# ScienZTech INTERNATIONAL JOURNAL OF MEDICAL THERAPEUTICS

Published by ScienzTech Publication

Journal Home Page: www.scienztech.org/jibps

# Assessment of Knowledge, Attitude, Practice of Gastroenteritis Patients in A Teritiary Care Hospital by Comparing Pre & Post Patient-Counseling Using A Self-Constructed Questionnaire

Aishwarya S., Allu Rachel Kurien, Anjaly Sivakumar, Brijit Maria, Chaitra G., Parthasarathy Govindasamy $^{\ast}$ 

Department of Pharmacy Practice, The Oxford College of Pharmacy, Hongasandra, Bengaluru-560068, Karnataka, India

Article History:	ABSTRACT
Received on: 10 Oct 2022 Revised on: 24 Nov 2022 Accepted on: 29 Nov 2022 <i>Keywords:</i>	Gastroenteritis is defined as diarrhea, increased movement of the bowels and other symptoms like fever, abdominal pain and vomiting. The present study involves Pre and Post Counselling assessment of the Knowledge, Attitude and Practice of gastroenteritis patients. It is an observational study to determine
Gastroenteritis, Knowledge, Attitude, Practice, Patient-Counseling, Questionnaire, Comparison	the KAP of gastroenteritis in the GM department.58 patients of the adult age group (above 18 years) of both genders, was included. The KAP was assessed using the Self-constructed KAP Questionnaire and patient information leaflet. Mean, standard deviation, student t-test and chi-square test were used to analyze the data. In the study, out of 58 study subjects, 19% shows satisfactory KAP and 81% unsatisfactory KAP. After patient counseling, the overall KAP score improved to 86%. The standard deviation and mean of Knowledge attitude and practice of patients was found to be $8\pm5.88$ , $13.2\pm4.92$ , $14.57\pm2.88$ before counseling. After patient counseling, KAP was found to be improved $42.71\pm3.9$ , $46.2\pm3.52$ and $42.57\pm5.38$ . P values before and after counseling were found to be statistically significant (p <0.05) i.e., had a p-value of below 0.05. The study proved that providing patient education can assist in the achievement of optimum therapeutic outcomes in disease management. The KAP was achieved using a self-constructed questionnaire and results reveal a significant improvement in KAP among both the groups following counseling. Providing counseling to the patients would prove to be beneficial in improving their KAP of GE and thus reducing the prevalence of GE in the study population.

#### \*Corresponding Author

Name: Parthasarathy Govindasamy Phone: 9886431015 Email: mypartha@gmail.com

# ISSN: 2455-2836

#### DOI: https://doi.org/10.26452/



Production and Hosted by ScienzTech.org © 2023 | All rights reserved.

#### **INTRODUCTION**

#### Gastroenteritis

Gastroenteritis is commonly known as Infectious diarrhea, stomach flu or Gastric flu. [1] gastroenteritis is defined as diarrhea, or increased movement of the bowels regardless of the presence/absence of other symptoms like fever, abdominal pain and or vomiting. [2]

# Knowledge, Attitude, and Practice (KAP)

A KAP survey is carried out to gather data on the knowledge (i.e., what is known), attitudes (i.e., what is thought), and practices (i.e., what is done) of a given population regarding general and/or specialized topics. [3] The knowledge, attitude, and practice around the causes of gastroenteritis and its risk factors were the main topics of our study. Data from a KAP survey can be utilized for the following things:

- To pinpoint knowledge gaps, cultural precepts, and behavioral patterns that might reveal needs, issues, and obstacles to aid in the planning and execution of interventions.

- To get a deeper grasp of widely accepted knowledge, attitudes, and behavior-influencing variables.

- To track changes brought about by interventions.

- To help in better prognosis and treatment practices. [4]

#### Questionaire

The KAP questionnaire is used in pre-counseling to evaluate the patient's comprehension of the ailment, attitude toward it, and practices that could have contributed to the development of gastroenteritis. To compare any differences in their knowledge, attitude, and practices that happened as a result of the intervention, the same questionnaire is utilized in post-counseling.

