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BACKGROUND

- Hypercholesterolemia and high body mass index (BMI) are major risk factors for cardiovascular disease development, one of the leading causes of morbidity and mortality in the Asian Pacific Islander (API) population.¹⁻³
- Primary care providers (PCPs) are best positioned to detect and manage hyperlipidemia; however, preventative care for hyperlipidemia is not always prioritized by PCPs.⁴
- We aim to evaluate the role of having a PCP and body mass index (BMI) on lipid profiles in metro Detroit's API population.

METHODS

- BMI, triglycerides (TG), total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C), and patient's access to a PCP was obtained during two health screenings led by WSUSOM APAMSA.

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HEALTH SCREENING PATIENT FORM

Name (姓名): _____ DOB (出生日期): _____
PCP (家庭医生): Y (有) / N (无) M (男) / F (女): _____
PCP Contact (家庭医生联系方式): _____ Screening Date: _____

	Patient Value 病人数值	Normal Ranges 正常范围
*BMI 量指数 身体质量指数	Wt: _____ Ht: _____ BMI: _____	Healthy: 18.5 - 22.9 Overweight: 23 - 26.9 Obese: ≥ 27
Blood Pressure (mmHg) 血压	/	< 120/80
Triglycerides (mg/dL) 三酸甘油酯		< 150
CHOLESTEROL Total (mg/dL) 胆固醇		< 200
HDL 高密度		Male (男性): > 40 Female (女性): > 50
LDL 低密度		< 100

- Abnormal values were defined as TG > 150 mg/dL, TC > 200 mg/dL, LDL-C > 100 mg/dL, and HDL-C < 40 mg/dL with dyslipidemia being one or more abnormal serum lipid value.⁵
- Patient data was sorted into PCP and no PCP groups.
- Correlation between BMI, lipid profile and presence of PCP was analyzed.

RESULTS

	Male (n=28)	Female (n=41)	P-value
No PCP (n)	8	18	--
Mean BMI (kg/m ²)	22.77±2.76	22.11±2.58	0.31
Mean TG (mg/dL)	115.93±61.91	160.29±100.96	0.042
Mean TC (mg/dL)	181.43±43.67	198.40±49.37	0.14
Mean HDL-C (mg/dL)	53.18±8.90	60.45±17.47	0.046
Mean LDL-C (mg/dL)	104.96±43.54	107.59±48.45	0.82

Table 1. Comparison of PCP status, BMI, triglycerides, total cholesterol, and lipoprotein levels in male and female patients.

