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Academic advising: does it really impact student success?

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Abstract

Purpose – This study was designed to evaluate academic advising in terms of student needs, expectations, and success rather than through the traditional lens of student satisfaction with the process.

Design/methodology/approach – Student participants ($n = 611$) completed a survey exploring their expectations of and experience with academic advising. Principal axis factor analysis, multiple regression analyses, and analyses of variance were applied to student responses.

Findings – Six interpretable factors (i.e. advisor accountability, advisor empowerment, student responsibility, student self-efficacy, student study skills, and perceived support) significantly related academic advising to student success. Differences emerged with regard to advisement of demographically diverse students.

Practical implications – The results suggest improvements in advising practices, particularly interventions focused on specific demographic populations.

Originality/value – The present study contributes to existing literature by expanding advising research beyond student satisfaction to explore how it influences student success. Additionally, results suggest a need for future research that further develops the concept and practice of quality academic advising.

Keywords Advising, Academic advising, Retention, Matriculation, Student success, Perceived support, Self-efficacy, Student expectations, Higher education, Students

Paper type Research paper

What factors best promote student success in higher education? This question has long been the impetus for assessment and research in colleges and universities, with institutions seeking to understand contributing factors that are both within and outside of their control. Tinto (1975) defined student matriculation as an ongoing process of interactions between the student and the academic and social systems present in a university. A total of 30 years later, student involvement with academic programs and professionals can still either facilitate the journey toward a degree or lead to disappointment and failure. Habley (2004) asserted that the quality of interaction between a student and a concerned individual on campus, often through academic advising, is a key contributor to college retention. However, the influence of academic advising on student achievement has been largely overshadowed by attempts to assess student satisfaction with the advising process (e.g. Campbell and Nutt, 2008; Hemwall and Trachte, 2003; Light, 2001; Propp and Rhodes, 2006).

Tinto's (1975, 2007) model was one of the first to identify institutional features as contributors to student attrition. Whereas previous efforts to pinpoint factors affecting student retention and success focused solely on student characteristics, Tinto

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considered the relationship between the higher educationinstitution and the student as a defining element of student achievement. The model identified five conditions needed to establish a supportive college environment: expectation, advice, support, involvement, and learning. Research into these conditions has tended to support Tinto's assertions. For example, an extensive review of literature related to campus-based retention initiatives conducted by Patton *et al.* (2006) found moderate support for the assertion that student-faculty interaction can improve student persistence. However, the authors highlighted a need for additional research related to the positive impact of faculty contact on student success and retention. Hawthorne and Young (2010) provided additional support for the importance of faculty-student connections by demonstrating that satisfaction with instructors and satisfaction with faculty support significantly influenced overall satisfaction with the college environment; this, in turn, contributed to student intentions to complete a bachelor's, master's, or doctoral degree.

While faculty-student interactions are related to students' academic goals and outcomes, student development is influenced by a variety of overlapping institutional efforts outside of course-related connections with faculty (Kuh, 2001). Therefore, researching additional educational elements that cohesively link the overall academic experience may inform institutional actions that facilitate development of supportive environments for students. One area in which an institution can formally implement quality exchanges between students and the academic environment is through the academic advising process (Habley, 2004). In its statement of core values in academic advising, the National Academic Advising Association (NACADA, 2004) supported a holistic approach to advising that includes both understanding the institution and the needs of its students. Hunter and White (2004) added that academic advising can help students to shape meaningful learning experiences, thus encouraging achievement of educational, career, and life goals.

Results of a survey conducted by the American College Testing (ACT) program and NACADA (Lotkowski *et al.*, 2004) indicated that many postsecondary institutions do not capitalize on the benefits of quality advising to improve student achievement. In fact, the survey identified few colleges with structured programs to promote advising as a way to help students stay in school. Although the literature indicates that academic advising supports student success, Campbell and Nutt (2008) posited that the case may not be made explicitly enough especially as it relates to goal achievement.

