PROGNOSIS OF DEPRESSION IN VISUALLY IMPAIRED ADULTS

Dixit Swati*

Dr. Kumari Chandra**

Abstract

This paper presents the level of depression in the visually impaired adults. The sample of the study involves visually impaired young adults and visually impaired middle aged adults. Purposive sampling technique was adopted for the study. 200 visually impaired adults participated and interview method was used to collect the data. Overall mean score comparison shows that middle aged visually impaired (13.68±6.21) is greater than the mean score obtained by visually impaired young adults (12.04±5.04). The overall mean scores on dimensions (guilt, feeling of being punished, satisfaction level, loss of interest, decision making, appetite and weight loss) of depression is greater among the middle aged visually impaired adults.

Keywords: Depression, Visually impaired, Middle aged adults, Young adults, Counseling services

* Research Scholar, Human Development, Banasthali Vidyapeeth, Rajasthan, India

** Associate Professor, Banasthali Vidyapeeth, Rajasthan, India

Introduction

From the beginning of civilization mankind has been fronting the complexity of vision impairment. According to World Health Organization a person is considered as visually impaired if he has a visual acuity ranging 20/60 to 20/200. Among all impairments, visual impairment is considered to be more important as sight is one of the five most important senses possessed by man. Vision impairment has profound human and socioeconomic consequences in all societies. These people in India are silent and invisible in spite of their significant number. One knows almost nothing about the existential experience of persons who lives with visual impairment. Vision impairment as such do not cause any mental or emotional commotion but after-effects of loss of vision can cause behavioural difficulties like loss of mobilization which affects all phases of life. Probably the most common psychological effect of vision loss is depression. It's usually common for sufferers to account unease and fear associated with the apprehension of future vision loss or blindness and phobic anxieties, such as phobia of open spaces, claustrophobia, and fear of loneliness (Khdiza (2012). People with any type of visual functioning loss are more probable than those with none to account depression. Even after taking every possible factor in mind, adults with ocular function loss reports to be 90 per cent more to have depression than those without visual function loss **(Xinzhi, 2013).** As visually impaired people experiences problem associated with functioning it sometimes leads to depression. Visually impaired people have a higher rate of depression compared with sighted people **(Evans et al, 2007).** Visual impairment is found to be associated with the feeling of worthlessness and hopelessness in this community population of the adults (**Tsai et.al 2003)**. People with visual impairment are more likely to experience problems with functioning, which in turn leads to depression (**Evans, Fletcher and Wormland 2007)**. Vision specific distress has a unique contribution in predicting depressive symptoms. Vision specific distress is the strongest unique predictor of depressive **Jones et al (2009)** analyzed data from the 1997-2004 National Health Survey on visual impairment and depressive symptoms for 49,278 adults comparing visually impaired adults with and without depressive symptoms with a reference group of adults with neither condition for outcome measures: physical health, health behaviours and difficulties with self care, and social participation. Results showed that adults with visual impairment and severe depressive symptoms were more likely than the adults with neither condition to smoke, be obese, be physically inactive, have fair-poor health, and have difficulties with self care and social participation. **Casten et al (2004)** studied the age related macular degeneration and depression. The findings of the study indicated that the prevalence of depression among patients with AMD is fairly high (approximately 30%) and that depression is a major cause of disability among patients with AMD, even when severity of vision loss is considered. Interventions to alleviate the emotional distress associated with vision loss are also discussed. Several studies indicated that AMD is a risk factor for depression and this has serious consequences for the quality of life among patients with AMD. The prevalence of depression in people with a visual disability is high but screening for depression and referral for treatment is not yet an integral part of visual rehabilitation service provision.

