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Characteristics and Counseling Needs of Prospective First-Generation College Students: Implications for School Counseling

Professional School Counseling
Volume 25(1): 1–9
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DOI: 10.1177/2156759X21105041 1
journals.sagepub.com/home/pcx
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Abstract

This study examined the personal characteristics and counseling needs of high school seniors who were strongly committed to attending a 4-year university. The results of this comparison study revealed that prospective first-generation college students reported lower perceived academic ability and a higher need for counseling in academic planning and career preparation than prospective continuing-generation college students. Subsequent analysis for the first-generation group by race revealed significant group differences in the perceptions and needs of school counseling.

Keywords

prospective first-generation college students, educational aspiration, counseling needs, racial differences

Introduction

Educational aspirations are a critical predictor of successful educational and occupational attainment (Boxer et al., 2011; Tessier et al., 2018). Researchers have highlighted the importance of students' aspirations for degree attainment in postsecondary institutions (Barry et al., 2011; McCarron & Inkelas, 2006); such desires affect students' future quality of life and socioeconomic equality, subsequent academic outcomes, and actual degree completion (Dyce et al., 2012; McCarron & Inkelas, 2006; Villarreal et al., 2015). By extension, theoretical approaches have been proposed to account for the development of educational aspirations, regarding it as a construct that is changed and adjusted by each individual's perceptions and preferences (e.g., Gottfredson, 2002; Lent, 2016).

For students, the attractiveness of each educational choice depends upon their own perceptions of their intrapersonal, interpersonal, and environmental factors (Frostick et al., 2016; Gottfredson, 2002). Specifically, intrapersonal factors include gender, race/ethnicity, socioeconomic status, academic self-efficacy, and prior academic achievement (Berrington et al., 2016; Kantamneni et al., 2018; Wang & Eccles, 2012). Interpersonal and environmental factors include parental involvement, perceived parental support, socioeconomic status, peer influence, and mentoring (Frostick et al., 2016; Gutman et al., 2014; Zimmermann, 2020). Understanding the intersectionality of these contextual factors is important to support students' academic development and preparation (Lent, 2016; Ma & Shea, 2019).

Among the primary contextual factors influencing the formation of education aspirations, students' first-generation status has drawn scholarly attention due to the unique difficulties and challenges that first-generation students face (Atherton, 2014; Tate et al., 2015). According to Cataldi et al. (2018), between 2011 and 2012, 33% of undergraduates were first-generation college students, those for whom neither parent/guardian had a bachelor's or more advanced degree. Compared with a continuing-generation student, a first-generation student is the first person in a family who experiences a 4-year postsecondary institution. Although the percentage distribution of first-generation college students has been decreasing in recent years, the number of these students is still considerable (Cataldi et al., 2018). Moreover, the percentage of first-generation high school students was nearly twice that of first-generation college students (Cataldi et al., 2018), which implies that first-generation students have fewer educational opportunities to enter postsecondary institutions.

Researchers have found that first-generation status is a key determinant of students' personal and academic characteristics, which in turn both directly and indirectly influence the formation of their educational aspirations (Gibbons & Shoffner, 2004; Kantamneni et al., 2018; Ma & Shea, 2019). For instance, first-generation students are more likely to belong to minority groups, thus experiencing more socioeconomic and cultural

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disadvantages than continuing-generation students (Ma & Shea, 2019; Tate et al., 2015). Specifically, the existing literature indicated that first-generation students are overrepresented by racial/ethnic minorities such as African American and Hispanic students, and populations whose first language is not English (Gibbons et al., 2019; Redford & Hoyer, 2017). This indicates that race/ethnicity is an important factor to consider in studying first-generation students.

Compared to their continuing-generation peers, first-generation students encounter more academic and career challenges (Ma & Shea, 2019), thus leading to negative college expectations and to decreased academic preparation and self-efficacy (Garriott et al., 2013; Gibbons & Borders, 2010). Academic self-efficacy, an individual's perceptions of their academic performance and ability, has been regarded as a prominent factor in students' positive outcomes (Metcalf & Wiener, 2018; Tate et al., 2015). For instance, Jaccard and colleagues (2005) pointed out that students' perceived intelligence, a part of academic self-efficacy, is associated with self-efficacious beliefs in other academic areas, thereby influencing their academic achievement and educational aspirations.

