① sufficiency holds but not separation.

P(A|C)

P(C = yes, A = male)	0.571
P (C=yes, A = female)	0.429
P (C = no, A = male)	0.571
P(C = no, A = female)	0.429

P(A|Y)

P(Y = yes, A = male)	0.5309
P(Y = yes, A = female)	0.4691
P(Y = no, A = male)	0.5309
P(Y = no, A = female)	0.4691

Central Obesity
Y

Hyperlipidemia
C

gender
A

sufficiency holds
P(A|C)= P(A|YC)

separation not hold
P(A|Y) ≠ P(A|YC)

P(A|YC)

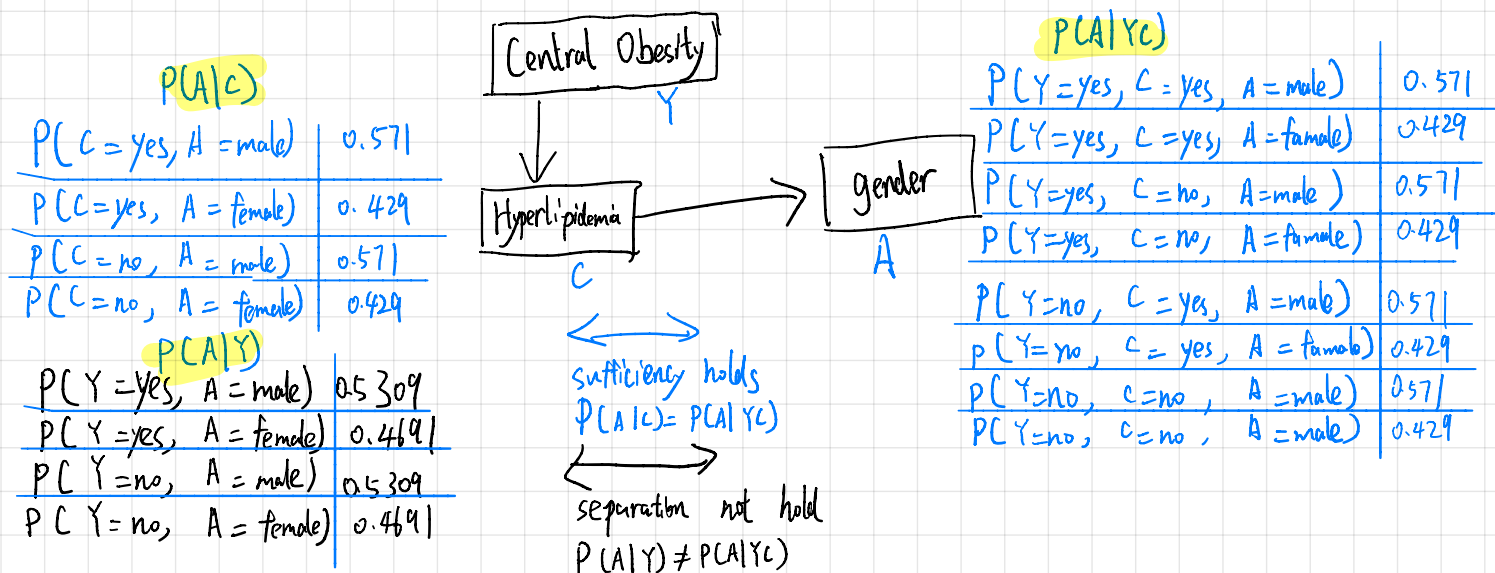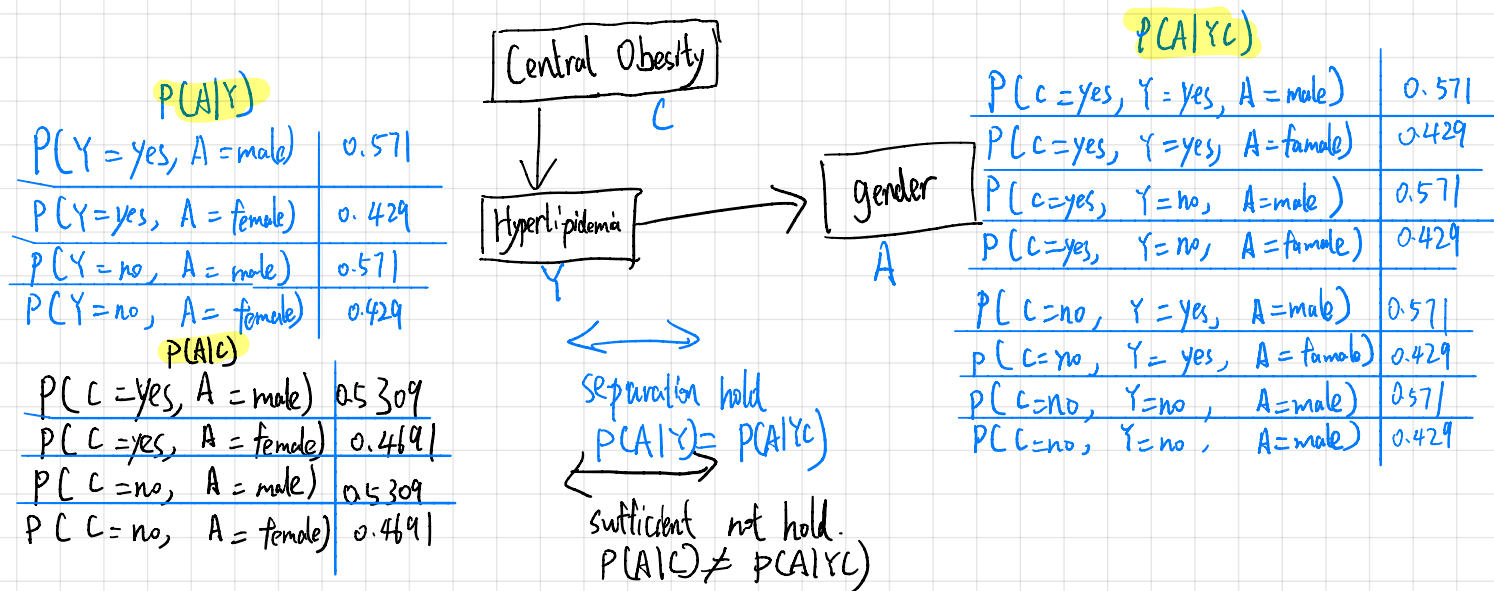|	
P(Y=yes, C = yes, A = male)	0.571
P(Y=yes, C =yes, A =female)	0.429
P(Y=yes, C = no, A = male)	0.571
P(Y=yes, C = no, A =female)	0.429
P(Y=no, C = yes, A =male)	0.571
P(Y=no, C = yes, A = female)	0.429
P(Y=no, C=no, A =male)	0.571
P(Y=no, C=no, A =male)	0.429

