Mediterranean Journal of Clinical Psychology

ISSN 2282-1619

MJCP

Volume 9, n 1, 2021

Health Psychology

Self-help group for addressing depression and anxiety in the visually impaired. A Pilot Study

*Emanuela Rellini [1, 2 *], Valeria Silvestri [1], Margherita Guidobaldi [1], Simona Turco [1], Filippo Maria Amore [1], Stefania Fortini [1, 2]*

Abstract

Background: This work describes a vision rehabilitation approach integrated with a self-help group, for psychological support of visually impaired people. The effectiveness and benefits of attending self-help group was analyzed in accordance to anxiety, depression symptoms and visual functions.

Methods: The study, an observational perspective non randomized, was done on 31 visually impaired subjects, 16 females and 15 males, with a mean age of 63.7. Visual acuity, reading speed, anxiety and depression levels were valued before and after self-help group.

Results: After the attending period of self-help group, a decrease to 0.74 LogMAR (± 0.3) and 1.08 LogMAR (± 0.3) for the best corrected visual acuity was registered for the best and the worst eye respectively ($p>0.05$). There were significant improvements in anxiety ($p<0.01$) and depression levels ($p<0.01$). The average reading rate increased to 61.7 (± 24.4) wpm ($p<0.01$), representing 23% improvement. We found that anxiety was significantly determinant on the reading speed ($p=0.02$).

Conclusion: The results of this preliminary study suggest that this innovative approach can enhance visual functions with an effect on self-efficacy, it can offer support to the patients to cope with the onset of depression and anxiety and it can be a tool to promote psychological and social welfare.

[1] National Centre of Services and Research for the Prevention of Blindness and Rehabilitation of Low Vision Patients International Agency for Prevention of Blindness-IAPB, Italy

[2] Servizio Psicologia Ospedaliera Fondazione Policlinico Universitario "A. Gemelli". Largo F. Vito, 1 – 00168 Roma, Italy

E-mail corresponding author: erellini@yahoo.it

Keywords:
Anxiety; Depression; Low vision; Self-Help group; Rehabilitation.

Received: 9 December 2020
Accepted: 8 April 2021
Published: 29 April 2021

Citation: Rellini, E., Silvestri, V., Guidobaldi, M., Turco, S., Amore, F.M., Fortini. S. (2021). Self-help group for addressing depression and anxiety in the visually impaired. A Pilot Study. *Mediterranean Journal of Clinical Psychology, 9*(1).
https://doi.org/10.6092/2282-1619/mjcp-2891

1. Introduction

Approximately 253 million individuals worldwide are visually impaired. Low vision is one of the leading causes of disability induced by chronic eye diseases, such as macular degenerations, pathological myopia and glaucoma (WHO Publication, 2019).

Low vision refers to a bilateral, severe and irreversible reduction of the visual function that cannot be corrected by means of standard eyeglasses, contact lenses or surgery, and which interferes with the ability to perform activities of daily living, such as reading, recognizing faces, watching TV, driving, etc. (Dell'Osbel, 1996).

Many Authors have reported that the progressive and degenerative process of some eye diseases, in addition to the sudden and unpredictable loss of visual acuity, produces a state of emotional uncertainty (Cimarolli et al., 2016; Choi et al., 2018; Hodge et al., 2013; Horowitz et al., 2005; Rovner et al., 2002). Low vision also has a negative impact on everyday life and can lead to: the onset of feelings of inadequacy, distress and loneliness; decreased self-esteem and autonomy; loss of purpose, social and/or work withdrawal; abandonment of pleasure giving activities. All of these negative consequences can generate depression and anxiety (Filippello et al., 2013; Liotta et al., 2020; Manna et al., 2016; Myles et al., 2020). It has been estimated that approximately between 10 and 30 per cent of visually impaired individuals experience mild, but clinically significant symptoms of depression and anxiety (subclinical depression or anxiety), its prevalence being at least twice the rate found in the general population (Cimarolli et al., 2016; van der Aa et al., 2015).

Low vision rehabilitation is the primary intervention for people with progressive and irreversible vision impairment (Markowitz, 2006). Its goal is to improve engagement in activities of daily living by helping people with reduced visual functions to optimize the use of their remaining sight through the provision of appropriate refractive correction, as well as providing training in the use of vision assistive equipment (VAE) and compensatory strategies (Binns et al., 2012).

Many different low vision rehabilitation protocols are currently available. In particular, at our National Centre of Services and Research for the Prevention of Blindness and Rehabilitation of the Visually Impaired, WHOCC, low vision rehabilitation is based on a multidisciplinary approach that includes a complete functional disability assessment and psychological counselling. The psychologist is a key figure in a multidisciplinary rehabilitation team, both for supporting patients during their low vision rehabilitation pathway, and assessing any progression of self-reported vision functionality in activities of daily living (Casten et al., 2016; Cimarolli et

al., 2016). However, people who develop symptoms of anxiety and depression often do not receive any form of treatment and this can hinder not only potential access to the rehabilitation path but also and especially its effectiveness (Brody et al., 2002, 2006; Goldstein et al, 2014; Heesterbeek et al., 2017; Horowitz et al., 2006).

Self-help groups (SHGs) have proved to be an excellent methodological approach, which is useful for addressing the psycho-social consequences of chronic diseases (Calandri et al., 2016; Salzer et al., 2001). People who are affected by similar conditions have the opportunity to share their experiences and offer practical examples to each other on how to deal with common problems. Such groups are usually small (6-12 participants) and may offer psychological assistance and autonomy support to subjects affected by chronic pathologies, in an attempt to promote personal and/or social change (Albanesi, 2004; Calcaterra, 2013). Therefore, SHGs are a valid methodology for providing emotional support for low vision patients, so much, so that the World Health Organization has endorsed them as an effective tool for promoting well being, since they contribute to citizens' participation in the management of their own health (Milan Cuijpers et al., 2010).

The aim of this study is to describe the use of SHGs for the psychological support of visually impaired people and their impact on vision rehabilitation outcomes. In particular, the effectiveness and benefits of attending SHGs were also analysed with reference to anxiety and depression symptoms, visual functions and reading speed.

2. Methods

2.1 Design

This is a pilot observational prospective non-randomized study.

