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What do you want to be when you grow up? Career Aspirations as a Marker for Adolescent Wellbeing

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Abstract

Objectives—"What do you want to be when you grow up?" is a simple, commonly asked question that may provide insight into adolescent wellbeing. Career aspirations may reflect an adolescent's sense of identity, hope for the future, and self-efficacy, all of which are critical to identifying at-risk youth and intervening on risky behaviors. However, there are no studies testing whether career aspirations are associated with adolescent emotional and health behavior outcomes.

Methods—We analyzed cross-sectional surveys of 929 9th–12th grade low-income minority adolescents in Los Angeles assessing career aspirations and its association with hopelessness, self-efficacy, substance use, violence, and risky sexual activity. We used Department of Labor statistics to categorize career aspirations by amount of education required, income, and prestige. Generalized estimating equations accounted for socio-demographics, school type, academic performance, and clustering at the school level.

Results—Grades, standardized test scores, and health behaviors varied by career type. Adolescents with higher career aspirations, measured by career-related education, income, and prestige, reported less hopelessness and more self-efficacy. After adjusting for confounders, aspirations requiring high levels of education were associated with decreased odds of alcohol use, at-school substance use, and risky sexual activity, and higher prestige scores were associated with decreased odds of other drug use.

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Conclusions—Career aspirations may be a marker for adolescent health and wellbeing. Adults might consider asking a teen what they want to be when they grow up to gain insight into their levels of hopelessness and self-efficacy and provide context for counseling on healthy behavior change.

Keywords

substance use; self-efficacy; hopelessness; career aspirations

"What do you want to be when you grow up?" is a question commonly posed to children and adolescents during every-day interactions with adults to open communication and develop rapport. The question may also provide some insight into how that child sees him/herself. Studies suggest career aspirations vary widely during childhood but begin to match career expectations (e.g., "What do you expect to do when you finish school?") as children mature into adolescents.[1,2] Yet, little is understood about how career aspirations relate to health and health behaviors, particularly for low-income minority adolescents. As a result, although this question is often asked, health providers have little guidance on what to make of the answer—whether it signals anything important if a teen responds that they want to be a professional basketball player, a neurosurgeon, or if they have no aspirations at all.

Career aspirations might provide quick insight into how adolescents perceive themselves and their futures, as well as their propensity to engage in risky health behaviors. Adolescence is a critical time for identity formation, during which poor self-concept,[3] a lack of positive goals for the future,[4] and hopelessness[5] are significant risk factors for adverse health behaviors. Career aspirations may reflect an adolescent's emerging identity or values. Theories of archetype matching and activation suggest that people may adopt the stereotypical behaviors of archetypes that most closely match our own identities.[6, 7] An adolescent who identifies with an artist may adopt different behaviors than one who identifies with a police officer.

Furthermore, adolescents who feel hopeless and foresee a negative future may be more likely to engage in risky behaviors.[5, 8] Alternatively, those who perceive a greater sense of self-efficacy might also feel better equipped to make healthier choices and avoid risky behaviors, even in the face of peer pressure.[9, 10]

In contrast, theories surrounding future expectations posit that it is the process of working towards a goal that leads teens to make choices which avoid down-stream risks to their health and promote future wellbeing.[11, 12] In this case, perhaps it is the act of aspiring to a career goal that is most important, rather than the content of that aspiration. Finally, given evidence that adolescents adjust their aspirations in accordance with their skills, it is also possible that career aspirations reflect one's academic orientation and achievement,[13] which are strongly linked to health and health behaviors.[14]

Whether career aspirations, or lack thereof, indicate an adolescent's level of self-efficacy or hopelessness, or provide insight into their health behaviors has not been studied previously. We sought to determine whether career aspirations were associated with emotional wellbeing and risky health behaviors, among low-income, minority adolescents, after

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adjusting for likely confounders. Determining whether career aspirations might identify youth at increased risk for poor health could help adults better interpret a youth's response to this common conversational question.

METHODS

We conducted a secondary data analysis of the Reducing Health Inequities Through Social and Educational Change (RISE) Study[15]. This was a cross-sectional survey of 929 youth who participated in admissions lotteries to attend high-performing public charter schools in low-income Los Angeles communities between 2007 and 2010. Both students who were admitted to the charter schools and those who were not admitted were included in the study. Students in 9th–12th grade completed one 90-minute face-to-face computer-assisted interview during the 2010–2011 school year. An audio-enhanced, computer-assisted self-interview was used to collect information on sensitive topics related to substance use and sexual behaviors. All research activities were approved by the human subjects Institutional Review Board of the University of California, Los Angeles.

