

Impact of Perceived Social Support on Quality of Life in Patients Awaiting for Coronary Artery Bypass Grafting (CABG) Surgery



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Abstract/Introduction

- Perceived social support has been of concern among patients who are awaiting Coronary Artery Bypass Grafting (CABG) surgery, yet the level of social support and its effect on an individual's quality of life are inconclusive.
- In National Heart Institute of Malaysia, more than 900 patients were performed isolated CABG operation annually and the numbers are on increasing trend from last two decades (Mohamed Ezani, 2011)
- Patients awaiting CABG surgery need support from their partners or caregivers to manage their self-care successfully and to maximize their quality of life (Thomson, Molloy, & Chung, 2012)
- The quality of life and factors affecting quality of life remain a concern to health care providers, especially for patients who are on the waiting list of CABG surgery at the studied setting.

Research question/ Problem

- Does patient receive any social support while waiting for CABG?
- Does age, religion, education level, occupation and perceived social support influence on quality of life in patients awaiting for CABG?
- Are there any differences in quality of life along with and without perceived social support in this pre-operative waiting period?

Aim of the study

This study aimed to explore perceived social support and its effect on quality of life in patients awaiting CABG surgery at Outpatient Department of National Heart Institute, Malaysia.

Methodology

Design

Cross sectional survey

Target population :

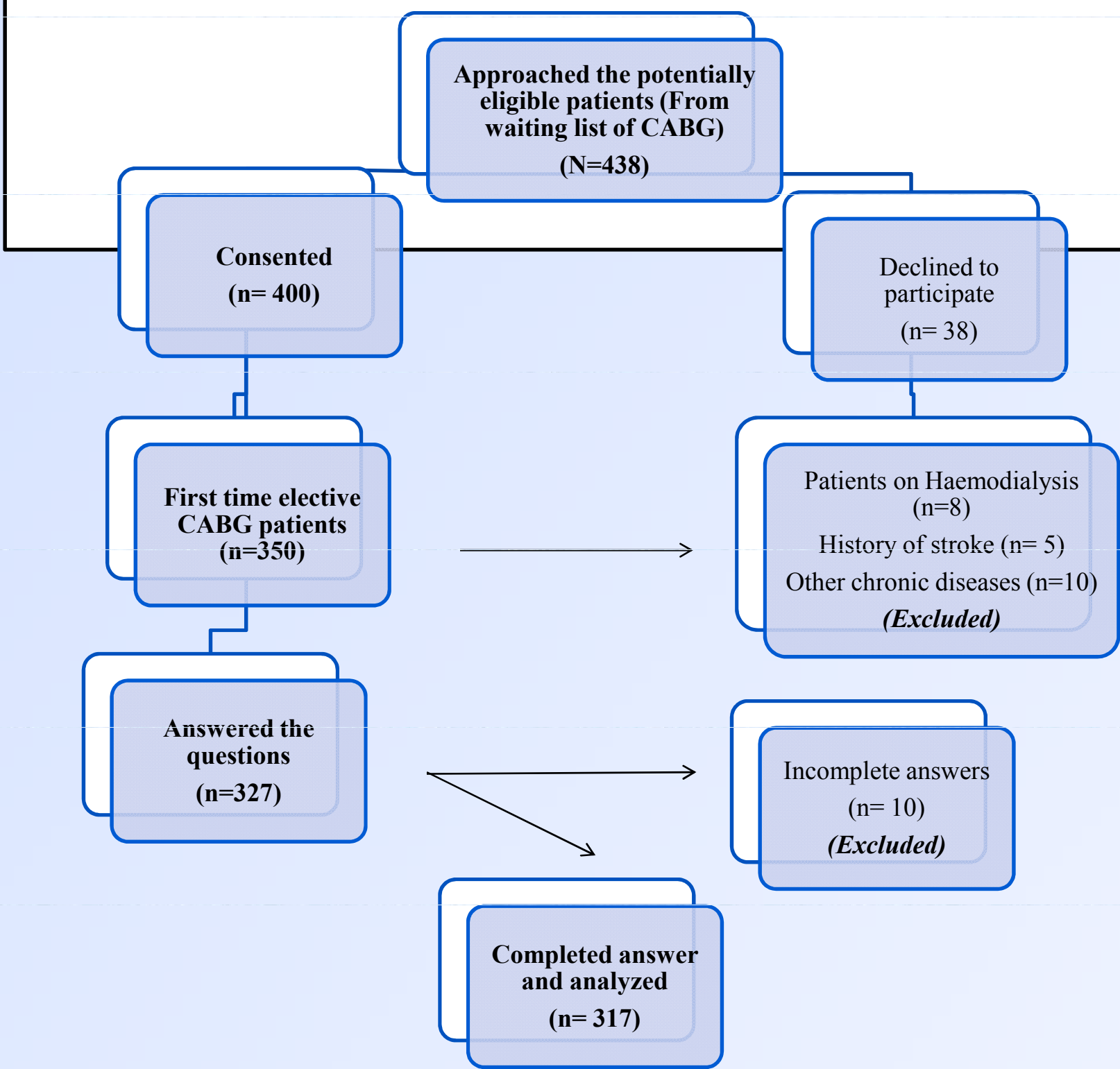
Patient who has been diagnosed with coronary artery disease and awaiting for CABG surgery

