Assiut Scientific Nursing Journal
http://asnj.journals.ekb.eg http://www.arabimpactfactor.com
DOI:10.21608/asnj.2025.385927.2089 http://olddrji.lbp.world/indexedJournals.aspx
https://vlibrary.emro.who.int/journals/assiut-scientific-nursing-journal

Corneal Ulcers: Effect of Nursing Recommendations on patients' Quality of Life

Salwa Abd algaid Abd El-rahman[1], Neama Ahmed Mohamed[2] & Mervat Abd EL-Fatah Ismael[3]
[1.] Fellow of Medical-Surgical Nursing, Assiut University Hospital, Assiut University, Egypt.
[2.] Fellow of Medical-Surgical Nursing, Assiut University Hospital, Assiut University, Egypt.
[3.] Lecturer of Medical-Surgical Nursing, Faculty of Nursing, Assiut University, Egypt.

Abstract:
Background: Nursing recommendations are essential to raising people's quality of life, preventing of complication, reduce morbidity and visual loss due to corneal ulceration. **Aim:** To evaluate the effect of nurse recommendations on quality of life among patients treated for corneal ulcers at Assiut University Hospital. **Research design:** The study used a quasi-experimental design. **Sample:** Sixty patients with corneal ulcers of both sexes, ages 20 to 60, split into two equal groups of thirty each. **Setting:** The investigation was carried out at Assiut University Hospital's ophthalmology department and ophthalmic outpatient clinic. **Tools: Tool (I)** Patient Interview Questionnaire Sheet. **Tool (II)** Visual Function Index questionnaire. **Tool (III)** The World Health Organization Quality of Life- BREF questionnaire. **Results:** The findings revealed a statistically significant difference ($p < 0.001$) in the quality of life between the study and control groups at both one and three months after implementing the nursing recommendations. Additionally, a strong positive correlation was observed between the quality of life scale and the patients' knowledge scale, indicating that an increase in patients' knowledge was associated with an improvement in their quality of life. **Conclusion:** Nursing recommendations booklet was effective in improving quality of life, preventing of complication, reduce morbidity and visual loss due to corneal ulceration. **Recommendation:** Nursing recommendations booklet are recommended to be an integral part of corneal ulcer`s patients management and a booklet should be available at the ophthalmic department and ophthalmic outpatient clinic as a reference.

Keywords: Corneal ulcers, Nursing Recommendations & Quality of life.

Introduction
Together with the sclera and eyelids, the cornea, the outermost front portion of the eye, protects the inside of the eye from damage or infection. The cornea is clear and avascular in structure. The cornea's exact moisture content, which can reach up to 78%, is another essential factor in its ability to serve as an optical element **(Kumar et al., 2023).**

Infectious keratitis is responsible for 12.2% of all corneal transplants performed, and between 30,000 and 75,000 corneal ulcers are thought to occur each year in the United States alone. Thus, prompt diagnosis is essential to initiate treatment immediately and arrange for an urgent or emergent ophthalmologic assessment **(Byrd et al., 2022).**

One of the main causes of blindness in the world, corneal disease is much more common as people age and lead more digital lives. Circular opacification accounts for around 5% of the legally blind population in the United States, which grew from 3.4 million to 4.2 million between 2003 and 2012 and is expected to reach 8.96 million by 2050, according to the CDC. Corneal disease is turning into a significant worldwide health issue and public health burden **(Yeh, 2023).**

A corneal ulcer, sometimes referred to as infectious keratitis, is a tissue loss caused by a corneal infection. In addition to pain, patients may feel as though something alien is in their eye. Other symptoms include redness, photophobia, purulent or watery discharge, and tears. Usually, intensive treatment is used to prevent irreparable eyesight loss **(Tyerman et al., 2022).**

The patient might require eye drops as frequently as once per hour; in order to maximize absorption, the nurse should space out any eye drops the patient receives. To accommodate for visual decline, the patient may need to modify their lifestyle; Depending on the patient's health, the nurse may apply either warm or cool compresses; It might be dark in the room; the patient may be given the proper analgesic; and other comfort measures may be put in place **(Ball et al., 2023).**

Assessing quality of life parameters for every medical intervention is becoming increasingly important. Assessing the connection between visual acuity, vision-related functionality, and therapeutic intervention is advised by the United States Food and Drug Administration. A standardized 25-question visual function questionnaire created by the National Eye Institute (NEI) is used to assess the results. A person's quality of life can be greatly impacted by eyesight loss **(Harding et al., 2020).**

Significance of the study:

The physical, social, and emotional difficulties that people with corneal ulcers have affect their capacity to care for themselves and perform everyday duties, which in turn affects their Activities related to quality of life (QoL).

