

Improving Cultural Competency in Pharmacy Education: A Focus on Diabetes Management During Religious Fasting

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BACKGROUND

- Fasting is observed by various cultural and religious groups, with Muslims being one of the largest, particularly during the holy month of Ramadan.¹
- Medication adjustments may be necessary during fasting, especially for conditions like diabetes that are affected by glycemic variations.²
- Pharmacists play a key role in shared decision-making as patients prepare to fast, but there is limited published information on educating pharmacists to provide culturally competent care to Muslim patients.

OBJECTIVE

- Implement and evaluate a cultural competency activity to increase students' confidence in managing patients' diabetes medication during religious fasting.

METHODS

- A patient case study was developed for integration into a pharmacy skills-based laboratory course for second year students.
- Students' confidence was assessed via a self-efficacy scale pre and post activity.

Figure 1: Discussion Points

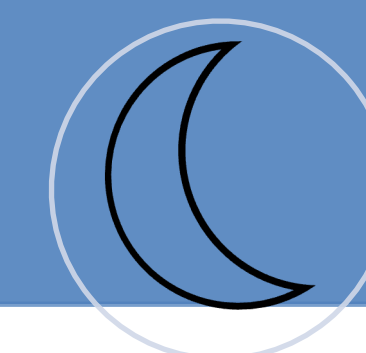
- How do you expect the periods of eating and fasting to impact his blood sugar?
- What changes would you make to his diabetes regimen as he begins to fast?
- What would you advise your patient to do if he developed hypoglycemia?

Diabetes Management



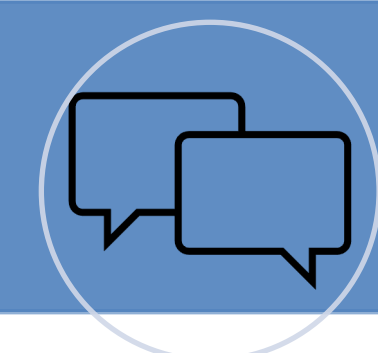
- What is Ramadan? Why do Muslims fast?
- What type of medications might a patient consider to break the fast?
- What do you think is expected of patients who are not able to fast?

Cultural Competency



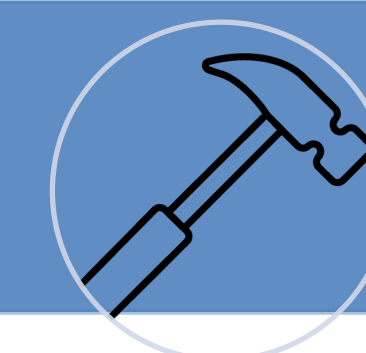
- What questions would you ask the patient to determine if it is safe for him to fast?
- If you felt it was not safe for your patient to fast, how would you communicate that to him?

Communication



- How might your patient feel if you told them it was not safe for them to fast?

Empathy-Building



Students' **confidence** in managing patients with diabetes while fasting during Ramadan **increased** post activity in multiple domains, including starting conversations about medication management, developing therapeutic plans, and recognizing challenges and opportunities

Scan to view case study



RESULTS

- A total of 56 out of 63 students completed the pre and post survey (88.89% response rate).
- Significant improvements were found in the confidence composite score and individual scale items including starting conversations about medication management, developing therapeutic plans, recognizing challenges, and recognizing opportunities (Table 1).
- The majority of students agreed that the activity increased their confidence in providing therapeutic advice to patients from diverse cultural backgrounds, with a mean score of 4.27 (SE = 0.07).

Table 1. Students' self-efficacy* before and after the case study activity

Item	Baseline mean (SE)	Post mean (SE)	Mean difference (SE)	P-value
How confident are you in starting a conversation with a patient who has diabetes about medication management needs while fasting during Ramadan?	1.82 (0.16)	2.93 (0.12)	1.11 (0.20)	< 0.0001
How confident are you in developing a therapeutic plan that accommodates a patient's fast during Ramadan in accordance with guidelines?	1.71 (0.14)	3.00 (0.12)	1.29 (0.19)	< 0.0001
How confident are you in recognizing challenges when working with patients who are fasting during Ramadan?	2.13 (0.16)	3.14 (0.12)	1.02 (0.20)	< 0.0001
How confident are you in recognizing opportunities when working with patients who are fasting during Ramadan?	2.05 (0.16)	3.13 (0.12)	1.07 (0.20)	<0.0001
Composite score	1.93 (0.14)	3.05 (0.11)	1.12 (0.18)	<0.0001

SE = Standard Error

*Students indicated their confidence level using a five-point Likert scale: 1 = Not at all confident to 5 = Extremely confident

DISCUSSION

- Implementation of this activity increased students' confidence in managing patients' diabetes medication during religious fasting.
- Limitations include the small sample size and the single cohort nature of this activity.
- In the future, this study will be replicated with a larger sample and will expand to other disease states that need careful monitoring during fasting.

REFERENCES

1. Author N. 1. Demographic portrait of Muslim Americans. Pew Research Center. Published July 26, 2017. Accessed May 6, 2024. <https://www.pewresearch.org/religion/2017/07/26/demographic-portrait-of-muslim-americans/>
2. Hassanein M, Afandi B, Ahmedani MY, et al. Diabetes and Ramadan: Practical guidelines 2021. *Diabetes Res Clin Pract.* 2022;185. doi:10.1016/j.diabres.2021.109185