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How to Minimize

Fasting Risk

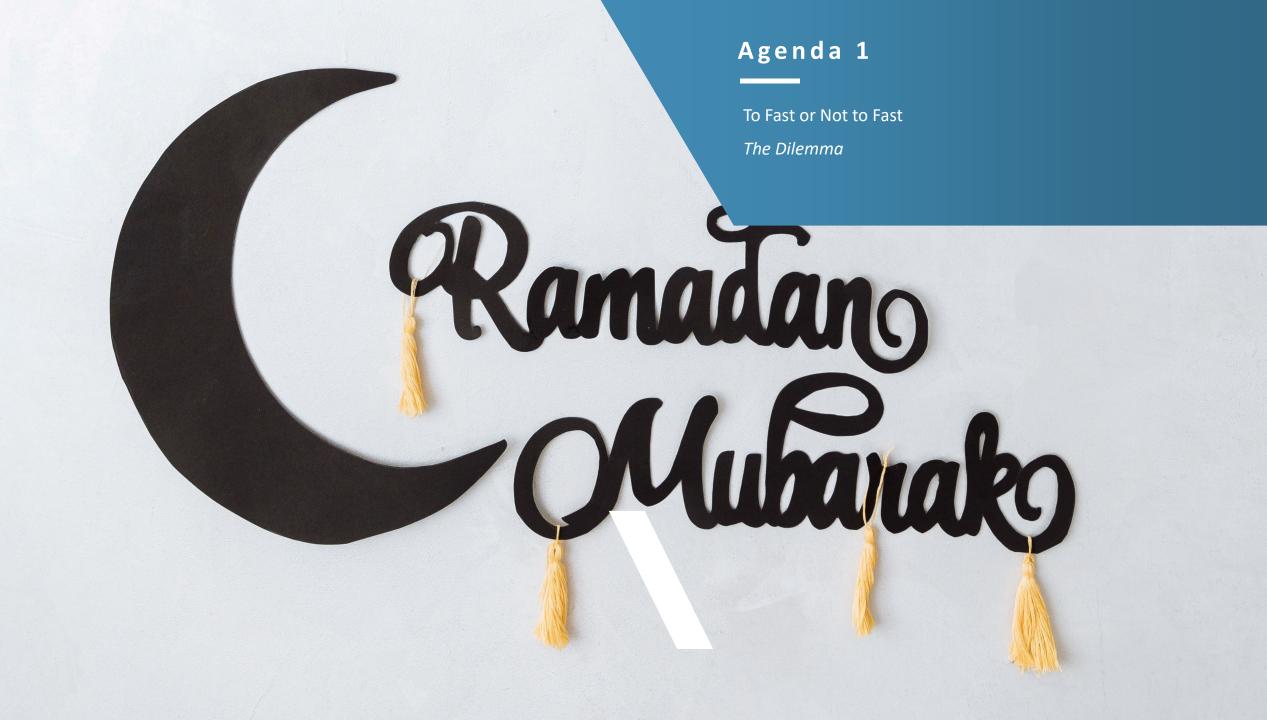
To Fast or Not to Fast

The Dilemma

How to Minimize
Fasting Risk:
Understanding
Patients View

Agenda





Contents available at ScienceDirect

Diabetes Research and Clinical Practice

al \omepage: www.elsevier.com/locate/diabres

To Fast or Not to Fast: The Dilemma



What Do We Have So Far?

Review articles regarding guidelines, management, and strategies for diabetes control during Ramadan fasting^{1, 2,} 3, 4, 5

IDF-DAR Practical Guidelines for the management of diabetes during Ramadan⁶

Ramadan: Prac

n ^{a,*}, Monira A' n Bebakar ^d dul Basit i

n^m, Me'

i^b,



IDF-DAR Practical Guidelines

Practical information and skills to deliver medical care and support for patients with diabetes during Ramadan fasting.

