ALVERNO COLLEGE RESEARCH CENTER FOR WOMEN AND GIRLS

Adolescent Girls' College Aspirations

Precollege Expectations and Goal Setting of Adolescent Girls and Women

Author: Sandra E. Graham, Ph.D



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Abstract

In the 2007 and 2010 *Status of Girls in Wisconsin* reports, published by the Alverno College Research Center for Women and Girls, it was found that while girls aspire to go to college, there may be some threats to their ability to attain or complete those aspirations. This was true especially for those aspiring to nontraditional majors such as the sciences, engineering, or mathematics. This paper addresses the more general issue of adolescent girls' aspirations and the individual and ecological influences on as well as barriers to those aspirations. The importance of developing relationships with teachers and school counselors and of supplemental programming for girls is addressed.

Introduction

She stares out the window and wonders. She wonders what she will do after school today. She wonders why her teacher thinks math is so important. She wonders if she could be a famous scientist. She daydreams of designing a famous experiment. She is called to attention by the teacher at the front of the room. She is ten years old.

She stares around the room and she wonders. She wonders what the other girls think of her really. She wonders what the boys think of her. She wonders why her teacher always calls on the kids who want to talk all of the time and why she is so seldom asked for her opinion. She wonders if it is because she isn't smart. She wonders if it is because of how she looks. She is thirteen.

She stares down at the test and she wonders. She wonders why the choices of answers don't seem to match what she knows about this subject. She wonders why she just can't explain what she knows or why she just can't show someone else how the formulas are supposed to work in real life. She wonders how much time she has to finish. She wonders if she'll be good enough to go to college. She is sixteen.

She stares at the college application in her hand. She wonders how to best write about who she is. She wonders if her ACT scores were high enough; if any of her AP scores will be accepted. She wonders if she can really afford college because she knows her parents can't. She wonders if she will get the scholarships she applied for. She wonders if she will be more needed at home. She is seventeen and a half.

The aspirations of adolescent girls for attending college are complex. Studies that examine girls' aspirations for college, women's attendance at college, and women's completion of college are often intertwined in a web of relationships, parental expectations, career goals, academic achievement, racial and gender barriers, and financial burden. While it is not the purpose of this paper to be exhaustive in the exploration of a woman's movement from precollege to career, this paper touches on issues that might best be considered when exploring the role of adolescent decision making about college entrance and college major.

Some considerations included in this paper involve the ways that an adolescent girl's parental, school, and neighborhood context play important roles in her decision-making processes. These ecological issues, as well as the ways in which the adolescent views her own ability to be successful in college, are important considerations of her future thinking about college. Her ability to be academically successful in high school and in college and to negotiate a world of tests, expectations, and advice also has a critical impact (Cho, Hudley, Lee, Barry, & Kelly, 2008; Hubbard, 1999; Tang, Pan, & Newmeyer, 2008; Stewart, Stewart, & Simons, 2007).

The Role of Experience and Context

From the 1960 and 70s, when Urie Bronfenbrenner first noted the importance of ecological models in studying student progress (1977), to this day, when in looking at postsecondary aspirations it becomes clear that gender, social class, race, geographic location, and family history all intersect, one vividly recognizes that high school students' lives consist of a rich tapestry woven of multiple experiences and contexts. To talk about an adolescent woman's experience with education and to understand the aspirations that she holds is to explore many adolescent girls and women across cultures, races, and family backgrounds and to find the themes that give expression to the commonalities of their experiences, while at the same time exploring the ways that their different pathways present them with different needs, opportunities, and visions.