However, first-generation students experience challenges in the form of faulty perceptions of their self-efficacy, negative college expectations, and career barriers due to lack of information (Gibbons & Shoffner, 2004), all of which are linked to their academic underachievement and low self-efficacy even after entering college (Garriott et al., 2015). Similarly, existing literature also explained that students with higher socioeconomic status and a more privileged educational background have higher occupational expectations and support from their family (Gottfredson, 2002; Shahidul et al., 2015). Conversely, the aspirations of students from lower socioeconomic backgrounds are often discouraged by limited accessibility and possibilities. As such, the lack of resources for first-generation students heightens the need for academic, social, and government supports for them (Gibbons & Borders, 2010; Gilfillan, 2018).

As a means of empowering minority students who lack social capital, such as first-generation students, Stanton-Salazar (2011) highlighted the role of institutional agents. An institutional agent is someone who can access institutional resources using their high status in a society or an organization, thereby providing appropriate support and empowerment to marginalized students (Stanton-Salazar, 2011). Several counseling studies have also shown that, regarding educational and career decisions, underrepresented students can benefit more from their school counselors (Bryan et al., 2009; Cholewa et al., 2015). Moreover, the American School Counselor Association (ASCA) states that school counseling plays a key role in underrepresented students' college and career readiness, which is embodied in the ASCA National Model and standards (American School Counselor Association, 2016, 2019a, 2019b). In this vein, counseling researchers have stressed the importance of school counseling for addressing the informational and environmental gap between first-generation students and their continuing-generation peers (Dockery & McKelvey, 2013; Gilfillan, 2018).

Despite the importance of supporting first-generation students' development and college preparation, research examining the traits and needs of prospective first-generation college students is scarce (Gibbons & Borders, 2010; Gibbons et al., 2019; McCarron & Inkelas, 2006). Although first-generation students and their racial differences have received scholarly attention, researchers have not studied their perceptions about school counseling and counseling needs. Given that students' perceptions of academic and social factors play more important roles than the objective conditions for developing their educational aspirations (e.g., Ojeda & Flores, 2008), examining the unique challenges and needs of first-generation students with high educational aspirations is necessary. This elucidation would aid school counselors tasked with identifying and addressing the specific needs of first-generation students (Gibbons & Shoffner, 2004). Considering the effectiveness of school counseling and school-based programs on educational aspiration and college preparation (Gibbons & Shoffner, 2004; Gutman et al., 2014), the academic, psychological, and social features of first-generation students who aspire to enter higher education is a vital topic for investigation.

Purpose of Study

This study aimed to fill the knowledge gap by examining personal characteristics and specific counseling needs of prospective college students pursuing a 4-year college degree according to their first-generation status and race. Specific research questions for this comparison study included: (a) Are there significant differences in demographics, academic ability, perceptions of school counseling, and counseling needs between prospective first-generation college students and prospective continuing-generation college students? and (b) Are there significant differences in gender, academic ability, perceptions of school counseling, and counseling needs of prospective first-generation college students by race?

Method

Participants in this study included 12th graders who responded to the 2017 Monitoring the Future (MTF) survey, a nationwide data set. The MTF is an ongoing national survey project conducted by the University of Michigan that began in 1975. Although this project annually collected adolescents' extensive data across the United States with the purpose of investigating adolescents' physical and psychological health status regarding substance use, I used selected variables pertaining to the research questions for this study. I accessed the 2017 MTF through the ICPSR Database, receiving permission to download and use the dataset for research. Among the 2261 high school seniors who participated in the 2017 MTF, this study excluded the

data of 563 students, either because their first-generation status was not distinguished or because the number of participated counseling sessions was not identified. Among the remaining 1698 high school seniors, I clustered a set of students (N = 1051) who responded by saying that they "definitely will" go to a 4-year college. After addressing the missing values using the expectation-maximization approach, the final data set included 437 prospective first-generation college students and 614 prospective continuing-generation college students. The gender and race distributions of the two groups are provided in Table 1. For subsequent analysis, I recoded gender (1 = Male, 2 = Female) and race (1 = White, 2 = Non-White; Black and Hispanic) as dichotomous variables, with missing values excluded from the analysis.

