

Diabetic Patient Self-Monitoring

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INTRODUCTION

Self-monitoring of blood glucose (SMBG) is the process by which diabetic patients test their own blood glucose level at home using a blood glucose meter.

Continuous glucose monitoring (CGM) is increasing in use as an adjunct to SMBG or alone, and involves monitoring blood glucose concentrations continuously using a continuous glucose monitor.

AIMS

- To investigate the perception of patients with type 1 diabetes mellitus (T1DM) regarding self-monitoring of blood glucose (SMBG) and continuous glucose monitoring (CGM)
- To identify problems encountered when carrying out blood glucose monitoring.

METHOD

- A questionnaire on SMBG was developed in English and Maltese language and validated in a previous study by Cassar (2009). The questionnaire consists of 5 sections and was administered to patients via semi-structured interview at the Diabetes clinic at Mater Dei Hospital.¹
- The same questionnaire was used in this study, with the addition of a section on CGM.
- The setting chosen for this study is community pharmacy.
- 70 type 1 diabetic patients, 18 years or older are recruited into the study from 15 community pharmacies selected by convenience sampling (3 pharmacies from each of the 5 statistical districts in Malta).
- Approval from each pharmacy was obtained.
- The questionnaire is anonymous and participation is entirely voluntary. The questionnaire takes around 15 to 20 minutes to complete.
- Questionnaire responses are analysed using SPSS and descriptive statistics are undertaken.

RESULTS

Table 1: Results obtained from the study showing differences between male and female gender (N=70)

Gender	Male (N=32)	Female (N=38)
Duration of Type 1 diabetes more than 5 years	25	27
Answered 'yes' to problems encountered with painful pricking	14	23
Answered 'yes' to problems encountered with cost of extra test strips	19	14
SMBG performed more than once daily	19	21
Willing to utilise CGMS	12	18

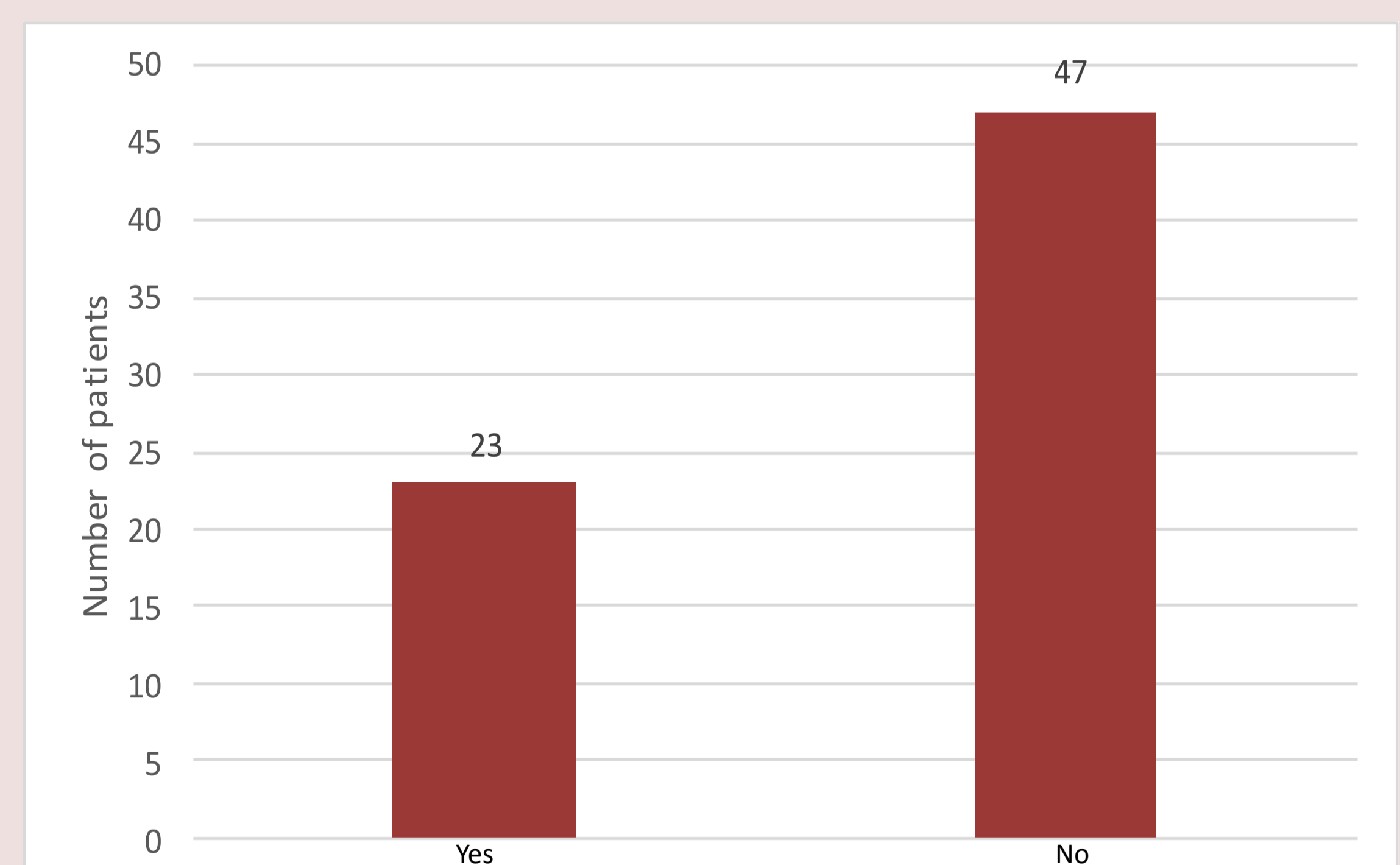


Figure 1: Availability of time to perform daily SMBG (N=70)

CONCLUSION

Improving awareness and access to CGM is warranted to overcome self-monitoring problems identified, such as painful and frequent finger pricking. Patients are not adhering to the recommended daily schedule for SMBG for a number of reasons, including access to test strips and time limitations.

REFERENCES

1. Cassar J. Diabetic patient management [project]. Msida (Malta): Department of Pharmacy, University of Malta; 2009.