¹Raveendran et al. Diabetes control during Ramadan fasting. Cleve Clin J Med. 2017; 84: 352–356. ²Badshah et al. Management of diabetes in Ramadan. J Ayub Med Coll Abbottabad. 2018; 30: 596–602. ³Ali et al. Guidelines for managing diabetes in Ramadan. Diabet Med. 2016; 33: 1315–1329. ⁴Lee et al. Strategies to make Ramadan fasting safer in type 2 diabetics: a systematic review and network meta-analysis of randomized controlled trials and observational studies. Medicine (Baltimore). 2016; 95: 1–8. 5Zaina et al. [Diabetes and Ramadan fasting—update 2019]. Harefuah. 2019; 158: 276–281.

- Extensive literature on diabetes during Ramadan to ensure patients could fast in a safer manner.^{1, 2, 3, 4, 5, 6, 7}
 - Epidemiology and physiology of Ramadan fasting
 - Risk stratification
 - Structured education programs
 - Modification of medications
 - Types and application of anti-diabetic agents
 - Methods of managing blood glucose level
 - Lifestyle adjustment

Subjective feelings of patients with diabetes on Ramadan fasting?



Databases:

CINAHL Plus with Full Text, Cochrane Central Register of Controlled Trials, Cochrane Clinical Answers, Cochrane Database of Systematic Reviews, MEDLINE Complete, Psychology and Behavioral Sciences

Search Key Terms

Diabetes

AND Ramadan OR Ramadhan

AND patient experience or patient perception or patient opinions or patient attitudes or patient views or patient feelings

Limiters

2015 - 2022

Academic Journals

PLOS ONE

8 RESEARCH ARTICLE

Experiences and views of people with diabetes during Ramadan fasting: A qualitative meta-synthesis

Jieying Liao 1, Tianfang Wang 1, Zhan Li2, Haotian Xie1, Shanshan Wang 3

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- 2 Department of Endocrinology, Beijing Hospital of Traditional Chinese Medicine Huairou Branch, Beijing, P.
- R. China, 3 School of Humanities, Beijing University of Chinese Medicine, Beijing, P. R. China

⁸Liao et al. Experiences and views of people with diabetes during Ramadan fasting: A qualitative meta-synthesis. PLoS ONE 15(11). 2020; e0242111.

Databases:

Twelve databases (PubMed, Embase, Cochrane Library, Science Direct, CINAHL, PsycINFO, Joanna Briggs institute, Web of Science, and four Chinese databases)

Inclusion Criteria:

SPIDER Model

S: people T1DM and T2DM experiencing Ramadan fasting

PI: experience (or perspective, attitude, knowledge, perception) of religious beliefs, medication, health education, HCP, related to Ramadan fasting