Based on the Assiut University Hospital's statistical data, around 200 individuals had corneal ulcer in 2023. Issues must be prevented or delayed, and when they do occur, they must be resolved promptly. Nurse education guidelines are consequently necessary for patients.

Aim of the study:

To evaluate the effect of nurse recommendations on quality of life among patients treated for corneal ulcers at Assiut University Hospital

Research hypothesis:

The hypothesis to be tested in this study is:

1. The patients included in the study will demonstrate a higher level of knowledge following the implementation of nursing recommendations compared to their knowledge level prior to the intervention.
2. The quality of life of the patients will show improvement after the implementation of the nursing recommendations.

Methods:

Research design: With a study and control group, a quasi-experimental research design was employed for this investigation **(Lauren, 2022).**

Setting: This study was conducted at Assiut University Hospital's ocular department and ophthalmic outpatient clinic.

Study participants and prerequisites:

A convenience sample of 60 adult patients, both male and female, aged between 20 and 65 years, was selected for the study. All participants were admitted to the ophthalmic department for treatment. The patients were randomly assigned into two groups: 30 patients in the control group and 30 patients in the study (intervention) group.

Tools of the study:

Tool (I): Patient interview questioner:

Section (1): Patient sociodemographic information, including age, gender, marital status, education level, and occupation

Section (2): Medical information: includes the length of the corneal ulcer, any prior eye surgeries, and risk factors like smoking, family history, and chronic conditions like diabetes mellitus, dry eye, and eye trauma.

Section (3): Patients' knowledge regarding corneal ulcers is evaluated using the following topics: illness definition, causes, risk factors, symptoms, consequences, and prevention techniques. Scoring system: Less than 50% of the total score indicated a poor degree of knowledge, 50% to 70% indicated a moderate level, and more than 70% indicated a high level.

Tool (II): Visual Function Index (VF-14) questionnaire (Steinbering, et al., 1994): It was employed to evaluate patients' functional impairment brought on by corneal ulcers. It has 18 questions that address 14 different areas of how corneal ulcers impair vision.

Each question has four possible answers: 0 indicates that the task is impossible, 1 indicates that it is extremely tough, 2 indicates that it is moderately difficult, 3 indicates that it is somewhat difficult, and 4 indicates that no difficulty.Scoring system: it is scored from 0 to 100. To score, each question is answered on a scale from 0 ("Unable to do") to 4 ("No difficulty"), and the total score is divided by the number of applicable questions answered. This value is then multiplied by 25 to standardize it to a 0-100 scale, where 100 is the best possible visual function and 0 is the worst.

Tool (III): The WHOQOL-BREF (World Health Organization Quality of Life-BREF) questionnaire: (Bonomi et al., 1997). It has 26 items that assess the following general areas: environment (8 things), social interactions (3 items), psychological health (6 items), and physical health (7 items). General health and total QOL are measured by two more items. To calculate a raw item score, items are scored on a 5-point Likert scale, with 1 representing a low score and 5 representing a high score. BREF questionnaire on quality of life.

Scoring system: Patients were categorized as having a low, fair, or good quality of life based on the range of total scores, which vary from 26 to 130. A total score of ≥70% indicated a good quality of life, a score of 50<70% indicated a fair quality of life, and a score of ≥70% indicated a poor quality of life.

Designed nursing instruction booklet:

After reviewing recent national and international literature **(Cabrera & Khoo, 2022) & (Gurnani et al., 2022),** the researcher created it based on patients' evaluation needs to maintain the patient's standard of living. It was developed and presented to the patients during sessions. Expert input led to revisions and updates to the nursing instruction booklet. The following subjects were covered in this short, illustrated book published in Arabic: the anatomy of the human eye, the reasons or risk factors for corneal ulcers, symptoms, diagnosis, therapy, daily living activities, complications, follow-up appointments, and eye infection prevention.

Operational Design:

Data collecting method: this study was conducted in three phases: the following:

Phase (1): Phase of preparation:

The researchers examined the literature on the current topic both locally and globally using textbooks, papers, and scientific publications. This phase concluded with the pilot research, which looked at the flow rate of individuals with corneal ulcers in the proposed study environment.

