tasks, guilt, loneliness, and anger are expressed in mild to severe depressions with symptomatology including insomnia, despair, lethargy, anorexia, loss of interest, and somatic complaints. Negative life events are associated marginally with the onset of depression (Lieberman, 1983; Jarvik, 1983). When comparing types of negative life events, the highest levels of depression were found in a sample of elderly individuals when illness was a precipitating factor (Rubenstein, Zaidi, & Kahn, 1976). Other negative life events had minimal affect on depression as long as there was a solid support group to assist the elderly individual (Habif & Lahey, 1980). Nacoste & Wise (1991) hypothesized that an accumulation of past experiences and the set of expectations associated with being old alter the strength of the impact of negative life events on depression.

Interestingly, some studies have shown that the incidence of major depression may actually decrease slightly with age, suggesting a successful coping strategy among most elderly people (Blazer, et al., 1987). Some have suggested that this strategy involves maintaining close confiding relationships and support groups well into old age (Murphy, 1982; Oppegard, et al., 1984). In summary, even though depression exists among older adults, they are not a significantly more depressed cohort group in comparison to younger groups (Blumenthal, 1975; Zung & Green, 1972; Zung, 1967).

Loss and the Elderly

Loss is one of the predominant themes in characterizing the common emotional problems of older people according to Butler, Lewis, & Sunderland (1991). They go on to state that losses, which may occur simultaneously, include death of marital partner, older friends, colleagues, or relatives; decline of physical health and coming to personal terms with death; loss of status, prestige, and participation in society; and, for large numbers of the older population, additional burdens of marginal living standards. Cultural devaluation and feelings of neglect exacerbate loss.

Carroll (1961), a leader in the field of blindness, described twenty losses associated with blindness and visual impairment. The losses are divided into the following categories: (1) basic losses of psychological security; (2) losses in basic skills; (3) losses in communication; (4) losses in appreciation; (5) losses concerning occupation and financial status; (6) resulting losses to the whole personality.

According to Orr (1991), older persons experience various combinations of these losses at the onset of vision loss and as they attempt to adjust to vision loss. Unlike the younger person who loses vision, the older person customarily views vision loss as just one more disability or loss with which to cope. Orr emphasizes that the aging process does not automatically mean gradual and inevitable physical deterioration, as American society has held to so firmly.

Orr goes on to discuss the effects of the onset of vision loss:

1) feelings of loss of control over one's life and the subsequent need to be dependent on others;

2) feelings of loss of control over one's life and over one's environment is closely associated with the experience of a loss of privacy by the older visually impaired person;
3) feelings of inadequacy and loss of confidence and self-reliance reign, sometimes making it difficult for the older visually impaired person to go out of the house, to continue to be involved in community activities, or to attend a senior center;
4) loss of anonymity; using a cane or dog attracts attention;
5) loss of nonverbal communication such as a meaningful glance with a loved one, friends, or group.

Wineburg (1982) stated that reactions to vision loss include denial, taking the form of exaggerated hope that new cures will reverse the condition. He indicated that other older visually impaired persons may feel they are falling apart, may feel depressed, anxious, fearful and helpless and hopeless about the present and the future. Wineburg stated that the loss of vision can substantially accelerate older persons into a state of bewilderment, which can lead to loss of status, dignity and even an eventual loss of health.

Description of Low Vision

Vision impairment increases dramatically with age, which implies that older people as a group are more likely than younger people to experience a vision loss, and that the oldest old are at highest risk (National Center for Health Statistics, 1982). Vision impairment has the dubious distinction of being the second most prevalent physical impairment among persons age 65 years and older (NCHS, 1982). Nearly half of the legally blind population is 65 years of age or older (Butler, Lewis, & Sunderlund, 1991).

Low vision is defined as a serious loss of vision that cannot be corrected by medical or surgical procedures or by conventional eyeglasses (American Foundation for the Blind, 1987). Low vision affects the ability to perform basic day-to-day tasks in the home, in social settings, and on the job. Currently, well over three million older persons are severely visually impaired.

