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**RELATIONSHIP BETWEEN DIETARY PRACTICES AND
GASTROINTESTINAL PROBLEMS DURING RAMADAN IN
BANGLADESH: A CROSS-SECTIONAL STUDY**

A PROJECT REPORT

BY

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Submitted to the Department of Nutrition and Food Engineering in the partial fulfillment of
B.Sc. in Nutrition and Food Engineering

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APPROVAL

This is to certify that the project work titled “**Relationship Between Dietary Practices and Gastrointestinal Problems During Ramadan in Bangladesh: A Cross-Sectional Study**” is an original research work done by **Md. Abu Talib khan**, Department of Nutrition and Food Engineering, Daffodil International University. This report is submitted to the Department of Nutrition and Food Engineering, Daffodil International University, and has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Nutrition and Food Engineering and approved as to its style and contents.

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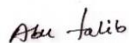
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ABSTRACT

During 30 days, approximately 1.5 billion Muslims worldwide celebrate Ramadan fasting, this particular fasting pattern can have a big impact on sleep patterns, eating habits, and general health when combined with related lifestyle adjustments. Although there have been several health advantages and blood profile changes associated with fasting during Ramadan, little is known about how fasting affects gastrointestinal health. A cross-sectional study comprising 120 randomly selected participants, aged 18 and above from different upazila (Dhaka, Mymensingh, and Tangail) in Bangladesh, was carried out from March 15, 2024, to April 10, 2024. A pre-tested semi-structured questionnaire and in-person interviews were used to gather data. According to the data, 55% of participants spent less than 300 BDT on iftar, and 61.7% of participants are over 30 years old. Of them, 65.8% identified as male. Significant correlations were also discovered between age, gender, education level, and dietary preferences; forty percent of respondents reported stomach pain, and forty-three percent reported acid reflux.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Ramadan is the holiest month in the Islamic calendar, during which Muslims all over the world abstain from eating, drinking, conjugal relationships, and smoking from sunrise till sunset as a sign of restraint and introspection in the ninth month of the lunar Islamic year for 29–30 days (Azizi, 2010). Depending on the season and the geographical location of the country, day fasting varies from 11 to 18 hours being longer in the summer and in temperate regions (Azizi, 2010). During the month of Ramadan, there are profound changes in dietary habits and lifestyle, with the common practice being to consume one large meal after sunset and one lighter meal before dawn (Trepanowski & Bloomer, 2010) whereas physical activity and night sleep are usually reduced. In some cultures, special festive foods that are richer in fat, protein, and sugar may be consumed.

Fasting has gained popularity over the past few years due to its overall positive effects on improving health, such as improving blood pressure, heart rate, cholesterol levels, and glycemic control (Li Z et. al., 2021).

There are some exceptions concerning fasting for Muslims. These include prepubertal children, women during their menstrual period or postnatal bleeding, travelers, pregnant or breastfeeding women, the mentally unfit, and those with acute or chronic illness (Abolaban H et. al., 2017). Ramadan fasting has several positive impacts on healthy individuals, from decreasing free fat body mass and reducing systolic blood pressure to decreasing pro-inflammatory cytokines and Hb levels. In the gastrointestinal system, Ramadan fasting stabilizes several hormones responsible for appetite control and improves gut microbial composition. Although Ramadan fasting benefits healthy individuals, it may aggravate preexisting conditions such as gastrointestinal diseases. Patients with ulcerative colitis, duodenal ulcers, upper GI bleeding, and moderate-to-severe liver cirrhosis had a higher risk of developing flares and complications associated with Ramadan fasting. Given that Muslims are excused from fasting if it may result in a compromise to health and well-being, physicians should inform their patients of the potential risks associated with fasting and encourage healthier fasting practices such as performing practice fasts to assess tolerance levels, adjusting medications to reduce dosing frequency, avoiding high-fat foods, especially in GERD patients, and promoting a high-protein or high-fiber diet.

1.2 Objectives

- To identification of the prevalence of gastrointestinal problems during the Ramadan period.
- To evaluate the lifestyle during Ramadan.
- To investigate the dietary habits during the Ramadan period.