Content validity and reliability:

Five experts examined the study tools for clarity, relevance, comprehensiveness, understanding, applicability, and simplicity of administration. Three professors in the field of medical-surgical nursing and two professors in ophthalmic medicine verified the authenticity of the content.

Pilot study:

Ten percent of the sample participated in a pilot trial in August 2023 to assess the feasibility and suitability of the research procedures in six patients. Additionally, it gave an estimate of the time required to complete the tools; as there was no change, those patients were included in the main trial.

Phase (2): Implementation phase:

- Using study tools I, II, and III, baseline data were gathered from patients, their current medical records, assessments of patients' knowledge about corneal ulcers, functional impairment in patients due to corneal ulcers, and quality of life in both the control and study groups. Data collection was initiated and finished within a 12-month period, from the beginning of December 2023 to the end of December 2024. Data were gathered from the control group first, followed by the research group, to prevent the intervention from spreading to the control group.
- Based on the knowledge and practice gaps of the patients under study, the researcher provided nursing recommendations. It was in line with the relevant literature and was written in a straightforward Arabic language. met the patients' comprehension level as well.
- Following the collection of baseline data, the researcher met with the patients and scheduled two teaching sessions, lasting 45 to an hour each. After completing all the necessary paperwork, the researcher visited each patient in the study group once a day to monitor and support their comprehension and application of nursing suggestions.
- After examining recent national and international literature, the researcher created this instrument based on patients' evaluation needs in order to preserve the patients' quality of life. Sessions were used to formulate and introduce it to the patients. Anatomy of the human eye, definition of corneal ulcer, causes or risk factors for corneal ulcer, signs and symptoms, diagnosis and treatment, daily living activities, signs and symptoms of complications, follow-up appointments, and how to prevent infection of the eye were among the topics covered in the nursing teaching booklet, which was updated and modified based on the feedback of experts. It was written in Arabic using straightforward language and included illustrations.

The first session: contained teaching patients about simple Anatomy of the human eye, definition of corneal ulcer, daily living activities, corneal ulcer causes or risk factors, symptoms, diagnosis, and treatment, as well as indications of complications and how to prevent infection of the eye. Finally, this session ended by follow-up appointments.

The second session: included training on nursing recommendations which is designed to guide patient through the next few months with Implement measures to protect the affected eye Eye shields and patches, for example, help to reduce trauma and promote recovery. In order to address the root causes and symptoms of corneal ulcers, it is essential to evaluate visual acuity, manage pain, and administer recommended drugs.

Patients who receive instruction on ocular hygiene, medication adherence, and preventive measures are more equipped to take an active role in their care and lower their chance of recurrence. In order to address the worry and worries that patients may have concerning possible vision impairment and treatment outcomes, emotional support is crucial.

Methods of education: The selection of instructional strategies was guided by the contents of the guidelines and patient characteristics.

Teaching aids: Nursing recommendations were taught using PowerPoint, videos, and booklet handouts. Additionally, the researchers employed diagrams and illustrations to aid patients with learning disabilities in remembering the information they had acquired.

Phase3: Evaluation phase:

It was carried out in the Assiut University Hospital's outpatient ophthalmic clinics one and three months following the initial interview with the patients under study. Tool I part 3, Tool II, and Tool III were used to evaluate the impact of nursing recommendations on quality of life.

Administrative Design:

The responsible hospital authorities at the Assiut University Hospital's ophthalmic section and outpatient clinics granted formal approval to conduct the study.

Ethics approval:

The research proposal has been approved from the Ethical Committee of the Faculty of Nursing, Assiut university with (IRB:1120240827). Participants in the study were not at danger while the research was being conducted. Throughout the examination, common

ethical guidelines for clinical research were adhered to. Participants who were either patients or study guides were asked for their oral consent after being informed about the purpose and conduct of the inquiry. Confidentiality and anonymity were assured. The choice to decline participation or to withdraw from the study without providing an explanation was always available to the study participant. Data collecting considered the privacy of study participants.

Statistical design:

The information was updated, prepared for computer input, coded, examined, and tallied. Descriptive and correlation statistics (frequencies & percentages, mean & standard deviation, Pearson correlation, f-test, and one-way ANOVA test) between (pre and post) groups were performed using a computer software (SPSS version 26.0).