The four most common causes of visual impairment in people over 65 years are macular degeneration, cataracts (lens opacities), glaucoma, and diabetic retinopathy. Macular degeneration affects a vital part of the retina and leads to a loss of central vision, leaving peripheral vision intact. Cataract is an opacity of the crystalline lens within the eye. Glaucoma involves increased tension within and hardening of the eyeball as a result of increased fluid. There are two basic types of glaucoma: acute congestive (narrow-angle) and chronic (wide angle). The latter is the most common form of the disease. Diabetic retinopathy is a deterioration of the retina caused by chronic diabetes.

Low Vision and Depression

There are few studies that deal with low vision and depression. Oppegard, et al. (1984), concluded that hearing and vision loss were moderately related to depression and to anxiety among older adults but only for those persons with little access to social and care-giving support. Billig (1987) discussed health losses among older people. He concluded that they are a part of the life experience of aging and can result in serious depression. He felt that losses were cumulative and intensive. He did not discuss vision specifically.

Wineburg (1982) said that older visually impaired persons may feel they are falling apart, feel depressed, anxious, fearful, helpless ,and hopeless about the present and the future. Other studies revealed that older people who suffer from low vision experience a range of psychological reactions, including grief, confusion, fear, anxiety, depression, loss of control, social isolation, and loss of self-esteem (Becker et al., 1984; Carroll, 1961; Cholden, 1978; Golden et al., 1984, Heppen & Petersen, 1979), and lower morale (Gillman et al., 1986).

The deficiencies in previous studies include sample size (Oppegard, et al., 1984: under 100 subjects). Branch, Horowitz, and Carr (1989) state that small sample sizes serve to suggest directions for more systematic inquiry. The use of totally blind instead of low vision subjects is inappropriate (Fitzgerald, Ebert, & Chambers, 1987; Needham, Ehmer, Marchesseault, & De L'Aune, 1986). Other problems include using children or adolescents as subjects (Agrawal & Kaur, 1985; Bauman, 1964). Results cannot be generalized to low vision adults. Foxall, et al. (1992), felt that psychosocial conclusions obtained by researchers such as Jones, et al. (1981), Jones, Freemon, & Goswick (1981), Wulsin, Jacobson, & Rand (1987) were not documented by systematic studies. There also might be better depression instruments to use. Oppegard et al. (1984) used a short form of the Beck Depression Inventory to arrive at their conclusions.

In summary, depression results from a personal loss. Depression is the most common of the emotional disorders found in older people. However, many older adults report feeling less depression than younger adults. There has been little done to confirm that vision loss causes depression in older adults. As outlined in the methods section, this study will determine if depression increases after the onset of low vision in the elderly.

Self-Assessment of Health and the Elderly

Another factor of aging that might influence depression among low vision patients is the self-evaluation of their health. Idler and Kasl (1991) confirmed that self-assessment of health is the strongest predictor of life satisfaction. Individuals with poor objective health can have high life satisfaction if they believe their health is relatively good and vice-versa. This study will also include a question asking patients about their health satisfaction.

Chapter 3
Methodology

Objectives of the Study

The objective of this study was to analyze a sample of at least 100 people, 55 years of age and older, who had vision loss to determine if depression is a direct correlate. The literature reveals that usually most older people are not depressed. Therefore, if low vision patients developed depression after the onset of vision loss, it should have been readily apparent. Also analyzed was the effect of social support networks upon the severity of the depression. Depression and support group size should be inversely related. A secondary objective of the study was to add to the base line of information regarding depression in the elderly who have low vision. The results of this research will increase the limited information available regarding depression and low vision in the aged. Prior research in this area was not based upon adequate, systematic studies.

Assumptions

It was assumed that the elderly people used in this study did not have a significant mental illness or dementia. It was also be assumed that their life-satisfaction is typical for older adults. It was also be assumed that the vision loss cannot be reversed.

Limitations

A limitation of this study might be that the sample was not random. The sample was derived from patients who are unfortunate enough to have developed vision loss at a given time in their lives. These patients were tested for depression in the order that they appeared in the office for treatment.

Definition of terms

Low Vision: a serious loss of vision that cannot be corrected by medical or surgical procedures or by conventional eyeglasses.

