This study examined the relationship between evaluations of academic support services and student athletes' career decision-making self-efficacy. One hundred and fifty-eight NCAA athletes (68% male) from 11 Division I teams completed measures of satisfaction with their academic support services, career decision-making self-efficacy, general self-efficacy, and locus of control. Results indicated that evaluations of academic support services were positively related to levels of career decision-making self-efficacy. In addition, this relationship was moderated such that student athletes with lower levels of general self-efficacy and internal locus of control benefited more from positive experiences with academic support services. Limitations and implications are discussed.

**Keywords:** career development, career decision-making self-efficacy, student athletes, academic support services

It is important for individuals to be able to evaluate and carefully consider career options. Consequences of career decision-making difficulty for college students include loss of earnings, underemployment, and poor attitudes toward early jobs (Feldman, 2003). Among students, athletes might be especially at risk for having poor career decision-making skills because of conflicting roles (Adler & Adler, 1987) and potential isolation with a peer group that is typically focused on nonacademic outcomes (Wittmer, Bostic, Phillips, & Waters, 1981).

Recognizing that college athletes are at risk of having their academic and career development stunted, many universities offer workshops, tutoring, and advice through academic support services. The primary goal of this study was to evaluate the relationship between student athletes' satisfaction with academic support services and their perceived confidence in making career decisions. A secondary goal was to gain a better understanding of the role of individual differences in this relationship.

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Student Athletes' Career Development

One theme that emerges in the literature on student athlete career development is the negative impact of these students' athletic obligations on their personal, academic, and career development (Cox et al., 2004). With regard to career development, athletes are more likely than non-athletes to face problems with career maturity, the clarity of educational plans, and adjustment to college (Watson & Kissinger, 2007). Career decision-making self-efficacy (CDSE), or a person's confidence in making career decisions, is an important factor in the career development process. Student athletes with low levels of CDSE are more likely to avoid career decision-making tasks such as choosing a major, learning about their own skills and interests, and seeking out relevant career information (Taylor & Betz, 1983). As a result, they are unprepared to make quality career decisions and are more likely to change their career goals when faced with challenges.

Fortunately, CDSE is malleable and can be increased by workshops specifically developed to help students with career decision-making difficulties (Fouad, Cotter, & Kantamneni, 2009; Scott & Ciani, 2008). Studies examining these academic support services typically focus on the type of services offered and attendance behavior. It is also possible to examine the effectiveness of these types of services through users' subjective evaluations of the process. Although reaction measures do not evaluate new skill development, the motivational aspects associated with reactions are critical to successful training programs (Kirkpatrick, 1994). Because of this, satisfied participants should benefit more from the program, thus increasing their CDSE. We expect that satisfaction with academic support services will be positively correlated with CDSE (Hypothesis 1).

The Role of Individual Differences on Student Athletes' CDSE

Work by Solberg (1998) supports the idea that CDSE is malleable and distinguishes CDSE from more stable traits such as personality and global self-efficacy. Solberg's model identifies three antecedents of CDSE: agency, family functioning, and self-identity. For example, Taylor and Pompa (1990) found that students who believed that they had more control over the outcomes in their life also had higher levels of CDSE. Similarly, Paulsen and Betz (2004) found that confidence in social and academic areas (e.g., leadership, science, technology) accounted for nearly 50% of the variance in students' CDSE. Similar to the confidence explored by Paulsen and Betz (2004), general self-efficacy focuses on people's global evaluations of their likely success (Schwarzer & Jerusalem, 1995).

Building on Solberg's (1998) model and past research, we expect that student athletes with lower levels of general self-efficacy will also have lower levels of CDSE (Hypothesis 2). As a result, these student athletes should benefit the most from satisfying career-planning experiences. We believe that the relationship between satisfaction with academic support services and CDSE will be stronger for individuals with lower levels of general self-efficacy than for individuals with higher levels of general self-efficacy (Hypothesis 3).
Whereas general self-efficacy is a person’s belief about whether he or she will be generally successful, locus of control focuses on a person’s belief about the causes of outcomes in his or her life (Rotter, 1966). Individuals with an internal locus of control believe that they are in control of these outcomes and that they can influence these outcomes directly. Individuals with an external locus of control believe that there are factors outside of their control that influence the outcomes they experience. Consistent with the results found by Taylor and Pompa (1990), we expect that student athletes with lower levels of an internal locus of control will also have lower levels of CDSE (Hypothesis 4). Because these student athletes believe that they cannot improve their career decision-making outcomes themselves, they will be more likely to benefit from external help. Therefore, we expect that the relationship between satisfaction with academic support services and CDSE will be stronger for individuals with lower levels of an internal locus of control (Hypothesis 5).