#### MATERIAL AND METHODOLOGY

#### **Sources of Data Collection**

- 1. Self-constructed KAP questionnaire
- 2. Self-constructed Case Report Form (CRF)
- 3. Interview with patients

The Observational study was conducted for a period of 12 months.

#### **Sample Size Calculation**

The following equations are used for calculating sample size:

X=Z2p(1-p)/e

n = NX/X + (N-1)

Where Z= Value of the normal curve corresponding to the level of confidence

- (Z=1.96 for 95% confidence interval)
- N = Desired sample population (150)
- n = Required Sample size
- p = Prevalence of disease (16.15)47
- e = Desired margin of error (0.05)

# Calculation

X = (1.96)2 \* 0.066(1 - 0.066)/(0.05)2

X = (3.84) \*0.066 \*0.934/0.0025 = 94.685184 n=NX/X+ (N-1) n = 150\*94.685184/94.685184+149

 $n = 58.28 \approx 58$ 

Based on the prevalence of gastroenteritis, it is calculated as 58 cases of patients who meet the inclusion criteria to be collected for the study.

Patients with Gastroenteritis cases in the General Medicine Department of The Oxford Medical College were considered.

Following the ethics committee's approval, the CRF of hospitalized patients with gastroenteritis was obtained from the department of general medicine. Demographic information such as name, age, sex, occupation/education, and history such as medical, familial, and social history were recorded.

The outcomes were assessed using knowledge, attitude, and practice scores together with statistical analysis software like SPSS.

#### Methods

- 1. Every document used in the study was validated and translated into the local Kannada language.
- 2. With the aid of a panel of experts from various professions, the self-constructed KAP Questionnaire on Gastroenteritis was validated.
- 3. The Oxford Medical College in Attibele, Bangalore, granted ethical permission after consulting their institutional ethics committee.
- 4. The consent from the patient was obtained through an informed consent form in English and Kannada language.
- 5. Data collection from case sheets and medical records about the patient's demographics (name, age, gender, etc.) as well as information on laboratory tests and diagnoses.
- 6. Collection of data in a self-constructed CRF to assess Etiology and Risk factors.
- 7. Assessment of knowledge, attitude and practice towards Gastroenteritis among the adults using score. And provided patient counseling using PIL
- 8. POST Counseling assessment of interventions was made after PC to assess the KAP
- 9. The obtained data was subjected to a suitable statistical method.

10. Provided the feedback result to clinicians and other relevant groups.

#### Validation of knowledge attitude and practice questionnaire developed for patients with gastroenteritis

#### **Questionnaire Development**

A comprehensive examination of the literature will be done to see what questions already exist in the questionnaires and to determine which scales and items are pertinent to gastroenteritis.

Preparation and selection of questions about gastroenteritis from the numerous published articles.

#### Validation

A questionnaire is distributed to professionals, laypeople, and patients. A total of 15 people made up the panel, including 3 medical experts, 2 assistant professors, and 10 patients and laypeople. Questionnaires are gathered and graded based on their relevance, simplicity, clarity, and ambiguity.

Each question's relevance, clarity, simplicity, and degree of ambiguity in evaluating knowledge, attitude, and practice were examined, and scores were entered into Microsoft Excel sheets.

Healthcare specialists and an assistant professor will make up the expert group that will review the item's internal content validation. The item will be face verified by a panel of laypeople and patients.

Using the SPSS statistical analysis program, Cronbach's alpha is determined. For corrected items, Cronbach's alpha co-efficient should be 0.7 or above.

To analyze how each item correlates with the entire domain, total score correlation will be used. An item would be removed if the correlation value was less than 0.2, which showed that the item did not correlate with the overall scale.

The research team will thoroughly analyze and review all feedback from content and face validation. The items were changed, deleted, or kept intact.