Depression: in psychiatry, a morbid sadness, dejection, or melancholy, distinguished from grief, which is realistic and proportionate to a personal loss.

Elderly: for the purposes of this study, anyone over the age of 55.

Hypotheses

1) There is a statistically significant (.05 or .01) direct relationship between low vision and depression. The greater the vision loss, the greater the depression.
2) There is a statistically significant inverse relationship between depression and the individual's support network. Adequate support results in less depression.

Description of Instruments

The Center for Epidemiologic Studies Depression Scale (CES-D) was used to evaluate depression in low vision elderly patients. This scale was developed by Radloff in 1977. It was specifically constructed to assess current frequency of depressive symptoms, with emphasis on depressed affect or mood, and was intended for use with cross-sectional samples in survey research. The CES-D's 20 items represent the major components of symptomatology that Radloff identified in both the clinical literature and factor analytic studies of existing measures. The six components include: depressed mood, feelings of guilt and worthlessness, feelings of

helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. The CES-D was validated in household interview surveys, as well as in psychiatric settings. The patient was asked to rank his experiences and feelings in the following manner rarely or none of the time (0), some or little of the time (1), occasionally or a moderate amount of the time (2), and most or all of the time (3). The depression inventory is listed in Table 2.

Social support was measured by the MOS Social Support Measure. This survey arose from the Medical Outcomes Study, a two-year study of patients with chronic conditions. Sherbourne and Stewart (1991) developed this 19 item survey based upon four functional support scales: emotional, informational, tangible, affectionate, and positive social interaction. These support measures are distinct from structural measures of social support and from related health measures. Patients had five answers to choose from for the support network inventory, none of the time, a little of the time, some of the time, most of the time, and all of the time. The social support inventory is listed in Table 3.

Self-evaluation of health was done by having patients respond to a question regarding their health choosing very poor, poor, fair, good, or excellent.

Population and Sample

The study population was taken from elderly patients, 55 or older, who have recently suffered irreversible vision loss that categorizes them as low vision patients. The subjects' vision loss was confirmed by Dr. Ira Priluck, a retinal specialist at St. Joseph Hospital in Omaha, NE.

Data Collection Procedure

Once it had been determined that nothing further could be done to treat a person's visual disease, the survey was given to each patient to be completed in Dr. Priluck's office, by a person trained in data collection procedures. This survey included the CES-D depression scale, the MOS social support survey, a question regarding each patient's self-evaluation of their health as well as a questionnaire asking pertinent demographic information, including age, gender, onset of low vision, cause of low vision, visual acuity measurement, and prognosis.

Treatment of Data

The data was statistically analyzed using a t test to compare the difference between means scored by a comparison group and the low vision group (accepting significance at .01 or .05) and Pearson Product-Moment correlation coefficients to describe the relationship between variables.

The comparison group data used for depression was from a study done by Thorson and Powell in 1993 ($n = 400$). The comparison group data on the MOS Social Support Survey was obtained from the original work by Sherbourne and Stewart (1991). The validity of the MOS survey was established by using data obtained from a large sample ($n = 2987$), multitrait scaling analyses, and ultimately constructing a social support index which is reliable (all Alphas > 0.91) and stable over time.

Chapter 4
Findings

Revisions in Definitions and Data Collection Procedures

There were no changes in procedures or definitions. Data was collected as planned.

Sample Description

It was initially intended to survey one hundred low vision patients. The researcher settled for a smaller group (n = 67), forty-nine females and eighteen males, in order to complete the study within a reasonable amount of time. The reason for the smaller sample is that there were not as many elderly patients meeting the study criteria as was initially expected. The age of the sample ranged from 55 to 91, with a mean of 75 (SD 9.0). The interval between the beginning and the completion of treatment of the ocular disease ranged from three to twelve months. Fifty-one patients had macular degeneration, ten had diabetic retinopathy, three had central retinal vein occlusion, and two had trauma. Since macular degeneration and diabetic retinopathy are the leading causes of permanent vision loss among the elderly population, it was not surprising to find that the majority of the sample consisted of these two diseases. Forty-two patients suffered vision loss binocularly while twenty-five had monocular vision loss.