According to Kelley (2008), the assessment of academic advising is not as advanced as that of classroom learning. Historically, measurement of advising outcomes focused on student satisfaction with the advisor or advising system rather than on student success. Although student satisfaction is important (Propp and Rhodes, 2006), evaluating the effectiveness of advising efforts requires significantly more than gauging student satisfaction. Hemwall and Trachte (2003) suggested that viewing advising as a learning process allows assessment of specific outcomes that can be linked to student achievement. Thus, investigating the relationship between advising and student achievement can reveal how advising helps students develop the skills and knowledge necessary for success.

Tinto (1975, 2007) contended that students are more likely to thrive, persist, and complete degrees in environments that provide clear and consistent information about institutional expectations and requirements. Academic advisors can interpret

institutional expectations and convey them to students in practical terms that illuminate paths to degree completion, thereby meeting student and institutional goals. Without quality advising, students may master course content, yet still be at risk of dropping out if they "fail to develop adequate academic self-confidence, academic goals, institutional commitment, achievement motivation, and social support and involvement" (Lotkowski *et al.*, 2004, p. 10). However, even though retention and graduation rates are important, the Association for American Colleges and Universities (2007) suggested in the *College Learning for the New Global Century* report that the ultimate measure of success is the ability of students to thrive in professional, personal, and civic arenas. How can higher education institutions engage students in activities that facilitate success in these areas?

Academic advising is a point at which student behavior and institutionally controlled conditions meet to potentially influence student achievement. Kuh *et al.* (2005) referred to this intersection as student engagement. Quality academic advising can promote student engagement by initially and continuously serving as this point of connection. In addition to engaging with students, advisors can also encourage student involvement with powerful learning opportunities both in and out of the classroom. The advising process can help students to identify personal strengths and interests related to their educational and career goals. This knowledge may inform students' selection and pursuit of co-curricular activities that enhance their college experience. Research concludes that student engagement is enhanced through involvement with activities such as internships (Knouse *et al.*, 1999), undergraduate research (Bauer and Bennett, 2003; Ishiyama, 2002), and service learning (McKay and Estrella, 2008; Yorio and Ye, 2012). Academic advising provides a ready opportunity for students to explore participation in co-curricular activities that align active engagement with personal aspirations and institutional retention goals.

Unfortunately, the important contribution of academic advising is commonly underestimated in studies of student success and retention (Light, 2001). According to Nutt (2003), any effort toward student retention must recognize that academic advising is vital to student success. Consequently, further research is needed to identify the facets of academic advising that relate to retention and promote student success. As a result, these features can be more effectively measured, understood, and encouraged, thus meeting expectations of institutions and their varied stakeholders. Therefore, the goal of this study was to link multiple aspects of advising to student academic performance. Specifically, the primary purpose was to investigate how advising predicts student grade point average (GPA), a known measure of academic success. Additionally, group differences were examined to highlight factors which contribute to the prediction of GPA; population differences were evaluated to determine which groups may need special consideration in the development and practice of advising strategies.

Method

Participants

Participants included 611 undergraduate students recruited from courses ranging from Introductory Psychology to Senior Seminar in Psychology. The sample primarily consisted of psychology majors (18.7 percent); however, Introductory Psychology is a class taken by students representing departments from all colleges within the

university, resulting in survey respondents from 114 different majors. Participants were predominantly White/Caucasian (90.5 percent) ranging in age from 18-25 years (94.7 percent), which is typical of a Midwestern university. The sample consisted mainly of college freshmen (59.6 percent), but sophomore (21.1 percent), junior (10.9 percent), and senior (10.7 percent) students also participated. A majority of the sample was comprised of full-time college students (94.9 percent) with about one-third representing their families as first-generation college students. Most of the students reported that they were contacted once or twice a semester by their academic advisors (54.8 percent), met with their advisors one time each semester (66 percent), and spent 10 to 20 minutes in typical advisement meetings (51.2 percent).

Participant responses may be better understood through discussion of the institutional framework within which students are advised. Undecided majors are advised in the Academic Advisement Center by professional advisors who also provide nationally-recognized training for all advisors on campus (Voller *et al.*, 2010). After students declare a major, a decentralized model is used to formally advise all university students. Students are referred to college or departmental advisors and advisement centers depending on individual educational level and major. Some colleges in the university employ professional advisors in college advisement centers, while other students are advised within specific departments by faculty members whose work assignments include academic advising duties. Regardless, advising is required prior to registration each semester until students have completed at least 75 of the 125 credit hours required to graduate.

