



Objective indicators of quality of life in people with different visual status

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Introduction. Quality of life is a broad and complex construct. World Health Organization refers to it as an “individual’s perception of their position in life (...) in relation to their goals, expectations, standards, and concerns”. Reduced visual functions have a negative impact on the overall individual’s functioning. Difficulties in accessing visual information and problems in orientation and mobility create significant limitations in performing daily activities and lead to diminished opportunities for education, work, social participation, and leisure. Limited participation in the aforementioned areas with lower social interactions have a negative impact on the individual’s quality of life. However, it is unclear whether this construct of people with visual impairment is compromised due to reduced ability to perform daily activities or due to difficulties in establishing social interactions. *Objectives.* In an effort to indicate the consequences of visual impairment on quality of life, the goal of this research was to determine the objective quality of life in adults with different visual status when controlling the age. *Methods.* The Comprehensive Quality of Life Scale was used to evaluate the quality of life. The sample consisted of 175 people – 92 participants with visual impairment and 83 participants without structural or functional problems in the visual system. *Results.* Results of eight one-way ANCOVAs indicated a significant effect of visual status on Objective quality of life in total ($p < .001$) and on its four domains: Material well-being, Health, Productivity, Place in Community. *Conclusion.* The effects of different visual status on the observed construct revealed when age as a variable is controlled.

Keywords: objective quality of life, visual status, visual impairment, adults

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Introduction

Expression quality of life (QoL) was first used in the middle of the 20th century by politicians who promised voters that they would improve their quality of life by improving socio-economic status (Sheppard-Jones, 2003, as cited in Stanimirov, 2016). Over the past decades, the concept of QoL has changed. In the beginning, this concept was observed in the context of satisfying basic needs: possession of shelter, food, clothes. However, with the economy strengthening, this notion expanded and included the pursuit of happiness and attainment of general well-being (Yusoff, 2020). The next step was to consider health status, i.e., introduce the concept of health-related QoL. However, this construct is much broader than the conditions of housing, material resources, or health (Stanimirov, 2016; Stanimirov et al., 2014).

Quality of Life Concept

There is no single universally accepted definition of QoL, although there were many attempts to define this construct and relate it to different meanings such as: happiness, life satisfaction, well-being (Trillo & Dickinson, 2012). However, its meaning depends on the context it is used in (Jones et al., 2019). The World Health Organization (WHOQOL group, 1995, p. 1405) refers to the concept of QoL as an “individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns”.

“Overall”, “global” or “general” quality of life, is a broad, multidimensional construct created by the interaction of several domains, which include physical (disease symptoms and medical treatment), functional (self-care, activity level, daily living activities), social (contacts and interpersonal relationships) and psychological domain (cognitive functions, emotional status, well-being, life satisfaction, happiness) (Trillo & Dickinson, 2012; WHOQOL group, 1995) as well as an economic and political domain (Revicki et al., 2000). Depending on the desired generalization level, the number of QoL domains varies. In the literature, the most often listed domains are: interpersonal relationships, participation in society, personal development, physical, material, and emotional well-being, self-determination, (basic) rights, environment, family, rest and recreation, and security. The World Health Organization group in charge of the quality of life assessment (WHOQOL group, 1995) as key domains of QoL identifies: physical and psychological health, independence level, personal beliefs, social relations, and individuals’ attitude towards the important environmental aspects. Felce & Perry (1995, as cited in Verdugo et al., 2012) proposed a QoL model in which domains were ranked in the order of importance: physical, material, social well-being, development and activity, and emotional well-being. Certainly, the number of domains is by far less important than the fact that their set should

represent a complete construct of QoL (Verdugo et al., 2005, as cited in van Hecke et al., 2018).

Verdugo et al. (2005, as cited in Verdugo et al., 2012) believe that the QoL domains relate to the sense of personal well-being. Schalock (2004, as cited in van Hecke et al., 2018) agrees with them, saying that the term QoL “domain” refers to a set of factors that make up overall well-being. Surely, quality of life should be viewed as satisfaction in the life domains that are especially important to an individual (American Occupational Therapy Association, 2020). With regard to that, QoL can be viewed objectively and subjectively. The two-dimensional character of the QoL concept refers to generally accepted standards in the social discourse of a person’s life (objective dimension), as well as the level of personal satisfaction in different domains by their significance (subjective dimension) (Cummins, 1997). Additionally, this construct should not be considered a static characteristic because social standards or personal satisfaction may change over time (Moons et al., 2006).

