RELATIONSHIP OF FAMILY SUPPORT WITH QUALITY OF LIFE IN GLAUCOMA PATIENTS

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ABSTRACT

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Glaucoma is incurable but can be controlled with lifelong treatment. In addition, decreased visual function affects daily activities and can reduce the quality of life of patients. A factor influencing the quality of life is family support. Family support can improve the quality of life for example, the family helps care costs. This study aims to analyze the relationship of family support with the quality of life of glaucoma patients at Baladhika Husada Level III Hospital in Jember, using a cross sectional approach, the independent variable is family support and dependent quality of life. The 71 research samples with purposive sampling. Data collection uses a family support questionnaire to assess family support and a GQL-15 questionnaire to assess quality of life. Analysis of the relationship of family support with quality of life using Spearman rank test with p value of <0.05. The results showed the percentage of family support 59 (83.1%) had high family support and 12 (16.9%) low family support, the percentage of quality of life was 58 (81.7%) had a good quality of life and 13 (18, 3%) poor quality of life. There is a relationship between family support and quality of life (p value = 0.001 r value = +0.467) with a positive correlation means the higher the family support, the higher the quality of life. Family support is related to quality of life in glaucoma patients because family support has an important role in efforts to improve quality of life.

BACKGROUND

Problems regarding the care of glaucoma patients if not handled properly and until they experience blindness can affect daily life and interfere with activities. All activities that can usually be done independently but need family support or help from others (Karmila, 2014). Families have an obligation and play an important role in the treatment process to improve the quality of life for patients. Assessment of the quality of life of glaucoma patients is carried out as a reference to the extent to which the successful progress of the treatment process that must be lived for a lifetime by glaucoma patients and a decrease in the visual field causes limitations in daily activities (Pelcic et al, 2017). The worsening or loss of vision function due to the severity of glaucoma disease can affect and reduce the patient's quality of life (Karmila, 2014).

The results showed a lack of family involve-ment in the medical care of glaucoma patients (17.2%), and the dependence of glaucoma patients on caregivers or families (14.9%) (Shtein et al, 2015). The results showed that 80 glaucoma patients had low social support, 4.2% of the families who helped with taking medication, 8.3% helped with eye drops, and 22.9% accompanied the patients when they visited the eye clinic (Styker et al. 2010). The results showed that the majority of families with one family member suffering from glaucoma as many as 34 out of 30 family respondents provided support and the results were less supportive (Purwitasari & Indriani, 2016). The results showed that 20 (71.4%) glaucoma patients received high family support and as many as 8 (28.6%) glaucoma patients received low family support (Hapsari, 2017).

The results of the study in Africa, there were 32 (8.0%) glaucoma patients experiencing problems in quality of life (Lisboa et al, 2013). The results of the study in the cataract group compared to the glau-

coma group, the glaucoma patients had a relatively lower quality of life with an average value of 33.1 and a median of 32.4 (Asroruddin, 2014). The results of the study of the quality of life of glaucoma patients stated that the quality of life of patients with primary open angle glaucoma had decreased with the lowest score of 20, the highest of 53, and the median value of 36.5 (Rosalina & Wahjudi, 2011). The results of the research on the good quality of life of respondents were 224 (89.6%) and the respondents' poor quality of life was 26 (10.4%) (Hardianti, 2018). The results of the study on glaucoma patients showed that 47 (64.4%) respondents had a good quality of life and 26 (35.6%) respondents had a poor quality of life (Purwitasari, 2019). The results of a study of the glaucoma case literature at the Baladhika Husada Hospital, Jember, as many as 100 patients experienced disturbances in all activities which resulted in a decrease in quality of life (Purwitasari, 2019).

Factors that affect the quality of life of glaucoma patients decrease due to anxiety when diagnosed with glaucoma if not treated properly can result in blindness, difficulty in activities due to decreased vision, treatment that takes too long to make patients feel uncomfortable starting from the costs that must be incurred and also side effects (Rosalina & Wahjudi, 2011). Other factors that affect the quality of life of glaucoma patients include age, level of knowledge, and duration of suffering (Karmila, 2014; Ananda, 2016). Glaucoma significantly adversely affects the quality of life and gets worse as the disease progresses (Chandramohan et al, 2017).