The psychology department, where the current study was conducted, advises approximately 700 majors through a combination of a departmental advisement center (coordinated by a faculty member with the primary work assignment of advising new psychology majors) and 24 of the department's 29 full-time faculty members advising students based (as often as possible) on areas of interest within the field of psychology.

Materials and procedure

Information was collected using assessment instruments created for this project. Items in the inventories described below were evaluated on a seven-point scale based on the strength of a respondent's agreement:

- *Student self-assessment*. This instrument asked students to evaluate their behaviors and attitudes related to responsibility, future planning, decision-making, and habits potentially affecting their studies. Additional items addressed student engagement and perceptions of social support.
- *Student expectations of advising assessment*. This survey gave students the opportunity to clarify what they expect from themselves, their advisors, and the general advising process.
- *Student demographic information form*. This form was used to collect objective and descriptive information about students who participate in the advising process (e.g. frequency of meetings with advisor, classification, gender, and grade point average).

Data were collected through an online experiment management tool. When the study was launched, instructors communicated its availability to students who could

voluntarily choose to participate as one among several course assignment options. Upon consent, students completed the online surveys.

Results

Confirmatory factor analysis

Dimensionality of the 95 student assessment items was analyzed using principal axis factor analysis. Two criteria were used to determine the number of factors to rotate: the scree test and the interpretability of the factor solution. Based on the scree plot, six factors were rotated using a Varimax rotation procedure. The rotated solution yielded six interpretable factors, including advisor accountability, advisor empowerment, student responsibility, student self-efficacy, student study skills, and perceived support. The advisor accountability factor applies to the level of professionalism, preparation, and availability that advisees expect from advisors; it accounted for 10.8 percent of item variance. Advisor empowerment addresses the level to which students expect advisors to help them learn, understand, and plan for the future by providing feedback and helpful referrals; this factor accounted for 9.07 percent of item variance. Student responsibility addresses the ways in which students expect themselves to contribute to the advising process, for example through goal-setting and planning, preparation for appointments, following up on referrals, communicating with and treating advisors courteously; this factor accounted for 7.46 percent of item variance. Student self-efficacy relates to student beliefs regarding their capability to succeed in college, for example, capacity for dealing with stress, preparation for college-level work, and ability to understand course content and take exams; this factor accounted for 5.75 percent of item variance. The student study skills factor summarizes a set of competencies related to academic success in college, including time and grade management, study skills, preparation for exams, ability to concentrate, motivation, getting adequate sleep, and contacting an advisor for assistance; this factor accounted for 4.57 percent of item variance. Perceived Support addresses a student's interpersonal and intrapersonal adjustment as a college student in terms of relationships (i.e. with friends and instructors) and dealing with stress (i.e. academic, personal, employment-related, or associated with a learning disability); this factor accounted for 3.57 percent of the item variance.

Multiple regression

Grade point average (GPA) is a commonly used measure of student success. Therefore, the current analysis attempted to identify variables that predicted GPA in the participants[1]. GPA data were available for 580 of the survey respondents, and a multiple regression was performed using the Statistical Package for the Social Sciences (SPSS). The dependent variable was current GPA, and the predictor variables were advisor accountability, advisor empowerment, student responsibility, student self-efficacy, student study skills, and perceived support; high school GPA and university classification were included as control variables. The predictors were all moderately correlated with the dependent variable, but since there were no correlations greater than 0.50, multicollinearity was not a problem. The model was significant at the 0.05 level, $F(10, 452) = 18.23$, $p < 0.001$, and accounted for 28 percent of the variance in GPA, R^2 adjusted $= 0.278$. Further analysis showed that the only variables that contributed significantly to the model were student study skills ($p < 0.001$) and

student self-efficacy ($p = 0.003$). Advisor Empowerment was marginally significant ($p = 0.061$).