CHAPTER 2

LITERATURE REVIEW

2.1 Literature review

Ramadan is a specific kind of fasting. Muslim fasting from diet, liquid, and sexual activity is observed for 30 days throughout this holy month. Approximately 1.5 billion Muslims worldwide keep the fast during the holy month of Ramadan. (Gencia Efe et al, 2020) The duration of the daily fast throughout this month varies according to the region and time of year; in certain locations and seasons, it could last up to 12/18 hours every day. This yearly fast, combined with multiple lifestyle adjustments that increase physical activity (Al-Hourani H et al 2007) Dietary habits, and food consumption patterns have been demonstrated to be significantly impacted by sleep patterns and circadian rhythmic shifts (Meckel Y et. al, 2008 & Shadman Z et. al, 2014). Dietary changes can impact both quantity and quality. Most physiological changes observed during Ramadan fasting may be connected to the changing eating pattern, food frequency, and sleep pattern. (Azizi F et. al., 2017) Fasting has a significant impact on basic homeostatic function. Fasting has been shown to protect cells from oxidative stress, maintain cholesterol levels, lower blood pressure, and treat peptic ulcers (Nikseresht M et. al., 2022). Fasting during Ramadan has been associated with many positive health effects, including changes in blood cell components. Research on GERD patients in Indonesia suggested prolonged fasts of 10 to 12 hours may result in low lipid blood profiles as the body scavenges alternate energy sources. (Mardhiyah R et. al., 2021). Furthermore, fasting during Ramadan has a substantial impact on an individual's health and is the most widely studied type of religious fasting. (Trepanowski JF et. al., 2011) In a retrospective study conducted over ten years, (Bener et. al., 2020). We did not observe a rise in the incidence of peptic ulcer disease during Ramadan. Mazur, (Tavkoli, et. al., 2021). There was no link observed between the severity of inflammatory bowel disorders (IBD) in patients and their Ramadan fasting. (Tavakkoli H et. al., 2008)

Another study found that fasting during Ramadan can worsen acute upper gastrointestinal bleeding, but patients who fast do not have a worse prognosis than non-fasting patients. (Emami M et. al., 2006) As far as we are aware, no article has been published on the topic of Ramadan's gastrointestinal problems in the context of Bangladesh.

CHAPTER 3

METHODOLOGY

3.1 Research Question

How do dietary behaviors and eating patterns during Ramadan influence the prevalence of abdominal problems in Bangladesh?

3.2 Study area

This research was carried out in Dhaka, Mymensingh, and Tangail district upazila in the city division.

3.3 Sample size estimation

The sample size is measured by using a simple population proportion formula taking 5% errors at a 95% confidence interval level. Several articles regarding the prevalence of GI Problems in Bangladesh describe different prevalences corresponding to the different parts of the country. We calculate the sample size using the following formula. The sample size was obtained using the following formula:

$$n = z^2 pq / d^2$$

Where,

n = sample size

z = 1.96 (95% confidence interval and 5% level of confidence)

p = Prevalence of GI Problem patients in Bangladesh = 8% = 0.08

q = 1-p = 1- 0.08

d = precision= 0.05 at 5% significance or error level

So, $n = (1.96)^2 * \{(0.08) * (1-0.08)\} / (0.05)^2 = 113.09 = 113$

Since we have projected to enroll the study participants following the random sampling technique. Assuming a 10% non-response rate, the estimated final sample size was,

$$n = (113 + 11) = 124$$

3.4 Study design

This cross-sectional study was carried out to investigate digestive problems and dietary habits during Ramadan among Bangladeshis. The research was done between March 15, 2024, and April 10, 2024. 120 people ages 18 and above were randomly chosen following the inclusion and exclusion criteria included in this study.

A pre-tested semi-structured questionnaire was used to collect data with a consent form. The study researcher self-taken the Interviews in person were used to find out more about the food practices and gastrointestinal problems that participants experienced throughout Ramadan. SPSS Version 25 was used for the analysis of the information collected from the in-person interviews.