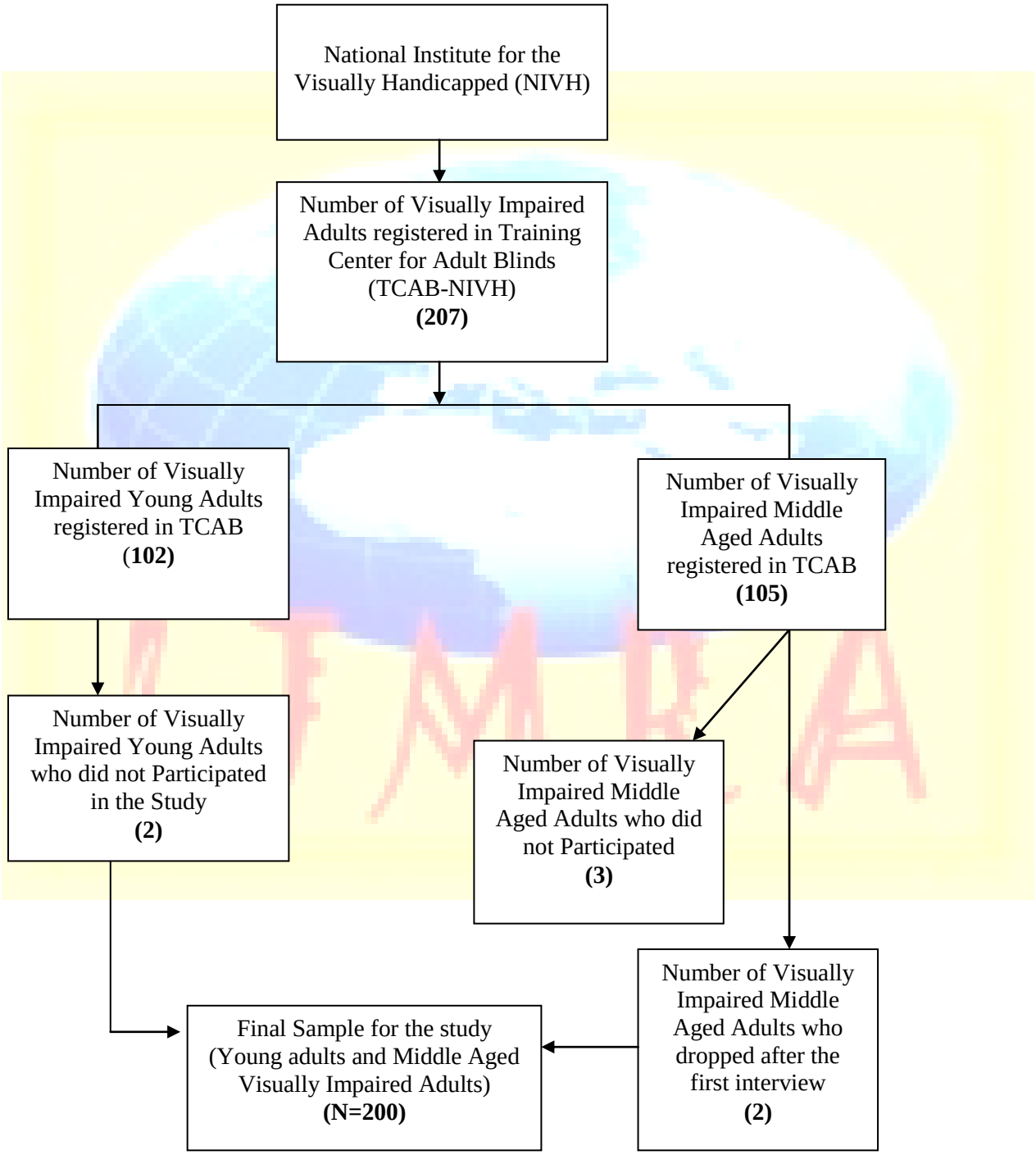
Hypothesis formed:

H_O : There is no significant difference in the depression level between the visually impaired young adults and middle aged adults.

H_a : The level of depression in the middle aged visually impaired is greater than the young adults.

Materials and Methods: The research was conducted at National Institute for the Visually Handicapped (NIVH), Dehradun, India. Descriptive research design and survey method was used to carry the research.

Collection of sample: Purposive sampling technique was adopted for the study. 200 visually impaired adults were selected from National Institute for the Visually Handicapped (NIVH).



Diagrammatic representation of Sample Selection

There were 207 visually impaired adults (visual acuity ranging 20/60 to 20/200) registered in Training Centre for the Adult Blinds (TCAB). Out of which 102 were young adults (20-40 years) and 105 were middle aged (40-60 years) visually impaired. Two young adults did not participate in the study whereas out of 105 middle aged adults three did not participate and one dropped off from the study after the first interview. Hence, the final sample size comprised of 200 adults out of which 100 were young adults and 100 were middle aged.

A. Tool used

Beck Depression Inventory

The tool was developed by Dr. Aaron T Beck in the year 1961. It was developed to measure the severity and level of depression among adolescents and adults. It was revised in the year 1996. It is a 21 items inventory containing 21 different questions related to depression.