Measures

In the original questionnaire, all questions pertaining to school counseling were followed by this instruction: "The next questions are about your experiences in school." All measures were developed by Monitoring the Future (Johnston et al., 2018). Because the present study used secondary data, reliability and validity were secured by investigating the normality, heteroscedasticity, and outliers of each variable, as presented in the Results (Preliminary Analysis) section. I also compared means and standard deviations of variables with previously reported data using the same measures (Johnston et al., 2018).

Educational Aspiration. A single item assessed educational aspiration. Participants responded to the item, "How likely is it that you will graduate from college (4-year program) after high school?" A 4-point Likert-type scale was used (1 = *Definitely won't*; 2 = *Probably won't*; 3 = *Probably will*; and 4 = *Definitely will*).

First-Generation Status. Two items assessed the first-generation status of each high school student: "What is the highest level of schooling your father completed?" and "What is the highest level of schooling your mother completed?" A 7-point Likert-type scale was applied as follows: 1 = *Completed grade school or less*; 2 = *Some high school*; 3 = *Completed high school*; 4 = *Some college*; 5 = *Completed college*; 6 = *Graduate or professional school after college*; and 7 = *Don't know, or does not apply*. I eliminated cases for which the student responded with 7 for both questions. Accordingly, students whose parents (both mother and father) did not complete a 4-year college were regarded as future first-generation college students, recoded as 1. Students who marked either 5 (*Completed college*) or 6 (*Graduate or professional school after college*) for at least one parent were classified as future continuing-generation college students, recoded as 0.

Table 1. Participant Demographics by First-Generation Status.

		Prospective College Students	
		First-generation (n = 437)	Continuing-generation (n = 614)
Gender	Male	184 (42.1%)	296 (48.2%)
	Female	241 (55.1%)	299 (48.7%)
	Missing values	12 (2.7%)	19 (3.1%)
Race	White	182 (41.6%)	402 (65.5%)
	Black	56 (12.8%)	64 (10.4%)
	Hispanic	127 (29.1%)	48 (7.8%)
	Missing values	72 (16.5%)	100 (16.3%)

Self-Perceived Ability. Two questions measured students' self-perceived school and academic ability: "Compared with others your age throughout the country, how do you rate yourself on school ability?" and "How intelligent do you think you are compared with others your age?" A 7-point Likert-type scale was applied, with responses ranging from 1 (*Far below average*) to 7 (*Far above average*). The internal reliability between the two questions was .86.

Prior Academic Achievement. In order to measure prior academic achievement, participants responded to the following question: "Which of the following best describes your average grade so far in high school?" The available options were based on a 9-point Likert-type scale, ranging from 1 (*D, 69 or below*) to 9 (*A, 93–100*).

Frequency of School Counseling. Frequency of school counseling was assessed by adding the scores of two items: the number of individual counseling sessions and the number of group counseling sessions during the school year. The specific questions were "The next questions are about your experiences in school. How many times this school year have you seen a counselor individually?" and "How many times this school year have you seen a counselor as a part of a group?" These items were rated on a 7-point Likert-type scale: 1 = *None*; 2 = *1 time*; 3 = *2 times*; 4 = *3–4 times*; 5 = *5–7 times*; 6 = *8–10 times*; and 7 = *11+ times*. The total score ranged from 2 to 14, with higher scores indicating more school counseling sessions.

Counseling Helpfulness. Students were asked to respond to the following item regarding the helpfulness of school counseling service: "How helpful have your sessions with a counselor been to you?" Responses on a 5-point Likert-type scale ranged from 1 (*Not at all helpful*) to 5 (*Extremely helpful*).

Adequacy of School Counseling. Adequacy of school counseling indicated how often students would have preferred to meet a school counselor during the current school year compared to the previous year. It was measured by a single item, "Would you have preferred to see a counselor more or less often than you have during the past year?" A 5-point Likert-type scale was used, with responses from 1 (*Much less*) to 5 (*Much more*).

Counseling Needs. Based on the question "Would you have preferred more or less of each of the following types of counseling in the last year?", participants responded to six items that represented their specific school counseling needs. The items were (a) choosing what courses to take, (b) discussing problems with coursework, (c) discussing any trouble you've gotten into, (d) discussing education or training plans, (e) discussing career plans or job choice, and (f) discussing personal problems. One question from the original scale was excluded, since military plans are not within the scope of the present study. Responses on a 5-point Likert-type scale ranged from 1 (*Much less*) to 5 (*Much more*).

