

Celebrating World Diabetes Day

'Hand in hand for Narges, hand in hand for a brighter



Aim: To explore challenges and solutions in adolescent diabetes management.

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Case Study Learning Outcomes

- **To understand the complexities of diabetes management in adolescents.**
- **To appreciate the importance of family support.**
- **To recognize the need for comprehensive education for patients and families.**
- **To highlight the significance of mental health in individuals with diabetes.**
- **To develop nursing students' communication skills.**





Introducing Narges:



- ❑ Narges is a 16-year-old girl in the second year of high school who was diagnosed with type 1 diabetes at the age of 7.
- ❑ Despite her condition, she is a bright and active student.





A 16-year-old female with a medical history of type 1 diabetes.



□ Her latest laboratory results are as follows:

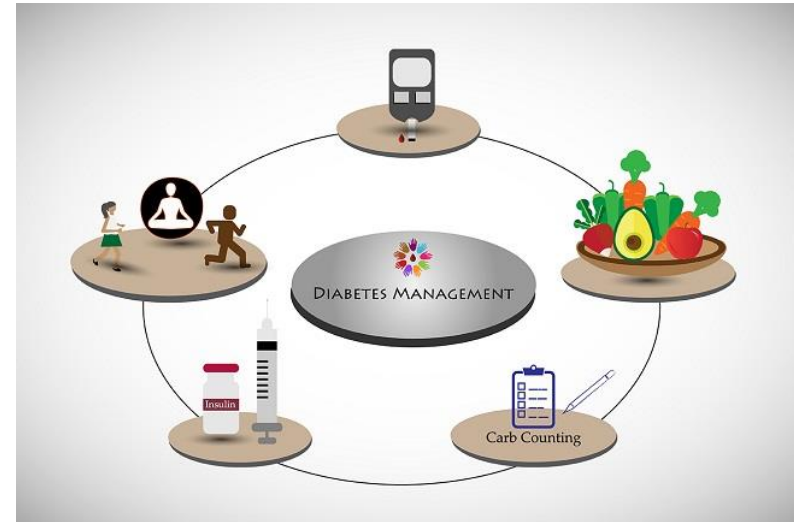
- Fasting plasma glucose (FPG): 140 mg/dL
- Hemoglobin A1c (A1C): 6.6%
- Alanine transaminase (ALT): 40 U/L
- Aspartate transaminase (AST): 45 U/L
- Thyroid-stimulating hormone (TSH): 2.2 mIU/L
- Low-density lipoprotein (LDL) cholesterol: 162 mg/dL





Challenges faced by Narges

- Fluctuating blood glucose levels and associated complications.
- Significant improvement in A1C, from 14% to 6.8% over the past 9 months.
- Difficulty adhering to dietary recommendations and physical activity guidelines.
- Psychological challenges including anxiety, depression, and social isolation.
- Challenges related to insulin pen shortages and limited access to blood glucose monitoring supplies.





1- Narges' Nutritional Challenges:

- Non-adherence to the prescribed diabetic diet.
- Irregular snacking patterns.
- Nausea.





2- Narges' Physical Activity Challenges

- Sporadic participation in group exercise classes during the summer months.
- Lack of a consistent physical activity routine.
- Insufficient motivation for exercise.





3- Narges' SMBG Challenges:

- Family has delegated insulin administration and blood glucose monitoring since the age of 8.
- Lack of intrinsic motivation for self-monitoring.
- She tends to only check her blood glucose when she is feeling unwell.





4- Narges' Insulin Therapy Challenges:

- ❑ **Insulin Pen Shortages:** Narges is facing a shortage of insulin pens.
- ❑ **Limited Access to Supplies:** There is a lack of adequate access to blood glucose monitoring supplies, such as test strips.
- ❑ **Insulin Types:** Narges uses both Lantus and NovoRapid insulin.





5- Narges' family faces the following challenges:



- Lack of knowledge regarding diabetes management.
- Financial difficulties.
- Struggles in providing adequate support to Narges.





