

## INTRODUCTION

Malta has 40,000 registered diabetic patients. The rate of diabetes and its complications have been on the increase which takes a huge toll on the patient, the patient's families and the healthcare system<sup>1</sup>.

## AIMS

The aims of this study were to recognize and to compare the motivation, drug treatment, biological markers and the current patient knowledge regarding lifestyle modifications of type 2 diabetes of patients visiting a hospital clinic and 3 health centre diabetic clinics.

## METHOD

An ethical approval for the study methodology was obtained from the University Research Ethics Committee. The selected patients received information about the study, were invited to participate and asked to sign the informed consent. One hundred type 2 diabetic patients were recruited by convenience sampling from each of the healthcare settings (4). Each patient was presented a questionnaire in order to obtain the required patient details, drug treatment, current knowledge and motivation regarding diet, physical activity, monitoring of blood glucose and blood pressure and cardiovascular, feet and eye examinations were undertaken<sup>2</sup>. Fasting blood glucose level, total: high-density lipoprotein cholesterol (HDL-c), HbA1c and triglycerides (TG) were recorded from the computerized records.

## RESULTS

- A total of 193 patients completed this study; 98 patients from MDH and 95 patients from the 3 healthcare centres, with a mean age of 65 years old. 21.4% visiting MDH and 8.4% visiting health centres were smokers.
- 67% of the patients visiting the health centres included physical activity in their daily regimen while only 33% of the patients visiting the hospital clinic exercise regularly (figure 1). Only 29.3% from both healthcare settings always follow a nutritionist's diet plan.
- Overall 74.6% of the patients are on oral hypoglycaemic agents mainly metformin 500mg or gliclazide 80mg, 10.9% on insulin and 7.8% on both.
- By using the independent t-test, a significant difference between the biological markers; HbA1c and fasting glucose level of patients visiting the 2 healthcare settings was identified (figure 2).
- 54% recognize that the best eating plan is eating frequent small meals spaced daily. 98% are aware that fruits and vegetables should be included in their diet however 95% also think that they should include high carbohydrate foods. 47% are aware regarding the hypoglycaemic effect caused by anti-diabetic therapy and only 51% carry a source of sugar.