Using the findings of the study and the expert consensus, the final questionnaire will be created.

#### RESULTS

This study includes 58 patients who were admitted to the general medicine department with Gastroenteritis.

#### Validation of KAP Questionnaire of Gastroenteritis

The KAP questionnaire was given to 15 members consisting of 3 Health care professionals, 2 Asst.

Professor, 10 lay person and patients and scores were obtained by them. Table 1, Figure 1.

The average scores were obtained from the panel members for validation of KAP questionnaire and tabulated. The overall average of all the parameters (Relevance, Simplicity, Ambiguity and Clarity) was found to be 3.86 and the I-CVI (%) was found to be 96.67%. The average of each item of the questionnaire along with its respective I-CVI was presented in Table 2.

#### Average Scores of Each Question with Item Level Content Validity Index (I-CVI)%

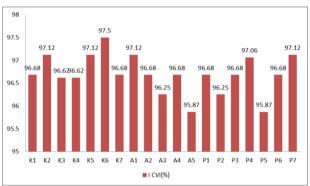


Figure 1: I-CVI vs Each item of KAP Questionnaire on Gastroenteritis

#### Overall score with Scale Level Content Validity Index(S-CVI)

The overall average of all the parameters, including relevance, clarity, simplicity, and ambiguity, was found to be 3.84, 3.83, 3.908, 3.87 and its S-CVI (%) were found to be 96.15, 95.98, 97.72, 96.93% respectively. All the parameters involved in the validation of the KAP questionnaire evaluation along with its respective S-CVI was presented in the Table 3, Figure 2.

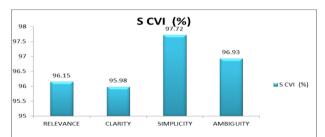


Figure 2: S-CVI% vs Parameters used for validation of KAP Questionnaire on Gastroenteritis

# The Cronbach's alpha coefficient

The Cronbach's alpha coefficient was determined by using SPSS software and was found to be 0.774 which indicates that all the items present in the questionnaire on Gastroenteritis is acceptable and

Question	Relevance	Clarity Score	Simplicity	Ambiguity	I-CVI %
Number	Score		Score	Score	
K1	3.8	3.8	04	3.87	96.68
K2	3.8	3.87	3.87	04	97.12
КЗ	3.8	3.93	3.8	3.93	96.62
K4	3.8	3.8	3.93	3.93	96.62
K5	3.87	3.8	04	3.87	97.12
K6	3.87	3.87	3.93	3.93	97.5
K7	3.87	3.8	3.93	3.87	96.68
A1	3.87	3.8	04	3.87	97.12
A2	3.8	3.87	3.87	3.93	96.68
A3	3.93	3.8	3.87	3.8	96.25
A4	3.8	3.93	3.87	3.87	96.68
A5	3.87	3.8	3.87	3.8	95.87
P1	3.93	3.87	3.8	3.87	96.68
P2	3.8	3.8	3.87	3.93	96.25
P3	3.87	3.8	3.93	3.87	96.68
P4	3.93	3.87	3.93	3.8	97.06
P5	3.8	3.87	3.87	3.8	95.87
P6	3.8	3.8	3.93	3.93	96.68

# Table 1: Average scores of each question

Table 2: Average scores of each question with ICVI%

Q. No.	Average	ICVI %
K1	3.8675	96.68
К 2	3.885	97.12
К З	3.865	96.62
K 4	3.865	96.62
K 5	3.885	97.12
K 6	3.9	97.5
K 7	3.8675	96.68
A1	3.885	97.12
A2	3.8675	96.68
A3	3.85	96.25
A4	3.8675	96.68
A5	3.835	95.87
P1	3.8675	96.68
P2	3.85	96.25
P3	3.8675	96.68
P4	3.8825	97.06
P5	3.835	95.87
P6	3.865	96.68
P7	3.885	97.12
	OVERALL AVERAGE	96.87

0	()	
Parameter	Average	Percentage S-CVI
Relevance	3.846315789	96.15
Clarity	3.839473684	95.98
Simplicity	3.908947368	97.72
Ambiguity	3.877368421	96.93

Table 3: Average and its S-CVI(%) of each parameter

there is no need of correction in the questionnaire. Hence all the items present in the KAP questionnaire on Gastroenteritis were validated. Table 4, Figure 3.