Impact of vision impairment on quality of life

Reduced visual functions have a negative impact on the overall functioning of the individual. Difficulties in accessing visual information, together with problems in orientation and mobility, have significant limitations in performing daily activities (Jablan et al., 2016) and lead to diminished opportunities for education, social participation and work (Ejiakor et al., 2019; Khorrani-Nejad et al., 2016; Yibekal et al., 2020). Various issues are related to the education of visually impaired learners. For example, they require specific strategies that address their unique learning needs, especially difficulties in acquiring literacy (Grbovic et al., 2022; Lange et al., 2021). If we focus on the social aspects, the limitation of this sensory system is associated with restrained social integration and required higher support levels (Brown & Barrett, 2011). Besides that, visual impairment has markedly negative effects on the level of independence in performing everyday activities, such as going to store, caring for children, taking care of oneself and the household, using public transport, engaging in leisure activities, etc. (Stanimirov et al., 2020). Undoubtedly, daily living activities can be major obstacles for people with visual impairment since they are unable to carry them out, or need support from family members to accomplish them (Jones et al., 2019). Besides difficulties with functioning in different life aspects, visual impairment is often associated with emotional problems and the occurrence of depression and anxiety (Giloyan et al., 2015; Nayeni et al., 2021), as well as poorer overall health, which are especially frequent in people with moderate to severe visual impairment (Crews et al., 2016; Elsmann et al., 2019). All of the above can lead to a diminished sense of personal well-being.

Limited participation in educational, professional, daily, and leisure activities along with lower social interactions have a direct negative impact on the individual's QoL (Brown & Barrett, 2011; Gyawali et al., 2012; Komolafe, 2016; Lin & Yu, 2012). However, it is still unclear whether the QoL of people with visual impairment is compromised due to reduced ability to perform daily activities or due to difficulties in establishing social interactions (Brown & Barrett, 2011; Jones et al., 2019; Lin & Yu, 2012). Furthermore, there is the possibility that QoL can be influenced by some additional, nonvisual factors: differences in economic status, lifestyles, cultural values, health care system availability, physical and mental health (Trillo & Dickinson, 2012). Thus, it is clear that the effects of visual impairment on QoL vary across communities, cultures, and locations and are reflected in the individual's economic, social, and psychological life (Khorrami-Nejad et al., 2016).

One of the important factors that may affect QoL among both the general population and persons with disability is age. Several studies found a negative correlation between QoL and aging (Brown & Barrett, 2011; Ćwirlej-Sozańska et al., 2018; La Grow et al., 2013). Aging in people with disabilities means that there is a necessity to optimize interventions to help them maintain or improve the level of their QoL, which may imply some discrepancies in QoL between this group and the general population. In an effort to indicate the consequences of visual impairment on QoL in our country, this research aimed to determine the objective QoL in adults with different visual status when controlling the age.

Method

Participants

The sample consisted of 175 people of both genders, aged 19 to 65 ($M = 35.19$, $SD = 10.65$), with different visual status. Based on the degree of visual deterioration, two groups of participants met the WHO criteria (WHO, 2020) for visual impairment: blind ($n = 46$, $M = 34.09$, $SD = 12.36$) and those with low vision ($n = 46$, $M = 36.11$, $SD = 8.95$). The third group consisted of 83 participants ($M = 35.29$, $SD = 10.56$) without structural or functional problems in the visual system. The excluding criterion for the sample formation was the presence of additional disorders or impairments that could impact QoL, for example, intellectual or physical disability, hearing impairment, serious health or psychiatric conditions.

The results obtained using the chi-square test showed no statistically significant differences between the participants with regard to gender, i.e., males and females were equally represented in all three categories of the participants ($\chi^2 = 3.19$, $df = 2$, $p = .20$).

Procedure

The research was realized among members of the Association of the Blind, Belgrade, and the Association of the Blind, Vojvodina. Verbal consent was given by

92 members, after which an individual interview was arranged. A telephone interview was organized for 30 participants who were prevented from coming in person. Sighted participants were found through personal contacts, and this subsample was formed by a snowball method. All participants were guaranteed anonymity and the use of data solely for scientific purposes. Also, it was emphasized that they could cancel their participation at any time.

The researcher read the statements and questions to the participants with visual impairment and wrote down their answers. There was no time limit, and the participants could ask for assistance with any question they did not fully understand. As for the sighted participants, they filled out the questionnaire by themselves in an online form.