Participants

Among the 1238 students recruited for the study, 308 declined to participate for a participation rate of 75.1%. Of those enrolled in the study, 100% completed the survey. One participant only answered the demographic questions and that record was dropped, resulting in an overall analytic sample of 929 subjects.

Measures

Career Aspirations—Participants were asked, "What do you want to be when you grow up?" and their responses were recorded verbatim, including if they indicated that they did not know. Those who did not know were considered to have no specific aspiration. All other responses were categorized by searching the United States Bureau of Labor Statistics 2014–2015 Occupational Outlook Handbook (OOH).[16] To assess the likely investments and rewards associated with different careers, we abstracted from the OOH the median level of education required for career entry and median income associated with each occupation named. Level of education spanned eight levels from less than high school to doctoral or professional degree. Given the distribution of responses, we collapsed these into: high school or less, some post-high school education (includes associates degree as well as trade certificates), Bachelor's degree, and Master's degree or higher. Median income levels reported in the OOH are derived from the national 2012 Occupational Employment Statistics Survey. Because some careers confer benefits in social standing that are not measured by education or income, and these benefits can be associated with health,[17] we also mapped each career to its social prestige score according to the Nakao-Treas Prestige Scale.[18] This scale is based on 1989 perceptions of social standing associated with different careers from a nationally representative sample and is the most recently validated prestige scale available. Possible sores range from 0–100 with higher scores reflecting higher levels of prestige. A sensitivity analysis compared results using with alternative prestige measures (Nam-Powers-Boyd Occupational Status Score and the Hauser-Warren Socioeconomic Index). For ease of

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interpretation, both income and prestige were standardized such that one unit corresponds to one standard deviation.

Seven responses could not be mapped to an OOH career profile and hence their median income and prestige scores could not be determined. These included 4 participants who named military careers, for which the OOH reports only on the entry-level of education, which is a high school diploma or equivalency degree. The other 3 responses included, “a married woman,” “ghost hunter,” and “something requiring a college education.” The first two were categorized as requiring a high school degree or less, while the third was categorized as requiring a Bachelor’s degree.

Emotional Wellbeing—General self-efficacy was measured using the New General Self-Efficacy Scale.[19] Participants were asked how much they agreed or disagreed with 8 statements such as, “I will be able to achieve most of the goals that I have set for myself.” The five response categories ranged from strongly disagree to strongly agree and scores on the items were summed with higher scores reflecting greater self-efficacy (Cronbach’s alpha = 0.89).

Hopelessness was assessed using the six-item scale developed by Bolland.[5] Participants were asked how much they agreed or disagreed with statements such as, “All I see ahead of me are bad things, not good things.” The five response categories ranged from strongly disagree to strongly agree and scores were summed with higher scores reflecting more hopelessness (Cronbach’s alpha=0.88). For ease of interpretation, hopelessness and self-efficacy scores were standardized such that 1 unit corresponds to 1 standard deviation.

Depression was assessed using the Center for Epidemiologic Studies Depression Scale (CES-D), which has been validated as a screening tool for depression in adolescents.[20] Those with a score of 16 or higher were considered to have high risk for depression.

Risky Health Behaviors—Risky health behaviors were selected to span the areas of substance use, violence, and sexual activity. Participants reported whether they used alcohol, marijuana, and any other illicit drug in the last 30 days, whether they used alcohol and marijuana on school campus in the last 30 days, and whether they had been in a physical fight in the last 12 months. Additionally, participants were asked about their sexual activity in the previous 3 months including, the number of people they had sex with, how often they used a condom, how often they had been drinking alcohol or using drugs when they had sex, whether they used contraception the last time they had sex, and whether they had ever been pregnant or gotten their partner pregnant. Any response of having multiple sex partners, not always using a condom, having used alcohol or drugs with sex, not using contraception at last sexual encounter, having been pregnant or gotten a partner pregnant was considered a positive dichotomous measure of engaging in risky sexual activity.