The impact of the decreased quality of life of glaucoma patients leads to a long treatment time for glaucoma and even lifelong treatment (Rosalina & Wahjudi, 2011; Asroruddin, 2014) and can affect physical aspects and productivity in the patient's life (Karmila, 2014; Ananda, 2016). Meanwhile, the impact of not being involved in the family in the treatment process for glaucoma patients is that the disease cannot be controlled and cannot be cured (Brunner & Suddart, 2013).

Providing family support is very important in an effort to improve the quality of life for glaucoma patients. This form of support is in the form of accompanying patients when they go to health services, providing information about glaucoma treatment, supported by treatment costs, giving full attention, and helping patient activities (Hapsari, 2017). Family support is provided in the treatment process that takes a long time or even a lifetime (Rosalina & Wahjudi, 2011). The purpose of this study was to analyze the relationship between family support and the quality of life of glaucoma patients at Baladhika Husada Hospital Jember.

METHODS

The study design was cross sectional. The research site was at the eye clinic of the Baladhika Husada Hospital Jember from March to December 2019. The sample in the study was 71 glaucoma patients who were undergoing treatment, sample calculations with the Lemeshow formula.

The sampling technique in the study used purposive sampling technique with inclusion criteria including glaucoma patients aged at least 18 years, glaucoma patients who are cooperative and willing to be respondents. Exclusion criteria including when the patient resigns the research process, and glaucoma patients who did not complete a questionnaire.

The study used a family support questionnaire and the glaucoma quality of life-15 questionnaires (GQL-15). The family support questionnaire is divided into four indicators instrumental, informational, assessment and emotional support. Of the four, it consists of several favorable questions, 14 questions and 9 unfavorable questions. Answer scores for favorable questions 1 = never, 2 = sometimes, 3 = often and 4 always. The answer to unfavorable questions is 1 = always, 2 = often, 3 = sometimes, and 4 = never.

The results of these questions will be categorized with a cut of point, which is based on data distribution, high family support if the value is >45.5, and family support is low if the value is <45.5. The glaucoma quality of life-15 questionnaire (GQL-15) consists of 15 questions and is grouped into 4 domains including central and near vision, peripheral vision, dark-light adaptation, and outdoor activity. The scoring of each score starts from 0-5, with the criteria 0 = Do not fill in for reasons that are not related to eye sight, 1 = no difficulty, 2 = little difficulty, 3 = occasional, 4 = rather severe difficulty, 5 = severe difficulty. Then categorized into 2 categories using cut of point, and good quality of life score <34 while bad quality of life score >34.

Glaucoma quality of life-15 (GQL-15) is stated as a quality of life questionnaire with a good validity construct, the validity of the scale can be seen from a significant correlation with the mean deviation (MD) (r = -0.6; p <0.0001). In the family support questionnaire, this validity test uses a comparison of the total question items of each question obtained on the variable family support instrument items number 1, 2, 4, 7, 10, 13, 15, 16, 17, 23 showing invalid be-

cause of the correlation probability sig. (2-tailed) > significant level (alfa) of 0.05, but valid statements are marked by a star in the cell of the total statements per question item (far right column) so that the valid statements are 13 statements. Reliability with Cronnbach's alpha coefficient = 0.95 and test-retest reliability r = 0.87. The family support questionnaire reliability test of the family support questionnaire is indicated by the r alpha value (0.824 > 0.444).

Statistical test using the Spearman rank correlation because the data scale is ordinal with a significance value of p value <0.05. The research has received an ethical test from the health research ethics committee of the Faculty of Dentistry, University of Jember with number 659 / UN25.8 / KEPK / DL / 2019.

RESULTS

Characteristics

Table 1 shows the mean age of glaucoma patients who underwent examination were 65.79 years. The mean of visual acuity in the eyes of the two respondents was the same, visual actuity 0.07.

Table 2 shows the gender of most of the men, 41 respondents (57.7%). Most of the time suffering from glaucoma was <1 year, 37 respondents (52.1%). Most of the education was high school, 33 respondents (46.5%). Most of the retirees work, 35 respondents (49.3%). Most of the marital status was married, 67 respondents (94.4%).