Diabetes self-management behaviors based on the American Diabetes Association (ADA) Standards of Care in Diabetes

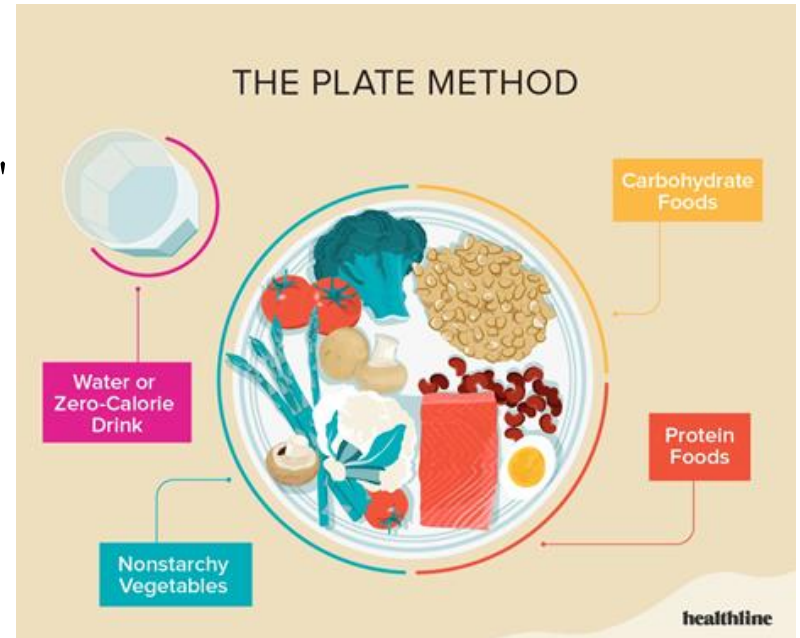
- ❑ Dietary management of diabetes
- ❑ Physical activity for diabetes management
- ❑ Blood glucose self-monitoring in diabetes (SMBG)
- ❑ Taking medication
- ❑ Psychosocial aspects of diabetes





I. Dietary management of diabetes

- ❑ "Following the MyPlate Recommendations"
- ❑ "Importance of healthy snacks"
- ❑ "Importance of carbohydrate counting"
- ❑ "Importance of non-starchy vegetables"





II. Physical activity for diabetes management



- ❑ Physician consultation
- ❑ Exercise timing, Optimal exercise window
- ❑ Exercise prescription
- ❑ Exercise intensity
- ❑ Glycemic monitoring, Blood glucose self-monitoring
- ❑ Pre-exercise carbohydrate loading

EXERCISE AND DIABETES





III. Blood glucose self-monitoring in diabetes (SMBG)



- ❑ **Factors affecting the frequency of SMBG:** Factors that determine how often self-monitoring of blood glucose (SMBG) is necessary.
- Type of diabetes (e.g., type 1, type 2)
 - Blood glucose variability
 - Insulin regimen (type and dosage)
 - Physical activity level





IV. Tacking medication

• **Key Points to Remember for Insulin Therapy**

- **Finding Temporary Solutions:** Explore temporary solutions such as contacting healthcare providers, pharmacies, or support organizations to find insulin.
- **Importance of Insulin Dosing:** Emphasize the significance of adjusting insulin doses.
- **Differences Between Insulin Types:** Explain the differences between Lantus and NovoRapid insulin.
- **Injection Site Rotation:** Highlight the importance of rotating injection sites.
- **Impact of Physical Activity:** Discuss how physical activity affects insulin needs.





V. Psychosocial aspects of diabetes



- Counseling Narges, Providing emotional support to Narges
- Family and social support
- Support groups for people with diabetes
- Stress management techniques, Relaxation techniques
- Multidisciplinary team, Healthcare team





Care Goals for Narges

- Help Narges achieve her best possible health outcomes.
- Equip Narges with the knowledge and skills she needs to manage her diabetes.
- Support Narges and her family throughout their diabetes journey.
- Improve Narges' quality of life and sense of well-being.
- Address the emotional and psychological challenges associated with living with diabetes.





Discussion Questions



Question 1- How can we help Narges adopt a healthy lifestyle?

Towards a healthier life



The importance of a healthy lifestyle in diabetes management



- Better blood sugar control.
- Reduced risk of diabetes complications.
- Increased energy levels.
- Improved quality of life.