Reliability and Validity

The tool has been reported to have fairly high reliability irrespective of the population it is used on. The coefficient alpha of the tool is high (0.80) that established the construct validity and it can very well distinguish patients suffering from depression from the non depressed patients.

When the correlation was calculated then the correlation of all the items was found to be significant at 0.5. The test and the retest ability was reviewed with the help of the responses of nearly 26 outpatients who were tested at first and then another therapy sitting after one week. Correlation of 0.93 was there which was significant at $p<.001$.

Administration

It is a self reported inventory, containing 21 items on different aspects like pessimism, sadness, punishment fears, guilt and so forth. It can be completed within a time span of five to ten minutes. The environment should have enough brightness for reading and it should be quiet enough to facilitate proper concentration for the test takers.

If it being administered in the interview form then the instructions should be read loudly and properly to the subjects and the administrator should make it sure that the test takers understands each and every question properly. The manual of the tool is properly written and is enough to provide the test taker and administrator with information related to the norms.

Scoring and Analysis

The tool is rated on four point Likert scales, the score ranges from 0 to 3 based on the complexity of each item.

After the completion of the test the different scores of each item is calculated altogether that is score for each of the 21 items are added up. 63 would be the maximum possible score for the whole test which means that the respondent has circled the number three response for all the questions. As the lowest score for each item is 0 this implies that the lowest possible score for the total test would also be zero. If the total score of the patient ranges among one to ten than the ups and downs are considered as normal,

among eleven to sixteen it is considered that the patient has mild mood disturbances, seventeen to twenty the subject is suffering from mild mood disturbances, twenty one to thirty moderate depression, among 31 to 40 severe depression and if it ranges from above 40 the patient is considered to be very severely depressed.

Results and Discussions

Mean, SD, 't' values and p values on the Dimensions of Depression of Visually Impaired Young Adults and Middle Aged Adults

Dimensions of Depression	Visually Impaired Young Adults (n_1=100) Mean ± SD	Middle Aged Visually Impaired Adults (n_2=100) Mean ± SD	't' values	p values
Gloominess	.94±.422	.96±.447	-.325	0.745^{NS}
Discouragement about future	.84±.419	.86±.4927	-.309	0.758^{NS}
Feeling of Failure	.68±.468	.70±.50	-.291	0.771^{NS}
Satisfaction Level	.70±.50	.92±.562	-2.916	0.004**
Guilt	.38±.48	.64±.559	-3.501	0.001**
Feeling of being punished	.62±.48	.76±.42	-2.155	0.032*
Disappointment	.84±.36	.94±.46	-1.680	0.095^{NS}
Feeling of Worthlessness	.72±.45	.62±.52	1.440	0.151^{NS}
Suicidal Tendencies	.06±.23	.12±.32	-1.483	0.14^{NS}
Tendency of crying	.80±.56	.82±.55	-.251	0.802^{NS}
Irritability	.72±.53	.78±.57	-.762	0.447^{NS}
Loss of interest	.22±.41	.34±.47	-1.897	0.049*
Decision making	.50±.34	.74±.59	-3.077	0.002**
Physical appearance	.76±.65	.80±.66	-.429	0.669^{NS}
Work efficiency	.68±.46	.76±.47	-1.200	0.232^{NS}
Sleep pattern	.46±.70	.36±.65	1.038	0.301^{NS}
level of fatigue	.64±.48	.56±.42	1.107	0.27^{NS}
Appetite	.38±.52	.60±.56	-2.836	0.005**
Weight loss	.28±.41	.66±.51	-3.791	0.00**
Worry about health	.72±.49	.74±.44	-.302	0.763^{NS}
Overall	12.04±5.04	13.68±6.21	-2.067	0.04*

Table 1 *p<.05, ** p< .01, NS= non significant

Table 1 clearly shows that p<.05 on the dimensions (feeling of being punished and loss of interest) of depression. On the dimensions: satisfaction level, guilt, decision making, appetite and weight loss of depression p<.01. Hence, it could be concluded that the null hypothesis is rejected in the favour of alternate hypothesis on the dimensions: feeling of being punished, loss of interest, guilt, satisfaction, decision making, appetite and weight loss.