Analysis

I conducted a series of analyses of variances (ANOVAs) to identify statistical differences between prospective first-generation college students and prospective continuing-generation college students. Involved variables were grouped into four categories: (a) demographics (i.e., gender and race); (b) academic ability (i.e., self-perceived ability and prior academic achievement); (c) perceptions of school counseling (i.e., frequency of school counseling, counseling helpfulness, and adequacy of counseling services), and (d) counseling needs (i.e., what course to take, problems with coursework, any trouble they've gotten into, education or training plans, career plans or job choice, and personal problems).

Subsequently, this study also examined the meaningful differences in the four categories according to the race of prospective first-generation college students, with a subset (n = 365) who reported their race as Black, White, or Hispanic. Participants who chose to omit demographic data (i.e., race) were excluded from this sample. Throughout the analysis, Welch's F test was applied to the variables that did not pass Levene's test due to the violation of the equal variances assumption. For post-hoc tests, I employed the Tukey method for variables with equal variances and the Games–Howell method for variables without equal variances. SPSS 23.0 was used for statistical analysis.

Results

Preliminary Analysis

For the data collected from 1051 prospective college students who responded by saying that they "definitely will" go to a 4-year college, I conducted Little's missing completely at random (MCAR) test. This test revealed that the data were MCAR (χ^2 = 16.18, df = 13, p = .240), which allowed application of the expectation–maximization approach (Scheffer, 2002). Thus, I addressed the remaining missing values except for gender and race (less than 1% overall). Pearson correlation coefficients between the variables of this study mostly indicated small to moderate correlations (r = −.24 to .46), except a few moderate to strong correlations between specific counseling needs (r = .53–.71). Univariate skewness and kurtosis of each variable ranged from −.60 to .89 and −1.89 to .82, respectively, satisfying the assumption of normality. No outlier was detected within ±3 standard deviations. However, Levene's tests were significant for some variables, whose homogeneity of variances was not supported. I applied Welch's F test and Games–Howell post-hoc tests to the variables without equal variances, as marked in Table 2 and Table 3.

Results of Analysis of Variances and Post-Hoc Tests

The results of a series of ANOVAs between prospective first-generation and continuing-generation college students are presented in Table 2. In terms of demographics, gender showed a significant difference (F = 4.17, p = .042) between prospective first-generation (n = 437) and continuing-generation students (n = 614). Race also indicated a significant difference (F = 78.86, p = .000) between the two groups. Regarding academic ability, self-perceived ability (F = 64.93, p = .000) and prior academic achievement (F = 31.36, p = .000) were much lower for prospective first-generation college students.

I found no significant differences in the frequency of school counseling (F = .04, p = .834), counseling helpfulness (F = .07, p = .795), and adequacy of counseling services (F = 1.58, p = .209). Pertaining to counseling needs, the prospective first-generation group revealed higher needs in the following items: what course to take (F = 4.50, p = .032), problems with coursework (F = 7.52, p = .005), education or training plans (F = 16.21, p = .000), and career plans or job choice (F = 12.98, p = .000). The remaining items (any trouble you've gotten into [F = .11, p = .735] and personal problems F = .01, p = .943) did not show any meaningful difference. No interaction effect between variables within each category was detected (F = .37–1.44, p = .135–.963).

Given the existing literature that indicates race is a considerable factor when examining traits of first-generation students (Lohfink & Paulsen, 2005; Redford & Hoyer, 2017; Tate et al., 2015), I conducted ANOVAs and post-hoc tests to identify meaningful differences in gender, perceived academic ability, perceptions of school counseling, and counseling needs between three racial groups of prospective first-generation college students (i.e., Black, White, and Hispanic). As presented in Table 3, I found a significant gender difference (F = 5.11, p = .007), indicating that the ratio of male students is lower among Black students than Hispanic students. Even though prior academic achievement was higher in the sequence of White, Hispanic, and Black students (F = 3.68, p = .026), post-hoc tests revealed no meaningful difference between any two groups. Significant differences occurred in the frequency of school counseling (F = 4.39, p = .013) and adequacy of counseling services (F = 6.84, p = .001), revealing that Hispanic prospective first-generation students had more school counseling experiences and want more counseling opportunities than White prospective first-generation students. Regarding specific counseling needs,

Table 2. Results of Analysis of Variance for Prospective College Students by First-Generation Status.