D: interview, focus group, group discussion, questionnaire

E: thematic analysis, content analysis, ethnography, narrative, descriptive

R: qualitative research or mixed methods

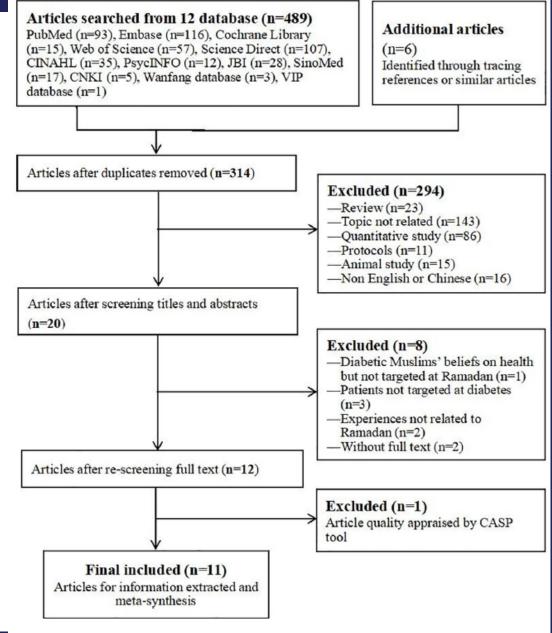
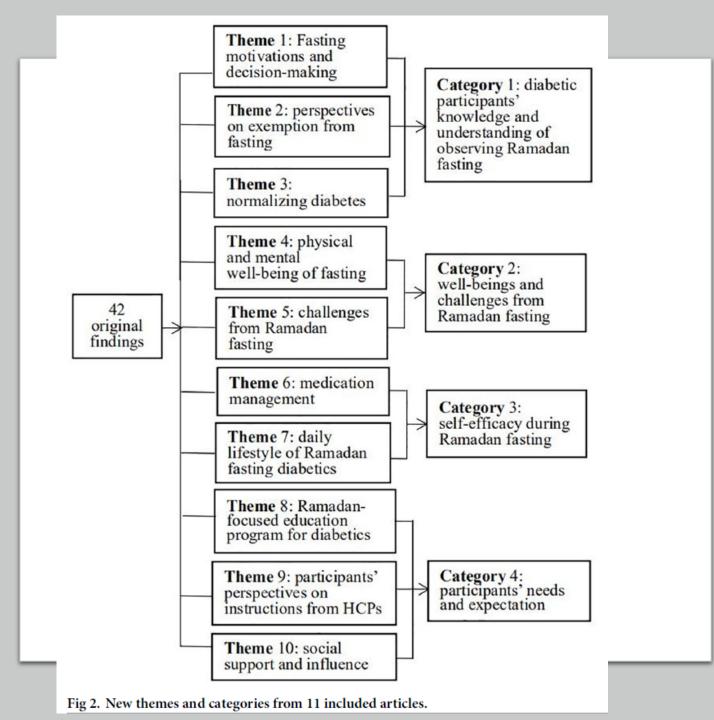


Fig 1. Flow chart of the literature search and screening.

- 8 countries: Kuwait, Saudi Arabia, Australia, Malaysia, Egypt, the UK, Denmark and the USA
- **Study design:** Almost all studies used qualitative interviews.
- Aims: Participants' subjective feelings and some phenomena of fasting Ramadan.
- Samples (N=267):
 - 7 studies included only T2DM participants (n=152)
 - 2 studies included only T1DM (n=87)
 - 2 studies included both T1DM and T2DM (n=28)
- Participants' medications
- Procedures of data collection:
 - semi-structured interview method
 - 2 studies used group discussion or focus group discussion
 - 1 study used unstructured interview





Category 1 Knowledge and Understanding of Observing Ramadan Fasting

Theme 1

Fasting Motivations and Decision-Making

Motivations

- Performing religious obligation
- Grasping the opportunity to regulate body and mental state
- Learning from and communicating with other participants about fasting techniques

Decision Making

- The Qur'an provided guidance to make the decision to fast
- 3 groups of participants

Theme 2

Perspectives on exemption from fasting

- Relaxed perspective
 - people with diabetes could be exempted from fasting
- Strict perspective
 - fasting was compulsory even for pregnant females
- Moderate perspective
 - people with diabetes could temporarily postpone fasting

Theme 3 Normalizing diabetes

- Attitudes towards diabetes many participants took their disease for granted
 - did not perceive themselves as being ill
 - minimized the seriousness of the disease
 - ignored the importance of self-management



Category 2 Well-Being and Challenges from Ramadan Fasting

Theme 4 Physical and Mental Well-Being

Physical

- Better diabetes management
- Control of blood glucose levels,
- Body weight loss,
- Lowering levels of cholesterol

Mental

- Felt spiritually connected to Allah
 - obtained from strong faith in Allah who gave power and strength to pull through those days
- Felt a connection with suffering people to achieve a type of spiritual sublimation
- Felt socially connected
 - opportunity to reunite with family

Theme 5 Challenges from Ramadan Fasting

Not mutually exclusive

- Feeling hungry, sick, dehydrated, lethargic and vulnerable
- Experiencing blood glucose fluctuations, or hospital admission for diabetic ketoacidosis
- Anxiety or fears of their body condition
- Poorly understood by HCPs and lacking support from family or friends
- Unwilling to disclose to non-Muslims
- Symptoms, such as gastrointestinal tract disturbances, headache, and sleep disorders