Results:

Table (1): Distribution of studied groups related to demographic data:

Items	Study Group		Control Group		F-test	P-value
	No. (n=30)	%	No. (n=30)	%		
Age:					0.430	0.514
18 to < 40	5	16.7	4	13.3		
40 to < 60	19	63.3	18	60.0		
60 to 65	6	20.0	8	26.7		
Mean ± SD	**48.4±11.6**		**49.8±11.7**			
Range	**47 (18 – 65)**		**47 (18 – 65)**			
Gender:					0.129	0.720
Male	16	53.3	15	50.0		
Female	14	46.7	15	50.0		
Level of education:					0.531	0.413
Illiterate	23	76.7	21	70.0		
Read and write	4	13.3	2	6.7		
Primary education	2	6.7	3	10.0		
Secondary education	1	3.3	4	13.3		
University education	0	0.0	0	0.0		
Occupation:					0.052	0.820
Employee	0	0.0	0	0.0		
Farmer	7	23.3	9	30.0		
Professional	3	10.0	7	23.3		
Housewife	14	46.7	10	33.3		
Doesn't work	6	20.0	4	13.4		
Marital status:					2.100	0.153
Single	2	6.7	4	13.3		
Married	25	83.3	21	70.0		
Divorced	0	0.0	0	0.0		
Widow	3	10.0	5	16.7		

X2 and fisher test Statistical significant differences (p < 0.05)*

Table (2): Distribution of studied groups related to medical data:

Items	Study Group		Control Group		F-test	P-value
	No. (n=30)	%	No. (n=30)	%		
How long have you been suffering from eye ulcers					0.737	0.394
1 month	6	20.0	4	13.3		
2 months	4	13.3	3	10.0		
3 months	6	20.0	7	23.3		
more than 3 months	14	46.7	16	53.4		
Previous eye surgery					1.208	0.276
Yes	12	40.0	15	50.0		

Items	Study Group		Control Group		F-test	P-value
	No. (n=30)	%	No. (n=30)	%		
No	18	60.0	15	50.0		
Have you ever had eye trauma?						
Yes	14	46.7	12	40.0	1.226	0.273
No	16	53.3	18	60.0		
Have you ever had contact lens?						
Yes	0	0.0	1	3.3	2.291	0.143
No	30	100.0	29	96.7		
Have you ever had an eye allergy						
Yes	3	10.0	4	13.3	1.226	0.273
No	27	90.0	26	86.7		
Have you ever been diagnosed with dacryocystitis?						
Yes	4	13.3	5	16.7	2.571	0.164
No	26	86.7	25	83.3		
Do you suffer from hypertension?						
Yes	2	6.6	5	16.7	1.571	0.264
No	28	93.4	25	83.3		
Do you suffer from diabetes?						
Yes	3	10.0	4	13.3	1.021	0.294
No	27	90.0	26	86.7		
Do you smoke?						
Yes	4	13.3	6	20.0	1.182	0.208
No	26	86.7	24	80.0		

*X2 and fiser test * Statistical significant differences (p < 0.05)*

Table (3): Relation between studied groups related to patients' knowledge:

Items	Study Groups (n=30)						Control Group (n=30)						P-value1	P-value2	P-value 3
	Pre		Post 1 month		Post 3 month		Pre		Post 1 month		Post 3 month				
	No	%	No	%	No	%	No	%	No	%	No	%			
Low level < 50%	30	100.0	2	6.7	1	3.3	30	100.0	28	93.3	24	80.0	0.612	0.000	0.000
Moderate level 50% – 70%	0	0.0	26	86.6	19	63.3	0	0.0	2	6.7	6	20.0			
High level > 70%	0	0.0	2	6.7	10	33.4	0	0.0	0	0.0	0	0.0			

X2 and fiser test * *Statistical significant differences (p < 0.05)*
P-value1: relation between pre study group & pre control group
P-value2: relation between post 1-month study group & post 1-month control group
P-value3: relation between post 3-month study group & post 3-month control group.