Descriptive statistics and the accuracy and dependability of the findings were determined using a 95% confidence interval (CI).



Figure 1: Data collection from Respondents

CHAPTER 4

RESULTS

4.1 Results

Demographic Status of the Participant (N=120)

Table 1: Respondent's Demographic Characteristics

Variable Name & Category		Frequency (N)	Percentage (%)
Age	18-30 years	46	38.3
	31 and above years	74	61.7
Gender	Male	79	65.8
	Female	41	34.2
Education	Illiterate	32	26.7
	Literate	88	73.3
Family Member	1-3 member	87	72.5
	4 and above member	33	27.5
Income	≤ 5000 BDT	55	45.8
	> 5000 BDT	65	54.2
Iftar cost	<300 BDT	66	55.0
	300 BDT and above	54	45.0
Earning Member	≤ 2 member	108	90.0
	> 2 Member	12	10.0

The age distribution of the participants shows that 38.3% are between the ages of 18 and 30, and 61.7% are older than that. This implies that the sample is biased toward older people, which can be a result of their varied life experiences, obligations, and spending patterns as compared to younger age groups. The dataset shows that, in terms of gender, 34.2% of participants are female and 65.8% of participants are male. This suggests that there is a sizable male presence in the sample, which may have consequences for comprehending the group dynamics, including spending patterns and familial responsibilities. When it comes to the level of education attained, 73.3% of participants are literate and 26.7% are not. This demonstrates that a sizable majority possess some degree of education, which may have an impact on their career prospects and financial literacy, ultimately influencing their spending and earning habits. In the sample, family size also has a significant impact; 72.5% of participants were from families with one to three people, while 27.5% were from families with four or more members. This suggests a trend toward fewer families, which could affect the dynamics of the home and financial obligations. 45.8% of participants make less than 5,000 BDT, while 54.2% make more than 5,000 BDT. While many people may experience financial difficulties, a slightly bigger fraction may be able to access higher incomes, potentially allowing for greater discretionary spending. This is indicated by the roughly balanced income distribution.

In terms of Iftar expenses specifically, 55% of participants spend less than 300 BDT and 45% spend 300 BDT or more. This implies that a majority of folks keep their Iftar spending relatively low, which may reflect personal choices or economic constraints. Furthermore, 90% of interviewees reported having two or fewer earners in their homes. This suggests a dependence on meager sources of income, which could have an impact on household decision-making and financial stability.

4.2 Health and Food Habit

Table 2: Dietary and lifestyle behaviors of the participant N=12

Variable	Category	Frequency	Percentage
Health	Good	117	98.3
	Sick	2	1.7
Iftar Place	Home	107	89.2
	Out of home	13	10.8
Intake of Drinking Water	≤ 2 litters	102	85.0
	≥ 3 litter	18	15.0
Iftar Preferred Food	Chola and Muri without fried item	107	89.2
	Others (fruit, rice, etc.)	13	10.8
Meal immediately after Iftar	Yes	69	57.5
	No	51	42.5
Type of food immediately after Iftar	Vegetables	51	73.9
	Fried & spicy Food	18	26.1
Food Indigestion	Spicy Food	66	55.0
	Vegetables	54	45.0
Symptoms faced immediately after Iftar	Abdominal pain/discomfort	48	40.0
	Acid Reflux	52	43.3
	Diarrhea	10	8.3
	Dyspnea	6	5.0
	Constipation	4	3.4
Food Habit	Intake Iftar and Shehri	51	42.5
	Intake Iftar, Shehri, and late-night dinner	69	57.5
Sleeping time	Before 10 PM	57	47.5
	After 10 PM	63	52.5
Shehri place	In house	119	99.2
	Outside house	1	.8