Category 3 Self-Efficacy during Ramadan Fasting

Theme 6 Medication Management

Medication Time

- Administered hypoglycemic drugs or insulin before Sahoor (the last meal before fasting starts) or before Iftar (breaking fasting at sunset to have meal)
- Medication Doses
 - Most are self-reliant
 - adjusted the doses
 - left out medication
 - Few followed their doctors' instructions to change the doses

Theme 7 Daily Lifestyle

- Diets during Ramadan are different from meals at ordinary times
 - Rich in carbohydrates and fat
 - Break fasting with dates
 - Perspective 1: dates could cause poor glucose control
 - Perspective 2: dates could help restore normal blood glucose levels
- Food Intake
 - Binge eating
 - Could not withstand food temptation (food rich in sugar and fat)
- Physical Activity
 - Feared hypoglycemia = decrease in daily activity to preserve energy
 - Physically active = increase movements (sports could offer benefits by reducing blood glucose)
 - Neutral = neither approved heavy exercise nor objected to daily activity regarded (walking as a good choice)

Category 4 Participants' Needs and Expectations

Theme 8 Ramadan-Focused Education Program

- DAFNE course
 - 95% of participants -Ramadanfocused education was important
 - Majority did not seek medical information after attending it (could fast in a safe manner)
- 9.4% participants instruction from HCPs was enough, and extra education was redundant

Theme 9

Participants' Perspectives on Instructions from HCPs

- The role of HCPs was controversial
- Like to seek advice from HCPs trained, empathetic, realized religious significance
- Refusal to seek HCPs consultations:
 - fear of being advised not to fast
 - being confident and self-reliant due to previous experiences
 - thinking HCPs were incapable of guiding them due to a lack of expertise and deficient awareness of Muslim faith
 - unwilling to disclose fasting to HCPs, especially pharmacists, and dissatisfied with their roles

Theme 10 Social Support and Influence

- Experiencing social pressure
- Family
 - some asking them to fast
 - some asking them to quit fasting
 - guilty and uncomfortable eating before their fasting family members
- Colleagues at workplace
 - conceal diabetes or fasting behavior at the workplace were at risk of causing health problems (hypoglycemia)

Perception and Behaviour of Type 2 Diabetes Patients towards Diabetes Management during Ramadan⁹

Aims:

To explore the perception and behaviour of Muslims with Type 2 Diabetes Mellitus (T2DM) in Hospital Tuanku Ampuan Najihah (HTAN) towards diabetes management during Ramadan.

Results:

- 32 T2DM patients were interviewed.
- Majority of the respondents were able to fast during Ramadan without difficulties.
- Many believed that fasting could improve general well-being.
- Most of **them never experienced hypoglycaemia while fasting**, but were aware of the symptoms and management of hypoglycaemia.
- Most respondents did not adjust their medications during fasting and reported either unchanged or reduced dietary intake.
- Only a few respondents owned glucometer and monitored blood glucose routinely although most respondents acknowledged the benefits of SMBG.
- Majority agreed that cost and logistic issues were the main barriers in practicing SMBG.









Insulin-dependent individuals call for special concern during Ramadan fasting.

- Ramadan-focused education (needs to be developed) and generalized, and existing guidelines should be improved to optimize the management of diabetes.
- Professional HCPs contribute to weigh the health risks and mental satisfaction for their patients, partly, to balance health and religion.
- Participants' psychological construction is another concern for religious scholars and psychologists.

References:

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⁴Lee SW, Lee JY, Tan CS, Wong CP. Strategies to make Ramadan fasting safer in type 2 diabetics: a systematic review and network meta-

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- ⁸Liao J, Wang T, Li Z, Xie H, Wang S. Experiences and views of people with diabetes during Ramadan fasting: A qualitative meta-synthesis. PLoS ONE 15(11). 2020; e0242111. https://doi.org/10.1371/journal.pone.0242111
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