2.2 Participants

The study enrolled 31 visually impaired subjects (16 females and 15 males) with a mean age of 63.7 years (SD: 11.2; range: 45-82), who were selected from the patients of our National Centre. Participants had been diagnosed with different chronic eye diseases: age related macular degeneration (AMD), Stargardt disease (STGD), pathological myopia and glaucoma. Data were collected from January 2015 to July 2019. Inclusion criteria indicated that patients with a visual acuity of at least 0.5 LogMAR (20/63 Snellen equivalent) in the better eye, and/or a visual field of less than 30%, according to Italian laws on visual impairment, and who required psychological support, were eligible to take part in the study. Exclusion criteria stated that subjects with a

cognitive impairment (defined as having a Mini Mental Status Examination [MMSE] score of <24), and serious health problems, such as a terminal illness and/or neurologic disorders, were not able to participate. Approval for this study was obtained from the Ethical Committee/Institutional Review Board of the Fondazione Policlinico Universitario Agostino Gemelli IRCCS of Rome, Italy. Informed consent was obtained from all participants and the study is compliant with the Declaration of Helsinki.

2.3 Procedure

According to our standard procedure, the patients enrolled in this study underwent a clinical and functional assessment, consisting of the measurement of the best corrected visual acuity (BCVA) by means of Early Treatment Diabetic Retinopathy Study (ETDRS) charts. BCVA was expressed in LogMAR values obtained from a distance of 4m with the best refractive correction; reading acuity (RA) was measured with the Minnesota Reading test (MNRead) charts at a distance of 25cm with a +4.00 sph (1X) reading lens in addition to the distance refractive correction; contrast sensitivity (CS) was measured with Pelli-Robson boards at a 1m distance, with the addition of +1.00 sph to the distance refractive correction; and reading speed (words per minute [wpm]) was calculated with the International Reading Speed Texts (IReST), using the most suitable low vision aid that allowed patients to read a font size of 0.6 points.

In addition to the ophthalmological evaluation, a psychological assessment was conducted on patients in order to: identify their real needs and expectations; verify the existence of the emotional, cognitive and motivational characteristics that favour participation in the various rehabilitation activities and are conducive to being part of a team; guide rehabilitators in defining rehabilitation programs; and support the psychological, emotional and relational processes that sustain the operator-patient relationship (Hans-Werner, 2013). During the initial psychological assessment, the psychologist also administered three questionnaires: Zung's anxiety scale (Self-Rating Anxiety Scale) (Zung, 1971), Beck's Depression Inventory (BDI) (Beck et al., 1961) and the General Self-Efficacy Scale (GSES) (Schwarzer, 1992). With consideration given to the psychological assessment, the results of the questionnaires and the patient's motivation for attending a vision rehabilitation pathway, the psychologist proposed participation in a SHG to the visually impaired patients. Since anxiety and depression levels could have hindered the outcome of vision rehabilitation, patients started their vision training for the identification of the best device, after at least four SHG sessions.

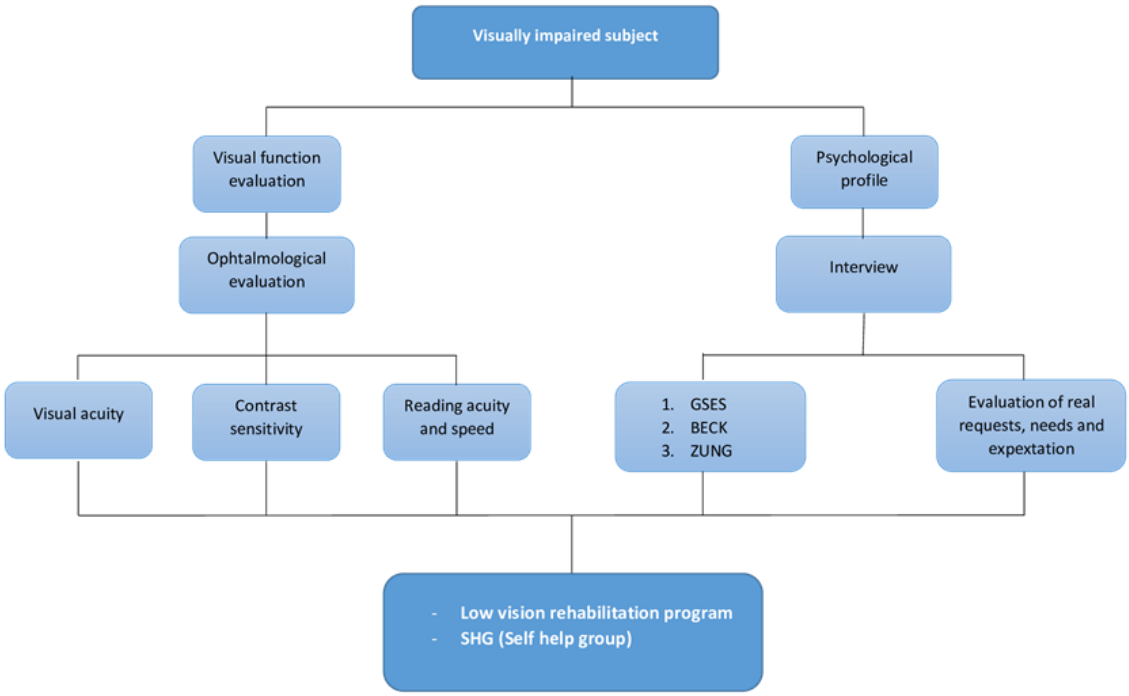

Figure 1. Flow chart explaining rehabilitation approach adopted for this study. The vision rehabilitation intervention is integrated with self-help group

2.4 The Self-Help Group

Our SHGs were structured according to the eye disease and vision problems of the patients and four groups were then created: AMD, STGD, pathological myopia and glaucoma. Each group consisted of 6-12 participants. SHG sessions were conducted twice a month for two years, and were facilitated by the same psychologist. During group meetings, the psychologist supervised discussions and communications. Every session lasted for approximately two hours. The members were thus able to recount their experiences and highlight what they had learned from them. As for the developmental stages of the group, there was an initial stage during which, with the help of the psychologist, patients discovered the similarities of the difficulties they encountered in daily life. In the intermediate stage, group members opened up to a personal analysis of their problems and tried to attribute meaning to their experience. The purpose of SHGs is to offer people who are dealing with similar issues the opportunity to share their experiences and help each other by advising on how to cope with them. Participants were encouraged to seek further information about their problem, research the most advantageous aids available and adopt new behavioural and cognitive strategies. Sharing experiences within the group favours the acceptance of vision aids and encourages patients to achieve greater autonomy (Fortini et al., 2018).