Sampling method:

Simple random sampling method by using random computer generated number.: 317 participants

Data Collection Flow

Figure 1. Flow Chart of Data Collection



Methodology (Continued)

Ethical consideration:

Ethical approval was obtained from the National Heart Institute of Malaysia ethic committee.

Data Collection

Instrument:

- Self administered questionnaires was distributed to the participants by face to face.
- Reliability and validity test for questionnaire :
 - Content of the questionnaire was validated by 4 experts.
 - Internal reliability was tested using Cronbach's Alpha. The value of Cronbach's Alph were 0.84 for 26 items WHO quality of life and 0.94 for 12 items MSPSS tools.
- Data collection started January 2014 and completed in April 2014.

Statistical Analysis

- Descriptive statistics (mean, SD, frequency) were calculated for personal demographic characteristics and patients' clinical data.
- One-way ANOVA test was used in quantitative data and in addition Tukey HSD test was used for determining the group causing the difference.
- Pearson correlation test was used to examine the association between perceived social support and quality of life.
- A linear regression analysis was used to verify the relationship between perceived social support and quality of life.
- Statistical significance was determined at $p < 0.05$ and the results were evaluated with a confidence interval of 95%.

Findings

327 questionnaires were distributed to participants. All questions were return of which 10 had not been completed. Final Final sample 792 with a response rate of 79.2%.

Table 1. Demographic Characteristic of Participants (N=317)

Variable		N	%
Age (years)	31-50	107	33.8
	51-70	110	34.7
	71 and above	100	31.5
Mean age	60.23 (SD 9.64)		
Gender	Male	232	73.2
	Female	85	26.8
Marital Status	Single	7	2.2
	Married	310	97.8
Education	Primary	20	6.3
	Secondary	189	59.6
	Tertiary	108	34.1
Occupation	Employed	163	51.4
	Unemployed	154	48.6
Ethnicity	Malay	185	58.4
	Indian	78	24.6
	Chinese	54	17
Diabetic	Yes	278	87.7
Hypertension	Yes	276	87.1
Family history of CAD	Yes	235	74.1
History of smoking	Yes	231	72.9

Figure 1 Participants' distribution of waiting time for CABG (in weeks)