On comparison of the mean scores of visually impaired young adults and middle aged visually impaired adults it is clear that middle aged visually impaired adults obtained a higher mean scores on the dimensions: satisfaction level (.70±.50), guilt (.64±.559), feeling of being punished (.76±.42), loss of interest (.34±.47), decision making (.74±.59), appetite (.60±.56) and weight loss (.66±.51).

Table depicts overall p<.05. Overall mean score comparison shows that middle aged visually impaired (13.68±6.21) is greater than the mean score obtained by visually impaired young adults (12.04±5.04). Since, the overall mean scores on dimensions (guilt, feeling of being punished, satisfaction level, loss of interest, decision making, appetite and weight loss) of depression is greater among the middle aged visually impaired adults, it could be concluded that depression level is greater in middle aged visually impaired adults.

Similar findings were reported by the study done by Tsai et al (2003). The study investigated the level of depression among the visually impaired adults in an urban community. Impaired vision was considerably higher in the middle aged visually impaired adults than the visually impaired young adults.

Level of Depression in Visually Impaired Young Adults and Middle Aged Adults

Table 2 Percentage Distributions of Visually Impaired Young Adults and Middle Aged Adults on the Levels of Depression

Score range	Levels of Depression	Visually Impaired Young Adults (n_1=100)	Middle Aged Visually Impaired Adults (n_2=100)
		Percentage	Percentage
1-10	Normal Ups and Downs	38	28
11-16	Mild Mood Disturbances	42	40
17-20	Borderline Clinical Depression	18	18
21-30	Moderate Depression	2	14
31-40	Severe Depression	0	0
Over 40	Extreme Depression	0	0

Table 2 illustrates that 38 per cent of the young adults suffer from ups and downs in mood. Twenty eight per cent of the middle aged visually impaired adults suffer ups and downs in mood. Forty per cent of the middle aged visually impaired and 42 per cent of the visually impaired young adults suffer

from mild mood disturbances. Eighteen per cent of the middle aged adults suffer from borderline clinical depression. Fourteen per cent of the middle aged visually impaired adults and two per cent of the visually impaired young adults suffer from moderate level of depression.

Counseling services should be provided to the people suffering from borderline clinical depression and moderate depression. These might be considered as at risk cases for whom counseling and psychiatric help should be arranged.

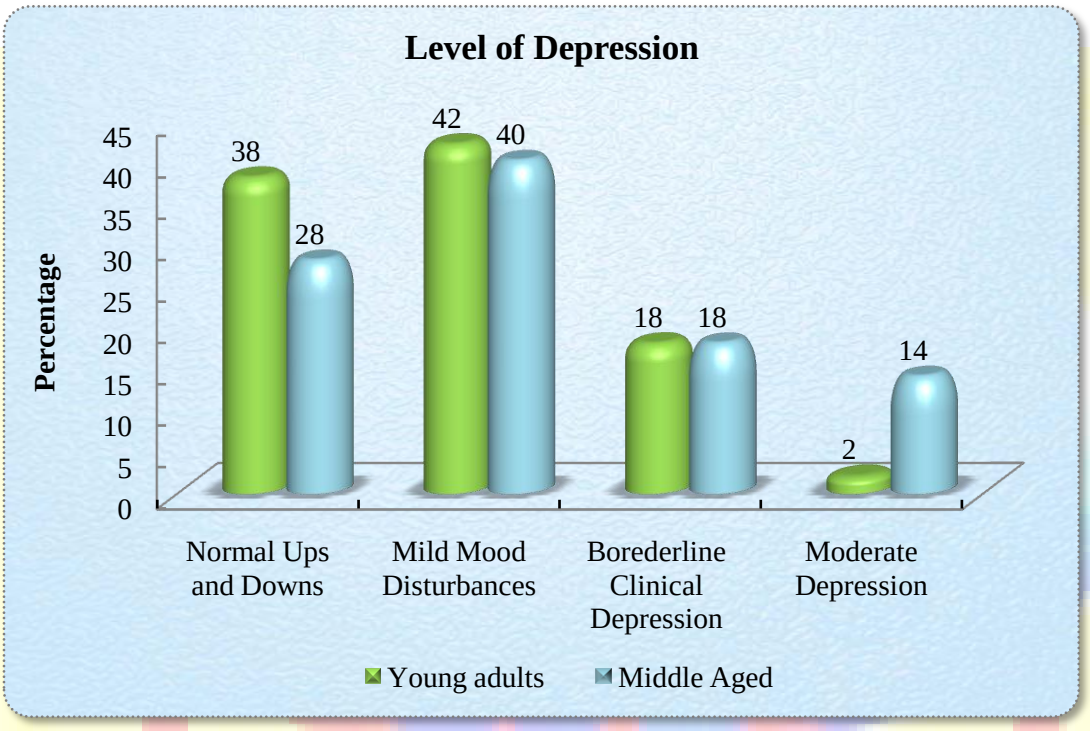


Figure 1 Percentage Distributions of Visually Impaired Adults on the Levels of Depression

