

#AHA23



Department of
Health Sciences

UNIVERSITY OF CENTRAL FLORIDA

CARDIOMETABOLIC HEALTH DISPARITIES IN SEXUAL MINORITY MEN

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AIM

To summarize 3 meta-analyses conducted on the cardiometabolic status (hypertension, dyslipidemias, and obesity) of sexual minority men, using heterosexual men as the reference group.

METHODS

Systematic Literature Review of 4 databases plus manual search of references.

PROSPERO Registration CRD42017070691 & CRD42020213163

IRB Pro00031581 (USF) and STUDY00002927 (UCF)

Three population categories are assumed to be mostly concordant and were identified by behavior, attraction, identity, or a combination of these:

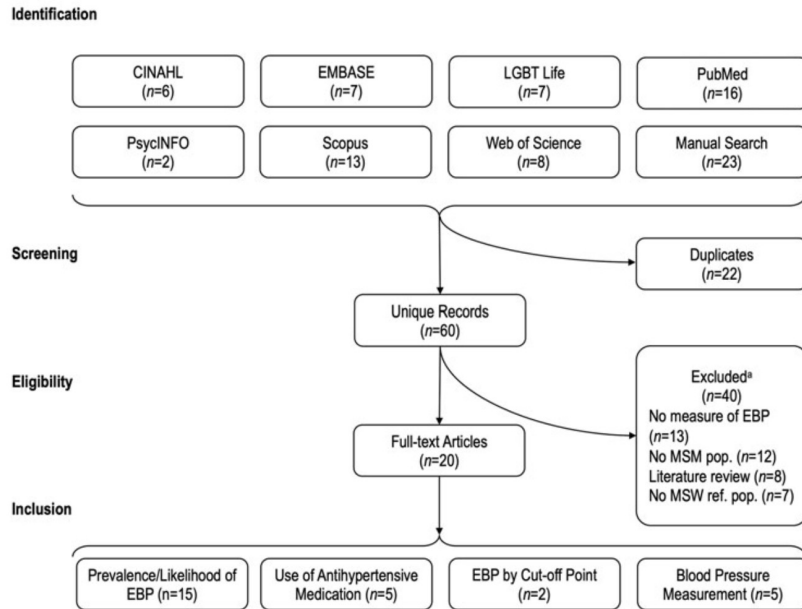
- Sexual minority men
- Men who have sex with men (MSM)
- Men who have sex with men and women (MSMW)

Indicators of prevalence or population means of three conditions were grouped and meta-analyzed:

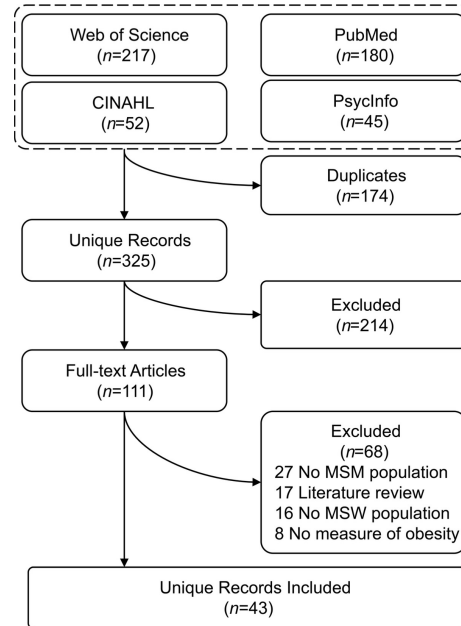
- Hypertension
- Obesity
- Dyslipidemias

PRISMA DIAGRAMS

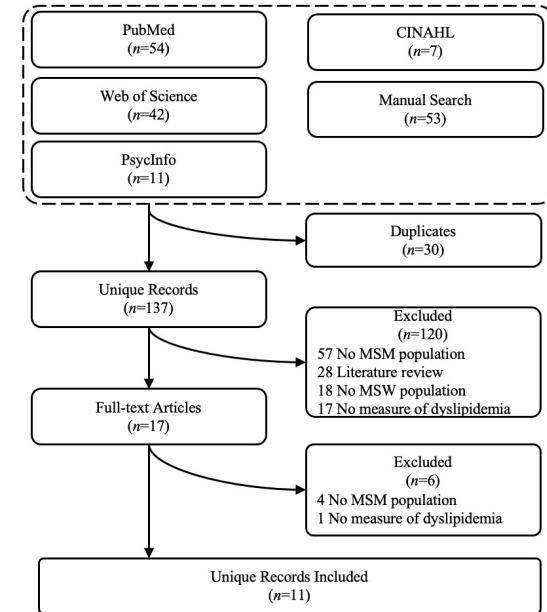
Hypertension (*n*=20)