2.5 Tools

Before and after SHG sessions, the following questionnaires were administered to each participant by the same psychologist:

General Self-Efficacy Scale. (Italian version, Sibilia et al., 1995). The Generalized Self-Efficacy Scale (GSES) was created to measure perceived self-efficacy in general terms and with the aim of predicting the type of coping mechanism used to deal with, and adapt to, various stressful life events. Self-efficacy, as intended by the developers of the GSES, refers to the assessment of optimistic self-beliefs that are needed to cope with new or difficult experiences in life. The perception of self-efficacy facilitates the pursuit and achievement of one's goals, persistence in the face of adversity and the ability to quickly recover after a stressful event. It can therefore be considered as a resilience factor (Schwarzer, 1992). The GSES manual reports .76-.90 alphas and .75 reliability.

GSES is a one-dimensional scale consisting of 10 items, which uses a 4-point Likert scale ranging from 1 = "not at all true" to 4 = "totally true", as a measurement mode. The scores for each of the ten items are added together to give a total score. GSES has been used in numerous projects in different research fields.

Self-Rating Anxiety Scale (SAS). The scale is made up of 20 sentences (e.g. "I feel more nervous than usual", "I feel broken and I feel like I'm about to collapse" etc.), where each sentence states how the subject may have felt during the week. The scores are the following: 1 if the answer is never, 2 if it is sometimes, 3 if it is often, 4 if it is almost always. The total score is evaluated as follows: up to 20 points, irrelevant anxiety level; between 21 and 40 points, low anxiety level; between 41 and 60, moderate anxiety level (intervention is recommended); from 61 to 80, high anxiety level. The SAS manual reports .66-.74 alphas and .80 reliability.

Beck's Depression Inventory (Beck et al., 1988) (Italian version, Ghisi et al., 2006). The questionnaire is made up of 13 groups of sentences (e.g. 0 = I don't feel sad; 1 = I feel sad and melancholic; 2 = I am sad or melancholic all the time and I don't know how to get out of it; 3 = I am totally sad or unhappy that I can't stand it). The questions are based on what best describes how the subject has been feeling in the past two weeks. The score obtained can vary from 0 to 39. If the total score is less than 10, there is no depression; between 10-19 points, mild depression can be present; a score between 20-29 points indicates moderate depression; and a score greater than 30 points to the presence of serious depression. The Beck manual reports .56-.87 alphas and .75 reliability.

2.6 Data Analysis

2.6.1 Outcomes and measured parameters

The main outcomes are low anxiety and low depression levels, based on the scores obtained by means of the GSES, Zung and Beck questionnaires. The outcome measures were evaluated and recorded immediately before treatment (Pre-) and after the last session of the full treatment with SHG (Post-). The secondary outcome was the achievement of reading speed, between 40-80 words per minute. The psychological and visual parameters that were measured were self-efficacy, anxiety levels, depression levels, distance visual acuity, critical print size and contrast sensitivity.

2.6.2 Sample size

A preliminary power analysis (power of 0.8, $\alpha = 0.05$, and effect size 0.5) was executed. The sample size was calculated in accordance with the number of new patients assessed at the National Centre of Services and Research for the Visually Impaired over the course of one year. Consequently, 31 subjects with vision impairment caused by different eye diseases were enrolled in this study.

2.6.3 Statistical methods

A descriptive analysis of the sample was performed. The parametric variables were processed with means and standard deviations, while categorical variables were expressed as frequencies and percentages. Differences between characteristics of patients were analysed by using the chi-squared test and Independent Samples T-test. The paired-samples T-test was used to detect the changes in the data obtained before and after SHG sessions. The analysis of variance on repeated measures, ANOVA, was carried out in order to analyse data per session. Furthermore, multiple linear regression analysis was used to explain the relationship between dependent variables (anxiety, self-efficacy and depression scores) and independent variables (reading speed, critical print size, contrast sensitivity). We also reported 95% confidence intervals. The p-values less than 0.05 were considered statistically significant.

3. Results

Thirty-one visually impaired subjects (16 (52%) females and 15 (48%) males) with a mean age of 63.7 $\pm$ 11.2 years were enrolled in this study and they were assigned into four groups according to their eye disease and visual field defects. Age-related macular degeneration (7), Stargardt disease (9), glaucoma (8) and pathological myopia (7) groups were established. Their demographic (age, gender, education degree and marital status) and clinical characteristics (eye

disease and visual acuity) at baseline are shown in table 1. There were no significant differences in the baseline sociodemographic characteristics (P>0.05) between the four groups of participants. Those who failed to attend the group continuously (at least 15 meetings) were excluded from the study sample.

Table 1. Clinical and demographic characteristics of the patients

- ID	Age (Years)	Gender	Education degree	Marital Status	Eye Disease	BCVA (LogMAR)		
						Best eye	Worse eye	OU
P1	62	M	Middle school diploma	Divorced	Pathological myopia	0.96	1.5	0.96
P2	73	F	University	Widowed	Pathological myopia	0.34	1.5	0.34
P3	61	M	Middle school diploma	Widowed	Pathological myopia	0.92	1.1	0.92
P4	73	F	University	Married	Pathological myopia	0.66	1.5	0.66
P5	59	F	University	Widowed	Pathological myopia	0.82	1.8	0.82
P6	78	M	High school diploma	Married	Pathological myopia	0.94	1	0.94
P7	57	F	University	Married	Pathological myopia	0.46	0.56	0.46
P8	53	F	High school diploma	Married	STGD	1	1.5	1
P9	66	F	High school diploma	Divorced	STGD	0.82	0.84	0.82
P10	47	F	University	Married	STGD	0.9	0.92	0.9
P11	45	F	High school diploma	Nubile	STGD	0.1	0.1	0.1
P12	45	M	High school diploma	Married	STGD	1.1	1.1	1.1
P13	71	F	High school diploma	Divorced	STGD	1	1.02	1
P14	57	M	University	Married	STGD	0.2	0.36	0.2
P15	49	F	Middle school diploma	Married	STGD	0.88	0.9	0.88
P16	50	F	High school diploma	Married	STGD	0.4	0.84	0.4
P17	74	F	Middle school diploma	Married	AMD	0.76	1	1
P18	82	M	Middle school diploma	Divorced	AMD	0.52	1.02	0.52
P19	73	M	Middle school diploma	Married	AMD	0.2	0.56	0.2
P20	80	M	Middle school diploma	Divorced	AMD	0.3	0.5	0.3
P21	73	M	Middle school diploma	Married	AMD	0.72	1.08	0.72
P22	69	F	University	Nubile	AMD	0.54	0.62	0.54
P23	69	F	Middle school diploma	Married	AMD	1.04	1.64	1.04
P24	75	F	University	Divorced	Glaucoma	0.32	1.58	0.32
P25	51	M	University	Bachelor	Glaucoma	0.3	0.38	0.3
P26	78	M	Middle school diploma	Married	Glaucoma	0.3	1.5	0.3
P27	58	M	High school diploma	Married	Glaucoma	0.52	1.68	0.52
P28	54	M	High school diploma	Married	Glaucoma	1	1.06	1
P29	64	F	University	Married	Glaucoma	0.2	1.06	0.2
P30	55	M	Middle school diploma	Married	Glaucoma	1.26	1.3	1.3
P31	75	M	High school diploma	Widowed	Glaucoma	1.3	1.62	1.3