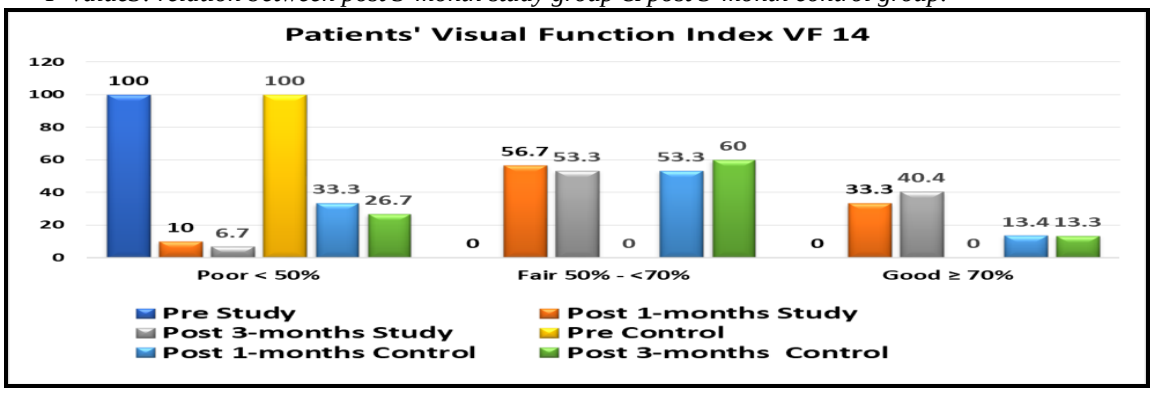

Figure (1): Percentage distribution of studied groups related to patients' Visual Function Index VF 14

Table (4): Relation between studied groups related to patients' Quality of Life

Items	Study Groups (n=30)						Control Group (n=30)						P-value 1	P-value 2	P-value 3
	Pre		Post 1 month		Post 3 month		Pre		Post 1 month		Post 3 month				
	No	%	No	%	No	%	No	%	No	%	No	%			
Poor <50	30	100.0	3	10.0	2	6.7	30	100.0	27	90.0	27	90.0	0.765	0.000	0.000
Fair 50 to <70	0	0.0	20	66.7	17	56.7	0	0.0	3	10.0	2	6.7			
Good ≥ 70	0	0.0	7	23.3	11	36.6	0	0.0	0	0.0	1	3.3			

X2 and fiser test ** Statistical significant differences (p < 0.05)*

P-value1: relation between pre study group & pre control group

P-value2: relation between post 1-month study group & post 1-month control group

P-value3: relation between post 3-month study group & post 3-month control group

Table (5): Pearson correlation between study and control groups:

Group			Knowledge	VF	QoL
Pre groups	Knowledge	Pearson Correlation	1	0.827**	0.699**
		Sig.	-	0.000	0.000
		N	90	90	90
	VF	Pearson Correlation	0.827**	1	0.658**
		Sig.	0.000	-	0.000
		N	90	90	90
	QoL	Pearson Correlation	0.699**	0.658**	1
		Sig.	0.000	0.000	-
		N	90	90	90
Post groups	Knowledge	Pearson Correlation	1	0.675**	0.775**
		Sig.	-	0.000	0.000
		N	90	90	90
	VF	Pearson Correlation	0.675**	1	0.629**
		Sig.	0.000	-	0.000
		N	90	90	90
	QoL	Pearson Correlation	0.775**	0.629**	1
		Sig.	0.000	0.000	-
		N	90	90	90

The correlation is significant at the 0.01 level.

Table (6): Relationship between patients' Quality of Life and socio-demographic characteristics

Items	Study Groups						Control Group					
	Pre		Post 1-month		Post 3-month		Pre		Post 1-month		Post 3-month	
	F-test	P-Value	F-test	P-value	F-test	P-value	F-test	P-value	F-test	P-Value	F-Test	P-value
Age	-	-	**1.966**	**0.154**	**1.193**	**0.182**	-	-	**1.999**	**0.127**	**1.206**	**0.114**
Gender	-	-	**1.050**	**0.134**	**1.273**	**0.i132**	-	-	**0.350**	**0.559**	**0.483**	**0.622**
Education	-	-	**1.821**	**0.181**	**1.999**	**0.167**	-	-	**1.179**	**0.287**	**0.568**	**0.573**
Occupation	-	-	**1.175**	**0.126**	**1.946**	**0.354**	-	-	**1.209**	**0.281**	**0.893**	**0.421**
Marital status	-	-	**1.357**	**0.123**	**1.331**	**0.113**	-	-	**1.467**	**0.111**	**1.360**	**0.141**

One way ANOVA ** Statistical significant differences (p < 0.05)*

Table (1): This table demonstrates that, with regard to patient sociodemographic information, there is no statistically significant difference between the study and control groups. Sixty-three percent of the study group and sixty percent of the control group are between the ages of forty and sixty. Nearly half of

them are male with 53.3% and 50.0%. Most of them are married with 83.3% and 70.0%. Most of them are at an illiterate level of education with 76.7% and 70.0%. Most of them are housewife with 46.7 %and 33.3%.