Table 3 Chi Square Values Exhibiting Association between Dimensions of Depression and Age of the Visually Impaired Adults

Dimensions of depression	χ^2	p value
Gloominess	2.023	0.568^{NS}
Discouragement about future	2.339	0.311^{NS}
Feeling of Failure	2.03	0.362^{NS}
Satisfaction Level	9.942	0.007**
Guilt	12.192	0.002**
Feeling of being Punished	4.582	0.032*
Disappointment	8.356	0.015*
Feeling of Worthlessness	5.625	0.060^{NS}
Suicidal Tendencies	2.198	0.138^{NS}
Tendency of crying	0.105	0.949^{NS}
Irritability	1.43	0.489^{NS}
Loss of interest	3.571	0.039*
Decision making	11.64	0.003**
Physical appearance	0.211	0.90^{NS}
Work efficiency	2.735	0.255^{NS}
Sleep pattern	7.984	0.046*
level of fatigue	4.461	0.107^{NS}
Appetite	8.138	0.017*
Weight loss	16.007	0.00**
Worry about health	2.539	0.281^{NS}
Overall	42.228	0.006**

*p<.05,**p<.01, NS= non significant

Table 3 shows that the p value <.01 for satisfaction level, guilt and decision making. It also shows that p<.05 for feeling of being punished, disappointment, appetite, sleep pattern and loss of interest.

Hence, it could be concluded that age of the visually impaired adult is associated with the dimensions of depression.

Discussion: Thirty eight per cent of the young adults suffer from ups and downs in mood. Twenty eight per cent of the middle aged visually impaired adults suffer ups and downs in mood. Forty per cent of the middle aged visually impaired and 42 per cent of the visually impaired young adults suffer from mild mood disturbances. Eighteen per cent of the middle aged adults suffer from borderline clinical depression. Fourteen per cent of the middle aged visually impaired adults and two per cent of the visually impaired young adults suffer from moderate level of depression.

On comparison of the mean scores of visually impaired young adults and middle aged visually impaired adults it is clear that middle aged visually impaired adults obtained a higher mean scores on the dimensions: satisfaction level (.70±.50), guilt (.64±.559), feeling of being punished (.76±.42), loss of interest (.34±.47), decision making (.74±.59), appetite (.60±.56) and weight loss (.66±.51). Overall mean score comparison shows that middle aged visually impaired (13.68±6.21) is greater than the mean score obtained by visually impaired young adults (12.04±5.04). The overall mean scores on dimensions (guilt, feeling of being punished, satisfaction level, loss of interest, decision making, appetite and weight loss) of depression is greater among the middle aged visually impaired adults.

Depression level was higher in the middle aged visually impaired adults than the visually impaired young adults. Poor quality of life and lack of social support could be the reason for the higher level of depression in middle aged visually impaired adults. Proper psychological counselling should be given to the middle aged visually impaired adults. Weekly or monthly counselling session will help them in overcoming the depressive symptoms and will help them to look forward in their lives with a more positive perspective.

Recommendations for Future Researches

- Further studies could be conducted to assess the needs among visually impaired children and older adults and their service providers.
- Cross cultural studies could be conducted.
- Studies could be conducted on other age groups.
- Interventional studies could be conducted.

Acknowledgements

We are grateful to Banasthali Vidyapeeth, Rajasthan and National Institute for the Visually Handicapped, Dehradun for providing us the facilities as well as opportunity to conduct this research. The authors are also grateful to the Vice Chancellor of Banasthali Vidyapeeth and Director of NIVH for their support and encouragement in many ways.

Bibliography

Adams, G. L. & Pearlman, J. T. (1970). Emotional response and management of visually handicapped patients. *The International Journal of Psychiatry in Medicine*, 1(3), 233–240.