The full program of support group treatment was composed of 15 sessions between January 2015 and July 2019. All subjects who participated in the SHGs completed the program and performed the post-treatment evaluation.

The mean BCVA in the better eye was 0.67 LogMAR (±0.3), while it was 1.06 LogMAR (±0.4) in the worse eye. Contrast sensitivity mean was 0.8 LogC (±0.4) in the better eye, while it was 0.6 LogC (±0.4) in the worse eye. The mean reading acuity was 17.3 (Character Print Size, CPS) (±16.4) and 37,2 CPS (±23.6) in the better and worse eye, respectively.

With regard to anxiety levels, the mean score at the Zung Questionnaire before attending the SHG was 43.4 (± 9.1). In particular high levels of anxiety were detected in 2 subjects, moderate anxiety in 19 and low levels of anxiety in 10 respectively. The mean score obtained by the administration of the Beck questionnaire was 16 (± 7.3); only 1 patient had a severe depression, 10 patients had moderate depression, 18 had low depression and 2 did not have any depression. The mean GSES was 25.2 (± 6.3), indicating a generalised poor self-efficacy belief in the patients.

Relative to the rehabilitative needs of patients, the whole sample reported experiencing glare in an outdoor setting. Moreover, 87% of participants asked for solutions in order to restore their ability to read, while the remaining 13% expressed the desire to move more confidently outdoors. In order to respond to their needs, patients participated in the vision rehabilitation training. The training was aimed at identifying the most suitable low vision aid and consisted of about 5 sessions for each patient. Absorptive polarized lenses were prescribed to each patient to control glare. One hand magnifier, 7 tablets with specific apps, 9 magnifying spectacles and 12 video magnifiers (CCTV) were prescribed, in order to restore reading ability. Two patients with glaucoma did not need any magnifying aid for reading, but preferred to use their own reading glasses. Baseline reading speed with the prescribed reading aids was 49.8 (±26.5) wpm. Four patients attended Orientation and Mobility training.

Treatment (SHG) Effects

After attending the SHG program, BCVA in the better and worse eye declined to 0.74 LogMAR (± 0.3) and 1.08 LogMAR (± 0.3) respectively (t_{30}= 1.4; $p>0.05$). Contrast sensitivity did not change in the better eye, while a slight improvement of 0.69 LogC (±0.5) was registered in the worse eye, however this figure was not considered statistically significant (t_{30}= 1.9; $p>0.05$). In addition, reading acuity declined both in the better and worse eye to 18,6 cps (± 14.5) and 40.9 cps (± 25.7) ($p>0.05$) respectively.

At completion of the SHG program, significant improvements were registered in the anxiety (t_{30}=7.8, p<0.01) and depression levels (t_{30}=8.3, p<0.01) of patients. Results are shown in Fig. 2. A 26% improvement in the level of anxiety and a 55% improvement in the level of depression were assessed through the Zung and Beck Questionnaires respectively.

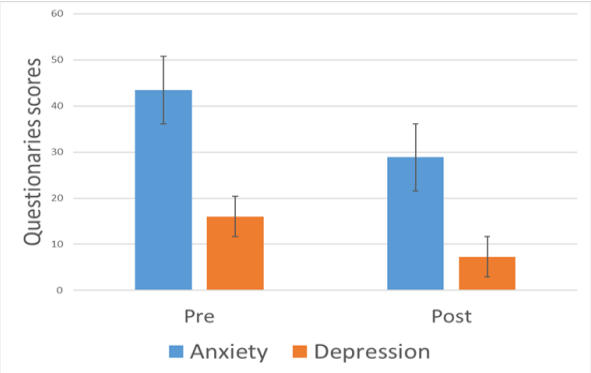

Figure 2. The bars represent the mean scores (±1SE) of the Zung (anxiety) and Beck (depression) questionnaires for all patients.

