

Systematic Literature Review of the Association Between School Climate and Adolescent Sexual and Reproductive Health



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Adolescent Sexual Health in the US

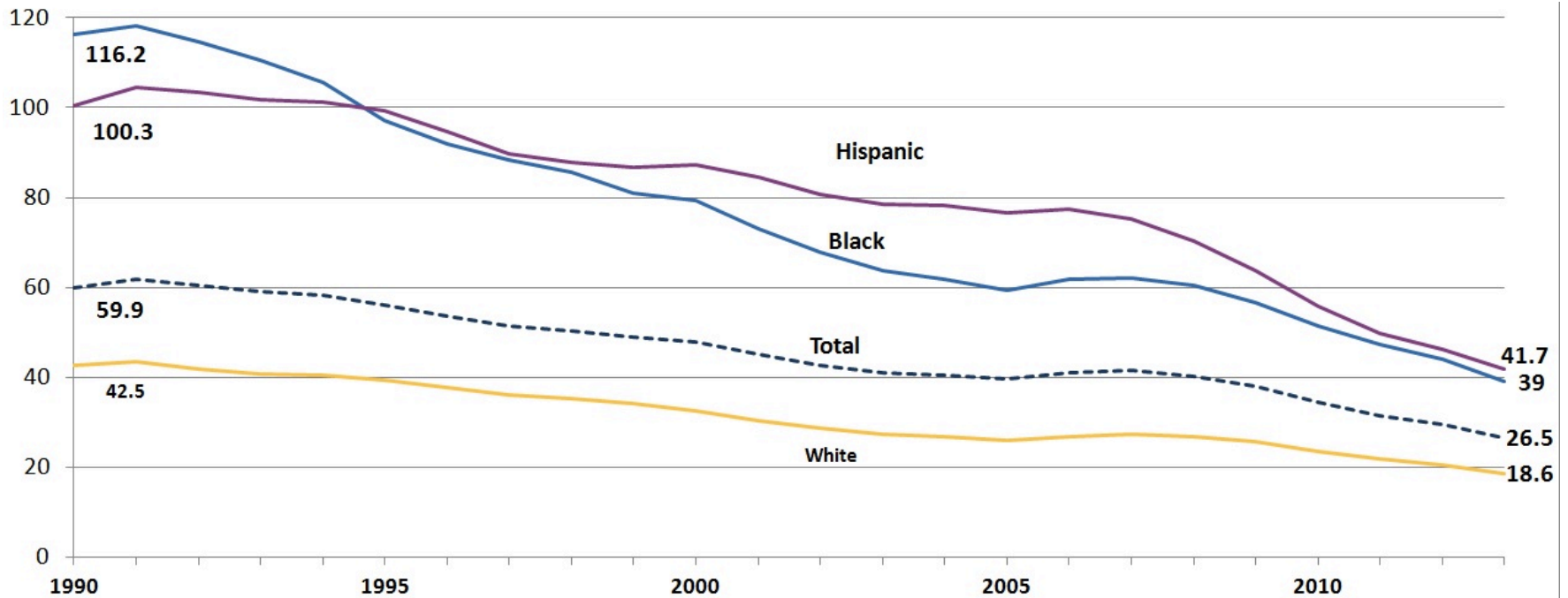
- High incidence of STIs in adolescents: 50% of new cases in 2000 for 25% of sexually active population¹
- High rates of teen birth: 26.5 births per 1,000 15-19 year old women in 2013²
 - Compared to 17.7 avg. for high income countries³