Covariates: We selected covariates for their potential to impact adolescents’ career aspirations, health behaviors, and wellbeing. These included gender, age, race-ethnicity, being born in the US, interview date, type of school attended (charter, public, other, or none), socio-economic status, and academic performance. To assess socio-economic status,

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students reported whether their family owned their home, whether they had at least one full-time working parent, and their parent(s)'s level of education, which was dichotomized as high school graduate or not based on the distribution of responses. Academic performance was assessed by students' self-reported grades and whether their most recent scores on the California Standards Tests (CST) were in the below basic level of proficiency in English or mathematics.[21]

Analytic Strategy

We used generalized estimating equations, accounting for clustering at the school level to test whether career aspirations were associated with self-efficacy, hopelessness, depression, and health behaviors,. Because correlations among career aspiration domains were moderate to high (0.5–0.7), each aspect (education, wage, prestige) was modeled against each outcome separately. In addition, we tested whether having no specific career aspiration was associated with each outcome. These analyses were conducted with and without controlling for the covariates described above. In post-hoc analyses, we explored whether associations between career aspirations and health varied by academic achievement. Participants naming a career that required a Bachelor's degree or higher were categorized as having high aspirations and those with a grade point average at or above a 3.0 were categorized as high achievers. Generalized estimating equations accounting for clustering at the school level and controlling for demographic covariates tested whether membership in the following categories was associated with each outcome: 1) neither high grades nor high aspirations; 2) high grades only; 3) high aspirations only; and 4) both high grades and high aspirations. Missing data was multiply imputed and represented less than 5% for all variables. A sensitivity analysis was conducted with non-imputed data. Data was analyzed using STATA (version 12, StataCorp, College Station, TX).

RESULTS

The demographics (Table 1) are representative of low-income neighborhoods in Los Angeles with the majority of students identifying as Latino (84%) and just over half reporting the highest level of parental education as less than a high school degree. Only 5.5% of participants named no career aspiration and over 60% named a career that required at least a college degree. Careers with a wide range of median income and prestige scores were named, ranging from $22,700–$187,200 and 30.7–86.1, respectively. Career aspiration domains did not vary by school type.

Overall, 29% of participants earned less than a C+ grade point average, 55% tested at the below basic level of proficiency in English or mathematics on their most recent CST, 34% used alcohol, 21% used marijuana, 6% used other drugs, and 10% used alcohol or marijuana at school, in the previous 30 days. Nearly one quarter of the sample had been in a physical fight in the last year and 23% had engaged in risky sexual activity. In most cases, careers that required low levels of education were named by a large proportion of students who had low grades and engaged in risky health behaviors. For example, 44% of those who said they wanted to go into law enforcement reported using alcohol in the previous 30 days whereas only 28% of students who said they wanted to be a doctor reported alcohol use (p=0.007).

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However, a few notable exceptions stand out. For example, only 14% of students who said they wanted to be a car or airplane mechanic (which requires only a high school diploma) reported using alcohol in the previous 30 days. Further, although fashion designers and models require the same or more education than professional athletes, 23% of students naming a career in fashion and design reported using other drugs in the previous 30 days compared to 7% of those who said they wanted to be a professional athlete (p=0.06).

Career aspirations were significantly associated with self-efficacy and hopelessness (Table 2) both before and after controlling for likely confounders. In the adjusted models, naming a career requiring higher levels of education was association with higher self-efficacy (beta= 0.29, p=0.001 for Bachelor's degree and graduate degree compared to a high school degree or less), and naming a career with higher median income (beta=0.11, p<0.001) or prestige scores (beta=0.10, p=0.003) were associated higher levels of self-efficacy. Similarly, naming a career that requires a graduate degree (beta= −0.20, p=0.03) was associated with lower levels of hopelessness compared to naming a career requiring a high school degree or less; as was naming a career with a higher median income (beta= −0.09, p=0.004) or a higher prestige score (beta= −0.09, p=0.003). Having no career aspiration was associated with lower levels of self-efficacy (beta= −0.31, p=0.02) and higher levels of hopelessness (beta=0.39, p=0.004) compared to naming any aspiration. However, neither the presence nor the content of a career aspiration was associated with depression.