One example of the importance of ecological considerations can be found in a study conducted by Stewart et al. (2007). The authors, concerned that much of the work done in the field of student aspiration had focused far too much on individual characteristics of aspiring students, set out to look at how neighborhoods influence the college aspirations of African American adolescents. What they found was that students who lived in economically disadvantaged neighborhoods ended up with lower aspirations for higher education. In some ways this sounds like common sense; if you don't have the resources to go to school, why would you aspire to go? However, these authors found that neighborhoods (regardless of income) with a strong sense of cohesion created a protective factor and that highly cohesive neighborhoods actually produced students who had higher educational goals. They studied multiple variables that contribute to students' higher aspirations and found the following: "Consistent with prior research, parental education, parental monitoring of school and homework, class failure, academic ability, school commitment, school attachment, teacher attachment, positive peer networks, and school suspension were all significant predictors of college aspirations" (p. 913). What's important about this study is that it points to the power that creating positive neighborhood networks among parents, schools, and after-school and communitybased programs holds for increasing positive

Using a similar ecological approach, Demi, Coleman-Jensen, and Snyder (2010) found that in rural contexts, high schools become an important factor in determining adolescent aspirations for future education. The school context was also one of the strongest predictors for students actually enrolling in college. As they examined student surveys, it appeared that rural schools were especially effective in building self-efficacy, or the student's belief that she could be successful in college. They also found that rural schools were often important agents of inspiration for ongoing education and learning. In a related study, Seaton (2007) found that making a connection with a teacher was particularly important for middle school and high school girls. This author posits that while these relationships were important for the girls, there is often limited access to adult role models that can help and encourage them as they work to find a way to place themselves in the world. Seaton explains that teachers may well be the best adult relationship a rural girl has in terms of instilling aspirations and life goals.

The Role of Social Cognition

The term *social cognition* refers to a broad theory that addresses an individual's thoughts and self-perceived abilities (also referred to as "cognitive events") related to their social contexts. The field of social cognition is concerned with a person's self-efficacy, their expectations for outcomes, their interests and goals, and their own perceived control over these factors (Bandura, 1994, 2001; Zimmerman & Cleary, 2006; Garriott & Flores, 2013). The reason self-efficacy, or goal selection, is so important in looking at adolescent women's aspirations for college is that when people hold a higher sense of agency, or control over their ability to engage in a task or process, they are more likely to pursue that task or process (Bandura, 2001).

Researchers interested in educational and career aspirations often use a relatively recent offspring of social cognitive theory called "social cognitive career theory." This theory, developed by Brown and Lent (1996), considers people's outcome expectations for entering a career, their self-efficacy (in being successful in that career), and their perceived barriers (e.g., racial, gender) to engaging fully in that career. Social cognitive career theory (SCCT) is a useful tool in gauging the aspirations and expectations of adolescent girls as they think about and pursue higher education. A study by Tang et al. (2008) provides a helpful way to see a theoretical career pathway that adolescents might take when making choices about further educational and career choices. Their conceptual model, which they adapted from the Brown and Lent SCCT model, looks like this: moves through whatever is blocking her way (Parker, Schoon, Tsai, Gabriel, Trautwein, & Eccles, 2012).

One such barrier is the perception that a career may be "inappropriate" for an adolescent woman's gender. How she moves through the voices around her and within her that speak to whether she can or *should* take on a field that has traditionally been seen as male likely has much to do with her own self-efficacy and with those around her who



(Tang et al., p. 287)

These authors studied the interactive relationship among adolescents' expectations, interests, and efficacy regarding career choice. Specifically, they studied freshmen and sophomores in a Midwest suburban high school. They found some gender differences in how adolescents approached career decisions. For both genders, career self-efficacy played an important role. Adolescent women demonstrated more interest and higher self-efficacy for occupations that involved people and ideas as well as for areas in which they could help people. They also found self-efficacy to be an important factor for females who were contemplating a career trajectory that was seen as "nontraditional for their gender" (p. 293).

Given that perceived barriers to success are part of the social cognitive dimension of adolescent women's aspirations for college, it is important to address them here. Sometimes barriers are perceived because an individual has a lower self-efficacy for a task or process. However, often enough the barriers to higher education access are very real. How an adolescent girl views these barriers, how her parents view them, how her school and neighborhood view them can have a life-changing effect on how she confronts and

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encourage her to go in the direction of such an aspiration. Raffaele Mendez and Crawford (2002) addressed the issue of gender-role stereotyping as related to career aspirations. They surveyed gifted girls and boys in early adolescence. What they found was that the girls demonstrated great genderflexibility in their career choices, choosing beyond stereotypically female careers and aspiring to engage in a broad range of educational and vocational activities. The boys in their study were less likely to engage a broad range of careers but were more likely to have interest in careers that were high in prestige or involved higher levels of education.