Table (2): This table demonstrates that there is no statistically significant difference in patient medical data between the study and control groups.

Table (3): With a p-value of 0.612, this table demonstrates that there is no statistically significant difference in the patients' knowledge ratings between the pre-study and pre-control groups. Regarding patient knowledge scores, there is a significant statistical difference (p-value 0.000) between the post-study and post-control groups (one and three months) when nursing recommendations were implemented.

Fig. (1): Demonstrates that, with a p-value of 0.628, there is no statistically significant difference between the pre-study and pre-control groups with regard to the patients' Visual Function Index scores. Regarding the Visual Function Index scores of patients, there is a significant statistical difference (p-value 0.000) between the post-study and post-control groups (1 and 3 months) after nursing recommendations were implemented.

Table (4): With a p-value of 0.765, this table demonstrates that there is no statistically significant difference in the patients' QoL evaluation between the pre-study and pre-control groups. In terms of patients' QoL evaluation, there is a significant statistical difference (p-value 0.000) between the post-study and control groups (one and three months) when nursing recommendations were implemented.

Table (5): This table demonstrates how raising the patients' knowledge scale improves their Quality of Life and Visual Function Index VF14 Scales.

Table (6): This table shows that Patients' socio-demographic characteristics didn't influence groups' Quality of Life Scale.

Discussion:

The effectiveness of nursing recommendations regarding patients' quality of life who have corneal ulcers was investigated in this study.

Regarding sociodemographic data: The results of the current investigation revealed that: More than half of the study and control groups were in the 40–60 age range. The study "Clinical and demographic review of corneal ulcers in University of Ilorin Teaching Hospital" provided evidence in favor of this conclusion. **(Adepoju et al., 2023)**. who disclosed that the bulk of the patients in the study were 41.2 years old on average.

More over half of the study participants were male patients. According to a study by **(Rathi et al., 2022)** titled "Early treatment of corneal abrasions and ulcers estimating clinical and economic outcomes," the majority of the study group was male. These findings were consistent with those of that study.

The majority of the patients in the current study were married, which was consistent with the findings of **(Khawaja et al., 2022)**, who also stated that the majority of the patients in the study were married.

The results of another study **(Adamu, 2022)** showed that the majority of patients were traders, but the majority of patients in the current study were illiterate and unemployed.

In terms of evaluating patient medical data, the results of this study showed that the majority of those being studied had never had eye surgery, ocular trauma, or a diagnosis of dacryocystitis. This was consistent with the findings of the study "Factors associated with poor prognosis in corneal ulcer: a clinical and epidemiological study" by **(Mathew et al., 2022)**. Who clarified that the majority of the individuals in the study had never had eye surgery or trauma.

According to the current study's findings, most of the patients did not smoke or had hypertension, which aligns with the results of a research conducted by **(Mourad et al., 2020)** titled "Clinical profile and treatment outcomes of infective keratitis." and clarified that most of the individuals in the study did not smoke or had high blood pressure.

The majority of the individuals in this study did not have diabetes, according to the study's findings. This study's findings were in conflict with those of **(Yuh et al., 2020)**, who said in their study "Risk of Corneal Ulcer in Patients with Diabetes Mellitus: A Retrospective Large-Scale Cohort Study" that the majority of the patients under study have diabetes.

Regarding the knowledge level: The current study's findings demonstrated that, in terms of knowledge level throughout follow-up periods following the adoption of nursing guidelines for corneal ulcers, The study and control groups differed in a way that was statistically significant. This implies that individuals with corneal ulcers had a higher degree of understanding as a result of the nursing suggestions. This result was corroborated by **(Maram et al., 2018)**, who found that the two groups' knowledge levels differed statistically significantly.

Regarding patient's Visual Function Index scores; With a p-value of 0.628, The results of the present investigation showed that the patients' Visual Function Index scores in the pre-study and pre-control groups did not differ statistically significantly. During follow-up periods (1 and 3 months) following the adoption of nursing guidelines for corneal ulcers, The post-study and post-control groups differ statistically significantly. regarding the Visual

Function Index scores of patients (p-value 0.000). This result was agreed with **(Sruthi et al., 2024)** in a study entitled " Prognostic indicators of corneal ulcer clinical outcomes at a tertiary care center in the Bronx, New York " they stated that the Visual Function Index scores of the patients showed a statistically significant difference (p-value < 0.001).