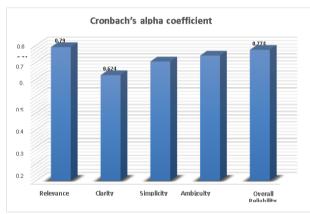


Figure 3: Cronbach's alpha coefficient for all validating parameters

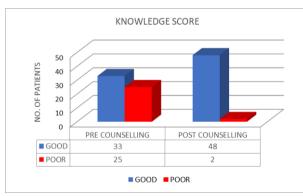


Figure 4: Comparison of Pre and Post Knowledge Score

Out of 58 study participants, 33 had good knowledge scores before counselling. 48 out of 50 patients had good knowledge scores following counselling. The knowledge score has significantly increased after counselling. Tables 5, 6, 7 and 8, Figure 4.

Out of 58 study participants, 19 had good Attitude scores before counselling. After therapy, 34 out of 50 patients showed positive attitude. Thus, there is a significant increase in the attitude score post-counseling. Table 9, Figure 5.

The Figure 6 and Table 10 show out of 58 study subjects, 37 had good Practice scores before counseling.

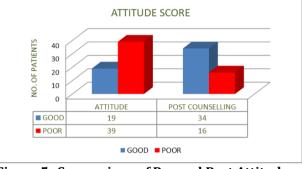


Figure 5: Comparison of Pre and Post Attitude Score

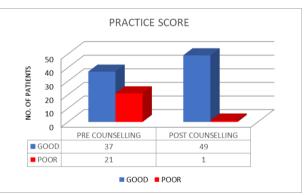


Figure 6: Comparison of pre and post Practice Score

Post counseling 49 of 50 patients showed good Practice scores. Thus, there is a significant increase in the Practice score post counseling

Following counselling, it was discovered that the poor Practice score had reduced from 21 to 1.

#### **Overall KAP Score of Patients Studied**

The Figure 7 and Table 11 represent a significant increase in the overall KAP score from 19% to 86% post counseling.

# Statistical Values of KAP Before and After Counselling

Patients' knowledge, attitude, and practice were determined to be  $8\pm5.88$ ,  $13.2\pm4.92$ , and  $14.57\pm2.88$ , respectively, on a mean and SD basis. After the intervention, knowledge, attitude, and practice were  $42.71\pm3.9$ ,  $46.2\pm3.52$ , and  $42.57\pm5.38$ , respectively.

Parameters	Cronbach's alpha
Relevance	0.790
Clarity	0.624
Simplicity	0.705
Ambiguity	0.740
Overall reliability	0.774

#### Table 4: Cronbach's alpha coefficient for all validating parameters

#### Table 5: Comparing Pre and Post-Counseling of KAP Study

Knowledge	Y	es	N	0	No Res	sponse
	Pre	Post	Pre	Post	Pre	Post
Have you heard of Gastroenteritis?	13	50	29	0	16	0
Do you know about the symptoms of Gastroenteritis?	8	43	30	6	20	1
Are you aware that Gastroenteritis causes diarrhoea?	10	45	29	4	19	1
Do you have frequent diarrhoea?	17	40	16	5	25	5
Is Gastroenteritis curable and treat- able?	5	42	12	3	41	5
Do you think self-treatment will be helpful for your condition	3	41	23	7	31	2
Do you know how long it takes to cure Gastroenteritis	0	38	33	10	25	2