Instruments

A questionnaire was constructed for the purpose of this research to collect sociodemographic data on the participants (gender, age, level of education, work status and degree of visual impairment),

The *Comprehensive Quality of Life Scale, 5th Edition (ComQol-A; Cummins, 1997)*, was used to evaluate quality of life. This scale was designed for use with the general adult population for assessing two dimensions of quality of life – objective and subjective. The instrument consists of seven domains (for each of the two dimensions): material well-being, overall health condition, productivity, intimacy, safety, place in the community, and emotional well-being. Each of the domains is represented by three items, and the participants gave their answers on assertion on a five-point Likert scale. The results are obtained by adding up three corresponding raw scores for each of the seven domains, and the total score of the objective QoL is formed following the instructions from the instrument guidelines. The scale has good internal consistency with Cronbach's alpha values of .84 (Cummins, 1997). A part of the Questionnaire that evaluates quality of life based on objective criteria had acceptable internal consistency ($\alpha = .51$).

Statistical data analysis

Descriptive statistics techniques were used to show central tendency and variability measures. One-way univariate analysis of covariance (ANCOVA) was used to examine the differences among the participants after controlling the age. Data were analyzed using the statistical software package SPSS, version 21.

Results

The participants' objectively perceived quality of life was analyzed using the Comprehensive Quality of Life Scale. Since assumptions for using multivariate analysis of covariance were not met, a series of one-way univariate analyses of covariance (ANCOVA) was applied to examine the differences in objective quality of life aspects between low-vision, blind, and sighted participants after controlling the age.

Descriptive measures (means and standard deviations) for three groups, along with adjusted means and standard errors for QoL domains and ANCOVA results, are displayed in Table 1.

Table 1

Descriptive statistics QoL domains (adjusted means and standard errors after controlling the age) and ANCOVA results

QoL domain	Visual status	<i>M</i>	<i>SD</i>	<i>M_{adj.}</i>	<i>SE</i>	<i>F</i> (2,172)	<i>p</i>	η^2
Material well-being	Low vision	62.14	11.35	62.12	1.67	3.71	.026	.042
	Blind	63.04	8.72	63.07	1.29			
	Sighted	67.37	13.16	67.37	1.44			
Health	Low vision	73.19	8.59	73.45	1.27	123.47	< .001	.591
	Blind	66.12	8.68	65.81	1.28			
	Sighted	91.87	11.49	91.90	1.26			
Productivity	Low vision	58.57	13.34	58.38	1.97	6.00	.003	.066
	Blind	54.47	14.92	54.70	2.20			
	Sighted	63.42	14.18	63.40	1.56			
Intimacy	Low vision	76.45	18.62	76.70	2.75	.34	.71	.004
	Blind	75.00	20.41	74.70	3.01			
	Sighted	77.31	15.42	77.34	1.69			
Safety	Low vision	82.07	8.60	82.29	1.29	2.00	.14	.023
	Blind	84.60	12.17	84.34	1.79			
	Sighted	80.22	12.46	80.25	1.37			
Emotional well-being	Low vision	68.12	17.77	68.01	2.62	1.29	.28	.015
	Blind	65.22	15.35	65.35	2.26			
	Sighted	63.15	16.47	63.14	1.81			
Place in community	Low vision	14.97	4.71	15.03	0.70	7.34	.001	.079
	Blind	12.72	5.41	12.65	0.80			
	Sighted	11.78	4.17	11.79	0.46			
Objective QoL – total	Low vision	68.53	6.61	68.60	0.97	9.66	< .001	.102
	Blind	65.78	7.27	65.70	1.07			
	Sighted	70.86	5.86	70.87	0.64			

A series of eight one-way ANCOVAs were conducted to compare the domains of objective quality of life and objective quality of life in total between three groups of participants with different visual status (low vision, blind, and sighted), controlling the participants' age. Results displayed in Table 1 indicate significant effect of visual status on Objective QoL in total ($p < .001$) and on four domains of objective quality of life: Material well-being ($p = .026$), Health ($p < .001$), Productivity ($p = .003$), Place in Community ($p = .001$). According to partial Eta squared value ($\eta^2 = .591$), the participants' visual status has the strongest (but moderate) impact on health as a quality of life domain. In other cases, size effects should be considered small since partial Eta squared values vary from .042 to .102.