Table 1 describes the visual acuity distribution. 80.6% of the sample had visual acuity of 20/201 or worse. 20/200 is considered to be legally blind. The remaining 19.4% of the sample had visual acuity between 20/50 and 20/200. This smaller segment of the sample, although not legally blind, reflects vision loss that correlates with the definition of low vision and justifies inclusion in the analysis.

The CES-D depression inventory is described in Table 2. Listed are the 20 questions asked followed by the mean and standard deviation for each question. Patients were asked to respond on a scale from 0 (none of the time) to 3 (all of the time). In this study, 12.672 was the mean score with a standard deviation of 8.71. This was higher than the results reported by Thorson and Powell in 1993 (6.78, 7.68) and by Radloff in 1991 (8.97, 8.50), but below 16.0 which is considered by Radloff to be indicative of depression. Although depression and vision loss in this study did not correlate, there was still depression among some of the patients which accounts for the higher numbers. To verify depression among the study group, a t-test revealed that the study group was significantly more depressed than the comparison groups ($t = 5.99$, $p < .01$).

The MOS social support network inventory is described in Table 3. The 20 questions asked are listed followed by the mean and standard deviation for each question. Responses were scaled from 1 (none of the time) to 5 (all of the time). In this study, 80.448 was the mean score with a standard deviation of 14. 237 which was higher than the results reported by Sherbourne and Stewart in their original study in 1991 (69. 4, 20.7). With the the MOS survey, the higher numbers reflect greater support. A t-test verified that there was a significant difference between the means of the study group and the comparison group ($t = 3.48$, $p < .01$)

Table 4 describes the correlation coefficients between the variables tested in the study: visual acuity, depression, support network, and self-evaluation of health.

HypothesesTesting

After analysis of the data was completed, it was applied to the proposed hypotheses. The results revealed that:

1) There is not a significant correlation between visual acuity and depression.
2) There is a significant inverse correlation between depression and the patients support network.

The first hypothesis proposed that there would be a correlation between vision loss and depression. This was not the case. However, the second hypothesis, that a support network would reduce the amount of depression, was found to be significant.

Other Findings

Further analysis of the data revealed correlations consistent with current thinking regarding self-evaluation of health. It was found that there is a significant inverse relationship between depression and elderly patient's self-evaluation of health. The better an elderly patient feels about their health, the less likely they are to be depressed. Also, there is a significant relationship between self-evaluation of health and the patient's support network. A support group surrounding an older patient will increase the likelihood that the self-evaluation of health will be positive.

Chapter 5
Conclusions and Implications

The intent of this research project was to determine if elderly people who suffer from vision loss become depressed. Most would assume that blindness would be depressing. The results of this study determined that was not the case. Utilizing the CES-D depression scale, there was no significant correlation between eye disease, subsequent visual acuity loss, and depression.

There are several possible explanations for this result. First, elderly patients are often aware of the conditions that predicate visual problems. For example, a diabetic knows that bleeding in the retina is a result of diabetes. Age-related macular degeneration is usually familial. Patients with progressive visual conditions, then, can adjust to them without the stress of loss which can lead to clinical depression.

Another factor that parallels disease awareness is that the onset of eye disease is rarely acute. However, even if the onset is unexpected, treatment can often be initiated to reverse or stabilize the condition. This gives the patient hope, reducing the chance of depression.

Another explanation to consider is that patients are initially affected monocularly with the disease affecting the other eye at a later time. Vision loss in one eye is easier to adapt to if the other eye is left intact.

One final concept to be discussed is that vision loss in elderly patients primarily affects central vision, leaving peripheral vision unaffected. Granted, loss of central visual acuity can be devastating and results in loss of reading skills, inability to drive a car, and other visually oriented skills. But, peripheral vision allows low vision patients mobility and the potential to adapt well enough to live independently.

This study did show a significant inverse relationship between depression and elderly patient's support network. A support network means that depression is less likely to occur. This result is consistent with a 1984 study by Oppegard, et al, that indicated that vision loss was moderately related to depression and to anxiety among older adults, but only for those persons with limited access to the social and caregiving support of a family network. Another paper that discusses low vision and support groups was done by Van Zandt, Van Zandt, and Wang (1994). They found that elderly people who were members of support groups for the blind were more likely to be successful in dealing with vision loss compared to those who were more isolated with their condition.