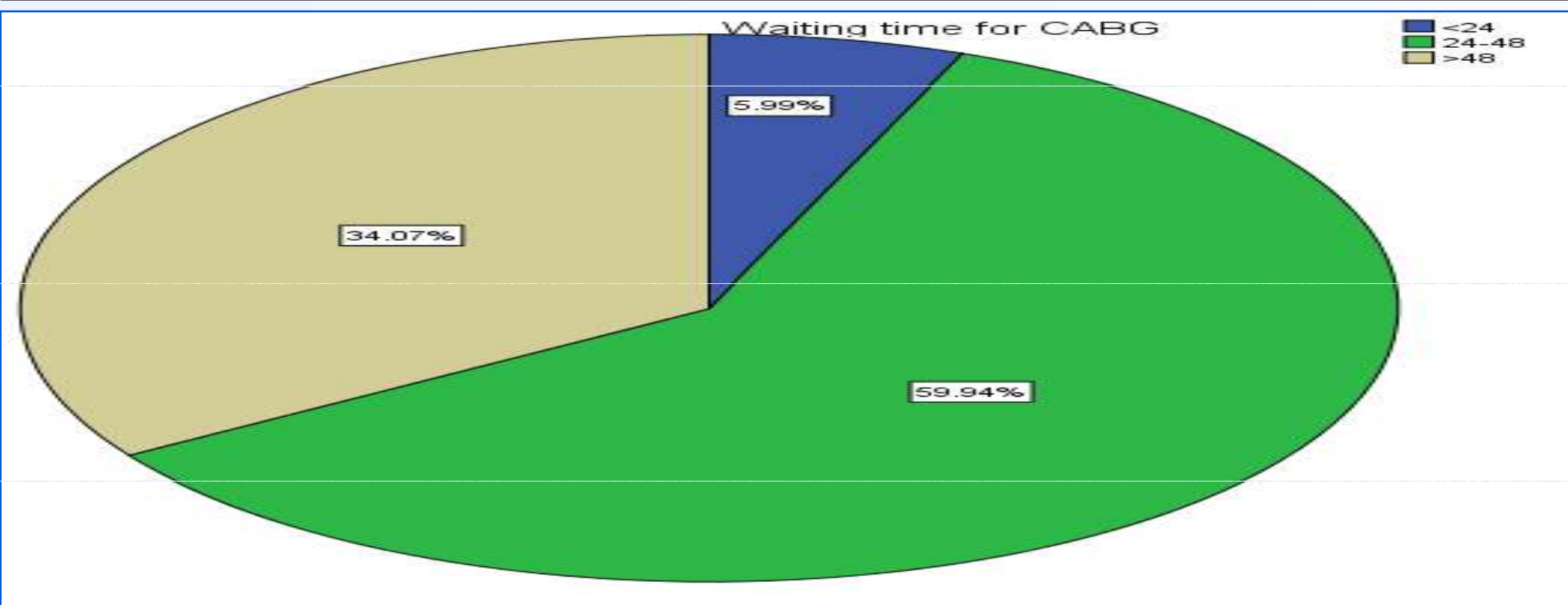


Table 2. Mean scores of three scales of MSPSS and four scales of WHO QOL (n= 317)