The study also examined how contact with an advisor predicted student responsibility, student self-efficacy, student study skills, and perceived support. The independent variables were meeting with advisor (i.e. frequency of student meetings with the advisor), advisor contact (i.e. how often the advisor contacted the student), and time spent with advisor (i.e. length of a typical advisement meeting). Meeting with advisor predicted student responsibility ($p = 0.001$), student self-efficacy ($p = 0.017$), student study skills ($p = 0.031$), and perceived support ($p = 0.002$). These results indicate that meeting with an advisor at least once during a semester is an important contributor to multiple factors impacting student success.

Finally, the study focused on student expectations of academic advisors (i.e. advisor empowerment and advisor accountability) as predictors of student responsibility, student self-efficacy, student study skills, and perceived support. Advisor accountability predicted student self-efficacy ($p = 0.017$), student responsibility ($p < 0.001$), student study skills ($p = 0.018$), and perceived support ($p = 0.003$). Similarly, advisor empowerment predicted student responsibility ($p = 0.001$), student study skills ($p = 0.009$), and perceived support ($p < 0.001$). Taken together, these results indicate that both student expectations of their advisors and how well advisors meet those expectations contribute to two of the primary factors associated with student success (i.e. student study skills and student self-efficacy).

Having examined the factors that predict student success across the undergraduate experience, we turned our attention to college freshmen ($n = 301$). The freshman year often seems to be a make-or-break time for undergraduate students in terms of continued progress toward degree completion. In fact, approximately one in seven (16 percent) of 2010 high school graduates who entered higher education did not progress beyond their first year of college (Hart Research Associates, 2011). Thus, we also investigated factors that predict success for first-year students. A multiple regression showed that meeting with advisor predicted student responsibility ($p < 0.001$) and student study skills ($p < 0.001$). Advisor accountability predicted perceived support ($p < 0.001$), student responsibility ($p < 0.001$), and student self-efficacy ($p = 0.026$). Finally, Advisor empowerment predicted student responsibility ($p < 0.001$).

Analyses of variance

After demonstrating the contribution of the identified variables to student GPA, we explored demographic differences between these variables[2]. Group differences on advisor accountability, advisor empowerment, student responsibility, student self-efficacy, student study skills, and perceived support were examined using a series of analyses of variance (ANOVAs). The independent variables were chosen based on identified factors associated with college success including student interactions with academic professionals (Habley, 2004), gender (National Bureau of Labor Statistics, 2011), generation status as a college student (Bradbury and Mather, 2009; Lohfink and Paulsen, 2005; Warburton *et al.*, 2001), and classification (Hart Research Associates, 2011).

Student interactions with educational professionals enhance perceived support, which has been directly linked to student retention and success (Shelton, 2003).

Support for students is a critical component of Tinto's (1975, 2007) model; therefore, the first ANOVA included an examination of differences in Perceived Support for all participants based on advisor contact, meeting with advisor, and time spent with advisor. Of the three variables, significant differences were found only for meeting with advisor ($F(2, 30) = 4.04$, $p = 0.01$, $?_p^2 = 0.12$). Thus, students who met with their advisors at least once per semester reported higher levels of Perceived Support than those with less frequent meetings.

Although an equal number of men and women are enrolling in college, significantly more women than men succeed in obtaining a bachelor's degree by age 23 (National Bureau of Labor Statistics, 2011). Therefore, the next factor considered was gender. Significant differences were found for student responsibility based on gender ($F(1, 30) = 6.77$, $p = 0.007$, $?_p^2 = 0.04$). Pairwise comparisons showed that female students had a higher sense of student responsibility than male students (see Table I).

Similarly, although the number of first-generation students (i.e. no parent or grandparent completed a college degree) who enroll in college is increasing (Bradbury and Mather, 2009), these students continue to experience lower matriculation rates (Lohfink and Paulsen, 2005; Warburton *et al.*, 2001). Therefore, the final independent variable was first-generation status. significant differences were found for student self-efficacy based on first-generation status ($F(1, 30) = 7.56$, $p = 0.01$, $?_p^2 = 0.03$) with first-generation students having lower levels of student self-efficacy than second-generation students (see Table II).