In cases where F statistics were significant, Bonferroni post hoc tests revealed how three groups of participants differ in each quality of life's domain. Comparing the means adjusted for age showed a significant difference in Material well-being scores between sighted and low vision participants ($p = .047$), with higher scores in the group of subjects without visual impairment. Previously it was pointed out that visual status among all quality of life aspects strongly influenced health. In this domain, sighted participants have significantly higher scores compared to low vision and blind groups ($p = .001$). The health of participants with visual impairment also differs regarding the severity of the impairment: blind people have significantly lower scores than those with low vision ($p < .001$). In the domain of Productivity, significant differences are observed between sighted and blind participants ($p = .003$) with lower scores in the group of the blind. Interestingly, visually impaired participants evaluate their place in the community higher than sighted participants. In this quality of life domain, significant differences are observed between low vision and blind participants ($p = .045$) as well as between low vision and sighted participants ($p = .001$), with the highest in the group of low-vision and the lowest in sighted participants. Finally, when it comes to the general measure of objective quality of life, post-hoc test revealed a significant difference between blind and sighted participants ($p < .001$), with higher scores in the latter.

Discussion

According to WHO (2020) and The International Classification of Diseases 10th Revision (*ICD 10*; WHO, 2010), 285 million people around the world have visual impairment (blindness or low vision). Almost 30% of people with visual impairment are within economically active population. Still, the majority of them are older than 60 years, which means that visual impairment is a common and depleting health problem among adults. With the tendency of global population aging, the number of vision loss cases is expected to continue rising (Ejiakor et al., 2019; Jablan et al., 2016).

In the context of QoL, visual impairment leads to restrictions in many daily living aspects and has significant negative effects on many QoL domains (professional, functional, and social life, as well as physical and emotional well-being). These findings are supported by the fact that older people with visual impairments (especially those with a greater degree of impairment) have lower scores on instruments that assess QoL compared to peers who do not have visual impairment (Brown & Barrett, 2011; La Grow et al., 2013). However, some studies have not found a negative impact of visual impairment on QoL. Adigun et al. (2014) state that most of their participants with visual impairment (almost 80%) have good overall quality of life. Results of studies in this field are not consistent, especially when it comes to data on differences between QoL and the degree of visual impairment or observed QoL domains, i.e., although

general QoL may be perceived as good, some differences in individual domains can exist. Our study shows statistically significant differences between blind participants and participants without visual impairment, which confirms the tendency of deteriorating QoL with decreasing visual abilities. However, in our research, there are no statistically significant differences in objective QoL in total between blind participants and those with low vision, which is surprising since many studies point out that blind people face serious autonomy and independence difficulties (orientation and mobility difficulties included) (Adigun et al., 2014; Jablan et al., 2016). Even though Finger et al. (2011) stated that mild visual impairment could lead to lower QoL, the absence of statistically significant differences between people with low vision and people without visual impairment in our research does not confirm that. Findings like this can be explained with the “disability paradox” – a term proposed by Albrecht and Devlieger (1999). This term refers to the situation where people with disabilities tend to report high quality of life, despite the fact that disability degrades many aspects of living. They tend to perceive their social world as structured and understandable, consider that they have enough resources to face everyday problems they encounter, and, in the end, they find the motivation to manage disability (Vuletić et al., 2016).

According to scores obtained on the Comprehensive Quality of Life Scale, this research determined a significant effect of visual status (blindness, low vision, and no visual impairment) on four (out of seven) aspects of objective quality of life: Material well-being, Health, Productivity and Place in Community, and visual status has the strongest impact on Health as the quality of life domain. This practically means that, in everyday life, participants from the general population visit doctors less often, use less medication, and have fewer health problems than people with visual impairments. Also, participants with low vision achieve higher scores in the Health domain, which indicates that they have a better health status compared to the blind participants. These results confirm previous findings (Crews et al., 2016; Elsman et al., 2019) about frequent health issues in people with visual impairment.

As expected, participants without visual impairments are more satisfied with their material well-being and productivity – domains which indicate the standard of living and economic security, compared to participants with visual impairments. Studies show that, from the aspect of economic security, there is a high unemployment rate and lower income in the population of people with visual impairments (compared to sighted ones). This economic situation can lead to many problems. For example, people with visual impairment could become financially dependent on family members (Amedo et al., 2016; Brown & Barrett, 2011). Furthermore, they can often be in the situation to ask for help, which decreases the ability to maintain equity in the exchange with others, or can be related to a feeling of uncertain future, low sense of self-worth, and a

feeling that they are not an active and contributing family (and society) member (Khorrami-Nejad et al., 2016). An explanation can be found in the following: there are not many career opportunities (i.e., opportunities for being productive) for blind people. They are usually offered the job of a masseur or administrative worker, which does not always correspond to their competencies and level of education. Also, that can lead to a lack of desire to even apply for a job (Vuletić et al., 2016). Unlike the blind, people with low vision have a wider range of employment opportunities, which is primarily related to the fact that, when the path of functioning, learning, and applying knowledge is primarily visual, it is much easier to accommodate and adapt the educational approach and, later in life, workplace.