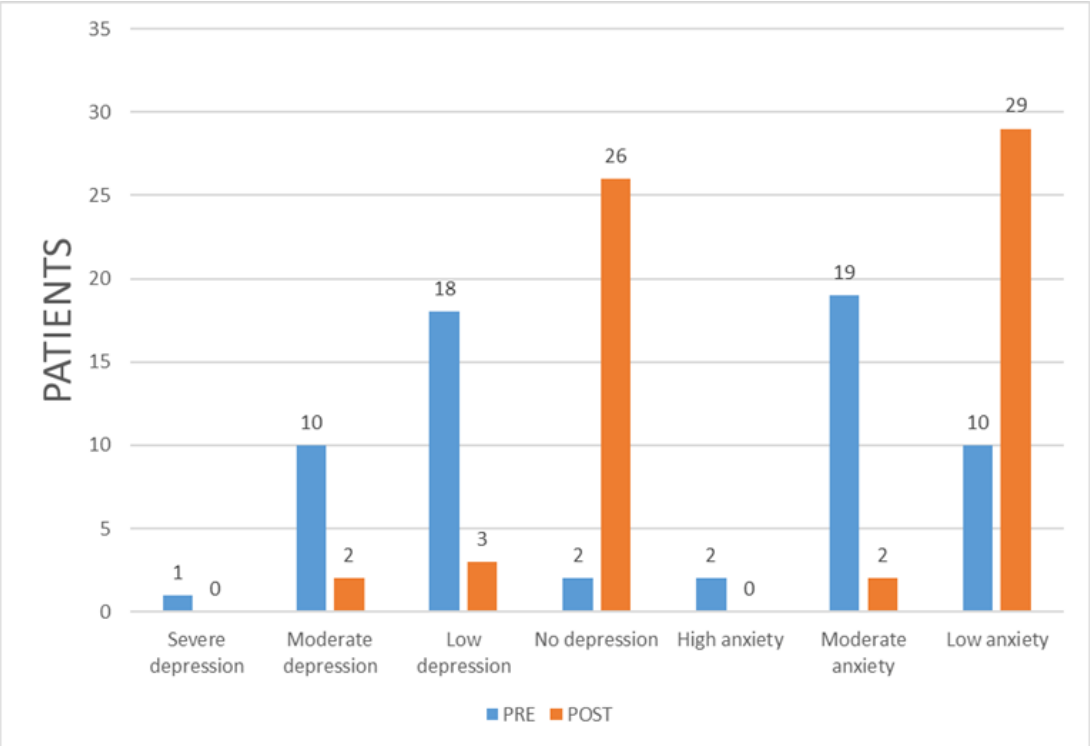

Figure 3. The bars represent the number of patients with reference to anxiety and depression levels, showing improvements in both dimensions.

The effects of the SHG on anxiety and depression levels are demonstrated by the data on participants represented in the graphs: the questionnaires showed significantly lower scores among participants in all the anxiety and depression subgroups. Participants with lower levels of anxiety represented 61% of the sample. Patients with no depression symptoms after SHG were 84% of the sample.

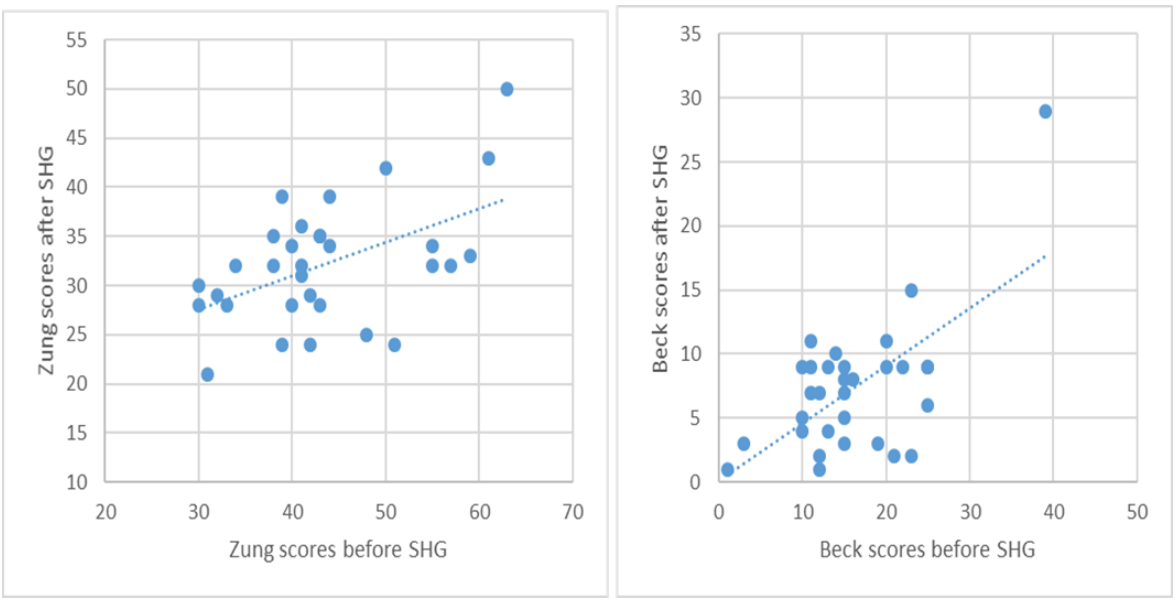

Figure 4. Zung and Beck scores before vs after SHG. Scatter plot representing the results of the questionnaires before and after the SHG. Note that data points above the dashed line represent patients who experienced an improvement in both anxiety and depression levels.

The mean GSES increased to 35.1 (± 5.1) (t_{30}=1.6; p<0.01), revealing a generalised enhancement in self-efficacy belief.

Furthermore, the average reading rate increased to 61.7 (± 24.4) wpm after attending the SHG (t30= -6.7, p<0.01), which represents a 23% improvement. In Figure 5, the data points of pre- and post- SHG reading performance were plotted illustrating this improvement. Participants were able to read more fluently after completing the group sessions.

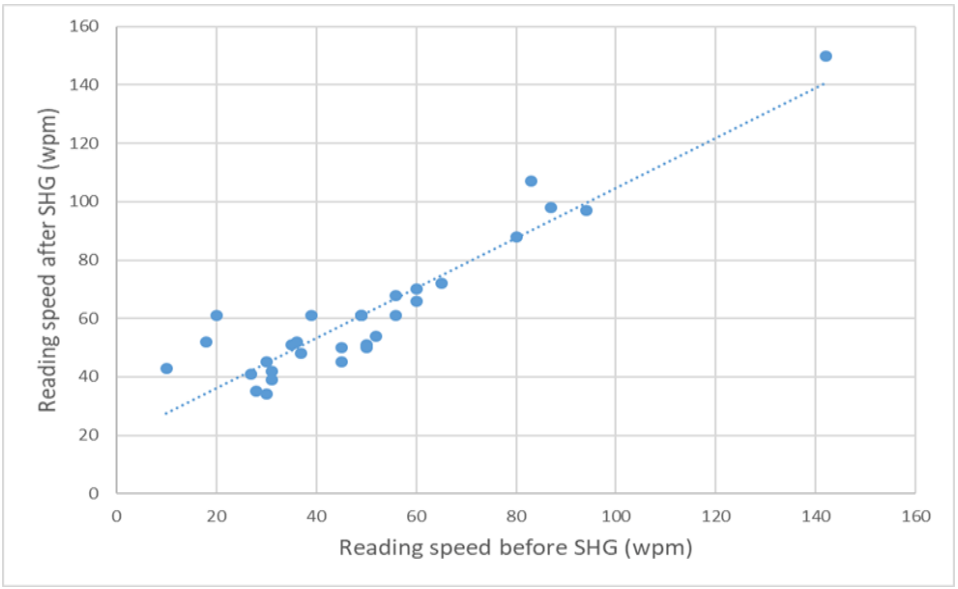

Figure 5. Reading speed values before and after the SHG program were compared. Data points above the dashed line indicate an improvement in reading speed after SHG.