Overall analyses of variance highlighted advising as a source which impacted student success for all students, as well as revealing areas of particular interest related to advising students with different demographic characteristics (i.e. gender, first- or second-generation status). As with the regression analysis, we examined the same factors in college freshmen. Significant differences emerged in student responsibility ($F(3, 266) = 13.75$, $p < 0.001$, $?_p^2 = 0.05$), advisor empowerment, ($F(3, 266) = 17.75$, $p < 0.001$, $?_p^2 = 0.06$), and advisor accountability, ($F(3, 266) = 30.23$, $p < 0.001$, $?_p^2 = 0.10$), based only on gender. Female freshmen reported having a greater sense of

Variable	Gender	Mean	SE
Advisor accountability	Female	6.54	0.074
	Male	6.32	0.082
Advisor empowerment	Female	6.78	0.073
	Male	6.69	0.074
Student responsibility *	Female	5.73	0.082
	Male	5.40	0.091
Student self-efficacy	Female	5.22	0.091
	Male	5.30	0.101
Student study skills	Female	4.80	0.093
	Male	4.54	0.103
Perceived support	Female	4.81	0.082
	Male	4.92	0.091

Note: $^*p = 0.05$

Table I.
Means and standard errors for gender

Variable	Generation	Mean	SE
Advisor accountability	First	6.35	0.083
	Second	6.52	0.073
Advisor empowerment	First	5.89	0.065
	Second	5.80	0.071
Student responsibility	First	5.50	0.092
	Second	5.62	0.080
Student self-efficacy *	First	5.06	0.102
	Second	5.49	0.089
Student study skills	First	4.58	0.104
	Second	4.76	0.091
Perceived support	First	4.73	0.092
	Second	5.03	0.080

Note: $^{*}p = 0.05$

Table II.
Means and standard errors based on first or second generation college student status

Variable	Gender	Mean	SE
Advisor accountability *	Female	6.68	0.053
	Male	6.18	0.074
Advisor empowerment *	Female	5.88	0.073
	Male	5.36	0.101
Student responsibility *	Female	5.80	0.066
	Male	5.38	0.092
Student self-efficacy	Female	4.81	0.085
	Male	5.06	0.118
Student study skills	Female	4.55	0.078
	Male	4.49	0.109
Perceived support	Female	4.99	0.067
	Male	4.85	0.094

Note: $^{*}p = 0.05$

Table III.
Means and standard errors for college freshmen based on gender

responsibility and greater expectations of advisor empowerment and accountability than male freshmen (see Table III).

Discussion

NACADA's (2004) "Statement of core values in academic advising" suggested that the advising process should be shaped by understanding the needs of an institution and its students. The current study was guided by beliefs that effective assessment of academic advising provides the understanding necessary for process improvement. Previous attempts to assess the effectiveness of advising practices have often focused on levels of student satisfaction with the process (Hemwall and Trachte, 2003; Propp and Rhodes, 2006); however, empirical evidence that advising impacts specific elements contributing to student persistence and success is lacking (Campbell and Nutt, 2008; Light, 2001). The present research addresses this gap in the literature by identifying aspects of academic advising that predict student academic success as

measured by college GPA and other factors identified in the study. Furthermore, the project examines demographic populations that might have particular needs and expectations related to academic advising.

The primary goal of this study was to demonstrate that advising does impact student academic performance. Higher scores on student study skills and student self-efficacy were related to higher student GPA. In turn, meeting with advisor and advisor accountability contributed to student responsibility, student self-efficacy, student study skills, and perceived support; advisor empowerment also contributed to student responsibility, student study skills, and perceived support. The levels to which advisors are available to students, actually meet with them, and provide them with assistance and support are clearly linked to factors demonstrated to predict student success. Consequently, academic advisors can engage students through effective interactions; a discussion regarding academic life can enlighten advisors regarding areas in which a particular student is struggling. With this knowledge, advisors can incorporate appropriate strategies (or referrals) to provide additional support, grant authentic encouragement to boost student confidence, and suggest study practices or other tips for successfully navigating the broader college curriculum. Overall, academic advising can vitally impact all facets of a student's academic experience, ranging from development of self-efficacy to practical applications of study skills.