Method

Participants
Respondents were 158 NCAA athletes from 11 Division I teams at a midwestern and an eastern university. A profile of the sample indicates that 68% were male, 86% were Caucasian, the average age was 20 years ($M = 20.10$, $SD = 1.60$), and the majority of students were in their freshmen (31%) or sophomore (33%) year. Teams represented included ice hockey (54%), basketball (17%), lacrosse (13%), tennis (8%), and track (8%). All student athletes were required to take part in academic support programs involving career exploration and development during their freshman and sophomore years. Although the academic support services differed between universities, both programs were based on the NCAA CHAMPS/Life Skills program. Each university’s program contained an online vocational assessment; access to career counselors; and workshops on résumé writing, career planning, and internships. Beyond the required component, both schools emphasized the importance of internships and offered optional programs for juniors and seniors.

Instruments
The surveys were provided to coaches, who distributed them to their teams. Participants anonymously completed and returned the surveys in a preaddressed envelope.

We measured locus of control with Rotter’s (1966) 16-item forced-choice Locus of Control Scale. For each item, participants endorsed either an internal attribution (i.e., “People’s misfortunes result from the mistakes they make”) or an external attribution (i.e., “Many of the unhappy things in people’s lives are partly due to bad luck”). Rotter reported internal consistency estimates between .69 and .73 with a 1-month test–retest reliability estimate of .72.

We measured general self-efficacy with Schwarzer and Jerusalem’s (1995) 10-item Generalized Self Efficacy Scale. Participants’ answers ranged from $1 = \text{not at all true}$ to $4 = \text{exactly true}$. An example item is, “I can always manage to solve difficult problems if I try hard enough.” Internal consistency estimates ranged between .75 and .91.
Students were also asked to rate their level of satisfaction using the Riemer and Chelladurai's (1998) Athlete Satisfaction Questionnaire. We measured satisfaction with academic support services with three items: “the academic support services provided,” “the tutoring I received,” and “the personnel of the academic support services (i.e., tutors, counselors).” Statements are rated on a scale ranging from 1 = strongly disagree to 7 = strongly agree. Riemer and Chelladurai found that all three items had strong loadings on their factor in a confirmatory factor analysis and reported an internal consistency estimate of .86.

We used Betz, Klein, and Taylor’s (1996) 25-item short form of the Career Decision-Making Self-Efficacy Scale to measure CDSE. Participants rated their confidence on common career decision-making tasks on a 5-point scale ranging from 1 = no confidence at all to 5 = completely confident. An example item is confidence with selecting “one major from a list of potential majors you are considering.” Betz et al. reported an internal consistency estimate of .94.

Results

Descriptive statistics, internal consistency alpha estimates, and correlations between study variables are presented in Table 1. In support of Hypotheses 1, 2, and 4, CDSE was positively correlated with satisfaction with academic support services ($r = .37, p = .000$), generalized self-efficacy ($r = .55, p = .000$), and internal locus of control ($r = .17, p = .033$).

To determine if the relationship between satisfaction with academic support services and CDSE depended on the level of general self-efficacy (Hypothesis 3) and internal locus of control (Hypothesis 5), we conducted two hierarchical multiple regression analyses. For the first analysis, satisfaction with academic support services and general self-efficacy were entered in Step 1 and their cross-product was entered in Step 2; in the second analysis, this procedure was repeated with internal locus of control replacing general self-efficacy. Following the advice of Cohen, Cohen, West, and Aiken (2003), we computed the interaction term as the cross-product of the mean-centered variables. The resulting coefficient for academic support services indicates its relationship with CDSE at the average level of general self-efficacy in the first equation and at the average level of internal locus of control in the second. Perhaps more important, the coefficient for the interaction term indicates how