In recent years, several studies have examined predictors of female involvement in the fields of science, technology, engineering, and mathematics — the STEM fields (Perez-Felkner, McDonald, Schneider, & Grogan, 2012). Ackerman, Kanfer, and Beier (2013) found that involvement in high school AP courses and the ability to pass AP exams might be a valuable predictor for whether adolescent women enter STEM fields and continue to be successful in them. They reported findings similar to those in the *Status of Girls in Wisconsin* report (Alverno College, 2007, 2010): fewer high school girls than boys took AP STEM classes and high school girls tended to

score lower on STEM AP exams. In their conclusion, Ackerman et al. included this statement:

We found that the successful completion of multiple AP exams in STEM was a key indicator of initial STEM persistence. These findings indicate that overall, for STEM persistence, and specifically for girls and women who want to pursue STEM majors, decisions made early in high school may have significant impact on later success. Even decisions made in middle school could significantly impact success in STEM. (p. 14)

Gushue and Whitson (2006) speak to the importance of ethnic identity and gender-role attitudes as key considerations in how an adolescent woman perceives her ability to engage in a range of careers, particularly careers that have not been traditional ones for women. They talk about a concept called "career decision self-efficacy" (p. 379). They found that adolescent women who were able to integrate more egalitarian models involving both gender identity and ethnic identity into their own self-perceptions and self-schemas were more likely to aspire to a nontraditional career, seeing more career options before them. As they explored the career-choice goals among Latinas and Black women, they found that career self-efficacy played a very important role that helped many of the young women aspire to break through both perceived and actual barriers to future educational opportunity and employment.

Some have tried different methods for testing how to influence adolescent women's career aspirations. Rudman and Phelan (2010) presented adolescent women who were interested in traditional gender roles with "vanguard models" of women who were in nontraditional careers. They found that simply showing the adolescent women the nontraditional models tended to decrease their aspirations for engaging in the nontraditional careers. The adolescent women also tended to have lower leadership self-concepts, triggered, the authors believed, by "upward comparison threat" (p.2). In their discussion of this study, the authors wondered if the threat was triggered because the adolescents only experienced models of vanguard women. They thought that perhaps if the adolescents had actually engaged in relationships with these vanguard women, the upward comparison threat would be reduced and career aspirations would rise.

Race continues to be a real factor in barriers to education and to career. This is a narrative that adolescent girls addressed throughout the literature. The first of the concepts in the SCCT model is that of learning experiences. When a girl learns from a very young age, from society, from media, from parents, or from teachers that she is not supposed to succeed in a field, or not supposed to be a career success, she already has a large aspirational barrier to leap. Too often the effect of racism on young Latina, African American, Asian, and Native American women. among others, results in a barrier to success and dares girls at the very beginning of their lives to try to overcome that barrier. The studies about girls and young women who continue to leap the barrier are inspiring in and of themselves. More and more inschool and after-school programs are being developed to encourage and motivate girls as they look to their futures (Pearls for Teen Girls, 1993).

In a longitudinal study that addressed Latino and Latina differences in pursuing college enrollment, Zarate and Gallimore (2005) found that classroom success and high school counselors made a real difference for Latinas who pursued a college education. A longitudinal study examines factors over time, in this case fifteen years, to determine what issues might be involved in the decisions made by those being studied. The findings in this study were very interesting. Researchers found that parental aspirations and expectations for boys included higher education: this was true from early childhood onward. Parental expectations for girls' pursuit of college tended to grow as the girls became adolescent women. As the authors interviewed parents, they found different themes emerge as parents talked about expectations for boys and for girls. The parents saw boys' entrance into college as a key to academic success. They saw girls entering college as a means of protecting them against the possibility of failed marriages or other gendered vulnerabilities.