The secondary goal of this study was to identify group differences on important variables. Student study skills and student self-efficacy significantly contributed to the prediction of GPA. Each factor was influenced by personal variables (i.e. meeting with advisor, gender, first-generation status, and university classification). Significant differences were found for the number of times students met with their advisor. Students meeting at least once per semester, compared to those meeting less frequently, reported significantly higher levels of perceived support. The level of support one feels within the academic setting is directly linked to retention and success (Shelton, 2003). Thus, results of the present study align with Shelton's findings and point to academic advising as a resource and relationship through which institutions can potentially enhance retention through supporting students.

Another personal variable to consider when advising is gender. Significant results were found for gender on student responsibility with women rating this factor higher than men. Results suggest that females take more responsibility for their academic success throughout an academic semester. Females' greater sense of responsibility may contribute to morebachelor's degrees being completed by women than men (National Bureau of Labor Statistics, 2011). Therefore, advisors can more widely promote student success by developing strategies to instill in all students the importance of personal responsibility.

Additionally, differences were identified between first- and second-generation college students; specifically, significant differences were found in levels of student self-efficacy. First-generation college students face unique challenges related to beliefs about their ability to succeed in college. Despite the increasing enrollment of first-generation students (Bradbury and Mather, 2009), this group continues to have lower graduation rates (Lohfink and Paulsen, 2005; Warburton *et al.*, 2001). Thus, the needs of first-generation college students may differ considerably from those of second-generation students. Consequently, advisors can focus interventions toward familiarizing these students with higher education requirements and resources available to help them succeed.

Similar to first-generation college students, first-year students need additional support to succeed within the academic setting in comparison to peers who have spent more time in college. This specialized treatment is important based on recent research that found one in seven (16 percent) of the 2010 high school graduating class that originally attended a higher education institution did not progress beyond the first year of college (Hart Research Associates, 2011). Advisors can provide support according to the unique strengths and needs of students who are transitioning into a new academic setting. Meeting with an advisor predicts higher levels of responsibility and study skills in college freshmen. Additionally, expectations of advising predict responsibility, study skills, self-efficacy, and perceived support. Specifically, female freshmen report higher levels of responsibility while holding higher expectations of advisor availability and helpfulness than male freshmen. These results for college freshmen support the claim that academic advising is a tool through which higher education institutions can meet students at their individual levels of need to facilitate successful navigation of the college experience.

Results of the present study highlight primary factors related to advising that influence student development of basic requirements for academic success. For example, students who have strong study skills, a greater sense of responsibility, and higher self-efficacy are more likely to succeed. Therefore, advisors have an immediately meaningful impact on students during the first year of college and the opportunity for continuing influence as students work toward degree completion. Surprisingly, similar links between advising and student achievement are scarce in empirical literature.

Expanding the assessment of academic advising beyond student satisfaction will allow broader communication regarding the substantial contribution of academic advising to student success. Patton *et al.* (2006) suggested that longitudinal assessments of retention-based initiatives are lacking, and according to Kelley (2008), assessment of academic advising needs to be advanced and practiced in ways similar to classroom assessment. Thus, the potential contribution of academic advising to student development, retention, and success should be investigated both in more depth and over time. Additionally, future research should focus on providing better understanding of the advising relationship, including levels of congruency between what students and advisors expect to achieve through the process.

In conclusion, the present study demonstrated that academic advising impacts multiple factors that contribute to student success and identified specific areas for targeted interventions. These results highlight how higher education institutions can benefit by supporting academic advising programs that implement specialized interventions, as well as by supporting the research and assessment efforts upon which those interventions are based. The growing emphasis on student retention and degree completion from institutions and their constituents means that investigation and effective application of knowledge about all aspects of the academic experience is crucial. Academic advising is one element of a student's academic journey that can be further developed as a tool to help students achieve educational and career goals while helping institutions to accomplish stated educational missions. Therefore, further research is essential to expand understanding of academic advising and its measurable impact on personal and institutional aspects of student success.

Notes

1. For each regression, the data were screened for normality, linearity, homoscedasticity, and outliers.
2. For between group comparisons, students were chosen at random from each category to achieve a normal distribution.

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Further reading

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