THE DIABETIC'S ROADMAP



- ❑ **A Roadmap to a Healthier Lifestyle for Narges**
- ❑ **Balanced Nutrition:** Adopting a well-balanced diet rich in fruits, vegetables, and whole grains.
- ❑ **Regular Physical Activity:** Engaging in regular exercise to improve overall health and blood sugar control.
- ❑ **Stress Management Techniques:** Incorporating relaxation techniques like meditation or yoga to reduce stress.
- ❑ **Sufficient Sleep:** Prioritizing adequate sleep to promote overall well-being and improve insulin sensitivity.
- ❑ **Consistent Blood Glucose Monitoring:** Regularly checking blood sugar levels to make informed adjustments to treatment.
- ❑ **Collaborative Care:** Working closely with the healthcare team to optimize diabetes management.



Question 2- What strategies can we employ to support Narges in overcoming her psychological challenges, including anxiety, depression, and feelings of isolation?





Strategies for Managing Psychological Challenges



- **Psychological Support:** Seeking therapy or joining a diabetes support group.
- **Coping Skills Training:** Learning relaxation techniques (deep breathing, meditation), problem-solving, and anger management skills.
- **Social Connection:** Participating in group activities and connecting with other young people with diabetes.
- **Self-Esteem Enhancement:** Identifying strengths and engaging in enjoyable activities.
- **Family Involvement:** Educating the family about emotional support and creating a supportive home environment.



Question 3- What are the most effective ways to encourage Narges' family to actively participate in her diabetes management?

How can we emphasize the crucial role of family support in helping Narges control her diabetes?





Enhancing Family Involvement in Diabetes Management:



- **Comprehensive Education:** Provide in-depth information on diabetes, its symptoms, complications, and management strategies.
- **Regular Family Meetings:** Conduct regular meetings with the family to address questions, concerns, and progress.
- **Shared Decision-Making:** Involve the family in making decisions about the treatment plan.
- **Empowerment:** Foster a sense of responsibility within the family for diabetes management.
- **Emotional Support:** Offer emotional support and guidance to family members.
- **Family Activities:** Encourage family activities to strengthen bonds and promote a healthy lifestyle.



Advantages

- **The Importance of Family Involvement in Narges' Diabetes Management** Advantages:
 - Increased ability to regulate blood sugar levels,
 - Improved overall well-being for both Narges and her family,
 - Stronger family bonds,
 - and even lower healthcare costs.





Question 4- What obstacles might prevent Narges from effectively managing her own diabetes care?

What strategies can a nurse employ to help Narges overcome these challenges?



Obstacles Hindering Narges' Self-Management:



- ❑ Narges faces several challenges in managing her diabetes, including:
- ❑ insufficient knowledge about the condition,
- ❑ mood fluctuations and depression,
- ❑ peer pressure to adopt unhealthy lifestyles,
- ❑ inadequate family support,
- ❑ and difficulty in establishing a consistent daily routine.





Strategies to Address Challenges in Narges' Self-Care



- ❑ A nurse can play a crucial role in helping Narges overcome barriers to self-management by:
 - Providing comprehensive education on diabetes, including symptoms, complications, and self-care techniques.
 - Offering emotional support and counseling to address psychological challenges.
 - Regularly monitoring blood glucose levels and adjusting medication dosages as needed.
 - Collaborating with the family to ensure a supportive home environment and consistent care.





Conclusion

- ❑ **A Promising Outlook:** Narges has made significant progress in managing her diabetes, demonstrating improved blood sugar control, active participation in her treatment decisions, and the development of strong social support. This success is a testament to the power of collaboration between the patient, family, and healthcare team.
- ❑ **Looking Ahead:** As Narges continues her education and pursues her goals, she is well-positioned for a fulfilling and independent life. Her journey can serve as an inspiration to other young people living with diabetes.





- **How much responsibility lies with individuals for managing their health conditions, considering the broader societal factors that influence health outcomes?**



THANKS



REFERENCES

1. **International Diabetes Federation (IDF). (2024). Diabetes Atlas. Brussels, Belgium: International Diabetes Federation.**
2. **American Diabetes Association (ADA). (2024). Standards of medical care in diabetes. Diabetes Care, 46(Supplement 1), S1-S173.**
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