	Prospective College Students							
	First-generation (n = 437)		Continuing-generation (n = 614)			Total (N = 1051)		
Categories and Variables	*M*	*SE*	*M*	*SE*	*F*	η^2	*M*	*SE*
Demographics								
Gender	1.57	.02	1.50	.02	4.17*	.01	1.53	.02
Race[a]	1.50	.03	1.22	.02	78.86***	.06	1.34	.02
Academic ability								
Self-perceived ability	9.14	.11	10.27	.09	64.93***	.06	9.80	.07
Prior academic achievement[a]	6.48	.09	7.11	.07	31.36***	.03	6.85	.05
Perceptions of school counseling								
Frequency of school counseling	4.96	.13	4.92	.10	.04	.00	4.94	.08
Counseling helpfulness	3.23	.06	3.25	.05	.07	.00	3.24	.04
Adequacy of counseling services[a]	3.18	.06	3.09	.04	1.58	.00	3.13	.03
Counseling needs								
What courses to take	3.71	.05	3.57	.04	4.50*	.01	3.63	.03
Problems with coursework[a]	3.43	.06	3.23	.04	7.52**	.01	3.31	.03
Any trouble you've gotten into[a]	2.86	.06	2.83	.04	.11	.00	2.84	.04
Education or training plans[a]	3.56	.06	3.28	.04	16.21***	.02	3.40	.04
Career plans or job choice	3.86	.05	3.62	.04	12.98***	.02	3.72	.03
Personal problems[a]	3.00	.06	3.00	.05	.01	.00	3.00	.04

Note. The analysis included high school seniors who responded as "definitely will" go to a 4-year college (N = 1051). *p < .05; **p < .01; ***p < .001.
[a]Indicates variables using Welch's F test due to the violation of the assumption of equal variances.

Table 3. Results of Analysis of Variance for Prospective First-Generation College Students by Race.

	Black (n = 56)		White (n = 182)		Hispanic (n = 127)					Total (n = 365)	
Categories and Variables	*M*	*SE*	*M*	*SE*	*M*	*SE*	*F*	η^2	Post-hoc	*M*	*SE*
Demographics											
Gender[a]	1.75	.06	1.60	.04	1.52	.04	5.11**	.03	B > H	1.59	.03
Academic ability											
Self-perceived ability	9.05	.34	9.07	.17	9.07	.20	.01	.00		9.07	.12
Prior academic achievement	6.12	.27	6.76	.14	6.30	.16	3.68*	.02	None	6.50	.10
Perceptions of school counseling											
Frequency of school counseling	5.21	.33	4.46	.18	5.29	.26	4.39*	.02	H > W	4.86	.14
Counseling helpfulness	3.19	.16	3.12	.08	3.39	.11	1.98	.01		3.23	.06
Adequacy of counseling services[a]	3.13	.18	3.01	.08	3.48	.10	6.84**	.03	H > W	3.19	.06
Counseling needs											
What courses to take	3.89	.15	3.62	.08	3.78	.10	1.74	.01		3.72	.06
Problems with coursework	4.00	.14	3.32	.08	3.37	.11	7.64**	.04	B > W, H	3.44	.06
Any trouble you've gotten into	3.00	.19	2.73	.08	2.89	.12	1.22	.01		2.83	.07
Education or training plans	3.59	.17	3.40	.08	3.81	.10	4.67*	.03	H > W	3.57	.06
Career plans or job choice	4.03	.14	3.72	.08	4.06	.10	4.44*	.03	H > W	3.89	.06
Personal problems[a]	3.31	.19	2.88	.09	3.03	.12	2.18	.02		3.00	.07

Note. The analysis only included first-generation high school seniors who responded as "definitely will" go to a 4-year college and explicitly reported their race (n = 365). *p < .05; **p < .01.
[a]Indicates variables using Welch's F test due to the violation of the assumption of equal variances.

students showed meaningful differences in problems with coursework ($F = 7.64$, $p = .001$), education or training plans ($F = 4.67$, $p = .010$), and career plans or job choice ($F = 4.44$, $p = .012$). Specifically, Black prospective first-generation college students reported more needs around problems with coursework than White and Hispanic prospective first-generation college students, and Hispanic prospective first-generation college students required more school counseling in education or training plans and career plans or job choice than White prospective first-generation college students.