The multivariate linear regression analysis also showed that the improvement of depression levels was not related to the changes in reading performance (p>0.05). On the other hand, we found that anxiety was a significant determinant of reading speed (P=0.02). Patients with similar visual acuity but higher levels of anxiety read more slowly than patients with lower scores on the Zung questionnaire.

Table 2. The multivariate linear regression analysis

Dependent Variable: Reading speed					
			95% CI		
Variable	Coefficients	SE	Lower Limit	Upper Limit	p
Age	0,72	0,48	-0,29	1,74	0,15
Sex	-5,93	11,63	-30,21	18,34	0,61
Education degree	5,13	6,6	-8,63	18,9	0,44
Marital status	-4,32	6,65	-18,21	9,56	0,52
Anxiety scale	1,85	0,73	0,31	3,39	0,02
BDI	-1,82	1,04	-4,009	0,36	0,09
GSES	1,24	0,9	-0,63	3,13	0,18
BCVA (LogMAR)	18,82	20,47	-23,88	61,52	0,36
MNRead	-35,23	19,96	-76,87	6,41	0,09
CS (LogC)	-1,77	14,73	-32,5	28,9	0,9

4. Discussion

The results of this study highlight the presence of improvements in the psychological status of visually impaired subjects, as measured by the General Self-Efficacy Scale, the Self-Rating Anxiety Scale and the Inventory for Beck's depression, also indicating the progression of reading ability as a visual outcome measure after attending a low vision rehabilitation pathway integrated with a SHG program. To the best of our knowledge, this paper is the first study that attempts to investigate a multidisciplinary vision rehabilitation program integrated with SHGs. Previous findings reported that an integrated mental health and low vision intervention, specifically low vision rehabilitation with supportive therapy (Barr et al., 2012; Hodge et al., 2013; Thetford et al., 2011; Utoyo, 2015), halved the incidence of mental disorders, such as anxiety and depression, in the outpatient approach in people with low vision due to AMD (Cimarolli et al, 2012; Deemer et al., 2017; Grant et al, 2011; Rovner et al., 2006, 2008, 2011).

The results of this preliminary study show that some psychological and functional outcomes can improve when SHGs are added to visual rehabilitation pathways in the management of different chronic eye diseases. The significant improvement in psychological features can be interpreted as indicative of the feasibility of a supportive approach by means of SHGs. Our findings attest specifically to the efficacy of low vision services integrated with SHGs for psychological support for patients showing symptoms of depression and anxiety. Patients' visual functions, such as distance visual acuity, reading acuity or contrast sensitivity worsen because all patients are suffering from chronic degenerative ocular deseases that evolve slowly but

inexsorably. On the other hand, the scores on psychological questionnaires increased in a statistically significant manner. These results appear conflicting and we suppose that the changes in the levels of depression, anxiety and self-efficacy are due to the effects of participating in SHGs. This hypothesis is strengthened by the observation of a marked reduction in the severity of depression and anxiety symptoms in participants who experienced a significant improvement in their reading speed levels only. The multivariate analysis also demonstrated that the changes in anxiety levels might influence the patients' reading speed, reflecting a low performance when anxiety is high. In accordance with other Authors, it has been demonstrated that patients receiving low vision device training were able to overcome visual difficulties, achieving baseline demands, such as regaining their reading ability (Grant et al., 2011). Device training in SHGs seems to have a positive impact. Furthermore, the participation in a support group is responsible for improvements in psychological disorders in adults. These are important outcomes, considering the seriousness of the consequences that depression and anxiety may have on individuals. Multiple studies have shown that the reaction to a chronic disease and adaptation to it are also linked to self-efficacy and the ability to cope, which if of a lesser degree, may lead to the development of depression and anxiety symptoms (Moroianu et al., 2020; Sheikh et al., 2019). In particular, both patients with a chronic disease resulting in low vision, and their families, are faced with difficult situations, as well as with serious and permanent discomforts.

SHGs are aimed at providing supportive therapy by sharing common individual experiences, a practise that helps people limit their isolation, combat both passivity and a sense of powerlessness and increase self-confidence. In addition, empathic communication, which is created within the groups, is fundamental for the overall development of an individual's personality and positive self-image. SHGs meet the needs of patients to rediscover the communicability of their experiences and enhance their potential through the encounters with the other participants (Kalafat et al., 1993; Mehta et al., 2020). According to our preliminary date, SHGs seem to allow visually impaired subjects to strengthen certain abilities that manifest themselves in behaviour, express their feelings in order to improve their problem-solving skills and, therefore, increase their self-esteem with regard to personal abilities and resources. Vision impairment can affect mental health, with serious implications on an individual's social interactions that may negatively affect their self-confidence and psychological balance.

According to our experience the vision rehabilitation interventions integrated with SHGs can have positive effects on self-efficacy; help patients cope with the onset of depression and anxiety, offer a tool to promote psychological and social welfare by giving people who live in similar conditions the opportunity to share their experiences and advise each other on how to deal with common problems.

5. Limitations

This is a pilot study, so participation was limited to small groups of visually impaired people. However, the sample appears to match the age, gender and eye disease diagnosis of other studies (Moschos et al., 2016). On the other hand, a control group and a non-randomized sample are needed for future research.

6. Conclusions

The role of self-help groups in the treatment of vision impairments is a little debated issue in the literature. The results of this preliminary study suggest some considerations. The addition of SHGs to vision rehabilitation interventions showed clinical and statistical improvements for depression and anxiety symptoms. Importantly, the enhancements of psychological outcomes are not related to changes in visual functions, suggesting that they are an effect of SHG sessions only. Therefore, the participation in SHGs can help visually impaired subjects containing and reducing potential anxiety and depression symptoms. These findings provide important new information for the management and development of enhanced-care models for the rehabilitation of the visually impaired. Further investigation is also needed to assess if the benefits of this intervention are maintained over time. In conclusion, SHGs seem represent an effective approach for partially sighted subjects, allowing them to improve their self-esteem and sense of self-efficacy, reducing depression and anxiety levels. Furthermore, self-reorganisation could nurture and develop interpersonal skills that can help the visually impaired reduce the risk of social isolation.