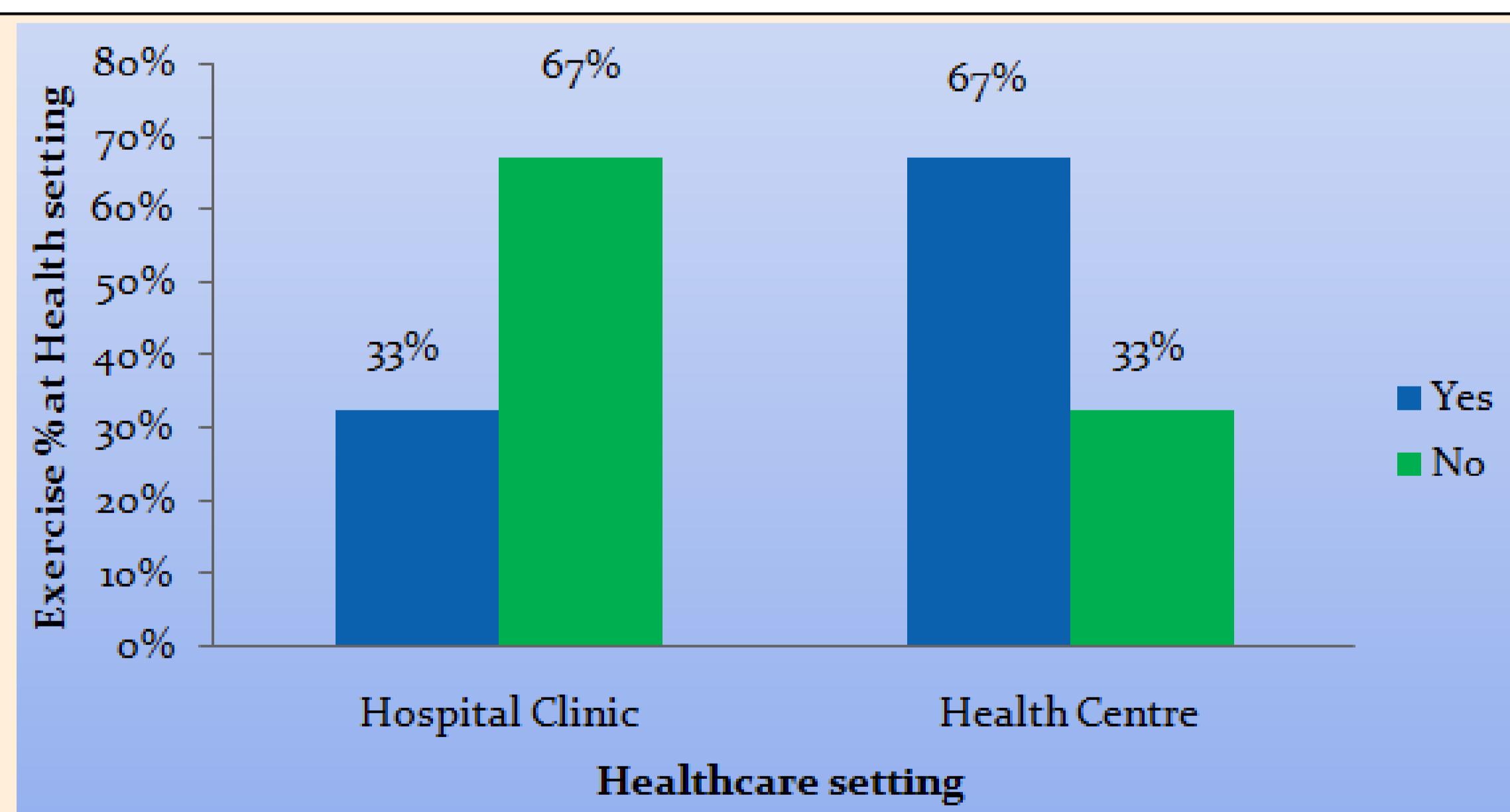


Figure 1: Physical activity

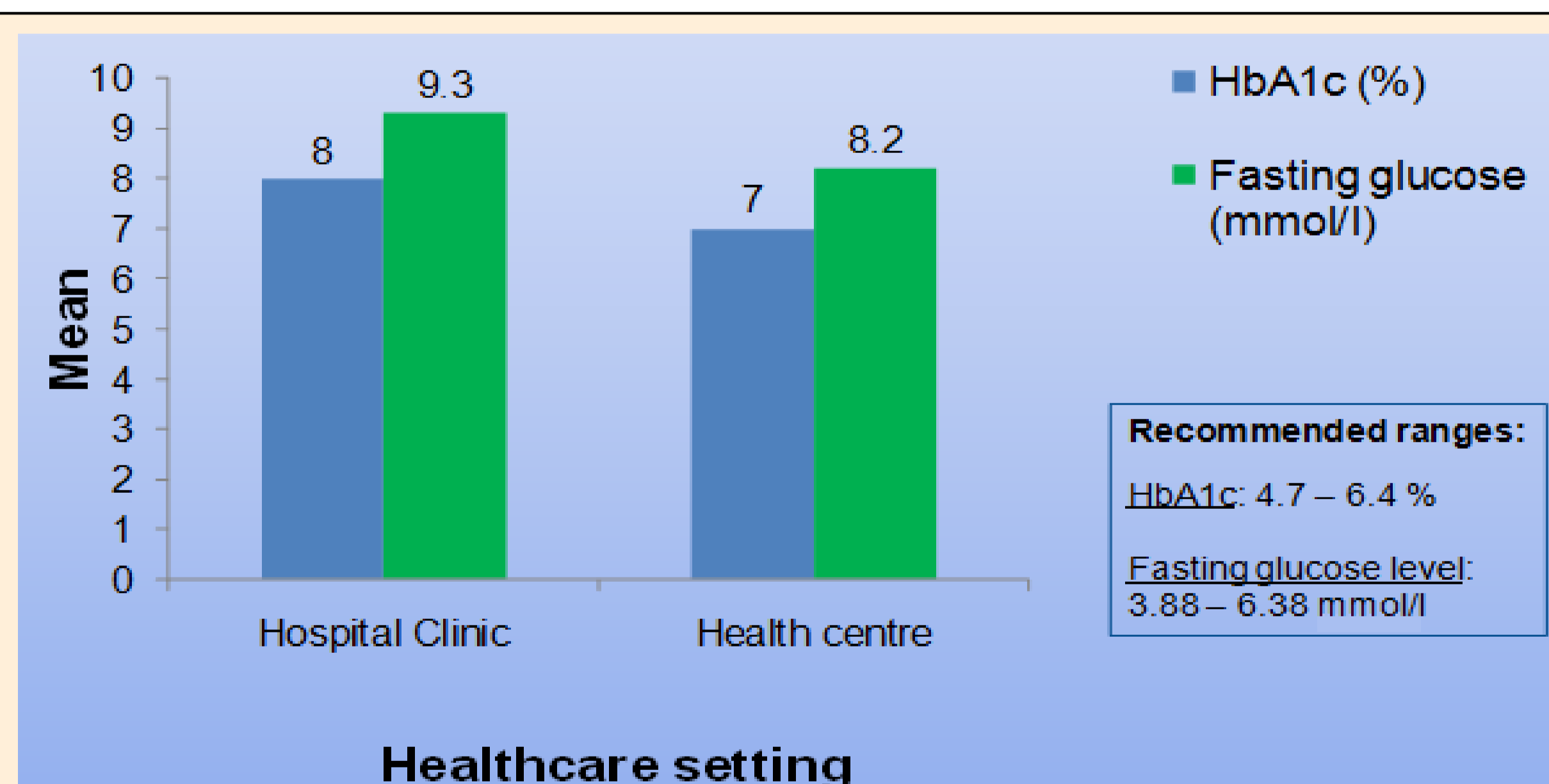


Figure 2: Biological markers

## CONCLUSION

There was no significant difference between the two healthcare settings with respect to patient knowledge. A significant difference was recognised in motivation and biological markers. Patients visiting the health centres were more motivated and biological markers values were more optimal. From the HbA1c and fasting glucose levels it was shown that blood glucose management was not optimal for patients from both settings indicating the need for pharmacists to participate in focused patient education for improving outcomes.

## References

1. Formosa, C. *et al.* Cultural contributors to the development of diabetes mellitus in Malta. *Int. J Diabetes and Metab.* 2012, 20, 25-29.
2. Goldfine, A.; Goldfine, H. American Diabetes Association. *Cardiovascular Disease in the Diabetic Patient Circulation.* 2003, 107, 14-16.