Discussion

The purpose of this study was to investigate the personal characteristics and counseling needs of prospective first-generation college students, compared with those of prospective continuing-generation college students. For the first-generation students, I also examined differences by race. Overall, the results of this study were consistent with existing literature that investigated demographic and personal characteristics of prospective first-generation college students, including the overrepresentation of minorities and low perceived academic ability (Atherton, 2014; Gibbons & Borders, 2010; Gil-Flores et al., 2011). This research also provided specific information about perceptions and needs of these students regarding school counseling services.

Concerning the comparison of prospective first-generation and continuing-generation college students, I found several notable points. First of all, the data revealed that a greater percentage of ethnic and cultural minorities were prospective first-generation college students compared to their White peers, echoing prior studies (Lohfink & Paulsen, 2005; Redford & Hoyer, 2017). In particular, recent data (Latino et al., 2020) showed that Hispanic students account for a substantial part of the first-generation student population in the United States, and this aligned with my sample. Regarding gender, the ratio of female students is higher in prospective first-generation than continuing-generation students, particularly among Black students as compared to Hispanic students. Previous findings have shown that first-generation female students reported more mental health difficulties and higher educational aspirations (Gil-Flores et al., 2011; Jenkins et al., 2013). Therefore, gender differences across race/ethnicity should be considered when interpreting the results of this study.

Next, the results related to academic ability were consistent with the existing literature in that first-generation students indicated a substantially lower level of self-perceived academic ability and academic achievement than continuing-generation students (Garriott et al., 2013; Gibbons & Borders, 2010). Researchers explained that first-generation students perceive more academic and career barriers than their continuing-generation peers due to the lack of resources, such as limited information about college and little social support (Garriott et al., 2015; Kantamneni et al., 2018; Ma & Shea, 2019). Consequently, this gap leads prospective first-generation college students to have reduced academic self-efficacy and low educational attainment.

Given the necessity of school counselors' support for prospective first-generation college students who lack social capital, the results had a notable lack of significant differences in the perceptions of school counseling services between prospective first-generation and continuing-generation college students, including the frequency of school counseling, the degree to which students think counseling is beneficial for them, and the need for more counseling sessions. These results indicated that students perceive the necessity and appropriateness of school counseling service similarly regardless of their first-generation status, a finding partially supported by Bryan et al. (2009), that parents' education level did not influence students' contact to a school counselor regarding college going.

Nevertheless, the prospective first-generation students reported more counseling needs regarding educational plans and career preparation compared to the continuing-generation group. This provides a rationale to existing studies (Dyce et al., 2012; Gibbons et al., 2019) that highlighted the necessity of intensive academic and career counseling for first-generation students. For instance, Gilfillan (2018) pointed out that school counselors play an important role in facilitating first-generation students' educational aspirations by providing extra support and college information. Specifically, in the present study, the results of post-hoc tests showed that Hispanic prospective first-generation college students wanted more academic and career counseling, although they received more school counseling services than White first-generation students. Black students in this group reported more problems with coursework than the White and Hispanic students. School counselors can consider these findings comprehensively to understand different types of prospective first-generation college students and develop culturally responsive counseling plans for them.

Finally, students did not show a significant difference in counseling needs for personal and socioemotional issues (i.e., any trouble they've gotten into and personal problems) regardless of their first-generation status. This may conflict with the findings of Jenkins et al. (2013) that first-generation students reported more mental health difficulties than continuing-generation students, which necessitates further identification of the personal and mental health issues that first- and continuing-generation students do face.

In sum, the results of this study identified the social, academic, and psychological traits and needs of prospective first-generation college students, and these insights can contribute to enhancing the quality of school counseling services. Given that first-generation students lack sufficient information and resources for their academic development and career preparation (Dockery & McKelvey, 2013), school counselors, who work as institutional agents (Stanton-Salazar, 2011), are expected to provide environmental support for prospective first-generation college students' educational and career-related decision making.

