

## **Project Title**

Association between social support and health-related outcomes amongst older adults with Type 2 Diabetes Mellitus in a Primary Care Setting

## **Project Lead and Members**

Project lead: Dr Tan Dihao Keith

Project members: Dr Sabrina Wong, Dr Tan Shu Yun, Koh Hui Li, Dr Edwin Liang

## **Organisation(s) Involved**

National Healthcare Group Polyclinics

## **Healthcare Family Group(s) Involved in this Project**

Medical

## **Applicable Specialty or Discipline**

Family Medicine

## **Project Period**

Start date: July 2021

Completed date: August 2022

## **Aims**

To explore the association between social support and diabetic health related outcomes (glycemic control, diabetes self-care behaviours and health related quality of life) amongst older adults with diabetes in an outpatient primary care clinic.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Lessons Learnt**

Assessment and interventions for social support may assist in the management older adults with diabetes that face challenges with compliance with diet and medications.

## **Conclusion**

See poster appended/ below

## **Additional Information**

Singapore Health & Biomedical Congress (SHBC) 2022: Singapore Primary Care Award  
(Oral category) – (Merit Award)

## **Project Category**

Applied/ Translational Research

Quantitative Research

## **Keywords**

Social Support, Diabetes, Older Adults

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# Association between social support and health-related outcomes amongst older adults with Type 2 Diabetes Mellitus in a Primary Care Setting

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## INTRODUCTION

Social support has been shown to improve glycemic control, self-care behaviours and quality of life in persons with type 2 diabetes mellitus.

However, older adults with diabetes are at higher risk of social isolation which may impact on their health outcomes. With the aging population, it is important to assess whether social support impacts on diabetic health-related outcomes – glycemic control, diabetes self-care behaviours and health-related quality of life, amongst older adults with diabetes.

## OBJECTIVE

To explore the association between social support and diabetic health-related outcomes (glycemic control, diabetes self-care behaviours and health-related quality of life) amongst older adults with diabetes in an outpatient primary care clinic.

## METHODOLOGY

This was a cross-sectional study done in a National Healthcare Group (NHG) Polyclinic, conducted between July 2021 to August 2022.

Older adults aged 60 years and above, with a diagnosis of Type 2 Diabetes Mellitus for at least 12 months who were able to speak English, Mandarin or Malay were recruited for the study. We excluded those with severe hearing impairment, cognitive impairment, or active psychosis.

Data was collected via a self-administered questionnaire. Validated tools were used to assess social support, diabetes self-care behaviours and health-related quality of life.

## RESULTS

250 patients aged 60 and above with type 2 diabetes mellitus for at least 1 year were recruited.

Participants had a mean age of  $66.4 \pm 6.2$  years and HbA1c levels were  $7.5 \pm 1.1\%$ . 59.2% of participants were male, 57.6% Chinese, and most participants were married. Mean social support score was  $70.7 \pm 25.9$ .

Regression analysis found that two diabetes-care behaviours were positively associated with social support. These were dietary behaviour as well as medication adherence. There was no association between social support and the other health-related outcome variables such as glycemic control, exercise and the EQ5D domains.

## CONCLUSIONS

In our study, greater social support was associated with better dietary behaviours and medication adherence in older adults with diabetes. Assessment and interventions for social support may assist in the management of older adults with diabetes that face challenges with compliance with diet and medications.

## REFERENCES

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## ACKNOWLEDGEMENT

We would like to thank the research coordinators as well as the family physicians and nurses of Yishun Polyclinic for helping with the recruitment and administration of questionnaires.

We would also like to thank NHGP Clinical Research Unit for their valuable assistance with the statistical analyses.

	Mean (SD)	N (%)
Age	66.40 (6.2)	
Sex		
Female		102 (40.8)
Male		148 (59.2)
Ethnicity		
Chinese		144 (57.6)
Malay		62 (24.8)
Indian		37 (14.8)
Others		7 (2.8)
Current marital status		
Single/Divorced/Widowed		59 (23.6)
Married		191 (76.4)
Living arrangements		
Alone		29 (11.6)
With others		221 (88.4)
Highest level of education		
Primary or lower		75 (30.0)
Secondary		127 (50.8)
Tertiary		48 (19.2)
Average individual monthly income		
Not available		138 (55.2)
Below \$2000		62 (24.8)
\$2000 and above		50 (20.0)
Number of chronic diseases	3.35 (1.4)	
Number of chronic medications	5.57 (2.5)	
nMOS-SSS		
Instrumental	69.6 (30.9)	
Emotional	71.6 (25.1)	
Total	70.7 (25.9)	
HbA1c	7.5 (1.1)	
SDSCA		
Diet	4.6 (1.5)	
Exercise	3.5 (2.6)	
Medications (n=208)	6.8 (1.0)	
EQ5D		
Utility score	0.9 (0.2)	
Mobility	1.3 (0.7)	
Self-Care	1.0 (0.2)	
Usual Activities	1.1 (0.4)	
Pain / Discomfort	1.4 (0.6)	
Anxiety / Depression	1.2 (0.5)	

Outcome Variable	B	Sig.	95% Confidence Interval	
			Lower Bound	Upper Bound
HbA1c	0.00	0.81	-0.01	0.01
SDSCA				
Diet	0.01	0.01	0.00	0.02
Exercise	0.01	0.17	0.00	0.02
Medications	0.01	0.01	0.00	0.01
EQ5D Domains				
Utility score	0.00	0.97	0.00	0.00
Mobility	0.00	0.74	0.00	0.00
Self-Care	0.00	0.70	0.00	0.00
Usual Activities	0.00	0.14	0.00	0.00
Pain / Discomfort	0.00	0.66	0.00	0.00
Anxiety / Depression	0.00	0.12	-0.01	0.00