Family Support

Table 3 shows results of these questions will be categorized with a cut of point, which is based on data distribution, high family support if the value is ? 45.5, and family support is low if the value is <45.5. Shows most of the high family support as many as 59 respondents (83.1%).

Quality of Life

Table 4 shows categorized into 2 categories using cut of point, and good quality of life score ? 34 while bad quality of life score >34. Shows most of the quality of life is good as many as 58 respondents (81.7%).

Relationship between Family Support and Quality of Life

Table 5 shows the results of the Spearman rank correlation analysis of the relationship between family support and quality of life, p value 0.001 which means there is a significant relationship and the value

of r = 0.467, which means the closeness of the positive relationship is unidirectional the higher the family support the better the quality of life

DISCUSSION

The results of this study, family support variable table 3 shows that most of the high family support is 59 respondents (83.1%). The results of the study found that high family support was 71.4% and low family support was 28.6% (Hapsari, 2017). The results showed that most of the families supported, 24 (80%) of 30 respondents (Purwitasari & Indriani, 2016). Family support is very important for people with glaucoma, because the treatment process is lifelong and also requires the help of other people in their daily activities. That individuals who get good family support, improve their health status and when in a supportive environment usually have a better condition than the other way around (Friedman, Bowden, & Jones, 2010). Family support can also improve family health.

Family support is in the form of an attitude of providing assistance or service from the family, especially internal support obtained from wives, husbands, children, siblings, parents, as well as external support from extended families (Friedman, Bowden, & Jones, 2010).

Instrumental support is support provided by the family directly in the form of economic assistance to meet all the needs of family members (Friedman, Bowden, & Jones, 2010). In instrumental support, there are 2 items withtypes favorable and unfavorable, which in theitem unfavorable "family does not help when I have trouble putting eye drops" most of the respondents answered that their family had never and sometimes meant that family always and often helped patients when difficulty dripping. Items favorable to "family care costs" respondents stated that the family always and often helps the cost of care for glaucoma patients.

The least indicator of family support obtained by glaucoma patients is emotional support. Emotional support is the support provided by the family to encourage family members to talk about all their problems so that they can slightly lighten the burdens experienced by members, by providing advice and guidance that maintains family values and traditions (Friedman, Bowden, & Jones, 2010). The results showed that the indicator of emotional support was the lowest compared to other indicators of family support. The family plays a role in emotional support in the form of convincing the patient that his condition will

Table 1. Age Characteristics and Acuity Visual

Characteristics	Mean	SD	Min-Max
Age	65.79	8.319	36-83
AcuityVisual:			
VOD	0.07		0.003-0.33
VOS	0.07		0.003-0.50

Table 2. Gender Characteristics, Length of Suffering, Education, Occupation, Marital Status

Characteristics	f	%
Gender:		
- Male	41	57.7
- Female	30	42.3
Length of suffering:		
- <1 year	37	52, 1
- > 1 year	34	47.9
Education:		
- Did not go to school / did not graduate from	0	0
- Primary school	10	14.1
- Junior high school	5	7.0
- Upper secondary school	33	46.5
- Diploma	23	32.4
Occupation:		
- Not working	3	4,2
- Farmer / farm laborer	3	4,2
- PNS / TNI / Polri	2	2,8
- Retired	35	49,3
- Self Employed	16	22,5
- Private	1	1,4
- Household servant	11	15,5
- Others	0	0
Marital status:		
- Not married	0	0
- Married	67	94.4
- Divorced	4	5.6

Table 3. Family Support

Family Support	f	%
High	59	83.1
Low	12	16.9

Table 4. Quality of Life

Quality of Life	f	%
Good	58	81.7
Bad	13	18.3

Table 5. Results of the Analysis of the Relationship between Family Support and Quality of Life

Variable	P value	r
Family Support Quality of Life	0.001	0.467

soon improve, the family spends time listening to the complaints experienced by glaucoma patients and discussing decisions regarding the care process for glaucoma patients and the family accepting their existence and condition (Hapsari, 2017).