The dataset shows significant changes in eating patterns and health throughout Ramadan. With 98.3% saying they are well, a sizable majority of individuals report being in good health. The majority (89.2%) say they would rather have their Iftar at home, indicating a high preference for home-cooked meals during this time. Regarding hydration, a significant percentage (85.0%) drink 2 liters or less of water each day, which could have an impact on their general health and hydration. Chola and Muri sans fried items are the most popular food choices at Iftar (89.2%), indicating a desire for healthier options over conventional fried delicacies. In terms of eating habits, 57.5% of individuals have a meal right after Iftar, with vegetables making up the majority (73.9%). This decision might be an attempt to give priority to better, more nutrient-dense options, but it also raises questions about the effects of spicy foods, which 55.0% of respondents said aggravate dyspepsia. After Iftar, a lot of people report having different symptoms. Of these, 40.0% report having stomach pain or discomfort, and 43.3% report having acid reflux. Additional symptoms include constipation (3.4%), dyspnea (5.0%), and diarrhea (8.3%), suggesting that although most people like their meals, some have serious digestive problems. 57.5% of participants eat Iftar, Shehri, and late-night dinners, which may have an impact on the quality of their sleep in general. Notably, 52.5% of people sleep after 10 PM, which may make digestion and health issues worse. 99.2% of participants take Shehri at home, indicating an attachment to convenient and familiar dining settings. All things considered, the statistics point to a combination of healthful decisions and noteworthy health issues during Ramadan, pointing to possible areas for education and intervention.

Table 3: Association between Dietary Habit and Gastrointestinal Problems

Variable Name		Frequency (N)	Percentage (%)	Age		Sex		Iftar Preferred Food	
				χ^2 Value	p- value	χ^2 Value	p-value	χ^2 Value	p- value
Age	18-30 years	46	38.3	NA	NA	3.487	0.076	0.347	0.575
	31 and above years	74	61.7						
Gender	Male	79	65.8	3.487	0.076	NA	NA	8.358	0.006
	Female	41	34.2						
Education	Illiterate	32	26.7	5.00	0.033	0.809	0.390	7.143	0.012
	Literate	88	73.3						
Family Member	1-3 member	87	72.5	1.24	0.260	0.014	1.000	4.233	0.040
	4 and above member	33	27.5						
Income	≤ 5000 BDT	55	45.8	2.36	0.136	0.728	0.443	0.363	0.582
	> 5000 BDT	65	54.2						
Iftar cost	<300 BDT	66	55.0	0.753	0.386	0.03	1.000	0.579	0.464
	300 BDT and above	54	45.0						
Earning Member	≤ 2 member	108	90.0	0.141	0.766	0.004	1.000	1.368	0.357
	> 2 Member	12	10.0						
Health	Good	117	98.3	1.282	0.522	0.218	1.000	0.053	1.000
	Sick	2	1.7						
Iftar Place	Home	107	89.2	0.353	0.764	0.797	0.539	4.263	0.039
	Out of home	13	10.8						
Intake of Drinking Water	≤ 2 litters	102	85.0	2.657	0.120	5.00	0.030	0.487	0.606
	≥ 3 litter	18	15.0						
Iftar Preferred Food	Chola and Muri without fried item	107	89.2	3.248	0.080	4.856	0.059	0.768	0.392
	Others (fruit, rice, etc.)	13	10.8						
Meal immediate After Iftar	Yes	69	57.5	0.347	0.575	4.462	0.035	75.91	<0.001
	No	51	42.5						
Type of food	Vegetables	51	73.9	0.896	0.408	1.829	0.267	0.302	1.000

immediate After Iftar	Fried & spicy Food	18	26.1						
Food Indigestion	Spicy Food	66	55.0	2.634	0.132	0.30	1.000	8.929	0.003
	Vegetables	54	45.0						
Symptoms faced immediate After Iftar	Abdominal pain/discomfort	48	40.0	1.88	0.404	1.582	0.455	4.850	0.096
	Acid Reflux	52	43.3						

	Diarrhea	10	8.3						
	Dyspnea	6	5.0						
	Constipation	4	3.4						
Food Habit	Intake Iftar and Shehri	51	42.5	0.347	0.575	8.358	0.006	NA	NA
	Intake Iftar, Shehri, and late-night dinner	69	57.5						
Sleeping time	Before 10 PM	57	47.5	0.187	0.709	3.042	0.087	1.422	0.270
	After 10 PM	63	52.5						
Shehri place	In house	119	99.2	0.627	1.000	0.523	1.000	1.364	0.425
	Outside house	1	.8						