With regard to the Place in the community domain, people with low vision have the highest results and people from the general population the lowest, i.e., statistically significant differences are observed between those two groups of participants. The explanation can be found in the questionnaire itself. In other words, the situations listed in the questionnaire that the participants had to assess are such that they are not in line with the socio-economic conditions in our country (e.g., how often in the past month they went to the theater, to a sports game, had lunch outside the house, etc.). Regardless of their visual status, all of our participants rarely engaged in such activities (once or twice a month), which explains the low score in this domain. Also, one of the questions was related to whether the participants were members of a society or association. Participants with visual impairment from our sample are active members of the Association of the Blind, unlike people from the general population (who do not participate in the work of any organized association/society). More specifically, people with low vision are involved in the activities and work of associations of the blind, and because they have fewer difficulties in mobility and orientation, they do not need assistance for participation. Hence, people from the aforementioned population value this aspect of QoL more than the blind. We believe that these somewhat unusual results of statistically significant differences between people with low vision and people from the general population can be explained by this fact.

The Intimacy domain refers to establishing and maintaining connections with family and friends, while emotional well-being is related to individuals' happiness. Participants without visual impairment have higher results in the Intimacy domain than those with visual impairment, specifically the blind ones, although the observed differences were not statistically significant. Tseng et al. (2018) showed that, because of hindered communication and interaction, blindness can cause social isolation and, therefore, less built connections with family members and friends and less perceived social support. On the other hand, participants with low vision have some residual vision, which can empower the QoL domain related to establishing and maintaining social relationships and social integration (Vuletić et al., 2016). When it comes to the

Emotional well-being domain, where blind people and people with low vision have higher scores than participants from the general population (although observed differences were not statistically significant), there is a possibility that participants with visual impairment considered themselves happy, regardless of the differences in other domains of QoL – they are satisfied with what they have, they do not feel that they are missing something, which is in line with the aforementioned disability paradox.

As for the Safety domain, there is a question of how the participants understood the (safety) concept itself. Many viewed it as safety in the sense of avoidance of accidents while walking and doing everyday activities (Vuletić et al., 2016). However, a sense of safety can also be understood as a general feeling of safety within the living environment, without stressing any existing impairments, which was the case in this Scale. In our sample, statistically significant differences were not noticed. However, it is worth mentioning that the highest score was obtained by the group of blind participants, which can be related to the constant layout in living environment, with some of the established routines which make their life more predictable and, hence, easier, so the feeling of safety is higher in this population.

The results presented in this paper reveal the effects of visual impairment on QoL when age as a variable that may influence this construct is controlled. Furthermore, some socio-economic indicators (educational status, employment status, income level, possession of real estate) or psychosocial status (family functioning dimensions, social networks extent, and strength) could also shape QoL and its domains. According to that, we recommend evaluating some of these factors in future research. Examining different aspects of QoL can provide information on the impact of a vision loss on functioning in society, particularly related to daily life activities. More in-depth research in this field would be valuable in supporting people with visual impairment obtain satisfactory QoL levels since it is society's responsibility to support their participation.

With significant social changes that occurred in the second half of the 20th century, the concept of QoL among people with disabilities became a topic of interest. However, research on the general, objective quality of life of people with visual impairment is scarce.

When comparing the results of this study with previous research, it should be noted that the difference in results could stem from cultural and temporal differences. The expectation of objective QoL of our participants, compared to people with visual impairment from different decades and other countries, is likely to be different. Also, the limitation of this study is related to the data collection method – since a face-to-face interview was conducted, there is a question of whether the participants answered honestly or were embarrassed to discuss some topics. Additionally, self-reporting can depend on several factors: participants' mood, cultural norms, tendency to exaggerate when describing their characteristics.

Conclusion

Over the last few decades, significant attention has been given to the concept of QoL in people with disabilities. Visual impairment can undoubtedly have a major impact on people's lives, limiting their functioning (education, independent life, social life, health status, etc.) and well-being. Usually, equal significance is given to both subjective and objective indicators of QoL. With no desire to diminish the importance of subjective QoL indicators, we believe it is necessary to consider the objective QoL indicators in more detail. The objective QoL component is described as a result of interactions between people and the environment in the context of the culture and community in which the participants live. Also, it is less affected by the personal attitude of an individual. The most obvious negative effect of visual impairment on quality of life is perceived in the following domains: material well-being, productivity, and health, where the greatest effects were disclosed in the Health domain. However, the results were somewhat unexpected in the Place in the community domain. Blind participants rated their place in the community lower than the remaining two groups of participants. However, the rates in participants with low vision are higher than those in sighted participants, probably due to their perception of their role in the associations of the blind as high-valued. Considering all the challenges blind people face in everyday life, our study confirmed the negative effect of blindness on objective QoL in total.