The relationship between depression and self-evaluation of health showed a significant inverse relationship. The better elderly patients feel about their health, the less chance depression will occur. Also significant is the relationship between elderly patient's support network and the self-evaluation of their health. In this study, it was found that a positive self-evaluation of health was directly related to a strong support network.

Discussion of self-evaluation of health is in order here. A literature review suggested that self-evaluation of health by elderly people:

a) Is directly correlated with physician's evaluations of health.
b) Is a better predictor of future physician's ratings than the reverse.
c) Is the strongest single predictor of life satisfaction.
d) Is affected by social status, gender, education, and peer groups.
e) Is tempered by aspiration levels keeping the reality of an individual's health status in check.
f) Is most positive in the 75+ age bracket.
g) Is usually higher in women than in men.

h) Can place the older person in the role of dependent recipient which can negatively affect self-evaluated health (Stoller, 1984).

I) Is a significant predictor of mortality (Idler & Kasl, 1991).

Self-evaluation of health plays a major psychological role in the life of an elderly person. To have a significant correlation in this study with support networks and depression adds to the overall body of knowledge surrounding self-evaluation of health.

Results of this study are consistent with previous research. Depression in low vision patients was not found to be significant as hypothesized. This might be a result of the tendency for depression to decrease slightly with age (Blazer, et al., 1987). This finding also corroborates research stating that even though depression exists among older adults, they are not a significantly depressed group in comparison to younger groups (Blumenthal, 1975; Zung & Green, 1972; Zung, 1967).

It is well accepted that support networks are important to older people. This study found depression was insignificant in those individuals with low vision who had solid support from family and friends. Self-evaluation of health by elderly people as a predictor of events plays a significant role in low vision patients' lives as well. This study demonstrated that a positive self-evaluation of health resulted in reduced depression. It was also found that positive health evaluations were directly correlated with support groups. Elderly patients with little support could not be expected to rate their health status positively.

Another motivation for this study was to determine what health professionals could do to assist elderly low vision patients during the processof rehabilitation. An area of assistance to be addressed immediately is to keep the patient's support network informed of the visual prognosis. The patient cannot be counted on to explain the severity of their problem to friends and family, due to the "stiff upper lip" syndrome. The eye doctor, a nurse, or a social worker can arrange meetings with family and friends to explain the new needs of the patient and continue to monitor the success of this group support. If the patient doesn't respond positively to non-professional support, then professional counseling is indicated. It is mandatory that low vision elderly patients be monitored professionally via office visits, even after treatment is completed, to insure that their mental health remains stable.

Another area that needs to be emphasized is attitude. This study found that even though older patients were visually handicapped, they still felt that their health was good. It must be emphasized to these patients during rehabilitation that things could be worse. Other positive aspects of their lives need to be built upon in order to help elderly low vision patients cope with their vision loss.

Additional research into elderly patients with low vision is necessary. Even though depression as a result of vision loss was found to be insignificant in these patient's lives, study of lesser psycho-social problems such as anxiety and stress, which can accumulate to lead to major depression, should be attempted. Further understanding into these areas could help health care professionals predict which patients are at risk to develop psycho-social problems before treatment of the visual condition is completed.

Another area to research is the satisfaction that low vision patients have with their support network. A dysfunctional group of supporters might be harmful to the elderly patient recovering from vision loss. It would be also helpful to know if support groups remain helpful or become a nuisance over time.

Other areas of research needed include longitudinal studies regarding adaptation to low vision by elderly patients. Overcoming transportation problems, shopping problems, personal hygiene, and other situations that are usually taken for granted should be evaluated in order to understand how people with low vision return to the mainstream of daily activity. Life satisfaction should be evaluated longitudinally in order to understand what changes occur that allow for the elderly patient with vision loss to live a satisfying and happy life.

In summary, this study of low vision elderly patients revealed that vision loss does not necessarily cause depression if there is an adequate support network. Also, low vision patients with a positive self-evaluation of their health were less likely to be depressed. Finally, a support network will increase the likelihood that a positive self-evaluation of health will occur.