Becker, E. L. & Landau, I. (1986). International dictionary of medicine and biology. *Journal of Clinical Engineering*, 11(2), 134.

Berman, K. & Brodaty, H. (2007). Psychosocial effects of age-related macular degeneration. American *Journal of Ophthalmology*, 143(3), 545.

Cacioppo, J. T. & Patrick, W. (2008). *Loneliness: Human nature and the need for social connection.* WW Norton & Company, 56, 34-35.

Evans, J. R., Fletcher, A. E., & Wormald, R. P. (2007). Depression and anxiety in visually impaired older people. *Journal of Ophthalmology*, 114(2), 283–288.

Fenwick, E. K., Lamoureux, E. L., Keee, J. E., Mellor, D., & Rees, G. (2009). Detection and management of depression in patients with vision impairment. *Journal of Optometry & Vision Science*, 86(8), 948–954.

Hayman, K. J., Kerse, N. M., La Grow, S. J., Wouldes, T., Robertson, M. C., & Campbell, A. J. (2007). Depression in older people: visual impairment and subjective ratings of health. *Journal of Optometry & Vision Science*, 84(11), 1024–1030.

Hersen, M., Kabacoff, R. I., Van Hasselt, V. B., Null, J. A., Ryan, C., Melton, M., & Segal, D. (1995). Assertiveness, depression, and social support in older visually impaired adults. *Journal of Visual Impairment and Blindness*, 89, 524–530.

Horowitz, A., Reinhardt, J. P., & Kennedy, G. J. (2005). Major and subthreshold depression among older adults seeking vision rehabilitation services. *The American Journal of Geriatric Psychiatry*, 13(3), 180–187.

Jones, G. C., Rovner, B. W., Crews, J. E., & Danielson, M. L. (2009). Effects of depressive symptoms on health behaviour practices among older adults with vision loss. *Journal of Rehabilitation psychology*, 54(2), 164.

Jose, R. (1997). National programme for control of blindness. *Indian Journal of Community Health*, 3, 5–9.

Kleinschmidt, J. J., Trunnell, E. P., Reading, J. C., White, G. L., Richardson, G. E., & Edwards, M. E. (1995). The role of control in depression, anxiety, and life satisfaction among visually impaired older adults. *Journal of Health Education*, 26(1), 26–36.

Lamoureux, E. L., Pallant, J. F., Pesudovs, K., Rees, G., Hassell, J. B., & Keeffe, J. E. (2007). The effectiveness of low-vision rehabilitation on participation in daily living and quality of life. *Journal of Investigative Ophthalmology & Visual Science*, 48(4), 1476–1482.

Lee, P. P., Spritzer, K., & Hays, R. D. (1997). The impact of blurred vision on functioning and well-being. *Journal of Ophthalmology*, 104(3), 390–396.

Margrain, T. H., Nollett, C., Shearn, J., Stanford, M., Edwards, R. T., Ryan, B., Bunce, C., Casten, R., Hegel, M. T., & Smith, D. J. (2012). *The depression in visual impairment trial (depvit): trial design and protocol*. BMC psychiatry, 12(1), 57.

Rees, G., Tee, H. W., Marella, M., Fenwick, E., Dirani, M., & Lamoureux, E. L. (2010). Vision-specific distress and depressive symptoms in people with vision impairment. *Journal of Investigative ophthalmology & visual science*, 51(6), 2891–2896.

Schmidt, P. J. (2005). Mood, depression, and reproductive hormones in the menopausal transition. *The American journal of medicine*, 118(12), 54–58.

Stewart, J. R., Reilly, B., & Sachidanadam, S. (1998). Identifying and treating depression in individuals with visual impairments. *International Journal of Rehabilitation and Health*, 4(1), 39–49.

Tabrett, D. R. & Latham, K. (2009). *Depression and acquired visual impairment*. Optometric Practice, 10, 75–88.

Tsai, S.-Y., Cheng, C.-Y., Hsu, W.-M., Su, T.-P., Liu, J.-H., & Chou, P. (2003). Association between visual impairment and depression in the elderly. *Journal of the Formosan Medical Association*, 102(2), 86–90.

Walker, J., Anstey, K., & Lord, S. (2006). Psychological distress and visual functioning in relation to vision-related disability in older individuals with cataracts. *British journal of health psychology*, 11(2), 303–317.