A p-value of 0.033 indicates a significant relationship between age and education level (95% confidence interval, $\chi^2 = 5.00$, $p = 0.033$). Moreover, there is a significant correlation between Gender and water intake, and a significant correlation exists between preferred Iftar meals and Gender (95% C.I., $\chi^2 = 5.00$, $p = 0.030$). The data show a significant relationship between gender and preferred Iftar food and the timing of meals following Iftar (95% C.I., $\chi^2 = 4.462$, $p = 0.035$; 95% C.I., $\chi^2 = 75.91$, $p < 0.001$). Moreover, there is a strong correlation between Gender and eating patterns, namely the consumption of Iftar and Sahari as opposed to Iftar, Sahari, and late-night meals (95% C.I., $\chi^2 = 8.358$, $p = 0.006$)

CHAPTER 5

DISCUSSION

5.1 Discussion

It is commonly recognized that fasting can have an impact on gastrointestinal issues. The effect of Ramadan on peptic illnesses has been the subject of very few recent studies all of which have produced differing conclusions. The effect of Ramadan fasting on the relationship between GI illnesses and fasting has not yet been the subject of any research. This study aimed to investigate the association of dietary behaviors and eating patterns during Ramadan influence the prevalence of abdominal problems in Bangladesh. Several significant findings are revealed by analyzing food and demographic patterns throughout Ramadan. With 61.7% of participants over 30, the sample has an imbalance older, indicating that older people may have independent spending and eating habits impacted by life experience. The sample, which is primarily male (65.8%), suggests that gender dynamics may affect financial decisions and familial duties. The literate majority (73.3%) may have an impact on financial and health-literate habits. The fact that over half of participants make less than 5,000 BDT highlights the financial limitations that affect spending, especially during Iftar, when 55% of participants spend less than 300 BDT. Despite these limitations, 98.3% of respondents say they are in good health and strongly favor home-cooked meals. Since 85% of people drink two liters or less of water each day, there are worries about hydration habits. It was long ago determined that there was a correlation between the amount of water consumed, the pH of the stomach, and the level of gastrin in the plasma. In our study the majority select healthy Iftar options like Chola and Muri, however many also report digestive problems, such as acid reflux (43.3%) and stomach pain (40%). According to a 2009 study conducted on 1661 patients and published by Chong et al., patients who were referred during the month of Ramadan had a higher prevalence of ulcer disorders, especially duodenal ulcers. Demographic characteristics and eating habits are found to be significantly correlated, with p-values showing significant correlations between age, education, gender, and food preferences. All things considered, the results show a mix of healthful decisions and noteworthy health issues, pointing to the necessity of focused educational initiatives to enhance eating practices and health outcomes throughout Ramadan.

CHAPTER 6

CONCLUSION

6.1 Conclusion

The results of the research show that although most participants are in good health and like eating at home during Ramadan, there are still significant worries about dehydration and stomach problems. The necessity for focused treatments is highlighted by the strong correlations found between food habits and demographic characteristics including age, gender, and education. By addressing these variables, a more comprehensive approach to well-being in this situation can be ensured, as well as better dietary decisions and overall health outcomes during the fasting month.

6.2 Recommendation

Educational Workshops: Plan workshops or seminars on good eating habits for Ramadan. Iftar and Sahari, highlight the advantages of eating balanced meals and offer helpful tips on how to make wholesome foods without using too many spices or oil.

Public Awareness Campaigns: Start initiatives to raise knowledge of how nutrition affects digestive health. Stress the value of consuming home-cooked meals rather than fast food and the advantages of consuming spicy and fatty foods in moderation.

Guidelines for Physical Activity: Create and spread easy workout plans that may be done right after iftar or during the fasting hours. Give instructions that are simple to implement and that don't interfere with everyday activities.

Hydration Education: To enhance digestive health and general well-being, educate people on appropriate hydration techniques, especially during non-fasting hours.