If elderly people had the option to select disease conditons as a substitute for the unforeseen health conditions that often accompany aging, most would probably not choose vision loss. Unfortunately, the aging process does not allow us to pick and choose our afflictions. During trying times, of which ocular disease certainly qualifies, patients can feel isolated and uncertain about what the future holds. It should be comforting to them to

know that with timely medical intervention, consistent support from family and friends, and maintaining a positive outlook on life, that the problems associated with loss of vision can be overcome. Health care professionals can confidently reassure low vision patients that even though their lives will never be the same as before the onset of vision loss, there is still hope for a productive, satisfying, and independent lifestyle.

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Appendix

Table 1.

Visual Acuity Distribution (n = 67)

Category	Frequency (Distribution %)
20/50 -20/100	7 (10.4)
20/101 -20/200	6 (9.0)
20/201 -20/400	14 (20.9)
20/401 or greater	40 (59.7)
All Items	67 (100)

Table 2

Depression Inventory

Center for Epidemiologic Studies Depression Scale (n = 67)

During the past week:	Mean (S. D.)
1. I was bothered by things that usually don't bother me.	.881 (1.066)
2. I did not feel like eating; my appetite was poor.	.239 (.698)
3. I felt that I could not shake off the blues even with help from my family or friends.	.612 (.904)
4. I felt that I was just as good as other people.	1.060 (1.336)
5. I had trouble keeping my mind on what I was doing.	.612 (.870)
6. I felt depressed.	.746 (.943)
7. I felt that everything I did was an effort.	.836 (.963)
8. I felt hopeful about the future.	2.149 (1.171)
9. I thought my life had been a failure.	.269 (.665)
10. I felt fearful.	.418 (.762)
11. My sleep was restless.	.925 (1.034)
12. I was happy.	.597 (.906)
13. I talked less than usual.	.522 (.841)
14. I felt lonely.	.552 (.858)
15. People were unfriendly.	.075 (.317)
16. I enjoyed life.	.388 (.887)
17. I had crying spells.	.358 (.732)
18. I felt sad.	.567 (.772)
19. I felt that people dislike me.	.164 (.567)
20. I could not get going.	.701 (.871)
All Items.	12.672 (8.710)

Table 3
Support Network Inventory
Medical Outcomes Study (MOS) Social Support Survey (n = 67)

	Mean (SD)
Question:	
1. About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?	10.323 (11.077)
Question: People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?	
2. Someone to help you if you were confined to bed.	4.015 (1.135)
3. Someone you can count on to listen to you when you need to talk.	4.358 (.829)
4. Someone to give you good advice about a crisis.	4.313 (.908)
5. Someone to take you to the doctor if you needed it.	4.821 (.386)
6. Someone to show you love and affection.	4.448 (.942)
7. Someone to have a good time with.	4.090 (1.083)
8. Someone to give you information to help you understand a situation.	4.209 (.897)
9. Someone to confide in or talk to about yourself or your problems.	4.269 (.863)
10. Someone who hugs you.	4.149 (1.104)
11. Someone to get together with for relaxation.	4.000 (1.142)
12. Someone to prepare your meals if you were unable to do it yourself.	4.254 (1.172)
13. Someone whose advice you really want.	4.119 (1.052)
14. Someone to do things with you to help you get your mid off things.	4.015 (1.022)
15. Someone to help with daily chores if you were sick.	4.269 (1.024)
16. Someone to share your most private worries and fears with.	4.090 (1.011)
17. Someone to turn to for suggestions about how to deal with a personal problem.	4.224 (.935)
18. Someone to do something enjoyable with.	4.164 (1.024)
19. Someone who understands your problems.	4.284 (.901)
20. Someone to love and make you feel wanted.	4.358 (1.040)
All Items.	80.448 (14.237)

Table 4

Correlation Coefficient Between Component Variables

Variable	1	2	3	4
1. Visual Acuity	____	____	____	____
2. Depression	-.08	____	____	____
3. Support Network	.15	-.46**	____	____
4. Self- Evaluation of Health	.17	-.44**	.35**	____

** $p < .01$