Table 3 presents associations between career aspiration domains and health behaviors. In the unadjusted model the entry level of education, median income, or prestige score for participants' career aspirations was associated with each risky health behavior. After adjusting for potential confounders, naming a career that requires a higher level of education remained significantly associated with alcohol use (AOR 0.63, p=0.03 for graduate degree), at-school substance use (AOR 0.44, p=0.03 for graduate degree), and risky sexual activity (AOR 0.59, p=0.02 for Bachelor's degree). Further, naming a career with a higher level of prestige remained significantly associated with lower odds of engaging in other drug use (AOR 0.75, p=0.05). In contrast, the absence of a career aspiration was not significantly associated with risky health behaviors in any model.

Table 4 presents associations between health outcomes and the combination of grades and career aspirations. After controlling for potential confounders, naming a career that requires at least a college education and earning at least a 3.0 GPA was associated with higher levels of self-efficacy, lower levels of hopelessness, lower odds of having depression symptoms, and lower odds of engaging in all risky behaviors, compared to having neither high grades nor high aspirations. Having either high career aspirations or high grades alone were associated with higher levels of self-efficacy and lower odds of engaging in risky sexual activity, while high career aspirations without high grades was also associated with lower levels of hopelessness.

DISCUSSION

These results suggest that how an adolescent answers the question, "What do you want to be when you grow up?" might provide insight into both their health and wellbeing. We found

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that career aspirations were significantly associated with hopelessness and self-efficacy, both of which are important aspects of wellbeing and are linked to health and health behaviors.[5, 8, 10, 11] Additionally, career aspirations requiring high levels of education were associated with decreased odds of alcohol use, at-school substance use, and risky sexual activity, while those with higher prestige scores were associated with lower odds of other drug use, after controlling for individual academic performance and other potential confounders. These findings suggest that asking adolescent patients about their career aspirations might help identify those with high levels of hopelessness, low self-efficacy, and who are at-risk for substance use and risky sexual activity. While career aspirations have been studied in other contexts, this is the first study to investigate their potential implications as a marker for adolescent health.

Previous studies have documented longitudinal associations between career aspirations, academic self-concept, and educational attainment, suggesting that adolescents who think of themselves as good students, aspire to high education careers and go on to attain more education.[13, 22] Additionally, career aspirations may be shaped by an adolescents' school context.[23] Hence, it is possible that career aspirations are simply a marker for students on a positive academic trajectory.[24] However, we found that, even after controlling for academic achievement and school type, career aspirations remained significantly associated with adolescent wellbeing and substance use. Further, our results suggest that it is the combination of high grades and high career aspirations that may be a marker for adolescent health and wellbeing. Interestingly, having high aspirations in the absence of high grades had similar associations with health as having high grades in the absence of high aspirations. Hence, career aspirations may instead be a complex combination of adolescents' current and future identities, which may both influence and be influenced by their academic and health behaviors. This theory is supported by studies linking both current and future possible self-concepts to adolescent risk behaviors.[3, 25–28] Additionally, the theories of neo-archetype matching[6] and stereotype activation[7] posit that individuals may adopt the behaviors of an archetype or stereotype with which they identify. Such theories may explain some of the variation in health behaviors by career type noted here, if confirmed by future studies.

Although students who lacked a career aspiration reported more hopelessness and less self-efficacy, they did not appear to have higher rates of depression nor engagement in risky health behaviors. Previous studies suggest both positive and negative educational and occupational outcomes associated with uncertainty.[29] These conflicting results may be driven, in part, by the process underlying occupational uncertainty, for example, whether this reflects a developmental period of healthy exploration,[30] and by cultural and temporal trends.[23, 29] Hence, students who report being uncertain about their career aspirations may be a heterogeneous group.

These results have important implications for clinicians, parents, and adolescent health advocates. Current preventative health recommendations involve screening for depression, school function, and risky behaviors in all teens, followed by brief motivational interviewing focused on healthy behavior change and referral to any necessary mental or behavioral health services. Understanding an adolescent's level of hopelessness and general self-efficacy has implications across multiple health behaviors, and is critical to effectively

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counseling teens regarding behavior change. However, explicitly assessing hopelessness and general self-efficacy would require administering formal scales, such as those used in this study, which may be challenging in the context of a brief clinical encounter. In contrast, career aspirations might provide a window into an adolescent's psychological state and self-image in a simple, nonthreatening manner.