Continuous Monitoring and Assessment: To evaluate the success of dietary modifications and physical activity suggestions, put in place a mechanism for ongoing monitoring and feedback. Interventions should be modified in light of participant feedback and outcomes.

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APPENDICES

APPENDIX 1: Synopsis

RELATIONSHIP BETWEEN DIETARY PRACTICES AND GASTROINTESTINAL PROBLEMS DURING RAMADAN IN BANGLADESH: A CROSS-SECTIONAL STUDY

Introduction

Ramadan, the ninth month of the Islamic lunar calendar has special religious importance among Muslims. During this month, Muslim adults and adolescents who have reached the age of adulthood according to the Islamic rules are fast. Since the lunar calendar is based on the movement of the moon, Ramadan is at different times of the Georgian calendar each year. It takes 29 to 30 days with a fasting period of 12 To 18 hours a day. Muslims avoid eating, drinking, and smoking from dawn to dusk . Meals in Ramadan reduce to two main meals. Before dawn, a meal like a regular breakfast or a little bigger is eaten (Sahari), and after the dusk, a meal like a dinner or lunch is eaten (Iftari). Dietary patterns and habits, quality, and quantity of foods eaten by fasting people are changed notably. The season in which Ramadan is placed also affect the diet. Along with the changes in food intakes, other aspects of life show significant changes. For instance, time and duration of sleep and wake up alter; fasting people usually rest on the day and wake up at night. The number of working hours usually decreased. Habits like smoking, alcohol drinking, or using drugs are reduced and Muslims are more engaged in religious duties and worship. There are some exceptions in regard to fasting for Muslims. These include prepubertal children, women during their menstrual period or postnatal bleeding, travelers, pregnant or breastfeeding women, the mentally unfit, and those with acute or chronic illness. While there are several exemptions from fasting, many Muslim patients with acute or chronic medical conditions still choose to fast, which may adversely affect their health in certain conditions. Spirituality, religiosity, and personal beliefs are essential components of the social determinants that influence patients' health behaviors and treatment adherence.

It is essential to comprehend how dietary practices, lifestyle modifications, and abdominal issues interact throughout Ramadan in order to support the health and wellbeing of those who fast. Healthcare experts can help people manage abdominal problems while adhering to religious fasting practices by recognizing potential risk factors and applying tailored therapies.

Justification of project:

Our study focuses on gastrointestinal problems that arise in Bangladesh during the Ramadan fast. While a lot of research studies the physiological effects of fasting, less is known about how Bangladeshi people's food habits during fasting affect their digestive health. A comprehensive review done by Osman F et al. they have discussed so many physiological and other changes during Ramadan but there is no data for gastrointestinal problems, and we found some data for gastrointestinal problems but that research are conducted long time ago. We aim to find out more about these gastrointestinal problems during fasting and how they affect people in Bangladesh. Our goal in researching this is to assist medical practitioners in better caring for individuals who observe Ramadan fasting.

Objective:

Our study objective to investigate how food practices during the Ramadan fast in Bangladesh affect people's experiences with gastrointestinal problems.

Methodology:

Our study will be a qualitative cross-sectional research project. We'll choose participants aged 18 to 50, including both men and women, to get a diverse perspective.

Expected outcome of the study:

The outcome of our research will help us understand how the way people eat during Ramadan fasting in Bangladesh affects their guts. We can better equip doctors and other healthcare professionals to support the health and well-being of fasting individuals by determining the prevalence and root causes of these gastrointestinal issues. Finally, our research hopes to promote the health and well-being of Bangladesh's fasting population by recommending better healthcare practices.

APPENDIX 2: Consent Letter

RELATIONSHIP BETWEEN DIETARY PRACTICES AND GASTROINTESTINAL PROBLEMS DURING RAMADAN IN BANGLADESH: A CROSS-SECTIONAL STUDY

Dear Participant's

I am a student of Daffodil International University conducting a thesis study titled "Relationship Between Dietary Practices And Gastrointestinal Problems During Ramadan In Bangladesh: A Cross-Sectional Study " focusing on assessing the Gastrointestinal Problems In Bangladesh.