Implications for School Counseling

The study results suggest several implications for school counselors to foster first-generation students' college and career readiness. First, school counselors need to be informed of the personal traits and specific counseling needs of prospective first-generation college students to determine how to navigate counseling sessions with them. In this study, first-generation high school seniors, with a high proportion of ethnically marginalized students, indicated lower perceived academic ability and higher needs in academic and career counseling. Moreover, prospective first-generation college students revealed different perceptions and needs of school counseling according to their race. Given that school counselors' beliefs and expectations about postsecondary education influence students' educational aspirations (Bryan et al., 2009), school counselors should have more professional development opportunities to understand these students' career development and college readiness. Various means, including in-service training, conferences, books, research journals, and other media, are applicable to school counselor education to facilitate effective guidance toward students' academic and career success.

Second, identified characteristics and counseling needs of prospective first-generation college students can be applied to school counseling practices. For instance, in counseling sessions for these students, school counselors are required to focus on academic development and college preparation. School counselors can implement a culturally responsive and individually appropriate counseling intervention for first-generation students based on the ASCA National Model (Cholewa et al., 2015; Dockery & McKelvey, 2013; Welton & Martinez, 2014). The intervention encompasses enhancing beliefs in academic self-efficacy, raising self-awareness, overcoming students' misunderstandings about their current status and future plans, and addressing these students' lack of knowledge about college access and choice, college affordability, and high-school-to-college transition (Boxer et al., 2011; Garriott et al., 2017; McCarron & Inkelas, 2006). Moreover, with caution to avoid hasty generalization or prejudice, school counselors can provide contextually appropriate resources considering the needs of prospective first-generation college students by race, such as more college information and vocational training and internship opportunities for Hispanic students who are undecided about careers.

Next, school counselors can actively engage in connecting prospective first-generation college students to external support systems. School counseling works as a primary source of social support for these students, since they are likely to receive less information and support for college preparation from their families (Cholewa et al., 2015; Frostick et al., 2016). School counselors are encouraged to utilize community partnerships with postsecondary institutions, local agencies, and professional organizations (Gilfillan, 2018) to provide qualified college readiness counseling programs and advocate for equitable opportunities for prospective first-generation college students' academic success. Despite the necessity of extra support, however, first-generation students indicated low help-seeking attitudes toward counseling because of self-stigma and relational concerns (Chang et al., 2020; Garriott et al., 2017). Therefore, implementing appropriate student support programs is imperative for school counselors by identifying prospective first-generation college students' demands and needs in academic and college planning.

Limitations and Future Research

The findings of this study need to be considered within the context of the limitations. Since the data used for this study was based on a cross-sectional survey, interpretation of the causal relationships between variables should use caution. Also, due to the nature of secondary data analysis, selection and inclusion of targeted variables were limited. For instance, survey participants were given limited options for gender (male or female) and race/ethnicity (Black, White, or Hispanic); thus, I left missing values in order to consider all possibilities. Nevertheless, including diverse populations was not possible in the analysis of this study. The subdimensions of some constructs, such as academic self-efficacy, were not fully investigated due to the limited information provided by the data, which necessitates further research. Similarly, the frequency of school counseling that indicated the sum of individual and group counseling sessions was not reflective of specific content, formats, and quality of counseling services that students received. Future studies can pursue details about the effectiveness of school counseling and implications for providing qualified counseling practices. Last, since I applied ANOVAs due to the violation of equal variances of some variables, the analysis did not include potential correlations between variables in the same category. The results of this study should be carefully interpreted in consideration of the possibility of inflated effect sizes. Further, this study primarily focused on comparing group differences in personal characteristics and counseling needs using ANOVAs, but further research using regression analysis would be helpful to explain the formation of first-generation students' educational aspirations or counseling seeking behavior.

Conclusion

The results of this comparison study provided empirical evidence that prospective first-generation college students had a greater representation of racial/ethnic minorities, lower perceived academic ability and achievement, and more counseling needs in academic and career plans than prospective continuing-generation college students. Subsequent post-hoc tests by race for the first-generation student group revealed that Hispanic prospective first-generation college students need more counseling in college and career readiness, whereas Black students in this group reported problems with coursework. These

findings indicate several implications for school counselors who help prospective first-generation college students navigate their academic and career path. Furthermore, this study contributes to the school counseling literature by providing a rationale to a comprehensive school counseling program based on the ASCA National Model, which is responsive to prospective first-generation college students' needs and expectations.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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