While it is impossible to determine from this study whether career aspirations are causally linked to adolescent wellbeing and health or merely a potential marker for these outcomes, our findings are consistent with positive youth development programs that specifically focus on career aspirations. Such programs use careers as a forum for identity exploration and development, as well as to enhance goal setting and future orientation. Evaluations of these interventions suggest they have the potential to improve academic and health outcomes, particularly for vulnerable populations.[31–33] Studies suggest that having high educational aspirations is protective against risky health behaviors, such as substance use, regardless of current academic performance.[34] Our findings are consistent with these results and might provide a foundation for further research to determine whether encouraging even struggling students to consider a career that requires a college degree or higher might positively impact their health and wellbeing.

This study is limited by its cross sectional design making it impossible to comment on whether career aspirations precede or are causally associated with hopelessness, self-efficacy, or risky health behaviors. Given our sample of largely low-income, Latino adolescents from a single urban center, our findings may not generalize to other demographic groups, but, understanding associations between career aspirations and health might be particularly informative for vulnerable adolescents at high risk for adopting poor health behaviors. Additionally, all participants submitted an application to a high-performing charter school, which may select for more academically oriented students. However, as in other studies of charter school students,[35] the demographics, academic performance and health behaviors of our sample are similar to those from other low-income, minority adolescents in Los Angeles. Our analyses were limited by the aspects of career aspirations explored here. Given the likely multi-dimensional nature of career aspirations, future studies might explore alternative analytic approaches. Similarly, our analysis is limited by the covariates included in our model. While we attempted to control for many potential confounders, it is possible that significant finding are due to unmeasured variables. Finally, we rely on self-report data for grades, depression, and risky health behaviors. Although sensitive questions were administered via a computer-assisted self-interview, social desirability bias may still be factor and may correlate with the primary predictors in our models.

Despite these limitations, this study presents the first evidence that adolescents' answers to the question, "What do you want to be when you grow up?" might provide important insight into their overall health and wellbeing. When asking this question, adults should be prepared to listen carefully to how a teen responds; to investigate whether a teen might benefit from additional support to address any underlying hopelessness or poor self-efficacy; and to encourage high-education occupational aspirations along with the skills and developmental supports necessary to reach those goals.

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What's New

This is the first study exploring associations between adolescent career aspirations, health behaviors, self-efficacy, and hopelessness. Results suggest how adolescents respond to, "What do you want to be when you grow up?" might provide insight into their health and wellbeing.

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Table 1

Descriptive Statistics

Demographics	Mean (s.d.)/Percent (No.)	Career aspiration domains	Mean (s.d.)/Percent (No.)
Age	16.4 (1.29)	No aspiration	5.6% (52)
Male gender	44.9% (419)	Level of education	
Race/Ethnicity		Graduate degree	28.2% (261)
Latino	84.0% (784)	Bachelor's degree	32.0% (296)
Black race	12.5% (117)	Some college/post-secondary education	10.0% (92)
Other race	3.4% (32)	High school or less	24.2% (224)
Born in US	86.4% (806)	Median income	$79,349 ($43,179)
Parent graduated from high school	50.8% (474)	Prestige score	63.0 (14.4)
At least 1 full-time working parent	91.8% (856)	**Wellbeing**	
Family owns their home	43.4% (402)	Hopelessness	9.7 (3.5)
School type		Self-efficacy	33.4 (4.1)
Public	43.5% (406)	Depression risk	28.5% (265)
Charter	49.6% (463)	**Health Behaviors**	
Other	4.9% (46)	Alcohol use	33.5% (309)
None	1.9% (18)	Marijuana Use	20.7% (191)
Grades		Other drug use	6.4% (59)
3.6–4.0 GPA	19.7% (184)	At-school substance use	9.6% (89)
3.1–3.5 GPA	24.5% (229)	Fighting	24.1% (223)
2.6–3.0 GPA	23.0% (215)	Risky sexual activity	22.7% (211)
2.0–2.5 GPA	20.9% (195)		
<2.0 GPA	7.1% (66)		
GPA unknown	4.7% (44)		
Tested below basic	54.6% (509)		

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Table 2

Associations among Dimensions of Career Aspirations, Hopelessness, Self-Efficacy, and Depression