Conflict of interest

The authors report no conflicts of interest and have no proprietary interest in any of the materials mentioned in this article

References

1. Albanesi, C. (2004). *I gruppi di auto-aiuto*. [Self help groups]. Carocci, Roma.
2. Barr, W, Hodge, S, Leeven, M, Bowen, L., Knox, P.C. (2012) Emotional Support and Counselling for people with visual impairment: Quantitative findings from a mixed methods pilot study. *Counselling and Psychotherapy Research* 12:294-302. https://doi.org/10.1080/14733145.2012.663776
3. Beck, A.T., Steer, R.A., Garbin, M.G. (1988). Psychometric properties of the Beck Depression Inventory: twenty-five years of evaluation. *Clinical Psychology Review*, 8, 77-100. https://doi.org/10.1016/0272-7358(88)90050-5
4. Beck, A.T., Ward, C.H., Mendelson, M., Mock, J., Erbaugh, J. (1961). An inventory for measuring depression. *Archives Of General Psychiatry*, 4, 561-579. https://doi.org/10.1001/archpsyc.1961.01710120031004.
5. Binns, A.M., Bunce, C., Dickinson, C., Harper, R. (2012). How effective is low vision service provision? A systematic review. *Survey of Ophthalmology*, 57(1), 34-65. https://doi.org/10.1016/j.survophthal.2011.06.006.
6. Brody, B.L., Gamst, A.C., Williams, R.A., Smith, P. W., Lau, D., Dolnak, M. H., Rapaport, R. M., Kaplan, S., Brown, M.D. (2002). Depression, visual acuity, comorbidity, and disability associated with age-related macular degeneration. *Ophthalmology*, 108 (10), 1893-1900. https://doi.org/10.1016/s0161-6420(01)00754-0
7. Brody, B.L., Roch-Levecq, A.C., Kaplan, R.M., Moutier, C., Stuart, I., Brown,M.D. (2006). Age-related macular degeneration: self-management and reduction of depressive symptoms in a randomized controlled study. *American Journal of Geriatric Psychiatry*, 54 (10), 1557–62.
8. Calandri E., Graziano F., Borghi M., Bonino S. (2016) Depressione e benessere psicologico in persone con sclerosi multipla: il ruolo dell'identità, del senso di coerenza e dell'autoefficacia [Depression and psychological well-being in people with multiple sclerosis: the role of identity, a sense of coherence and self-efficacy] *Psicologia della Salute*, 1: 49-66. https://doi.org/0.3280/PDS2016-001007
9. Calcaterra, V. (2013). *Attivare e Facilitare gruppi di auto/mutuo aiuto*. Erickson, Trento.
10. Casten, R., Rovner, B.W., Fontenot, J. (2016). Targeted vision function goals and use of vision resources in ophthalmology patients with age-related macular degeneration and comorbid depressive symptoms. *Journal of Visual Impairment & Blindness*, 110 (6), 413-424. https://doi.org/10.1177/0145482X1611000604
11. Choi, H.G., Lee, M.J., Lee, S.M. (2018). Visual impairment and risk of depression: A longitudinal follow-up study using a national sample cohort. *Scientific Reports*, 1, 2083. https://doi.org/10.1038/s41598-018-20374-5
12. Cimarolli, V.R., Boerner, K., Brennan-Ing, M., Reinhardt,J.P., Horowitz, A. (2012). Challenges faced by older adults with vision loss: a qualitative study with implications for rehabilitation. *Clinical Rehabilitation*, 26 (8), 748–757. https://doi.org/10.1177/0269215511429162
13. Cimarolli, V.R., Casten, R.J., Rovner, B.W., Heyl,V., Sörensen, S., Horowitz , A. (2016). Anxiety and depression in patients with advanced macular degeneration: current perspectives. *Clinical Ophthalmology*, 10, 55-63. https://doi.org/10.1080/14733145.2012.663776

14. Deemer, A.D, Massof, R.W., Rovner, B.W., Robin J. Casten, R.J., Piersol, C.V. (2017). Functional outcomes of the low vision depression prevention trial in age-related macular degeneration. *Investigative Ophthalmology And Visual Science*, 58 (3), 1514-1520. https://doi.org/10.1167/iovs.16-20001
15. Dell'Osbel, G. (1996). Introduzione. La condizione dei non vedenti: aspetti medico-epidemoliogici e socio assistenziali. In Calati, D. *Vedere con la mente. Conoscenza, affettività, adattamento nei non vedenti*. Franco Angeli Milano.
16. Filippello, P., Sorrenti, L., Larcan, R., & Rizzo, A. (2013). Academic underachievement, self-esteem and self-efficacy in decision making. *Mediterranean Journal of Clinical Psychology*, 1(3), 2-11. https://doi:10.6092/2282-1619/2013.1.934
17. Fortini, S., Rellini, E., Turco, S., Amore, F. (2018). Ipovisione e benessere psicosociale [Low vision and psychosocial well-being]. *Oftalmologia Sociale*, 1, 38-44.
18. Ghisi, M., Flebus, G.B., Montano, A., Sanavio, E., Sica, C. (2006). *Beck Depression Inventory-II. Manuale italiano*. Firenze: Organizzazioni Speciali.
19. Goldstein, J.E., Chun, M.W., Fletcher, D.C. (2014). Visual ability of patients seeking outpatient low vision services in the United States. *JAMA Ophthalmology*, 132 (10), 1169-77. https://doi.org/10.1001/jamaophthalmol.2014.1747
20. Grant, P., Seiple, W., Szlyk, J.P. (2011). Effect of depression on actual and perceived effects of reading rehabilitation for people with central vision loss. *Journal of Rehabilitation Research and Development*, 48 (9), 1101-1108. https://doi.org/10.1682/jrrd.2010.05.0080
21. Hans-Werner, W. (2013). The psychological challenge of late-life vision impairment: concepts, findings, and practical implications. *Journal of Ophthalmology*, 17, 278135. https://doi.org/10.1155/2013/278135
22. Heesterbeek,T.J., van der Aa, H.P.A., van Rens, G.H.M.B., et al. (2017). The incidence and predictors of depressive and anxiety symptoms in older adults with vision impairment: a longitudinal prospective cohort study. *Ophthalmic Physiol Opt*, 37 (4), 385-398. https://doi.org/10.1111/opo.12388
23. Hodge, S., Barr, W., Bowen, L., Leeven, M., Knox, P.C. (2013). Exploring the role of an emotional support and counselling service for people with visual impairments. *British Journal of Visual Impairment*, 31, 5-19. https://doi.org/10.1177/0264619612465168
24. Horowitz, A., Brennan, M., Reinhardt, J.P., Macmillant, T. (2006). The impact of assistive device use on disability and depression among older adults with age-related vision impairments. *Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 61(5), 274-80. https://doi.org/10.1093/geronb/61.5. s274.
25. Horowitz, A., Reinhardt, J.P., Kennedy, G.J. (2005). Major and subthreshold depression among older adults seeking vision rehabilitation services. *American Journal of Geriatric Psychiatry*, 13, 180–7. https://doi.org/10.1176/appi.ajgp.13.3.180
26. Kalafat, J., & Dehmer, J. (1993). A survey of statewide self-help groups for older persons who are visually impaired. *Journal of Visual Impairment & Blindness*, 87(4), 112-114. https://doi.org/10.1177/0145482X9308700407
27. Liotta, M. (2013). Relationship between temperament and anxiety disorders: a systematic review. *Mediterranean Journal of Clinical Psychology*, 1(1), 1-25. https://doi.org/10.6092/2282-1619/2013.1.897