In the Zarate and Gallimore study, Latinas enrolled in both two- and four-year colleges at higher rates than Latino men (p < .05). This supports similar studies that have found Latina enrollment to be

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disproportionately higher than that of Latino adolescents (p. 393). Even with gains that have been made in Latinos and Latinas entering institutions of higher education, they still tend to enter in lower numbers than other groups (Garriott & Flores, 2013). Bohon, Kirkpatrick Johnson, and Gorman (2006) remind us that it is important not to treat Latinos and Latinas as a homogeneous group. Latinos and Latinas are often grouped together, even though they may represent people of Cuban, Puerto Rican, Mexican, or another Hispanic origin, with the many differences in culture and tradition that are carried within these nationalities. Another factor that needs to be considered when addressing Latina (and Latino) entrance into college is that of generation of immigration (Ojeda & Flores, 2008). First-generation Mexican Americans might hold more traditional gender-role values, while females of later generations might receive more messages about the importance of a postsecondary education. In each of these studies, the issue of barriers to higher education enrollment was a consideration. In the Ojeda and Flores study, perceived barriers were found to be the strongest predictor for whether Mexican American high school students set goals that included higher education. This speaks to the need for further study about both the actual and perceived barriers to education for all Latino and Latina groups, and how barriers and barrier perceptions about higher education can be addressed. In the 2013 study by Garriott and Flores, the development of a strong selfefficacy for college tasks emerged as a protective quality for those overcoming perceived barriers.

A study in the United Kingdom speaks to the barriers that British girls face as they are co-opted by societal norms for women in working-class neighborhoods. Archer, Halsall, and Hollingworth (2007) point to the paradoxes that exist in the hyper-heterosexual femininity pursuits of adolescent girls in the neighborhoods they studied. They cite a variety of studies that speak to the marked economic disadvantages that working-class women have when they don't pursue a higher education degree. In their ten-year study of young women, they found that many of the young women were invested in their feminine appearance as a way of expressing their agency in the world around them. In speaking of this paradox, Archer et al. say: Hence we would suggest that the young women's performances of femininity can be understood as playing into/being implicated within a tyranny of conformity to both the patriarchal regulation of female (hetero)sexuality and to a fixing of the young women within disadvantaged social (class) locations. This fixing is brought about by the educational "othering" of working-class voung women's embodied subjectivities and by the social and economic implications of their investments in hyper-heterosexual femininities. In particular, various girls indicated their desire to leave school and start working as soon as possible in order to earn the money to continue performing fashionable femininities. (p. 178)

This cycle of disadvantage as the price of pursuing the socialized expectations that adolescent girls face presents a real barrier to the actualization of higher education goals. If girls are taught that their real value is in the quality of their appearance as opposed to the quality of their ideas, then they will build efficacy for appearing attractive to the opposite sex. However, at least for the girls in the above study, this too often inhibits the ability to build a self-efficacy for other tasks, like pursuing a college education, which is difficult to pursue if you drop out of school to get a job in order to pay for clothes, makeup, and shoes. Interestingly, in 2000, a company developed a doll targeted at three- to nine-year-old girls. This doll was made to look more like an actual woman in her twenties or thirties than the typical fashion doll does. The dolls were marketed more for their profession than for their looks. Each doll was dressed in the attire of her profession and came with a storybook that discussed the doll's profession (EPM Communications, 2000). One wonders what happened to these dolls.

Earlier in this paper, the issue of neighborhood context as a potential barrier to the aspirations of lowincome African American adolescents was addressed (Stewart et al., 2007). One key disadvantage for those from economically disadvantaged neighborhoods is isolation that can create a barrier to aspirations for interfacing with others beyond the neighborhood. This narrowed context may also inhibit the desire for an improved economic or educational life. With few resources to broaden social contexts. adolescent girls who have little support from schools that are stressed and parents who are even more stressed may face future economic vulnerability as well. When considering allocation of resources, political structures would do well to attend to the social consequences of leaving adolescent girls so vulnerable. In 1999, the Alan Guttmacher Institute conducted a study that found that adolescent women who were academically engaged and who were involved in school programs had lowered risks for teen pregnancy. The study further found that the repeating of grades or having to change schools correlated with higher pregnancy risk. How we engage adolescent women in ways that promote an efficacy for educational involvement is a key to unlocking the problem of girls engaging in activities that make them physically and economically vulnerable and powerless.