References

- Adigun, K., Oluleye, T. S., Ladipo, M. M., & Olowookere, S. A. (2014). Quality of life in patients with visual impairment in Ibadan: A clinical study in primary care. *Journal of Multidisciplinary Healthcare*, 7, 173-178. <https://doi.org/10.2147/jmdh.s51359>
- Albrecht, G. L., & Devlieger, P. J. (1999). The disability paradox: High quality of life against all odds. *Social Science & Medicine*, 48(8), 977-988. [https://doi.org/10.1016/S0277-9536\(98\)00411-0](https://doi.org/10.1016/S0277-9536(98)00411-0)
- Amedo, A. O., Adade, S., Koomson, N. Y., & Osaе, E. A. (2016). Influence of visual impairment on the quality of life: A survey of patients reporting at the low vision centre of the Eastern Regional Hospital of Ghana. *Journal of Ophthalmic Science*, 1(3), 44-47. <https://doi.org/10.14302/issn.2470-0436.jos-16-940>
- American Occupational Therapy Association. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy*, 74(Suppl. 2), 7412410010p1-7412410010p87. <https://doi.org/10.5014/ajot.2020.74S2001>
- Brown, R. L., & Barrett, A. E. (2011). Visual impairment and quality of life among older adults: An examination of explanations for the relationship. *The Journals of Gerontology Series B*, 66(3), 364-373. <https://doi.org/10.1093/geronb/gbr015>
- Crews, J. E., Chou, C.-F., Zack, M. M., Zhang, X., Bullard, K. M., Morse, A. R., & Saaddine, J. B. (2016). The association of health-related quality of life with severity of visual impairment among people aged 40-64 years: Findings from the 2006-2010 Behavioral Risk Factor Surveillance System. *Ophthalmic Epidemiology*, 23(3), 145-153. <https://dx.doi.org/10.3109%2F09286586.2016.1168851>

- Cummins, R. A. (1997). *Comprehensive Quality of Life Scale – Adult*. School of Psychology, Deakin University.
- Ćwirlej-Sozańska, A. B., Sozański, B., Wiśniowska-Szurlej, A., Wilmowska-Pietruszyńska, A. (2018). Quality of life and related factors among older people living in rural areas in south-eastern Poland. *Annals of Agricultural and Environmental Medicine*, 25(3), 539-545. <https://doi.org/10.26444/aaem/93847>
- Ejiakor, I., Achigbu, E., Onyia, O., Edema, O., & Florence, U. N. (2019). Impact of visual impairment and blindness on quality of life of patients in Owerri, IMO State, Nigeria. *Middle East African Journal of Ophthalmology*, 26(3), 127-132. https://doi.org/10.4103/meajo.meajo_256_18
- Elsman, E. B. M., van Rens, G. H. M. B., & van Nispen, R. M. A. (2019). Quality of life and participation of young adults with a visual impairment aged 18-25 years: Comparison with population norms. *Acta Ophthalmologica*, 97(2), 165-172. <https://doi.org/10.1111/aos.13903>
- Finger, R. P., Fenwick, E., Marella, M., Dirani, M., Holz, F. G., Chiang, P. P. C., & Lamoureux, E. L. (2011). The impact of vision impairment on vision-specific quality of life in Germany. *Investigative Ophthalmology & Visual Science*, 52(6), 3613-3619. <https://doi.org/10.1167/iovs.10-7127>
- Giloyan, A., Harutyunyan, T., & Petrosyan, V. (2015). Visual impairment and depression among socially vulnerable older adults in Armenia. *Aging & Mental Health*, 19(2), 175-181. <https://doi.org/10.1080/13607863.2014.920298>
- Grbovic, A., Stanimirov, K., Ayyıldız, E., Bankovic, S., & Jablan, B. (2022). Determinants of reading efficiency of the students with visual impairment. *Education and Science*, 47(209), 55-67. <http://dx.doi.org/10.15390/EB.2022.10271>
- Gyawali, R., Paudel, N., & Adhikari, P. (2012). Quality of life in Nepalese patients with low vision and the impact of low vision services. *Journal of Optometry*, 5(4), 188-195. <https://dx.doi.org/10.1016%2Fj.optom.2012.05.002>
- Jablan, B., Vučinić, V., & Vranić, M. (2016). Kvalitet života odraslih osoba sa oštećenjem vida [Quality of life in adults with visual impairments]. *Beogradska defektološka škola*, 22(1), 9-21.
- Jones, N., Bartlett, H. E., & Cooke, R. (2019). An analysis of the impact of visual impairment on activities of daily living and vision-related quality of life in a visually impaired adult population. *British Journal of Visual Impairment*, 37(1), 50-63. <https://doi.org/10.1177/0264619618814071>
- Khorrani-Nejad, M., Sarabandi, A., Akbari, M. R., & Askarizadeh, F. (2016). The impact of visual impairment on quality of life. *Medical Hypothesis, Discovery and Innovation in Ophthalmology*, 5(3), 96-103.
- Komolafe, A. F. (2016). Social and environmental factors as determinants of self-adjustment of persons with visual impairment in Oyo State Nigeria. *Advances in Social Sciences Research Journal*, 3(6), 155-165. <https://doi.org/10.14738/assrj.36.2032>
- La Grow, S., Yeung, P., Towers, A., Alpass, F., & Stephens, C. (2013). The impact of mobility on quality of life among older persons. *Journal of Aging and Health*, 25(5), 723-736. <https://doi.org/10.1177/0898264313490198>
- Lange, R., Kumagai, A., Weiss, S., Zaffke, K. B., Day, S., Wicker, D., Howson, A., Jayasundera, K. T., Smolinski, L., Hedlich, C., Lee, P. P., Massof, R. W., Stelmack, J. A., Carlozzi, J. A., & Ehrlich, J. R. (2021). Vision-related quality of life in adults with severe peripheral vision loss: A qualitative interview study. *Journal of Patient-Reported Outcomes*, 5(1), Article 7.