Disparities in US Adolescent Fertility Rates



Births per 1,000 women 15-19



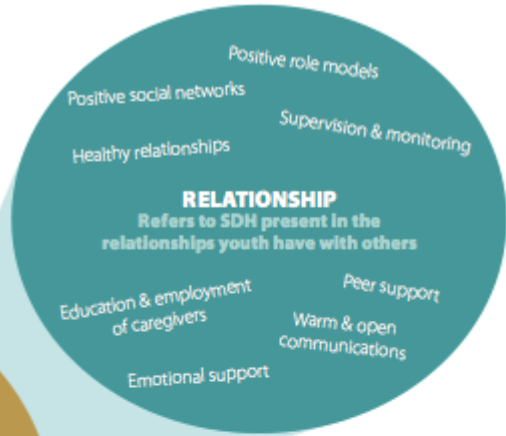
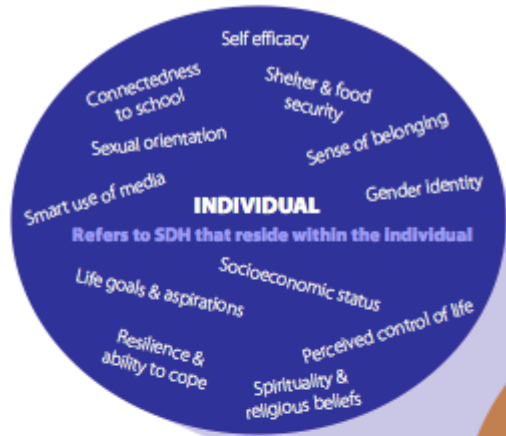
Data Source: Martin, J.A., Hamilton, B.E., & Ventura, S. J. (2015). Births: Final Data for 2013. Hyattsville, MD: National Center for Health Statistics.²

Social-Ecological Model



Social-Ecological Health Promotion Model

The Social-Ecological Health Promotion (SEHP) model illustrates the interrelated spheres—individual, relationship, community, and societal—as well as the social determinants of health (SDH), within those spheres, that influence individual behavior and health outcomes.



Healthy Teen Network

Schools and Health



- CDC's Division of Adolescent and School Health:

“In the United States, schools have direct contact with more than 50 million students for at least 6 hours a day during 13 key years of their social, physical, and intellectual development.”⁶

School Climate Terminology



- National School Climate Council's definition:

“Patterns of school life experiences and reflects norms, goals, values, interpersonal relationships, teaching, learning and leadership practices, and organizational structures.”⁶

- School... attachment, connection, connectedness, bonding, engagement, belonging, involvement, satisfaction
- Peer norms, peer support
- Teacher support, teacher fairness

Current Research on School Climate



- Academic achievement
 - Mental health
 - Violence
-
- **Goal of systematic literature review:**
 - Characterize the current state of the literature on school climate and ASRH
 - Discuss implications for school-based health programs



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Search Strategy



- Databases: ERIC, Scopus, Pubmed
- Searched title and abstract for terms related to...
 - Sexual and reproductive health (i.e. sex, pregnancy, STIs, contraceptive use, etc.)
 - School climate (i.e. connectedness, environment, engagement, etc.)
- Identified 326 articles

Inclusion Criteria

- Published 1995-2014
- US population of adolescents 6th-12th grade
- Measurement of school climate
- Measurement of sexual or reproductive health outcome
- Original research