Wood, Kurtz-Costes, and Copping (2011) addressed the relationship between middle-income African American students' aspirations for college and their actual college completion. As part of their study, they noted the importance of perceived racial barriers to educational success. Girls reported that because of perceived racial barriers, it was even more important for parents to have their daughters gain access to the higher education enterprise. They encouraged their daughters to obtain master's degrees. These parental expectations were positively associated with the adolescents' aspirations and expectations for completing their education.

Addressing the Barriers

Throughout much of the literature on educational aspirations for girls, two key themes arose: one was the importance of relationships with credible educated role models, and the other was the importance of building self-efficacy for adolescent girls. These two factors were often studied hand in hand. Whether overcoming a perceived racial barrier, or dealing with the perceived isolation of a rural neighborhood, having actual role models who could encourage adolescent girls was a highly important part of a girl's raised aspirations. It wasn't enough to study role models from afar. It was important to be engaged with a role model who could increase efficacy, support academic success, and motivate girls to seek out college and career paths that potentially moved beyond their original expectations. Often teachers and high school counselors were the important players in this process. In some cases, school programs that addressed adolescent girls' vulnerabilities and that provided models of relationship and engagement worked to build efficacy for college and improved both the aspirations and the expectations of the adolescent girls and women. In addition to teachers and counselors, co-curricular programs also have been shown to increase resilience in girls who are facing multiple barriers and to raise both the self-confidence and self-efficacy of girls regarding the leadership skills necessary to fulfill aspirations and goals (Girl Scout Research Institute, 2011).

One study looks at such gendered strategies to address African American girls' aspirations for higher education and career. Hubbard (1999) followed the success of adolescent girls and boys who participated in a program called Advancement Via Individual Determination (AVID). She found that participation in this program helped both adolescent boys and girls to become college eligible. Upon closer examination, this success at college eligibility had specific gender dimensions to it. Here Hubbard noted the difference between aspiration and expectation. While all aspired to go to college, the expectations sometimes changed when faced with the issue of affordability. While boys in the study looked to athletic scholarships as a vehicle for college entrance and affordability, girls acted on academic avenues to college entrance and success. Girls saw academic achievement as a way to gain access to college and college success as a vehicle for economic independence. For the girls, participation in the AVID program increased their motivation for success and their achievement levels when compared to girls who did not participate. The girls were able to engage in a helpful relationship network in which they encouraged each other to stay with their goals and to "not let boys get in the way" of their success. The importance of programs like this one is measured in the success of the girls who participate in them. This program showed marked success. In the Milwaukee area, programs like Pearls for Teen Girls and school programs such as those at Carmen High School of Science and Technology and at the United Community Center are good examples

of intentional guidance and networking to increase girls' motivation and success.

Aspiring to Great Goals

Perhaps the adolescent girl wonders if she will be able to achieve the goals that others seem to have for her. Maybe she hears the press of a need for more women in the STEM professions. Possibly she feels a conviction, deep within her, to enter a profession that she's dreamed of all her life. Most likely she is well aware of the barriers that confront her. Undoubtedly she will need the efficacy that grows from meaningful relationships, academic achievement and reinforcement, and ecological support. A recent AAUW study warns that she will face hurdles in the higher education classroom that consist of old biases unchecked and glass ceilings yet to be shattered (Hill, Corbett, & Rose, 2010). She will likely face challenges. She may prefer colleges that can offer peer groups of women who look like her and who face similar challenges (Antonio, 2004). She will most likely continue to face barriers to employment, particularly in gender-nontraditional careers, such as the STEM fields. The relationships that are built, from childhood on, will continue to serve her, especially if those relationships are ones that foster academic efficacy, achievement, and the desire to seek out a meaningful career. She will then be able to turn her hand to another girl, another young woman and do the same.

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