- Lin, J. C., & Yu, J. H. (2012). Assessment of quality of life among Taiwanese patients with visual impairment. *Journal of the Formosan Medical Association, 111*(10), 572-579. <https://doi.org/10.1016/j.jfma.2011.09.021>
- Moons, P., Budts, W., & De Geest, S. (2006). Critique on the conceptualisation of quality of life: A review and evaluation of different conceptual approaches. *International Journal of Nursing Studies, 43*(7), 891-901. <https://doi.org/10.1016/j.ijnurstu.2006.03.015>
- Nayeni, M., Dang, A., Mao, A. J., & Malvankar-Mehta, M. S. (2021). Quality of life of low vision patients: A systematic review and meta-analysis. *Canadian Journal of Ophthalmology, 56*(3), 151-157. <https://doi.org/10.1016/j.jcjo.2020.10.014>
- Revicki, D. A., Osoba, D., Fairclough, D., Barofsky, I., Berzon, R., Leidy, N. K., & Rothman, M. (2000). Recommendations on health-related quality of life research to support labeling and promotional claims in the United States. *Quality of Life Research, 9*(8), 887-900. <https://doi.org/10.1023/a:1008996223999>
- Stanimirov, K. (2016). *Povezanost samopoimanja sa kvalitetom života i životnim navikama kod osoba sa oštećenjem vida* [Correlations of self-concept with quality of life and life habits in persons with visual impairment] [doktorska disertacija, Univerzitet u Beogradu]. NaRDuS. <https://nardus.mpn.gov.rs/bitstream/handle/123456789/8235/Disertacija.pdf?sequence=4&isAllowed=y>
- Stanimirov, K., Jablan, B., & Stanimirović, D. (2014). Kvalitet života osoba sa oštećenjem vida [Quality of life of visually impaired persons]. *Beogradska defektološka škola, 20*(58), 127-137.
- Stanimirov, K., Grbović, A., & Dimoski, S. (2020). Fizičke aktivnosti osoba sa oštećenjem vida i faktori koji ih određuju [Physical activities of people with visual impairment and their determining factors]. *Specijalna edukacija i rehabilitacija, 19*(2), 91-107. <https://doi.org/10.5937/specedreh19-26366>
- Trillo, A. H., & Dickinson, C. M. (2012). The impact of visual and nonvisual factors on quality of life and adaptation in adults with visual impairment. *Investigative Ophthalmology & Visual Science, 53*(7), 4234-4241. <https://doi.org/10.1167/iovs.12-9580>
- Tseng, Y. C., Liu, S. H. Y., Lou, M. F., & Huang, G. S. (2018). Quality of life in older adults with sensory impairments: A systematic review. *Quality of Life Research, 27*, 1957-1971. <https://doi.org/10.1007/s11136-018-1799-2>
- Van Hecke, N., Claes, C., Vanderplasschen, W., De Maeyer, J., De Witte, N., & Vandeveld, S. (2018). Conceptualisation and measurement of quality of life based on Schalock and Verdugo's model: A cross-disciplinary review of the literature. *Social Indicators Research, 137*(1), 335-351. <https://doi.org/10.1007/s11205-017-1596-2>
- Verdugo, M. A., Navas, P., Gómez, L. E., & Schalock, R. L. (2012). The concept of quality of life and its role in enhancing human rights in the field of intellectual disability. *Journal of Intellectual Disability Research, 56*(11), 1036-1045. <https://doi.org/10.1111/j.1365-2788.2012.01585.x>
- Vuletić, G., Šarlija, T., & Benjak, T. (2016). Quality of life in blind and partially sighted people. *Journal of Applied Health Sciences, 2*(2), 101-112. <https://doi.org/10.24141/1%2F2%2F2%2F3>
- World Health Organization. (2020, October 1). *Visual impairment and blindness*. <http://www.who.int/mediacentre/factsheets/fs282/en/>
- World Health Organization. (2010). International statistical classification of diseases and related health problems.