Regarding patients' Quality of Life: With a p-value of 0.765, the current study's findings demonstrated that The QoL assessments of the patients in the pre-study and pre-control groups did not differ statistically significantly.

During follow-up periods (1 and 3 months) following the adoption of nursing recommendations for corneal ulcers, The post-study and control groups have a very substantial statistical difference (p-value 0.000). with regard to patients' QoL assessment. In a study titled "Corneal ulcers and the risk of visual impairment in a matched cohort study in Nepal," **(Angela et al., 2024)** found no statistically significant difference in the patients' QoL evaluation (p-value = 0.002). This result was in contrast to their findings.

Regarding correlation between study and control groups:

The results of the current study showed a significant relationship between the patients' knowledge scale and the quality of life scale. The patients' quality of life increased as a result of their increased knowledge. In a study titled "Vision-Related Quality-of-Life Outcomes in the Mycotic Ulcer Treatment Trial I: A Randomized Clinical Trial," **(Jennifer et al., 2016)** discovered evidence of improved quality of life associated to vision following follow-up (P < 0.01). This outcome was consistent with their findings.

The results of this study showed that the groups' Quality of Life Scale ratings were unaffected by the patients' sociodemographic characteristics. In contrast, **(Rivoal et al., 2025)** found a statistically significant difference (P < 0.01) between the quality of life scale and sociodemographic parameters.

In summary, the information suggests that nursing guidance may be useful in improving visual function, knowledge, and overall quality of life. Despite some studies showing conflicting results or limitations in their conclusions, the overwhelming body of data suggests that nurse suggestions are effective in improving outcomes. Since nursing advice is typically helpful in controlling corneal ulcers, healthcare providers should consider incorporating it into their treatment plans for patients with these conditions.

Conclusion:

The current study's findings show that using nursing recommendations for patients with corneal ulcers significantly improved the study group's level of knowledge, visual function, and quality of life.

Recommendations:

Individual nursing instructions for individuals with corneal ulcers should be followed in order to prevent ocular consequences. Printed copies of the nursing guidance should be readily available to all patients with corneal ulcers in the ophthalmology department and clinic. The current study must be replicated on larger study populations in order for the findings to be more widely applicable.

References

Adamu, M., (2022): Spectrum of Corneal Disorders in a Tertiary Facility in Sokoto, North-West Nigeria. Journal Med Biomed Science. V. (3), N. (1), P.p (23–27).

Adepoju, F., Tota, B., Abikoye, P., Okeke, G., Alafe. H., (2023): Clinical and demographic review of corneal ulcers in University of Ilorin Teaching Hospital. Nigerian Journal of Ophthalmology V. (31), N. (2), P.p (55-60).

Angela, S., Puspa, G., Raghunandan, B., Sangita, P., Anju, L., Gopal, B., Sadhan, B., Ram, P., Bimal, P., Muthiah, S., Madan, U., John, P., Thomas, M., Jeremy, D., Kieran, S., & Brien, E., (2024): Corneal ulcers and the risk of visual impairment in a matched cohort study in Nepal. AJO International. V. (1), N. (1), P.p (987-995).

Ball, J., Dains, J., Flynn, A., Solomon, B., & Stewart, W., (2023): Eyes. Seidel's Guide to Physical Examination. 10th ed. Elsevier. P.p (230-258).

Bonomi, E., Patrick, D., Bushnell, M., & Martin, M., (1997): Validation of the United States' version of the World Health Organization Quality of Life (WHOQOL) instrument. Journal of Clinical Epidemiology. V. (53), N. (1), P.p (1-12).

Byrd, L., Martin, M., & Nathan, M., (2022) https://www.ncbi.nlm.nih.gov/books/NBK539689/ . Accessed at 6 p.m at 13/5/2025.

Cabrera, M., & Khoo,W., (2022): "Infectious keratitis: A review". Clinical and Experimental Ophthalmology. **V.** (50), N.(5), P.p (543–562).