#### Table 6: Comparison of PRE and POST Counselling values of KAP

Attitude	Agı	ree	Disa	gree	Unce	ertain
	Pre	Post	Pre	Post	Pre	Post
Are you willing to talk about your illness?	21	49	11	1	26	0
Do you recognise diarrhoea as a serious health problem?	15	48	19	0	24	2
Do you think the diagnosis and treatment of Gastroenteritis are not expensive?	11	41	15	5	32	4
Do you think uncooked/raw food causes Gastroenteritis?	10	49	16	0	32	1
Do you think adequate fluid intake helps in managing gastroenteritis?	9	44	7	2	42	4

Additionally, our KAP study's P-value was found to be less than 0.05, indicating that the results are statistically significant. Tables 12, 13, 14 and 15.

#### DISCUSSION

The experiment evaluated people's understanding, attitudes, and practices of gastroenteritis. A KAP survey is meant to collect data on a population's knowledge (i.e., what is understood), attitudes (i.e., what is believed), and practices (i.e., what is performed) about general and/or specialized matters. We are unaware of any prior research on the validity of the KAP questionnaire specifically for adult gastroenteritis. Owing to this, we constructed our questionnaire. The self-constructed KAP questionnaire was found to have the appropriate levels of simplicity, clarity, ambiguity, and significance after validation. [4]

The KAP survey is used in pre-counseling to assess the patient's knowledge of the ailment, attitude

Practice	Ye	Yes		No		No Response	
	Pre	Post	Pre	Post	Pre	Post	
Is safe drinking water inaccessible at your home?	29	10	14	39	15	1	
Are you avoiding adequate intake of fluids during diarrheal illness?	29	1	12	48	17	1	
Have you taken the rotavirus vac- cination?	7	0	11	45	40	5	
Do you eat street food or spicy food?	36	12	17	35	5	3	
Do you skip washing your hands before your meal?	27	0	19	50	12	0	
Were you on medication with any one of the following, one month prior to the illness?	11	6	16	42	31	2	
Any travel history in the past one month?	17	11	13	39	28	0	

#### Table 7: Comparison of PRE and POST Counselling values of KAP

#### Table 8: Comparison of Pre and Post-Counselling KAP Score Knowledge Score

Knowledge	Pre Counselling	Post Counselling
GOOD	33	48
POOR	25	2

#### **Table 9: Attitude Score**

Attitude	Pre Counselling	Post Counselling
GOOD	19	34
POOR	39	16

#### Table 10: Comparison of pre and post-practice Score

Practice	Pre Counselling	Post Counselling
GOOD	37	49
POOR	21	1

#### Table 11: Overall KAP score

Category	Good	Poor
Pre Counselling	19%	81%
Post Counselling	86%	14%

#### Table 12: Knowledge

	Yes	No/No Response	T Value	P Value
Before	$8\pm5.88$	$50\pm\!\!5.89$	13.34	0.00001
After	$42.71\pm3.9$	$7.29 \pm 3.67$	18.73	< 0.00001
Difference	34.71	42.71		

	Yes	No/No Response	T Value	P Value
Before	$13.2 \pm 4.92$	$44.8\pm\!\!4.32$	10.15	< 0.00001
After	$46.2\pm\!\!3.52$	$3.8\pm\!3.86$	18.81	< 0.00001
Difference	33	40.2		
Table 14: Practice				
	No	Yes/No Response	T Value	P Value
Before	$14.57 \pm 2.88$	$43.45\pm\!\!2.88$	18.03	0.037138
After	$42.57\pm\!\!5.38$	$7.43 \pm \! 5.12$	12.21	< 0.00001
Difference	28.07	36.02		
Table 15: Statistical	values of KAP before	e and after counselling		
	Yes	No/No Response	T Value	P Value
Before	$11.79\pm5.37$	$46.21\pm\!\!5.84$	19.65447	< 0.00001
After	$43.58 \pm 4.49$	$6.42 \pm \hspace{-0.4em} \pm \hspace{-0.4em} 4.67$	25.51	< 0.00001
Difference	31.79	39.79		

#### Table 13: Attitude

Result is significant at p<0.05

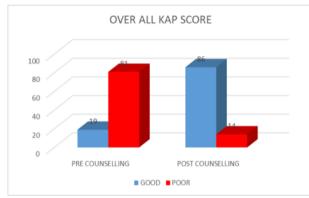


Figure 7: Overall KAP score

toward it, and practices that could have contributed to the onset of gastroenteritis. In order to compare any differences in their knowledge, state of mind, and habits that occurred as a result of the intervention, the same survey is used in post-counseling.