- WHOQOL group. (1995). The World Health Organization quality of life assessment (WHOQOL): Position paper from the World Health Organization. *Social Science & Medicine*, 41(10), 1403-1409. [https://doi.org/10.1016/0277-9536\(95\)00112-k](https://doi.org/10.1016/0277-9536(95)00112-k)
- Yibekal, B. T., Alemu, D. S., Anbesse, D. H., Alemayehu, A. M., & Alimaw, Y. A. (2020). Vision-related quality of life among adult patients with visual impairment at University of Gondar, Northwest Ethiopia. *Journal of Ophthalmology*, 2020, Article 9056097. <https://doi.org/10.1155/2020/9056097>
- Yusoff, M. M. (2020). Improving the quality of life for sustainable development. *IOP Conference Series: Earth and Environmental Science*, 561, Article 012020. <http://doi.org/10.1088/1755-1315/561/1/012020>

Objektivni indikatori kvaliteta života kod osoba s različitim vidnim statusom

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Uvod: Kvalitet života je širok i složen konstrukt. Svetska zdravstvena organizacija ga definiše kao „percepciju pojedinca o sopstvenom položaju u životu (...) u odnosu na njegove ciljeve, očekivanja, standarde i interesovanja“. Snižene vidne funkcije imaju negativan uticaj na celokupno funkcionisanje osobe. Teškoće u pristupu vizuelnim informacijama i problemi u orijentaciji i kretanju stvaraju značajna ograničenja u obavljanju svakodnevnih aktivnosti i dovode do smanjenih mogućnosti za obrazovanje, rad, učešće u društvu i aktivnostima slobodnog vremena. Ograničeno učešće u navedenim oblastima zajedno s nižim socijalnim interakcijama ima negativan uticaj na kvalitet života pojedinca. Međutim, nejasno je da li je ovaj konstrukt kod osoba sa oštećenjem vida kompromitovan zbog smanjene sposobnosti obavljanja svakodnevnih aktivnosti ili zbog poteškoća u uspostavljanju socijalnih interakcija. *Cilj:* U nastojanju da se ukaže na posledice oštećenja vida na kvalitet života, cilj ovog istraživanja je bio utvrditi objektivni kvalitet života odraslih osoba s različitim vizuelnim statusom, kada se kontroliše starost. *Metode:* Za procenu objektivnog kvaliteta života korišćena je Sveobuhvatna skala kvaliteta života. Uzorak je činilo 175 odraslih osoba, od toga 92 ispitanika sa oštećenjem vida i 83 ispitanika bez strukturalnih ili funkcionalnih problema u vizuelnom sistemu. *Rezultati:* Rezultati osam ANCOVA analiza ukazali su na značajan uticaj vizuelnog statusa na objektivni kvalitet života u celini ($p < .001$) i na njegova četiri domena: materijalno blagostanje, zdravlje, produktivnost i mesto u zajednici. *Zaključak:* Prisutni su efekti različitog vizuelnog statusa na posmatrani konstrukt kada se kontroliše starost kao varijabla.

Cljučne reči: objektivni kvalitet života, vidni status, oštećenje vida, odrasli

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