Gender is independent of C.O. given Hyperlipidemia
But gender is not independent of Hyperlipidemia
given Central Obesity.

② Separation holds but sufficiency not hold.

P(A|Y)

P(Y = yes, A =male)	0.571
P(Y=yes, A = female)	0.429
P(Y=no, A = male)	0.571
P(Y=no, A = female)	0.429

P(A|C)

P(C =yes, A = male)	0.5309
P(C =yes, A = female)	0.4691
P(C = no, A = male)	0.5309
P(C= no, A = female)	0.4691

Central Obesity
C

Hyperlipidemia
Y

gender
A

separation hold
P(A|Y)= P(A|YC)

sufficient not hold.
P(A|C) ≠ P(A|YC)

P(A|YC)

P(c =yes, Y = yes, A = male)	0.571
P(c=yes, Y =yes, A =female)	0.429
P(c=yes, Y = no, A =male)	0.571
P(c=yes, Y = no, A =female)	0.429
P(c=no, Y = yes, A =male)	0.571
P(c=no, Y= yes, A = female)	0.429
P(c=no, Y=no, A =male)	0.571
P(c=no, Y=no, A =male)	0.429

Gender is independent of C.O. given Hyperlipidemia
But gender is not independent of Hyperlipidemia
given Central Obesity.