Education needed	Self-Efficacy (Higher values indicate GREATER self-efficacy)		Hopelessness (Higher values indicate MORE hopelessness)		Depression	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
	Coef (95% CI)	Coef (95% CI)	Coef (95% CI)	Coef (95% CI)	OR (95% CI)	OR (95% CI)
High school or less	Reference	Reference	Reference	Reference	Reference	Reference
Some post-secondary education	0.14 (−0.09 – 0.38)	0.21 (−0.02 – 0.44)	0.06 (−0.17 – 0.30)	0.07 (−0.16 – 0.29)	1.11 (0.66 – 1.86)	0.86 (0.50 – 1.50)
Bachelor's degree	**0.34 (0.17 – 0.51)** ***	**0.29 (0.12 – 0.46)** ***	**−0.19 (−0.35 – −0.02)** *	−0.10 (−0.27 – 0.06)	0.71 (0.48 – 1.05)	0.75 (0.49 – 1.13)
Graduate degree	**0.35 (0.17 – 0.52)** ***	**0.29 (0.12 – 0.47)** ***	**−0.33 (−0.50 – −0.16)** ***	**−0.20 (−0.37 – 0.02)** *	0.95 (0.65 – 1.40)	1.00 (0.65 – 1.54)
Median income	**0.14 (0.07 – 0.20)** ***	**0.11 (0.05 – 0.18)** ***	**−0.12 (−0.19 – −0.06)** ***	**−0.09 (−0.15 – −0.03)** **	0.89 (0.76 – 1.03)	0.93 (0.79 – 1.09)
Prestige score	**0.11 (0.05 – 0.17)** **	**0.10 (0.03 – 0.16)** **	**−0.11 (−0.18 – −0.05)** **	**−0.09 (−0.16 – −0.03)** **	0.96 (0.83 – 1.11)	0.99 (0.85 – 1.16)
No aspiration	−0.26 (−0.54 – 0.02)	**−0.31 (−0.58 – −0.05)** *	**0.38 (0.10 – 0.66)** **	**0.39 (0.12 – 0.65)** **	0.74 (0.38 – 1.43)	0.82 (0.41 – 1.65)

* p<0.05

** p≤0.01

*** p≤0.001. Models for level of education, income, prestige and no aspiration were conducted separately. All models account for clustering at the school level. Adjusted models control for gender, age, race-ethnicity, being born in the US, interview date, school type, parental level of education, parental employment, home ownership, self-reported grades and standardized test scores.

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Table 3

Associations among Career Aspiration Domains and Health Behaviors

	Alcohol		Marijuana Use		Other Drug Use		At-School Substance Use		Fighting (12mo)		Risky Sexual Activity	
	OR	**AOR**	**OR**	**AOR**	**OR**	**AOR**	**OR**	**AOR**	**OR**	**AOR**	**OR**	**AOR**
	(95% CI)		**(95% CI)**		**(95% CI)**		**(95% CI)**		**(95% CI)**		**(95% CI)**	
Level of education												
High school or less	Reference		Reference		Reference		Reference		Reference		Reference	
Some post-secondary education	0.72	0.67	0.88	0.88	0.67	0.51	0.45	0.44	0.70	0.81	1.05	1.02
	(0.43 – 1.19)	(0.39 – 1.15)	(0.50 – 1.55)	(0.48 – 1.61)	(0.26 – 1.70)	(0.19 – 1.36)	(0.19 – 1.07)	(0.18 –1.06)	(0.40 – 1.21)	(0.45 – 1.46)	(0.62 – 1.78)	(0.57 – 1.84)
Bachelor's degree	0.70	0.78	**0.65**	0.79	0.53	0.55	**0.56**	0.62	**0.63**	0.78	**0.52**	**0.59**
	(0.49 – 1.01)	(0.52 – 1.13)	**(0.43 – 1.00)** *	(0.50 – 1.24)	(0.27 – 1.04)	(0.27 –1.11)	**(0.33 – 0.96)** *	(0.35 – 1.10)	**(0.42 – 0.93)** *	(0.51 – 1.18)	**(0.35 – 0.79)** **	**(0.38 – 0.93)** *
Graduate degree	**0.50**	**0.63**	**0.56**	0.85	**0.44**	0.46	**0.32**	**0.44**	**0.43**	0.66	**0.56**	0.82
	(0.34 – 0.74) ***	**(0.41 – 0.96)** *	**(0.36 – 0.87)** **	(0.52 – 1.39)	**(0.21 – 0.91)** *	(0.21 – 1.03)	**(0.17 – 0.61)** ***	**(0.22 – 0.90)** *	**(0.28 – 0.66)** ***	(0.41 – 1.06)	**(0.37 – 0.86)** **	(0.50 – 1.33)
Median income	**0.82**	0.91	**0.72**	0.82	0.73	0.81	**0.74**	0.86	**0.84**	0.94	**0.83**	0.97
	(0.71 – 0.95) **	(0.77 – 1.06)	**(0.59 – 0.88)** **	(0.67 – 1.01)	(0.53 – 1.02)	(0.58 – 1.13)	**(0.56 – 0.97)** *	(0.65 – 1.14)	**(0.71 – 0.99)** *	(0.78 – 1.12)	**(0.70 – 0.98)** *	(0.81 – 1.17)
Prestige	**0.80**	0.87	**0.82**	0.92	**0.74**	**0.75**	**0.76**	0.82	0.92	1.01	0.90	1.06
	(0.70 – 0.93) **	(0.75 – 1.02)	**(0.70 – 0.97)** *	(0.77 – 1.11)	**(0.57 – 0.96)** *	**(0.57 – 1.00)** *	**(0.61 – 0.94)** *	(0.65 – 1.05)	(0.78 – 1.07)	(0.85 – 1.20)	(0.77 – 1.05)	(0.89 – 1.27)
No aspiration	0.98	1.14	1.17	1.18	0.89	1.07	1.27	1.19	1.29	1.22	1.41	1.46
	(0.54 – 1.79)	(0.60 – 2.17)	(0.60 – 2.29)	(0.57 – 2.44)	(0.27 – 2.94)	(0.30 – 3.74)	(0.52 – 3.06)	(0.46 – 3.11)	(0.70 – 2.41)	(0.62 – 2.39)	(0.76 – 2.62)	(0.74 – 2.92)