The results of the study found that there are still some who do not get support from their families, it can be seen from the emotional support that is still not maximal in supporting these individuals. Some glaucoma patients stated that their families are too busy with their own world, they are not able to spend time with these patients, their families are busy working to meet their daily needs as well as the patient's medical expenses. Emotional support is also one of the factors that support glaucoma patients through the lifelong process of treatment and to improve the quality of life of glaucoma patients. Overall the results of this study, the family has an important role in providing support for these individuals in undergoing glaucoma treatment during his life. Although each individual is different in feeling the support provided by their respective families.

The quality of life variable table 4 shows that most of the quality of life is good as many as 58 respondents (81.7%). That quality of life is an individual feeling about health and well-being such as physical ability, psychological status, social function, independence (Ananda, 2016). Quality of life can be whether a person feels satisfied or not about various aspects of their life (Ekasari et al, 2018). The domain of quality of life is divided into 4, one of which is physical health, which focuses on the visual function of how the respondent's ability to carry out daily activities in his daily life (Anggreria & Daeli, 2018). In glaucoma patients, it is very important to assess the quality of life because the treatment process must be carried out for life and the impact of the disease results in limitations in activities and if it gets worse, blindness can occur (Pelcic et al, 2017; Karmila, 2014).

The results of the study which stated that the quality of life of the respondents was good as many as 224 (89.6%) and the quality of life of the respondents was poor 26 (10.4%) (Hardianti, 2018). The results showed that 47 (64.4%) respondents had a good quality of life and 26 (35.6%) had a poor quality of life (Purwitasari, 2019).

The GQL-10 indicator that mostly supports the good quality of life of glaucoma patients is outdoor activities. The items on the outdoor activity indicator are how disturbed the activity of crossing the road is, most of the respondents answered that they were not disturbed at all besides that the answers chosen were few and sometimes. Respondents said

that every time they crossed the road, they were not disturbed even though their vision function decreased, they could still estimate the distance of the vehicle and still always be careful.

In the peripheral vision indicator there are 6 activities including walking on uneven roads, tripping, seeing objects coming from the side, walking on stairs, hitting objects, and setting foot distance on stairs or curbs. Then in the dark light adaptation indicator there are also 6 activities including walking in the dark, looking at night, adjusting to bright light, adjusting to dim lights, moving from a bright room to a dark room or vice versa, and looking for fallen objects. The four indicators are also influenced by the patient's eye acuity, although only two of the four indicators are the smallest in number. Low vision can interfere with all of the sufferer's daily activities, such as reading a book, easy glare, bumping into something, disturbed night vision, easy glare, cooking, and difficulty recognizing other people's faces (Jakarta Eye Center, 2014). The results of this study are in accordance with other studies in visually impaired patients using the NEI VFG questionnaire, which states that in one indicator the peripheral field of view is related to a person's activity, including walking, bumping or tripping over objects, and setting directions to unidentified areas, especially when the activity is carried out at night or in low light (Asroruddin, 2014).

Glaucoma can be influenced by several factors, aged 40-60 years are at risk of developing glaucoma because there is a decrease in the ability of the eye nervous system. Therefore age affects a person's health and quality of life. On the gender factor, another study also states that men suffer more from glaucoma, which in closed-angle glaucoma with pupil obstruction in men are 3 times more at risk than women (Hapsari, 2017). Although some say that there are more women than men. The difference in frequency in research between men and women is also due to differences in work, habits or lifestyle, genetics or a person's physiological condition (Ananda, 2016).

The quality of life is also influenced by the level of education. The level of education statistically affects the level of knowledge. The higher a person's education level, the higher the level of knowledge. The higher the level of knowledge, the better the quality of life for glaucoma patients because patients can understand the disease they are experiencing and the actions that must be taken and avoided in overcoming disorders experienced during activities (Chaidir et al, 2016).

The fourth factor is the duration of suffering

from glaucoma at most 2-5 years (45%). The length of time suffering from glaucoma can also affect the patient's quality of life, since the longer the patient is sick, the more he understands and can adapt to the disease (Rosalina & Wahjudi, 2011).

Relationship family support with the quality of life of glaucoma patients table 5 shows the results of the Spearman rank correlation analysis of the relationship between family support and quality of life, p value 0.001, which means that there is a significant relationship and the value of r = 0.467 which means the closeness of the positive relationship is unidirectional.