Obesity (*n*=43)



Dyslipidemia (*n*=11)



HYPERTENSION

Key Findings

History of hypertension

MSM were significantly less likely to report (OR 0.34 [0.16, 0.70])

MSMW were significantly more likely to report (OR 2.25 [1.54, 3.28])

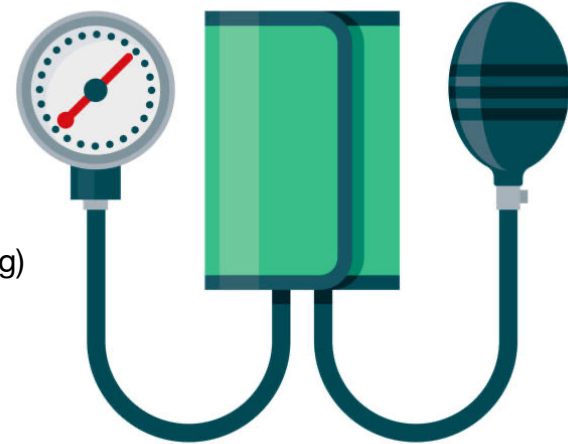
Antihypertensive drug use

MSMW were significantly more likely to report (OR 1.44 [95% CI 1.11, 1.85])

Diastolic blood pressure

All sexual minority men had significantly higher DBP (MD 1.46 [1.38, 1.55] mmHg)

¿Clinical relevance?



OBESITY

Key Findings

Overweight, obesity, and elevated BMI (combined overweight and obesity)

Consistently lower prevalence for all sexual minority men categories

Mean BMI

Significantly lower for all sexual minority men categories (MD -1.50 [-1.93 , -1.08]
kg/m²)

Likelihood of overweight or obesity

Decreased overall likelihood of overweight (OR 0.75 [0.64, 0.88])

Decreased overall likelihood of obesity (OR 0.84 [0.78, 0.90])

No measures of abdominal perimeter reported

¿What is driving lower obesity/overweight?



DYSLIPIDEMIAS

Prevalence of elevated cholesterol (≥ 240 mg/mL)

Significantly lower for SMM (45.21%; $\chi^2[1]=54.78$; $P<0.001$)

Does not hold with inverse variance analyses (OR 1.04 [0.91, 1.18]).

Use of cholesterol-lowering drugs

Significantly more likely among MSMW—but not among MSM
(OR 1.47 [95% CI 1.11, 1.93])

Mean total cholesterol levels

Significantly lower among MSMW—but not among MSM
(MD -6.80 [95% CI -7.27 , -6.34] mg/dL)

Mean triglyceride levels

Significantly lower among MSM—but not MSMW
(MD -25.67 [95% CI -39.80 , -11.55] mg/dL)

No measures of HDL/LDL cholesterol



FUTURE DIRECTIONS

Integrate social determinants of health and minority stress frameworks for intentional data collection and interpretation

cf. [Caceres et al., 2021](#); [López Castillo & Martínez, 2022](#).

Body image dissatisfaction and stigma must also be accounted for

cf. [Meneguzzo et al., 2021](#)

The role of GLP-1 receptor agonists indicated for weight loss

CONCLUSIONS

(MORE LIKE FOOD FOR THOUGHT)

SMM present more frequently with a history of hypertension, linked to elevated DBP—a marker of hypertension at earlier ages.

MSMW men are prescribed cholesterol-lowering medication and present with lower cholesterol levels

MSM present with lower triglyceride levels. Lower rates/likelihood of overweight, obesity, and elevated BMI may point to the obesity paradox—a sustained catabolic state presenting with lower BMI but poor cardiovascular outcomes—which, in connection to other stressors, warrants further research on cardiovascular disparities.

THANK YOU

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American
Heart
Association.



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