* p<0.05

** p≤0.01

*** p≤0.001. Models for level of education, income, prestige and no aspiration were conducted separately. All models account for clustering at the school level. Adjusted models control for gender, age, race-ethnicity, being born in the US, interview date, school type, parental level of education, parental employment, home ownership, self-reported grades and standardized test scores.

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Table 4

Associations among Grades, Aspirations, Wellbeing, and Health Behaviors

	Self-Efficacy	Hopelessness	Depression	Alcohol Use	Marijuana Use	Other Drug Use	At-School Substance Use	Fighting	Risky Sexual Activity
	AOR (95% CI)	**AOR (95% CI)**	**AOR (95% CI)**	**AOR (95% CI)**	**AOR (95% CI)**	**AOR (95% CI)**	**AOR (95% CI)**	**AOR (95% CI)**	**AOR (95% CI)**
Neither high grades nor high aspirations	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference
High aspirations only	**0.32 (0.15 −0.49)** ***	**−0.20 (−0.37 – −0.03)** *	0.73 (0.49 – 1.08)	0.86 (0.59 – 1.27)	0.81 (0.54 – 1.22)	0.68 (0.35 – 1.29)	0.76 (0.44 – 1.30)	0.95 (0.64 – 1.42)	**0.64 (0.43 – 0.96)** *
High grades only	**0.28 (0.02 – 0.54)** *	−0.20 (−0.46 – 0.06)	0.54 (0.28 – 1.03)	1.10 (0.62 – 1.98)	0.56 (0.28 – 1.11)	0.76 (0.28 – 2.07)	0.80 (0.33 – 1.96)	0.79 (0.41 – 1.51)	**0.50 (0.26 – 0.98)** *
Both high grades and high aspirations	**0.49 (0.28 – 0.70)** ***	**−0.40 (−0.61 – −0.20)** ***	**0.50 (0.30 – 0.83)** **	**0.51 (0.32 – 0.83)** **	**0.48 (0.28 – 0.83)** **	**0.22 (0.07 – 0.68)** **	**0.35 (0.14 – 0.83)** *	**0.40 (0.23 – 0.70)** ***	**0.39 (0.23 – 0.67)** ***

* p<0.05

** p≤0.01

*** p≤0.001. Models for level of education, income, prestige and no aspiration were conducted separately. All models account for clustering at the school level. Adjusted models control for gender, age, race-ethnicity, being born in the US, interview date, school type, parental level of education, parental employment, home ownership, and standardized test scores.

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