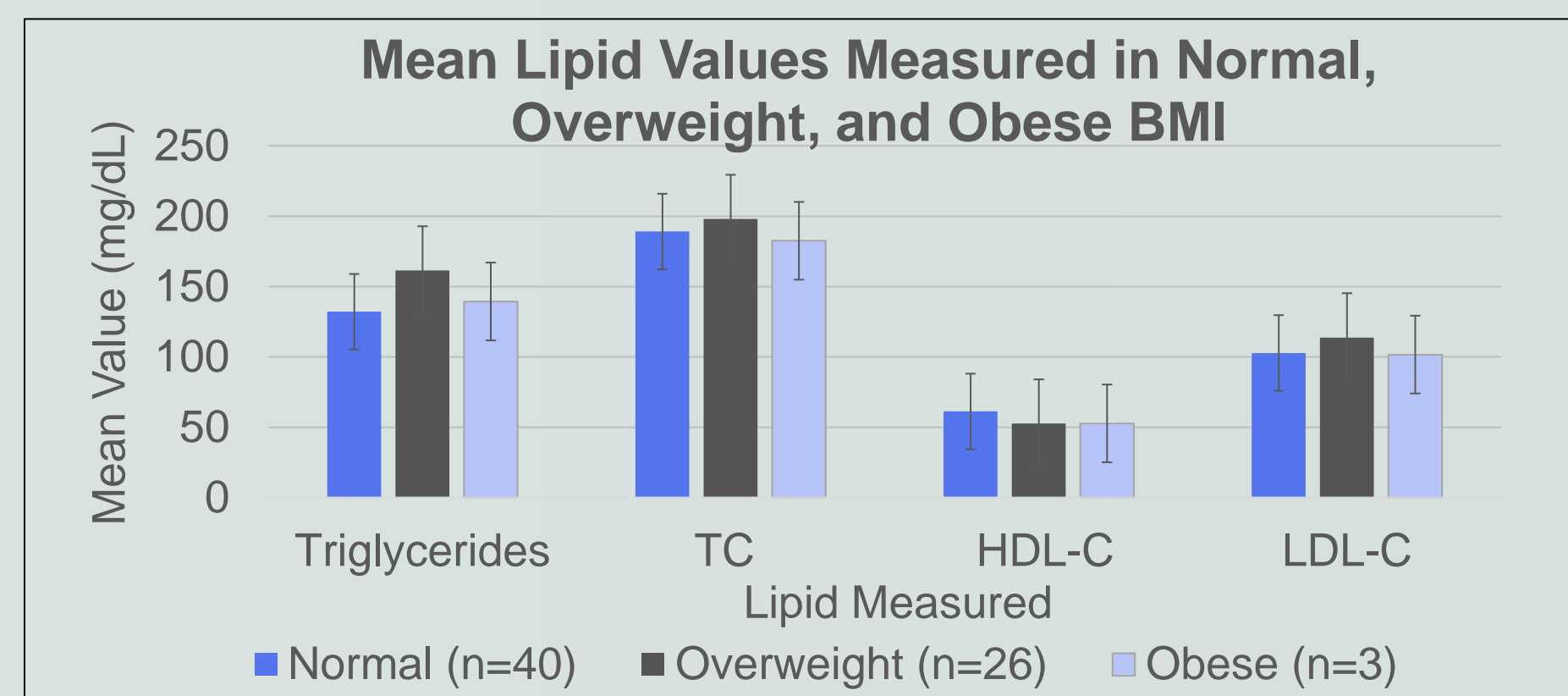
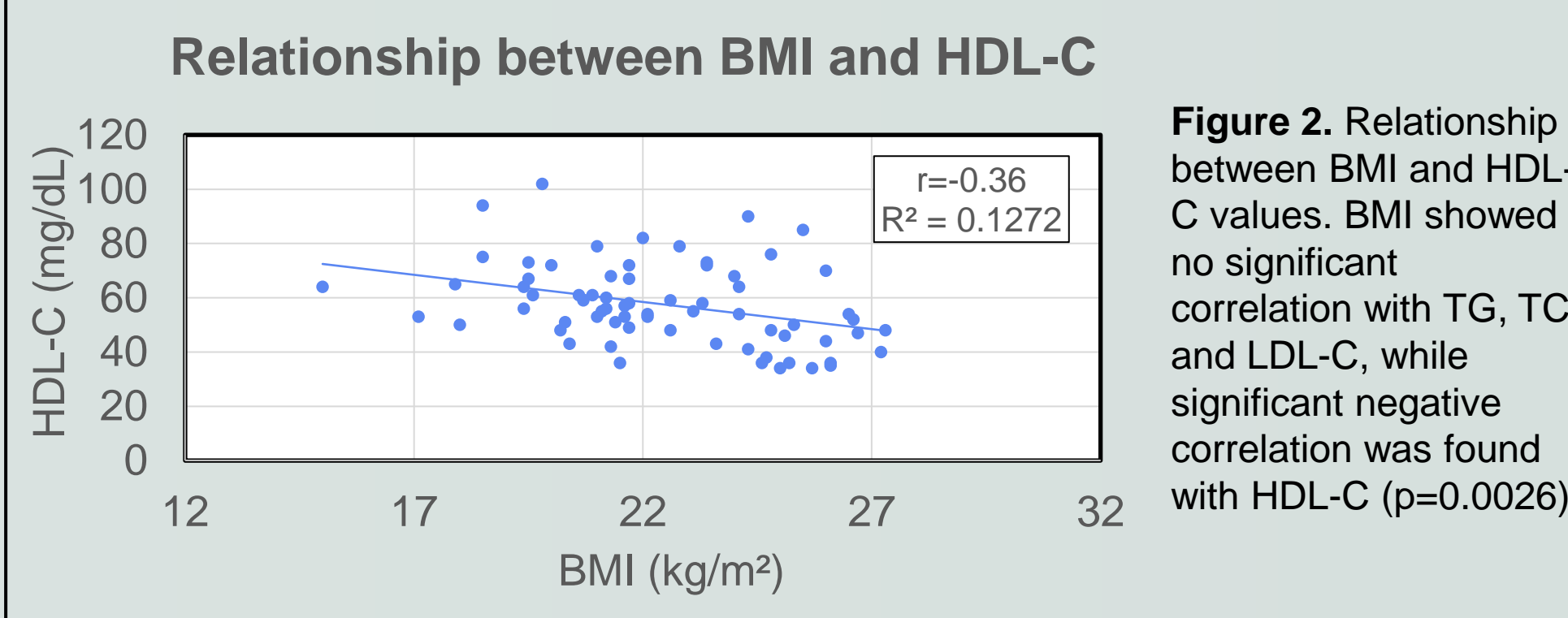


Figure 1. Mean Lipid Values Measured in Normal, Overweight, and Obese BMI. HDL was significantly lower in overweight compared to normal BMI (p=0.023).



	Percent abnormal value in PCP and no PCP groups			
	PCP (n=43)	no PCP (n=26)	Correlation	P-value
BMI (kg/m ²)	18 (41.9%)	11 (42.3%)	0.027	0.83
Triglycerides (mg/dL)	16 (37.2%)	8 (30.8%)	0.095	0.44
Total Cholesterol (mg/dL)	19 (44.20)	9 (34.6%)	0.16	0.18
HDL (mg/dL)	3 (9.30%)	5 (19.2%)	0.28	0.021
LDL (mg/dL)	21 (48.8%)	12 (52.2%)	0.10	0.39

Table 2. Percentage of abnormal values within PCP and no PCP groups.

CONCLUSIONS

- A significant negative correlation was observed between BMI and HDL-C, and HDL was significantly lower in overweight compared to normal BMI (Figure 1 and 2).
- No significant correlation between having a PCP and lipid profiles was found except for HDL-C (Table 2).
- Limitations include small sample size due to limited resources and individual variability in diet and other socioeconomic determinants of health.
- This study demonstrates the limited ability of BMI to assess for dyslipidemia as well as emphasizes the need to prioritize detection and management of dyslipidemia in patients both with or without a PCP.

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