There were 58 individuals recruited in the current trial, 32 of whom had gastroenteritis and 26 of whom did not.

In a cross-sectional study, Hailemariam Mekonnen Workie et al. (2016) evaluated the mother's knowledge, attitude, and practice regarding diarrheal illness prevention and home-based care in children under the age of five. Using a pretested, standardised, and structured questionnaire, mothers were questioned. The researchers came to the conclusion that while the spenders knew a lot about house management and diarrhoea prevention, they had a terrible attitude about it. The attitude and behaviours of the carers will undoubtedly improve as a result of patient counselling and health education. [5]

Eliud Wainaina and colleagues conducted a crosssectional study in 2017 utilising pretested questionnaires and collected stool samples to ascertain the knowledge, attitude, and practices of food safety among food handlers in urban Kenyan settlements. [6] They noticed behaviours that potentially spread the Norovirus, such as not washing hands before handling ready-to-eat food and touching ready-to-eat food with bare hands. It was also noted that people lacked fundamental awareness of illness transmission methods. The health situation in Kenya would undoubtedly improve with more training in sanitary procedures and information about Norovirus transmission pathways. [7–9]

A self-structured questionnaire that was first verified by a panel of five experts, then by 10 patients, and finally used to evaluate 58 patients, was used to measure knowledge, attitude, and practices. The purpose of this study is to evaluate the Knowledge, Attitude, and Practice scores of patients with gastroenteritis after receiving assistance from a pharmacist.

The overall scale level content validity index or face content validity index (S-CVI%) for all validating parameters like Relevance, Simplicity, Clarity, and Ambiguity was found to be 96.69% in the validation of the KAP questionnaire on gastroenteritis. The overall item level content validity index or internal content validity index (I-CVI%) for all the questionnaire items was found to be 96.87%. Using SPSS software, Cronbach's alpha was computed for the aforementioned data. The Cronbach's alpha coefficient was determined to be 0.774, indicating that all of the KAP questionnaire's gastroenteritisrelated items were considered acceptable and that no changes or corrections were required. As a result, every item in the GE KAP questionnaire was verified.

The study evaluated the GE's total KAP score and found that, out of 58 study participants, 19% had satisfactory KAP and 81% had unsatisfactory KAP. After patient counselling, the study subjects' total KAP score increased to 86%, which is satisfactory. Patients' knowledge, attitude, and practice were found to have standard deviations and means of 8±5.88, 13.2±4.92, and 14.57±2.88. Following patient counselling, it was discovered that knowledge attitude practice was  $42.71\pm3.9$ ,  $46.2\pm3.52$ and 42.57±5.38. Inappropriate attitudes and practices are caused by incomplete awareness of the disease and risk factors. Counseling can help these groups, which will raise their KAP. Thus, adopting healthy lifestyle choices and maintaining good cleanliness can lessen the burden of GE as a disease, which can be accomplished through patient education and awareness.

#### CONCLUSION

58 cases of gastroenteritis including patients who were both male and female were examined throughout the course of the research's six-month duration in this observational study. The majority of the patients, according to the findings of the study, were between the ages of 18 and 80. Using self-structured validated questionnaires, the goal of determining the KAP score of gastroenteritis patients was accomplished. The participants were counselled before and after the scoring process with the use of patient information leaflets. Results were obtained after statistical analyses were performed on the data collected from GE patients. According to the study's findings, the study population's KAP significantly improved after receiving therapy. The primary disadvantage of gastroenteritis is that its early-stage symptoms may not be recognized and might be misdiagnosed. Neglected symptoms include mild nausea, stomach pain, and diarrhoea. Early identification can therefore stop the disease from progressing provided the patients are well-informed about it. The study also revealed that the majority of patients had inadequate knowledge, attitudes, and practices, establishing the clinical pharmacist's responsibility in patient education.

