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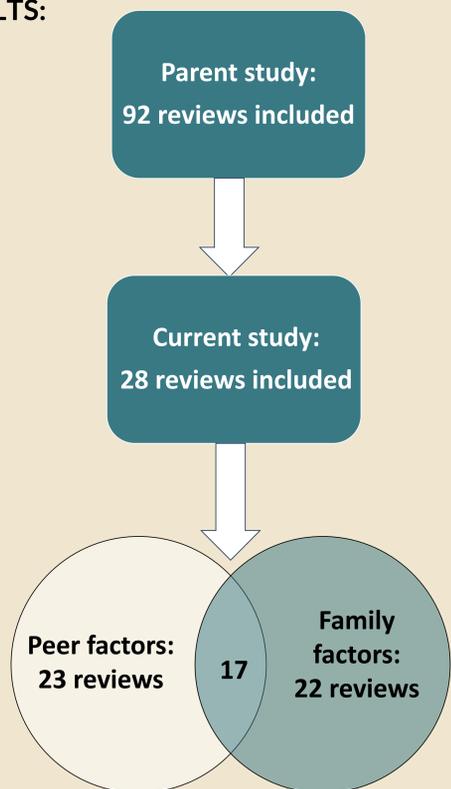
Association of social networks with youth and young adult smoking: A systematic overview of reviews to inform an agent-based model

BACKGROUND: This study synthesizes the state of the research on the relationship between peer & family social network characteristics and adolescent & young adult (YA) smoking.

METHODS:

- **Parent study** inclusion criteria:
 - Systematic/scoping reviews
 - Examine factors associated with adolescent/YA smoking behavior
 - Published 2000 through January 2025
- **Current study:** ONLY reviews that examine social network factors

RESULTS:



Pre-registered protocol:



PRISMA diagram:



1. Adolescents with peers -- especially close friends -- who smoke are more likely to smoke. But which came first – the smoking or the peers?

Of eleven reviews that examine peer smoking behavior associations among adolescents, nine find consistent positive associations between peer smoking and adolescent smoking.
 BUT the only two reviews that explore selection versus socialization have mixed findings.

2. Family smoking is a key factor associated with adolescent & YA smoking – but parenting style and practices matter, too.

Parenting factor	Association direction*	# of reviews**
Controlling parenting style	↑	1 / 1
Permissive parenting style	↑	1 / 1
Authoritative parenting	↓	2 / 2
Communication re: tobacco use	↓	5 / 5
Rules/norms re tobacco use	↓	2 / 2
Monitoring/supervision	↓	2 / 3

*Direction of association between parenting factor and youth/young adult smoking
 **Number of reviews examining parenting factor / number of reviews finding indicated association direction

Peer Networks

Key finding	Reviews supporting finding
Peer smoking (actual or perceived) is consistently and positively associated with smoking behavior.	Adolescents only: 9 of 11 reviews (82%) Adolescents + YA: 16 of 20 reviews (80%)
Closeness of relationships has a much larger impact than peer smoking in general.	Adolescents only: 3 of 3 reviews (100%) Adolescents + YA: 6 of 6 reviews (100%)

Family Networks

Family member behavior	Reviews with positive association: Adolescents	Reviews with positive association: YA
Parent smoking	6 of 6 (100%)	10 of 10 (100%)
Sibling smoking	2 of 2 (100%)	3 of 3 (100%)
Any family member smoking	4 of 4 (100%)	6 of 7 (86%)

Risk of Bias

Quality per AMSTAR 2 critical domains	Number of reviews
Lower quality	14
Higher quality	14



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