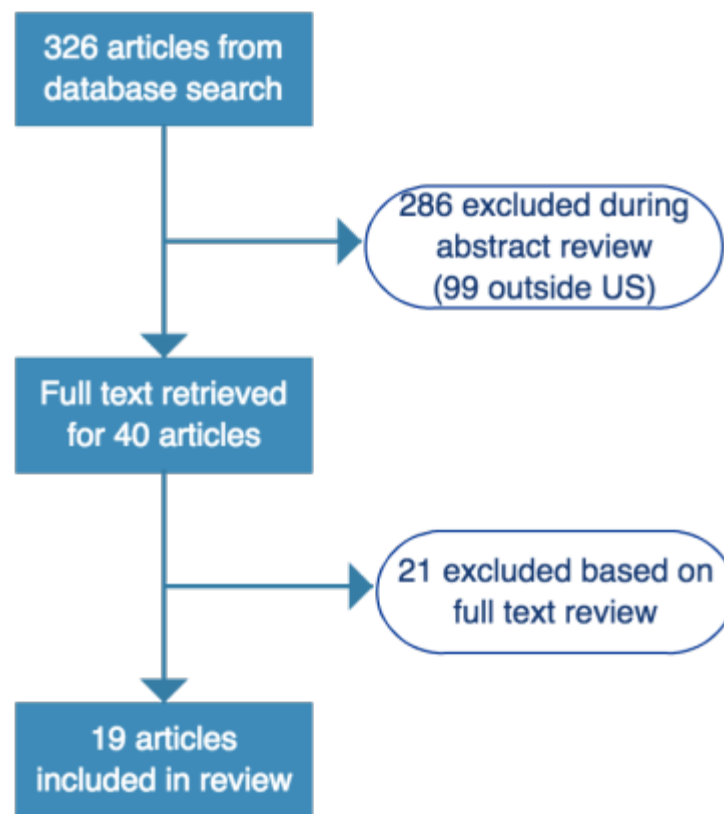




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Summary of Included Articles



- Study type:

1

Group randomized
intervention

5

Cross-Sectional

13

Longitudinal

- 10 from Add Health Study, a nationally representative prospective cohort study on adolescents 7th-12th grade started in 1994-1995 school year
- Sample size ranged: 845 to 14,800 participants

Measuring School Climate Example



- You feel close to people at your school.
- You feel like you are part of your school.
- You are happy to be at your school.
- The teachers at your school treat students fairly.
- You feel safe at your school.
- How much do you feel that your teachers care about you?
 - 5-point Likert scale
 - Add Health 1995, Resnick et al.⁷

Measuring School Norms Example



- Most of my friends believe people my age should wait until they are older before they have sex.
- Most of my friends believe it's OK for people my have to have sex with several different people in the same month.
- Most of my friends believe condoms should always be used if a person my age has sex.
 - 5-point Likert scale
 - Example from Basen-Enquist et al. 1999⁸ & 2001⁹

Measuring School Structure Example



- SES (proxy measure: proportion of students receiving free lunch)
 - Proportion of single mother families
 - Proportion of minority students
 - School type: Catholic, Independent, Public
- Manlove et al., 1998¹⁰



**Is positive school climate
associated with better health?**

Yes!
**18 of the 19 articles found a protective
association**

Table 2. Distribution of ASRH outcomes across articles and type of association found with school climate.

ASRH Outcome:	Ever had Sexual Intercourse	Contraceptive Use	Early/Age of Initiation	Ever Pregnant	Ever Diagnosed with STI	Sex under the influence
Proportion	8/9	3/5	2/4	3/4	1/3	2/2
Aspy et al. ¹¹	Green					
Basen-Engquist et al. ⁹		Green				
Epstein et al. ¹²			Orange		Orange	
Harris et al. ¹³			Green			
Kaestle ¹⁴						
L'Engle & Jackson ¹⁵	Green					
Manlove ¹⁰				Green		
McBride et al. ¹⁶						
McNeely & Falci ¹⁷	Green					
Mollborn et al. ¹⁸	Green	Green				
Oman et al. ¹⁹	Green	Orange				
Perkins & Jones ²⁰	Green					
Ream ²¹	Green					
Resnick et al. ⁷			Green	Orange		
Rink et al. ²²	Green	Orange				
Shneyderman & Schwartz ²³	Orange	Orange	Orange		Orange	Green
Steiner et al. ²⁴					Green	
Thrane & Chen ²⁵				Green		
Wong et al. ²⁶		Green		Green		Green



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Implications for School-Based Programs



- School climate is associated with ASRH and should be considered in health programs
- Intervening at different levels of adolescents' environment including the school context is important

Implications for Research



- Improve consistency of terminology and measurements
- Randomized intervention design to explore causal associations
- Disentangle the relationships between the different aspects of school climate and ASRH

Limitations



- Variation in terminology
- 10 articles from a single longitudinal study
- Did not assess quality or size of impact
- Excluded non-US populations

Conclusions



- This analysis provides evidence that school climate is important and deserves more attention in ASRH research and interventions.

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Questions?