28. Manna, G., Falgares, G., Ingoglia, S., Como, M. R., & De Santis, S. (2016). The relationship between self-esteem, depression and anxiety: Comparing vulnerability and scar model in the Italian context. *Mediterranean Journal of Clinical Psychology*, 4(3), 1-17. https://10.6092/2282-1619/2016.4.1328
29. Markowitz, S.N. (2006). Principles of modern low vision rehabilitation. *Canadian Journal of Ophthalmology*, 41(3), 289–312. https://doi.org/10.1139/I06-027
30. Mehta, K.M., Irani,L., Chaudhuri,I., Mahapatra,T., Schooley,J., Srikantiah,S., Abdalla,S.,Ward,V., Carmichael,S.L., Bentley,J., Creanga,A., Wilhelm,J., Tarigopula,U.K., Bhattacharya,D., Atmavilas,Y., Nanda,P., Weng,Y., Pepper,K.T., Darmstadt, G.L., and for the Ananya Study Group (2020). Health layering of self-help groups: impacts on reproductive, maternal, newborn and child health and nutrition in Bihar, India. *Journal of global health*, 10 (2), 1-16. https://doi.org/10.7189/jogh.10.021007
31. Milan Cuijpers, P., Donker, T., van Straten, A., Li, J., Andersson, G. (2010). Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological Medicine,* 40(12), 1943–1957. https://doi.org/10.1017/S0033291710000772
32. Moroianu, L. A., Motofei, I. G., Curis, C., Barbu, R. E., Toma, A., (2020). The Impact of anxiey and depression on the pediatric patients with diabetes, *Mediterranean Journal of Clinical Psychology*, 8(2), 1-19. https://doi.org/10.6092/2282-1619/mjcp-2435
33. Moschos, M., Nitoda, E., Lavaris, A. (2016). Estimation of depression prevalence in patients with Stargardt disease using PHQ-9 and Zung scores. *European Journal of Ophthalmology*, 26 (3), 268-272. https://doi.org/10.5301/ejo.5000700
34. Myles, L. A. M., Connolly, J., & Stanulewicz, N. (2020). The Mediating Role of Perceived Control and Desire for Control in the Relationship between Personality and Depressive Symptomology. *Mediterranean Journal of Clinical Psychology*, 8(3), 1-24. https://doi.org/10.6092/2282-1619/mjcp-2589
35. Rovner, B.W., Casten, R.J. (2002). Activity loss and depression in age-related macular degeneration. *American Journal of Geriatric Psychiatry*, 10 (3), 35–10. https://doi.org/10.1097/00019442-200205000-00010
36. Rovner, B.W., Casten, R.J. (2008). Preventing late-life depression in age-related macular degeneration. *American Journal of Geriatric Psychiatry*, 6, 454–459. https://doi.org/10.1097/JGP.0b013e31816b7342
37. Rovner, B.W., Casten, R.J., Hegel MT, et al. (2006). Minimal depression and vision function in age-related macular degeneration. *Ophthalmology*, 113, 1743–1747. https://doi.org/10.1016/j.ophtha.2006.05.033
38. Rovner, B.W., Casten, R.J., Massof, R.W. Leiby, B.E., Tasman, W.S., Wills, E. (2011). Psychological and cognitive determinants of vision function in age-related macular degeneration. *Archives of Ophthalmology*, 129 (7), 885- 890. https://doi.org/10.1001/archophthalmol.2011.146
39. Salzer, M.S., Rappaport, J., Segre, L. (2001). Mental health professionals' support of self-help groups. *Journal of Community & Applied Social Psychology*, 11(1), 1-10. https://doi.org/10.1002/casp.606
40. Schwarzer, R. (1992). Self-efficacy in the adoption and maintenance of health behaviors: Theoretical approaches and a new model. In R. Schwarzer (Ed.). *Self-efficacy: Thought control of action*. Hemisphere Publishing Corp.

41. Sheikh, S., Dahiya, S., Ansari, A. H., & Kumar, M. M. (2019). The association of quality of life between anxiety and depression in patients with chronic rheumatic heart disease. *Mediterranean Journal of Clinical Psychology*, 7(2). https://doi.org/10.6092/2282-1619/2019.7.2164
42. Sibilia, L., Schwarzer, R., Jerusalem, M. (1995). Italian Adaptation of the Generalized Self- Efficacy Scale. http://userpage.fu-berlin.de/~health/italian.htm
43. Thetford, C, Robinson, J., Knox, P., Mehta, J., Wong, D. (2011) Long-term access to support for people with sight loss. *British Journal of Visual Impairment* 29, 1-14. https://doi:10.1177/0264619610387889
44. Utoyo, D.B. (2015). Modifying Cognitive-Behavioral Therapy for a Depressed Older Adult With Partial Sight: A Case Report. *Gerontology Geriatric Medicine*, 1, 1-5. https://doi.org/10.1177/2333721415585432
45. van der Aa, H.P., Hoeben, M., Rainey, L., van Rens, G.H.M.B. (2015). Why visually impaired older adults often do not receive mental health services: the patient's perspective. *Quality of Life Research*, 24(4), 969-78. https://doi.org/10.1007/s11136-014-0835-0
46. World report on vision. World Health Organization (WHO). WHO 2019 Publication https://www.who.int/publications-detail/world-report-on-vision.
47. Zung, W.W. (1971). A rating instrument for anxiety disorders. *Psychosomatics,* 12 (6), 371-379. https://doi.org/10.1016/S0033-3182(71)71479-0

DOI: 10.6092/2282-1619/mjcp-2891