



## Developmental Neuroscience and Adolescent Sexual Health: Social Status and Autonomy

Autonomy and social status are key developmental goals during adolescence. As young people develop they become increasingly able to express their own values, goals and interests. While continuing to need caregiver support, adolescents are forming an identity distinct from their family and experience an increased need to fit in and participate in new social groups outside the home. Promising research from the field of developmental neuroscience provides new insights and opportunities for educators, applied researchers and program developers to leverage adolescents' desire for social status and autonomy to improve adolescent sexual health and relationships.

### WHAT THE DEVELOPMENTAL NEUROSCIENCE SAYS

In adolescence, developmental changes lead to a heightened desire for social status and autonomy.

**Social status** refers to how a person ranks among others in their social world and is often determined by feelings of respect, admiration, or belonging. The increased desire for social status, beginning with the onset of puberty, is partly driven by the increase in testosterone (for all genders). Adolescents are highly motivated to explore behaviors that increase social acceptance and recognition from both peers and adults. As they navigate new social contexts, young people develop various identities and social skills that can help them thrive in adulthood. Different social groups—including both peers and adults—hold unique values. For example, one social group may value the number of books one has read, whereas another social group may value athletic ability. Adolescents may engage in health-harming behaviors to gain social status, even when they know there might be negative consequences.

**Autonomy** contributes to feelings of respect and status in adolescence. Autonomy refers to being able to think, feel, and make moral decisions independently. Healthy development requires that adolescents are given opportunities for discovery and personal choice to feel in control of their decisions and motivations. Beginning in early adolescence, young people become increasingly sensitive to perceived threats to their autonomy. For example, in a study on adolescent autonomy and health eating, when adolescents watched videos of their mothers telling them how they “should” behave differently (e.g., by cleaning their room or being nice to their sibling), brain regions associated with threat processing were activated, rather than regions associated with behavior modification (see Bryan et al, 2016). For some adolescents, threats to their autonomy may result in youth engaging in undesired behaviors to reassert their autonomy.

### HARNESSING DESIRE FOR SOCIAL STATUS AND AUTONOMY TO IMPROVE ADOLESCENT SEXUAL HEALTH

Sexual health interventions are less likely to be effective with adolescents if they do not honor young people's developmental need for social status and autonomy. While current intervention strategies in sexual health do not often focus on these developmental traits, we can look to other fields for approaches that capture adolescent attention and motivation by harnessing their desire for social status and autonomy. For example, a healthy eating intervention (by Bryan et al, 2016) started with the assumption that healthy eating was considered a low status behavior among adolescents where **“healthy eaters are lame nerds who do what their parents tell them.”** The intervention aimed to create greater social status appeal by creating a new

impression that **“healthy eaters are independent-minded people who make the world a better place.”** To elevate healthier eating to be more high-status, the intervention shared food industry practices that disrespected young people, such as making junk food more addictive to children and using tobacco-style marketing. Viewed from this perspective, youth could exercise autonomy and gain status by taking a stand against the unfair practices of adult authorities. Following this intervention, youth adopted healthier food choices.

Typical behavior change strategies, such as learning about the pros and cons of nutrition or how to effectively say “no” to unhealthy food choices, were not a part of this healthy eating intervention. Sharing accurate information and building refusal skills are necessary strategies frequently used in adolescent sexual health programs; however, they may be improved upon with strategies that promote autonomy and recognize the influence of status-seeking. Sexual health interventions could make safer sexual behaviors more high-status by challenging dominant adult-held stereotypes of adolescents (e.g., adolescents are too young or too immature to know what real love is), or policies that prohibit access to sexual health care or contraception.

We can make interventions stronger by paying attention to **what** activities we use and **how** we frame key messages. Strategies that convey a tone of respect, offer choice, and encourage adolescents to discover the meaning of health messages and behaviors for their own lives are more in line with adolescent values and motivations than interventions that tell youth what to think and believe. Sexual health programs must strike a critical balance between ensuring adolescents have sufficient information to make informed choices as well as providing opportunities for increasing autonomy and independence as learning progresses.