This study's goal is to better understand Bangladeshi eating habits, obstacles, and potential health effects by examining the relationship between dietary practices and gastrointestinal problems during Ramadan. It is a cross-sectional study. The study collects data on eating practices, nutritional knowledge, and health status using surveys, interviews, and maybe physical examinations. Entire voluntary participation in this investigation is expected. The collected data will be kept private and used only for scholarly and research reasons. Without express authorization, the data collected will only be utilized for the aforementioned study and will not be shared with any other parties. Because the study is voluntary, you are able to discontinue participation at any moment without suffering any consequences.

Additionally, rest assured that your identity and privacy will be maintained during the entire study process. Any contacts you now have or services you receive will not be impacted by your choice to participate or not. You are free to stop participating at any moment without facing any repercussions if you revoke your consent.

Participant's Signature: _____ Date:

Sincerely yours,
Md. Abu Talib Khan
Id:211-34-1156
Department of Nutrition and Food Engineering
Daffodil International University

APPENDIX 3: Questionnaire

RELATIONSHIP BETWEEN DIETARY PRACTICES AND GASTROINTESTINAL PROBLEMS DURING RAMADAN IN BANGLADESH: A CROSS-SECTIONAL STUDY

Section A: (Sociodemographic Information)

1. What is the name of the sender?
2. How old are you?
3. Which area do you live in?
4. What is your phone number?
5. What is your education qualification?
6. What is your main occupation?
7. How many members are in your family?
8. Do you have any other earning members in your family?
9. What is your monthly income?
10. What is your family's monthly income?
11. What kind of house do you live in?
12. How much money is spent on food per Day In Ramadan?

Section B: (Physical Condition)

1. How is your physical condition?
 - (i) Healthy
 - (ii) Unhealthy

Section C: (Food Habit)

Where do you have Iftar?

- (i) At home
- (ii) On the road
- (iii) Restaurant
- (iv) At work

2. What kind of food do you like to eat at Iftar?

- (i) Crispy onion fries, Fried smashed potato coated with Besan, Fried eggplant coated with Besan, Puffed rice, Chickpeas
- (ii) Fruit juice, Water
- (iii) Soup, Dessert
- (iv) Hard food
- (V) Others

3. Do you eat anything else after iftar?

- (i) Yes
- (ii) No
- (iii) Probably

If yes/probably, then mention the name of your food-.....

4. Do you ever feel that eating certain foods causes problems with your digestion?

- (i) Yes
- (ii) No
- (iii) Probably

5. What are the symptoms you have seen after eating this type of food?

5.1. Abdominal pain (abdominal pain, loss of appetite and nausea)

- (i) Yes
- (ii) No

5.2. Reflux (heartburn and acid regurgitation)

- (i) Yes
- (ii) No

5.3. Diarrhoea (diarrhoea, loose stools and an urgent need to pass stools)

- (i) Yes
- (ii) No

5.4. Constipation (constipation, hard stools, and feeling of incomplete evacuation)

- (i) Yes (ii) No

5.5. Dyspepsia (abdominal dilation, discharge, and enlarged flatus)

- (i) Yes (ii) No

6. Which of the following foods does your diet include during Ramadan?

- (i) Iftar + Sahari
- (ii) Iftar + Sahari + Dinner
- (iii) Iftar + Dinner
- (iv) Iftar

7. How many liters of water do you drink a day?

- (i) (1-2) liters
- (ii) (2-3) liters
- (iii) (3-4) liters

8. When do you go to sleep?

- (i) At night
- (ii) Mid night
- (iii) Late night

9. Where do you do Sehri?

- (i) At home
- (ii) In the restaurant
- (iii) At work

10. What kind of food do you like to eat in Suhoor?

- (i) Fruits & Vegetables
- (ii) Flat bread, rice, potatoes or cereal foods
- (iii) Fish, meat, chicken or pulses
- (iv) Milk or dairy products such as cheese, yogurt, sweet
- (v) Certain oil or sugar foods

Project report Abu Talib Khan

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