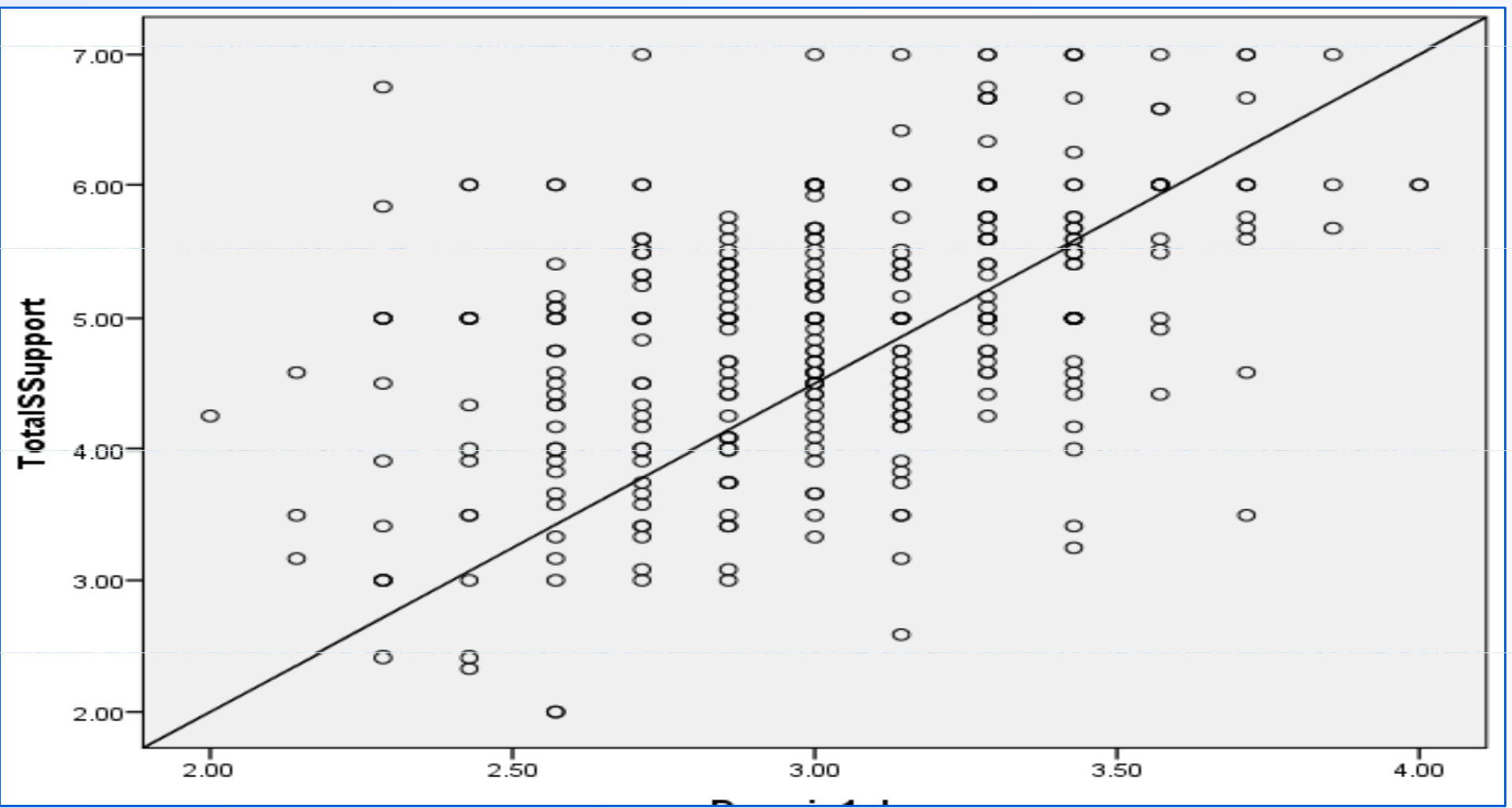
Scale	Mean	SD
MSPSS		
Overall Score of Social Support	5.0	1.0
Significant Other support	5.03	1.05
Family support	4.93	1.04
Friend support	4.73	1.08
WHO QOL		
Overall QOL & health status	2.9	0.78
Physical health	3.01	0.38
Psychological health	2.83	0.41
Social support	2.4	0.41
Environment	2.9	0.53

Finding (Continued)

Table 3. ANOVA test for QOL in demographic characteristics

Variables	QOL Mean \pm SD	P-value
Age		
31-50	3.09 \pm 0.36	0.02
51-70	2.95 \pm 0.38	0.09
71 and above	2.99 \pm 0.38	0.08
Ethnicity		
Malay	3.0 \pm 0.37	0.08
Indian	2.98 \pm 0.41	0.07
Chinese	3.08 \pm 0.33	0.03

Figure 2: Scatter plot for correlation between perceived social support and quality of life



Discussion

- The finding of this study revealed that the majority of patients who are undergoing CABG surgery in Malaysia are aged 51-70 years.
- This is consistent with other countries' CAD patients who needed CABG surgery (Hillis et al., 2011; Ivarsson, Sjöberg, & Larsson, 2005).
- More than half of the study participants (76.3%) who were awaiting their CABG surgery at the studied setting showed that they have poor QOL and they were encountering difficulties in physically, psychologically and socially.
- There was no significant difference between gender, marital status, education and occupation of respondents in relation to their quality of life except age and ethnicity.
- The age group of 31-50 years had better quality of life compared to the other age groups, which means that the younger patients had better QOL.
- This study also found that there were positive association between perceived social support and quality of life with r-value of 0.6 and p-value is less than 0.001.

Conclusion

- Evidence indicates that patients who perceived receiving social support while awaiting for their CABG surgery had better quality of life.
- The results from this study can facilitate health care personnel to design an appropriate structured pre-operative assessment on social support and education program for patients awaiting CABG surgery to improve their quality of life.

References

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