#### ACKNOWLEDGEMENT

We thank and humbly submit our dissertation into the hands of the Almighty, for His divine grace and blessings in making this work possible. We wish to express our sincere gratitude to the Principal, Guide, and Staff of The Oxford College of Pharmacy, and the Head of the Department of General Medicine and Doctors of Oxford Medical College, Hospital and Research Centre, Bengaluru, for providing the facility to complete our research and for constant support and cooperation.

#### **Author Contributions**

Aishwarya S and Allu Rachel Kurien contributed to the statistical analysis of the data. Brijit Maria contributed to the results of the study. Chaitra G and Anjaly Sivakumar contributed to the data collection. Allu Rachel Kurien contributed to the design of the study. All authors read and approved the final version of the manuscript.

#### **Conflict of Interest**

The authors declared that they have no competing interests.

#### **Funding Support**

The authors declare that they have no funding support for this study.

#### **Data Availability Statement**

The data sets that were used and analysed during the study are available from the corresponding author on reasonable request.

#### **Ethics Statement**

The study protocol was approved by the Institutional Ethics Committee of The Oxford Medical College, Hospital & Research Centre and all procedures involving human participants were performed in accordance to the same.

#### **Informed Consent**

All patients provided their written informed consent.

#### **Patient Consent**

Written informed consent for publication was obtained from all the participants.

#### REFERENCES

- Jassas BA, Khayat M, Alzahrani H, Asali A, Alsohaimi S, Alharbi H. Gastroenteritis in adults. International Journal Of Community Medicine And Public Health. 2018;5(11):49–59.
- [2] Stroni G, Dhimolea M, Pipero P, Kraja D, Sallavaci S, Bino S. A Study on the Epidemiology and Aeti-

ology of Acute Gastroenteritis in Adult Patients Presenting at the Infectious Diseases Hospital in Tirana, Albania. Balkan Medical Journal. 2014;31(3):196–201.

- [3] Patient Education. Gastroenteritis; 2021. Student Health Care Center. Cited on 27 June 2021.
- [4] WHO. Cholera; 2021. World Health Organization. Cited on 27 June 2021.
- [5] Workie H, Sharifabdilahi A, Addis E. Mothers' knowledge, attitude and practice towards the prevention and home-based management of diarrheal disease among under-five children in Diredawa, Eastern Ethiopia, 2016: a cross-sectional study. BMC Pediatrics. 2018;18(1):358–358.
- [6] Wainaina E, Otieno C, Kamau J, Nyachieo A, Lowther S. Norovirus infections and knowledge, attitudes and practices in food safety among food handlers in an informal urban settlement, Kenya 2017. BMC Public Health. 2020;20(1):474–474.
- [7] Gastroenteritis; 2021. Better Health Channel. Cited on 24 June 2021.
- [8] Gastroenteritis; 2021. Apollodiagnostics.in. Cited on 27 June 2021.
- [9] Viral Gastroenteritis and Norovirus ; 2021. Disease Prevention and Control, San Francisco. Department of Public Health. Cited on 14 August 2021.

**Copyright:** This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Cite this article: Aishwarya S., Allu Rachel Kurien, Anjaly Sivakumar, Brijit Maria, Chaitra G., Parthasarathy Govindasamy. Assessment of Knowledge, Attitude, Practice of Gastroenteritis Patients in A Teritiary Care Hospital by Comparing Pre & Post Patient-Counseling Using A Self-Constructed Questionnaire. Int. J Med. Ther. 2023; 1(1): 1-10.



© 2023 ScienzTech.org.