The results of the study indicate that there is a significant relationship between resilience mediate, social support and a person's quality of life. The social support provided consists of 3 domains, support from family, friends, and others. The three variables, if resilience and social support decrease, the patient's quality of life decreases. If the more social support a glaucoma patient receives or feels, the better the independent welfare; social support can prevent or reduce stress responses, promote healthy behavior patterns, prevent a decrease in independent well-being, and improve quality of life (Wang et al, 2019).

Glaucoma is classified as a progressive disease and cannot be cured and must undergo life long treatment. In glaucoma patients, worsening or loss of vision function due to the severity of the glaucoma disease can affect and reduce the patient's quality of life (Karmila, 2014). Quality of life is a feeling of individual satisfaction about various aspects of life (Ekasari et al, 2018). The care management process aims to maintain and improve the quality of life for glaucoma patients. This disease affects the quality of life because it is related to decreased visual function and limitations and difficulties in activities (Karmila, 2014). Assessment of the quality of life of glaucoma sufferers is very necessary to determine the extent of the success of the treatment process that must be carried out throughout the patient's life and also the decrease in the visual field causes limitations in daily activities (Pelcic et al, 2017). Decreased quality of life in glaucoma patients is related to several factors, the disease suffered and lifelong treatment, such as decreased visual function, limited activity, treatment processes, side effects, and medical costs that must be incurred (Rosalina & Wahjudi, 2011; Florani et al., 2016; Ananda, 2016).

In nursing management, it explains that the treatment process requires the involvement of patients and their families, because glaucoma is not a curable disease and 90% of glaucoma is a chronic disease (Tamsuri, 2010). Glaucoma can only be controlled without a cure, therefore it is necessary to involve the family in the treatment process (Brunner & Suddart, 2013). Individuals who get good family support will improve their health status. Family support for glaucoma patients is important in an effort to improve the quality of life for glaucoma patients. Forms of family support for family members who have problems by providing maintenance support, emotional forms of fulfilling psychosocial needs and family welfare. Family support is provided to meet the patient's psychosocial needs so that they do not feel alone through the treatment and care process. This support is in the form of emotional, assessment, instrumental and informational support (Friedman, Bowden, & Jones, 2010).

There is a significant relationship between family support and the quality of life of glaucoma patients and it has a positive correlation, which means that the higher the family support, the better the quality of life. In this study, the overall family support and quality of life of the patients were in high and good categories. However, on the indicators of quality of life, adaptation to dark, light and peripheral vision, many respondents experienced interference with these indicators. The four indicators of quality of life are also influenced by visual acuity, that patients experience low vision. Low vision can affect the daily activities of the patient and cause limited activities and can decrease the patient's quality of life, in this case the role of the family is needed to help overcome the difficulties experienced by sick family members. Family support is needed to support the care process for glaucoma patients and improve the quality of life of the patient, especially when the family is the patient's closest person.

The relationship between family support and quality of life identifies that family support plays an adequate role in influencing the quality of life in glaucoma patients. Researchers argue that overall between the support and quality of life of glaucoma patients, it is known that the family has an important role in providing support for these individuals to undergo glaucoma treatment during their life and one of the efforts to improve the quality of life of glaucoma patients. Although each individual is different in each condition, the severity of the disease and the sense of support provided by each of their families. Families provide assistance to patients in the activities and process of patient care as a form of support that supports the improvement of quality of life, where patients will feel that they are accepted by the family

not only when their condition is healthy but also in a sick condition. Therefore, family involvement in every process of care and treatment of glaucoma patients is needed in order to achieve maximum results.

The implication of nursing in this study is the role of the nurse as an educator as well as a counselor for glaucoma patients and their families regarding the necessary family support for patients and their quality of life. After knowing family support and quality of life in glaucoma patients, it is hoped that as a nurse can determine further holistic treatment through biopsychososiospiritual aspects to help improve family support or improve the patient's quality of life.

In the next study, it is hoped that research can be carried out related to other factors that affect the quality of life, so that we can find out more specifically what factors affect the quality of life of glaucoma patients.

CONCLUSION

Glaucoma patients receive high category of family support. The quality of life in glaucoma patients is in good category. There is a relationship between family support and quality of life in glaucoma patients at eye clinic Baladhika Husada III Hospital Jember.

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