Association Between Knowledge Level on Gestational Diabetes Mellitus with Sociodemographic Factors Among Antenatal Mothers in Temerloh

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INTRODUCTION

Gestational Diabetes Mellitus (GDM) defined as impaired glucose tolerance in pregnancy, reverts to normal after birth; increased risk of diabetes mellitus in later life (Tiran, 2017).

GDM is known to affect the livelihood of the mothers and the baby before, during and after the pregnancy and need to undergone serial assessment and extra precaution (Ministry of Health, 2017).

In Asia, the prevalence of GDM is expected to increase over years possibly due to increase in maternal age and obesity.

Women with common risk factors should receive additional attention from physician as high-risk cases for GDM (Lee, K. W. & et al, 2018).

In Pejabat Kesihatan Daerah (PKD) Temerloh, the average cases of GDM from year 2018- 2022 is 692 cases per year.

OBJECTIVES

To identify the level of knowledge among antenatal mother on GDM and the relationship with sociodemographic factors in Temerloh

METHODS

STUDY
DESIGN
STUDY
POPULATIO

Cross-sectional study

Antenatal mother in PKD

Temerloh

Convenience non probability SAMPLING METHOD sampling

INCLUSION CRITERIA

- Willing to participate
- Aged 18 years old and above
- Not in labour pain
- Not in emergency obstetric condition

STUDY TOOLS Gestational Diabetes Mellitus Knowledge Question (GDMKQ)

QR code distribution

- Patient Information Sheet
- Informed Consent
- Questionnaire:

6 questions : Risk Factors

4 questions : Screening and Treatment

3 questions : Complications

'Yes' → '1'

'No' → '0'

Poor knowledge: scored 0-4, Average knowledge: scored 5-8 Good knowledge: scored 9 -13

STUDY **ANALYSIS** SPSS version 26

RESULTS

Table 1 : Socio-demographic profile of Participant (N= 248)

	Frequency (n)	(%)							
Age									
20 -34years old	159	64.1							
>35 years old	89	35.9							
Education									
Primary	26	10.5							
Secondary	138	55.6							
Tertiary	84	33.9							
Occupation									
Housewife	68	27.5							
Employment	168	67.7							
Unemployment	12	4.8							
No of Child (Parity)									
0	40	16.1							
>1	208	83.9							
History of DM									
No	242	97.6							
Yes	6	2.4							
History of GDM in current or previous pregnancy									
No	51	20.6							
Yes	197	79.4							

Level of Knowledge on GDM

Figure 1: Level of Knowledge on GDM (N = 248)

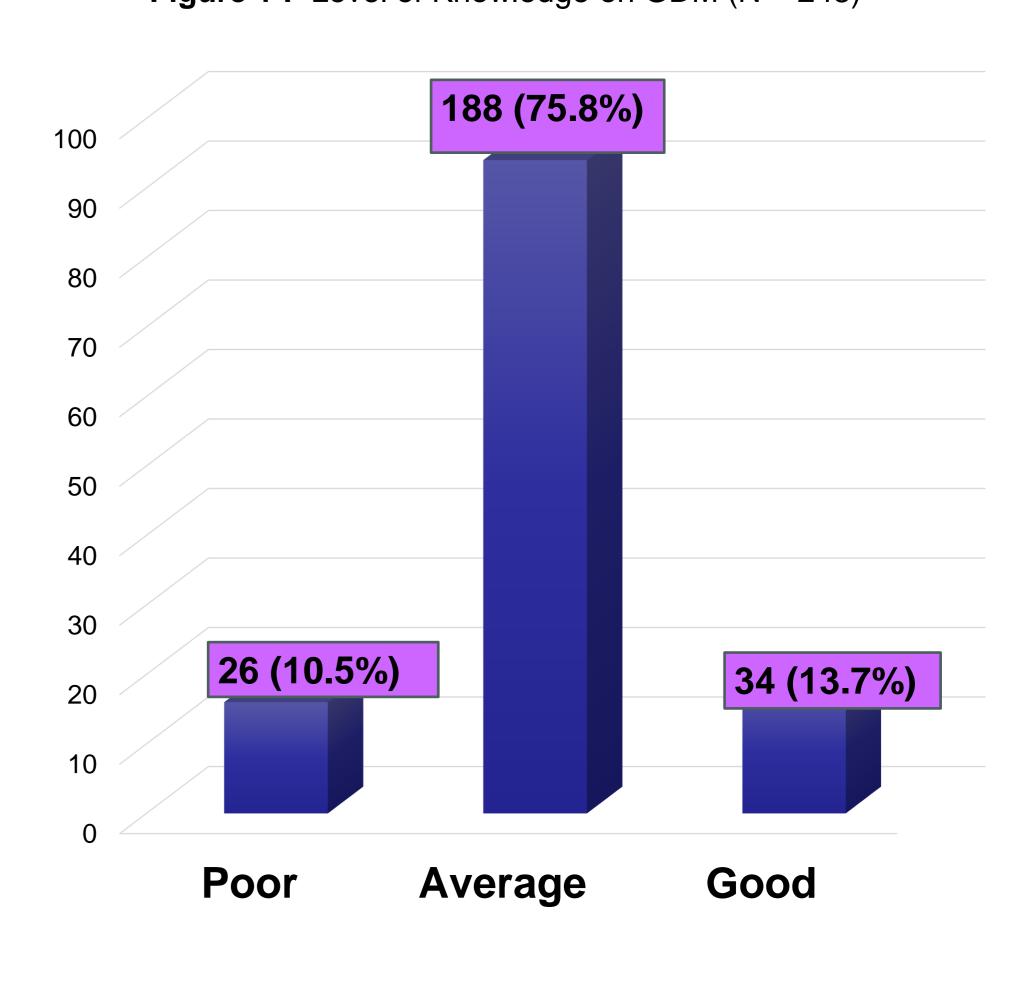


Table 2: Socio-demographic profile of Participants and Association with level of Knowledge.

	Knowledge		X ²	df	P value					
	Poor	Average	Good							
Age										
20-34years old	16	118	25	1.533	2	0.465				
>35 years old	10	70	9							
Education										
Primary	6	18	2	6.005	4	0.199				
Secondary	15	114	23							
Tertiary	5	56	9							
Occupation										
Housewife	12	48	8	9.378	4	0.052				
Employment	11	132	25							
Unemployment	3	8	1							
No of Child (Parity)										
0	8	28	4	4.810	2	0.090				
>1	18	160	30							
History of DM										
No	26	182	34	1.962	2	0.478				
Yes	O	6	Ο							
History of GDM in current or previous pregnancy										
No	3	36	12	6.043	2	0.047				
Yes	23	152	22							

*Significanct at P value < 0.05

DISCUSSION / CONCLUSION

Our finding on sociodemographic profile is consistent with study by Alharthi, A. S. et al (2018) found that education and family history of DM were significantly associated with better knowledge score (p < 0.01).

However, Anuar, M. N. & et al (2020) found that there were no significantly associated with age, education, occupation, income, gestational age, history of GDM, and parity.

Based on level of knowledge, our study consistent with study by Bhowmik, B. & et al, (2018) 63.1% of participants had average knowledge regarding GDM.

In summary, the knowledge on GDM among antenatal mother in PKD Temerloh was average and there was significant relationship between sociodemographic (history of GDM) with level of knowledge on GDM.

Hence, health education and awareness programs should be conducted to improve knowledge of antenatal mothers for better utilization of health services.

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