Given these findings, three key questions emerge as areas for exploration in the sexual health field:

### KEY QUESTIONS

- Q:** How can we best harness adolescents' desire for social status and autonomy in the context of sexual and reproductive health?
- Q:** How do we increase the social value of positive relationships and health-promoting sexual behaviors?
- Q:** How can we support adolescents to be autonomous and make autonomous decisions in the context of their sexual health?

## WHAT THE SEXUAL HEALTH FIELD CAN DO

### Educators and Youth Workers

- Honor adolescents' developmental needs by creating an educational environment that supports youth autonomy and models/encourages healthy social interactions.
- Support and respect adolescents' developmental need and ability to make informed choices about their sexual health decisions.
- Convey respect when teaching sex education and/or relationship education to young people by inviting and encouraging conversations instead of telling adolescents what to do. Use language like "consider" instead of "you should."
- Encourage discovery learning. Rather than telling youth what to do or not to do, provide young people with information and opportunities to discover the meaning for their own lives.
- Involve parents/caregivers in learning about autonomy and social status and provide tools that enhance parenting practices to reflect the importance of these processes in their children's development.
- Create graduated learning environments. Provide more support as adolescents learn new information and skills and then offer increasing independence as they demonstrate mastery of these skills.

### Applied Researchers and Program Developers

- Explore intervention strategies that harness adolescents' desire for social status and autonomy by making adolescents more aware of how systems or industries have manipulated them, and then direct those values and feelings towards positive change.



- Elevate what is socially valued within peer groups to include the importance of healthy romantic relationships (e.g., mutual respect, support, trust, companionship) by listening to young people and learning from them what they value.
- Provide graduated learning experiences that provide opportunities for young people to learn from success as well as failures in order to build skills leading to increasing autonomy. Provide youth with full and accurate information to make informed choices and the freedom or agency to make that choice (while adults remain available for support).
- Leverage influential peers to share positive messages about sexual health, such as using in-class peer leaders to model and facilitate key activities. Consider who is respected among adolescents, being careful not to assume the same peers are valued equally among all young people.
- Include evaluation measures that ask young people to report on the level of autonomy and respect provided in interventions.

## DEFINITIONS

**Social-affective processes:** brain functions that influence adolescents' capacity to experience emotions and empathy and navigate social situations, including acceptance and rejection

**Social status:** how one ranks among others in their social hierarchy, often determined by whether one is treated with respect or admiration

**Autonomy:** the ability to think, feel, and make moral decisions on one's own.

## READING LIST

Bryan, C. J., Yeager, D. S., Hinojosa, C. P., Chabot, A., Bergen, H., Kawamura, M., & Steubing, F. (2016). Harnessing adolescent values to motivate healthier eating. *Proceedings of the National Academy of Sciences*, 113(39), 10830-10835. DOI: 10.1073/pnas.1604586113

Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience*, 13(9), 636-650. DOI: 10.1038/nrn3313

Peterson, A., Coyle, K. K., Guinosso, S., Christopher, D. E., & Charles, V. E. (2016). *Sex and the teen brain: disrupting what we think we know*. Scotts Valley, CA: ETR Associates. [www.etr.org/kirby-summit](http://www.etr.org/kirby-summit)

Suleiman, A. B., & Brindis, C. D. (2014). Adolescent school-based sex education: using developmental neuroscience to guide new directions for policy and practice. *Sexuality Research and Social Policy*, 11(2), 137-152. DOI: 10.1007/s13178-014-0147-8

Yeager, D. S., Dahl, R. E., & Dweck, C. S. (2018). Why interventions to influence adolescent behavior often fail but could succeed. *Perspectives on Psychological Science*, 13(1), 101-122. DOI: 10.1177/1745691617722620

## KIRBY SUMMIT

To honor ETR scientist Dr. Douglas B. Kirby for his lifetime contributions to the field, ETR and its partners created an invited summit—known as the Kirby Summit—to foster collective dialogue on current research, promising interventions, and the role of policy to promote the sexual and reproductive health of young people. The 2017 Kirby Summit brought together a transdisciplinary group of experts to explore how findings from developmental neuroscience can translate into adolescent health programs and policies.