Gurnani, B., Kaur, K., Venugopal, A., Srinivasan, B., Bagga, B., Iyer, G., Christy, J., Prajna, L., Vanathi , M., Garg, P., Narayana, S., Agarwal, S., & Sahu, S., (2022): Pythium insidiosum keratitis - A review. Indian Journal of Ophthalmology. V. (70), N. (4), P.p (1107-1120).

Harding, O., Kwong, L., Hagler, M., & Reinisch, A., (2020): Lewis's Medical-Surgical Nursing ASSESSMENT AND MANAGEMENT OF

CLINICAL PROBLEMS, 12 th edition., Chapter 13, P.p (422- 430).

Jennifer, R., Venkatesh, P., Tiruvengada, K.., & Jeena, M., (2016): Vision-Related Quality-of-Life Outcomes in the Mycotic Ulcer Treatment Trial I: A Randomized Clinical Jama Ophthalmology. V. (133), N. (6), P.p (234-250).

Khawaja, A., Bharat, B., Dawit, E., Yordanos, T., Michael, T., Fitsum, O., Freweyni, T., Kisanet, M., Luwam, M., & Silas A (2022): Identification of bacterial profile, common associated risk factors, and antimicrobial susceptibility patterns, of bacterial keratitis in community hospitals of Asmara, Eritrea. Ethiopian Medical Journal. V. (60), N. (3), P.p (245-256).

Kumar, B., Kar, H., & Dogra, S., (2023): Text book of leprosy, 3rd edition, Chapter 25, P.p (1985).

Lauren, T., (2022): https://www.scribbr.com/methodology/quasi-experimental-design. Accessed at 11 p.m at 6/4/2025.

Maram, A., Mervat, G., & Saher, A., (2018): Assessment of Intensive Care Nurse Knowledge and Perception of Eye Care Practice for Unconscious and Mechanically Ventilated Patients in Intensive Care Units in Saudi Arabia. Research & Reviews: Journal of Nursing and Health Sciences Research & Reviews: Journal of Nursing and Health Sciences. V. (15), N. (11), P.p (654).

Mathew, M., Arya, A., & Cherian, A., (2022): Factors associated with poor prognosis in corneal ulcer: a clinical and epidemiological study. Kerala J Ophthalmology. V. (34), N. (12), P.p (34-37).

Mourad, K., Othman, M., Abdelghany, A., & Aboeleyon, N., (2020): Clinical profile and treatment outcomes of infective keratitis. Malays Journal of Medical Research. V. (31), N. (5), P.p (338-341).

Rathi, V., Thokala, P., MacNeil, S., Khanna, R., Monk, P., & Garg, P., (2022): Early treatment of corneal abrasions and ulcers estimating clinical and economic outcomes. Lancet Reg Health Southeast Asia. V. (45), N. (3), P.p (546).

Rivoal, Y., Miguel, A., Bailleul, H., Canino, M., Bacon, S., Saint, L., Deloison, E., & Quintyn, J., (2025): Study of quality of life in patients treated with autologous serum eye drops. Journal Français d'Ophtalmologie. V. (48), N. (2), P.p (148-157).

Sruthi, K., Behram, K., Amanda, M., Zong, M., Jee, M., Anurag, S., Johanna, P ., Richard, P., & Gibralter, A., (2024): Prognostic indicators of corneal ulcer clinical outcomes at a tertiary care center in the Bronx, New York. Journal of Ophthalmic Inflammation and Infection. V. (14), N. (18), P.p (268-278).

Steinberg, E., Tielsch, M., Schein, D., Javitt, J., Sharkey, P., Cassard, S., Legro, M., West, D., Bass, B., & Damiano, A ., (1994): The VF-14. An index of functional impairment in patients with cataract. Archives of Ophthalmology. V. (112), N. (5), P.p (630-638).

Tyerman, J., Cobbett, S., & Harding, M., (2022): Lewis's Medical-Surgical Nursing in Canada - E-Book, Assessment and management of clinical problems. 2 nd edition, Chapter 24, P.p (455).

Yeh, S., (2023): https://www.ophthalmologytimes.com/view/novel-approaches-to-treating-severe-ocular-surface-and-corneal-damage, MJH Life Sciences. Accessed at 9 p.m at 15/2/2025.

Yuh, C., Ming, T ., Chung, H ., Chin, C., Joung, W., Sung, T., & Ren J (2020): Risk of Corneal Ulcer in Patients with Diabetes Mellitus: A Retrospective Large-Scale Cohort Study Scientific Reports. V. (10), N. (73), P.p (365).