### TABLE 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1 SD</th>
<th>2 2</th>
<th>3 3</th>
<th>4 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General self-efficacy</td>
<td>3.29</td>
<td>0.36</td>
<td>(.86)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Internal locus of control</td>
<td>0.57</td>
<td>0.14</td>
<td></td>
<td>.27**</td>
<td>(.62)</td>
<td></td>
</tr>
<tr>
<td>3. Academic support service satisfaction</td>
<td>5.47</td>
<td>1.03</td>
<td>.26**</td>
<td>.04</td>
<td>(.78)</td>
<td></td>
</tr>
<tr>
<td>4. Career decision-making self-efficacy</td>
<td>3.85</td>
<td>0.60</td>
<td>.55**</td>
<td>.17</td>
<td>.37**</td>
<td>(.95)</td>
</tr>
</tbody>
</table>

Note. $N = 158$. Internal consistency reliability estimates are presented on the diagonal in parentheses. *$p < .05$. **$p < .01$. 
the relationship between academic support services and CDSE changes as a function of the third variable.

In support of Hypothesis 3, the interaction between general self-efficacy and academic support services increased the variance explained in CDSE to 37%, $\Delta R^2 = .02$, $p = .048$. All three variables were significant predictors of CDSE: general self-efficacy ($\beta = .48$, $p = .000$), academic support services ($\beta = .26$, $p = .000$), and their interaction ($\beta = -.13$, $p = .048$). The beta for academic support services (.26) can be interpreted as the standardized relationship at the average level of general self-efficacy, and the beta for the interaction (-.13) describes how this relationship changes for each standard deviation change of general self-efficacy. These results indicate that the relationship between academic support services and CDSE was stronger when self-efficacy was low (.39 at one standard deviation below the mean) and weaker when self-efficacy was high (.13 at one standard deviation above the mean).

In support of Hypothesis 5, the interaction between internal locus of control and academic support services increased the amount of variance explained in CDSE to 19%, $\Delta R^2 = .03$, $p = .012$. Only academic support services ($\beta = .37$, $p = .000$) and its interaction with internal locus of control ($\beta = -.18$, $p = .012$) were significant predictors, with internal locus of control approaching significance ($\beta = .14$, $p = .053$). Based on the same rationale as above, this indicates that the relationship between academic support services and CDSE was stronger when internal locus of control was low (.55) than when it was high (.19).

**Discussion**

Student athletes who were more satisfied with their school’s academic support services typically had higher levels of CDSE. This result was consistent with other studies examining participation in workshops created to aid students with career development problems (Fouad et al., 2009; Scott & Ciani, 2008). As was expected, the relationship between satisfying academic support services and CDSE was greater for student athletes with a more external locus of control and lower levels of general self-efficacy.

The implications of these results to student athletes are twofold. Combined with such pre-post career development assessments as Fouad et al.’s (2009) and Reese and Miller’s (2006), there is strong evidence that these programs improve student athletes’ CDSE. The current results indicate that the reaction criterion (i.e., satisfaction) not only is a quick method of evaluating academic support services but also is linked to CDSE. In addition, results indicate that satisfying career development programs will be the most beneficial to either student athletes who feel that they will generally be unsuccessful or those who believe that their career outcomes are more the product of outside influences than internal determination.

Because many universities screen entering freshmen on a variety of individual differences, it will not be difficult for schools to explore the relationships between these variables and CDSE. For that matter, it will not be difficult to incorporate a measure of CDSE into these assessments. Taking this approach, universities and coaches will be able to target career
counseling to student athletes or recommend enrollment in a student orientation course that places emphasis on career exploration skills.

Limitations and Future Directions

A number of factors limit the current study. First, all of the athletes were required to participate in academic support services that included career counseling, but the exact nature of these programs varied across athletes. Second, the cross-sectional nature of the data limits the internal validity ascribed to the impact of academic support services. For example, it is impossible to determine if satisfaction with academic support services influences CDSE or vice versa, although the logic underlying the hypotheses and the significant interactions lend support to our conclusions. Third, our measure of satisfaction with academic support services was very global. In interpreting our results, it is important to remember that they refer to overall attitudes about academic support services and not specific attitudes toward career services. To overcome these limitations, future researchers should explore longitudinal cohort studies to examine student athletes before and after they enter these programs. Additional information about the nature of the services should also be obtained to help isolate the factors that have the most direct impact.

References


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