Influences of College Career Services on Students’ Career Decision-Making Self-Efficacy

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Experiencing prolonged uncertainty regarding college goals leads to:

- Students questioning the reasons for their continued presence on campus (Tinto, 1993)
- Reduced likelihood of both persistence to college degrees, and achieving access to the benefits of college degrees (e.g., Gordon, 1985; Hull-Blanks et al., 2005; Knox, Lindsay, & Kolb, 1993; Pascarella & Terenzini, 2005)
Self-efficacy refers to “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391)

Self-efficacy is task specific

Higher levels of self-efficacy encourage:
  • Successful performances on specific tasks,
  • Increased persistence in the face of challenges, and
  • Willingness to engage new tasks
Correlation studies

- Significant positive relationships found between CDMSE and:
  - engagement in career exploration activities
  - vocational identity
  - academic and social integration, and
  - career decidedness
  (e.g., Blustein, 1989; Gushue et al., 2006; Peterson, 1993; Robbins, 1985; Taylor & Popma, 1990)

- Significant negative relationships found between CDMSE and:
  - career indecision
  - difficulty committing to a college major
  (e.g., Betz, 2004; Betz & Luzzo, 1996; Robbins, 1985; Taylor & Betz, 1983)
Intervention studies

- Demonstrate statistically significant increases in CDMSE for treatment groups in pretest and posttest quantitative studies

- Despite limitations of
  - Small sample sizes (ranging from 13 to 99 participants)
  - Short duration and intensity of interventions (e.g., observing a 30-minute video)
  - Short observation times (ranging from 10 days to 8 weeks)

(e.g., Bikos & Furry, 1999; Fukuyama et al., 1998; Krieshok et al., 2000; Luzzo & Day, 1999; Luzzo & Taylor, 1994; Maples & Luzzo, 2005; O’Brien et al., 2000; Sullivan & Mahalik, 2000; Uffelman et al., 2004)
Questions remain, including:

- Are changes in CDMSE maintained over time?
- Is there enough temporal lag provided in these intervention studies to observe development?
- What about these interventions contributes to the observed changes in CDMSE?

Calls for additional research that includes:

- Longitudinal studies with several administrations of CMDSE measures to examine change over time
- Use of multiple research methods to addend to the environmental context which influences changes in CDMSE

(e.g., Betz & Luzzo, 1996; Gainor, 2006; Hughes & Karp, 2004; Luzzo et al., 1999)
To understand how participation in individual career counseling influences the CDMSE of first-year college students who are exploring majors.

Research Questions:

1. Do students who participate in individual career counseling experience an increase in CDMSE beyond that expected due to maturation, as demonstrated by the control group?
2. What influences do students perceive individual career counseling to have on their development of CDMSE, academic and career choices, and persistence to their academic and career goals?
Four sources of self-efficacy

- Performance accomplishment activities (PAAs)
- Vicarious learning
- Verbal persuasion
- Affective states

(Bandura, 1986, 1997)
Career counseling understood as an environmental support that may facilitate academic and career choice processes.
Research Design

- Time-extended – full academic year
- Before-and-after design – pretest, posttest, delayed posttest
- Quasi-experimental, with randomly assigned treatment and control groups

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<td>Treatment</td>
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Students enrolled in a mandatory transitions course for those who enter “Midwest University” (MU) with a status of an “undecided major”

- 847 students invited to participate (49% of all first-year, undecided students)
- 581 fit the study criteria (72% of invited)
- 305 students chose to participate in first survey (52% of those who fit the criteria)
- Randomly assigned to experimental groups (60 in treatment, 245 in control)
- 130 persisted to complete the full study (43% of participants; 33 treatment group, 97 control group)
Data Collection

Survey Instrument

- Full sample of 130 participants
  - Demographic form
  - Career Decision Self-Efficacy Scale
    \( (CDSE \, Scale; \, Betz \, & \, Taylor, \, 2001) \)

Semi-Structured Interviews

- Purposefully selected group of participants based on pretest survey responses
  - 1\(^{\text{st}}\) Interview – 19 treatment group, 10 control group
  - 2\(^{\text{nd}}\) Interview – 15 treatment group, 9 control group
  - 3\(^{\text{rd}}\) Interview – 14 treatment group, 9 control group
A three-part experience:

- an initial career counseling appointment
- a performance accomplishment activity to actively explore majors and/or careers
- a second career counseling appointment to reflect on progress and next steps

Individual appointments selected due to documented effectiveness as strategy for supporting the choice and pursuit of educational and career goals (Oliver & Spokane, 1988; Whiston et al., 1998)

Performance accomplishment activities based on connections to enhancing self-efficacy which, in turn, enhances abilities to make and pursue career decisions (Bandura, 1986, 1997; Betz, 2004, 2007; Lent et al., 1994; Luzzo et al., 1999)
CDSE Scale Total Score: Main Effect for Experimental Groups

<table>
<thead>
<tr>
<th>Survey</th>
<th>df</th>
<th>t</th>
<th>p</th>
<th>d</th>
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<tbody>
<tr>
<td>Pretest</td>
<td>128</td>
<td>1.85</td>
<td>.022</td>
<td>0.43</td>
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<tr>
<td>Posttest</td>
<td>127</td>
<td>3.07</td>
<td>.002</td>
<td>** 0.63</td>
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<tr>
<td>Delayed posttest</td>
<td>128</td>
<td>3.73</td>
<td>.000</td>
<td>*** 0.79</td>
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</tbody>
</table>

- No difference on pretest survey
- Statistically significant difference on posttest and delayed posttest with medium to large effect sizes

One-tailed test significance values presented. Significance indicated only for tests found to be significant in comparison to the Bonferroni corrected alpha (.05/3 = .017).
### CDSE Scale Total Score: Main Effect for Survey Time / Interaction Effects

<table>
<thead>
<tr>
<th>Group</th>
<th>Survey Comparison</th>
<th>MD</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p a</th>
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<tr>
<td>All Participants</td>
<td>Pre vs. Post</td>
<td>0.15</td>
<td>0.49</td>
<td>128</td>
<td>3.53</td>
<td>0.001***</td>
<td>0.26</td>
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<tr>
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<td>Pre vs. Delayed Post</td>
<td>0.00</td>
<td>1.27</td>
<td>127</td>
<td>-0.04</td>
<td>0.486</td>
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<td>Post vs. Delayed Post</td>
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<td>0.19</td>
<td>0.426</td>
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<td>96</td>
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<td>0.010**</td>
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<td>Pre vs. Delayed Post</td>
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<td>96</td>
<td>1.45</td>
<td>0.076</td>
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<td>Post vs. Delayed Post</td>
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<td>0.48</td>
<td>96</td>
<td>-0.55</td>
<td>0.293</td>
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<td>Treatment</td>
<td>Pre vs. Post</td>
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<td>0.47</td>
<td>31</td>
<td>3.04</td>
<td>0.003**</td>
<td>0.54</td>
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<td>Pre vs. Delayed Post</td>
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<td>0.000***</td>
<td>0.66</td>
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<td>Post vs. Delayed Post</td>
<td>0.11</td>
<td>0.54</td>
<td>31</td>
<td>1.20</td>
<td>0.120</td>
<td>0.20</td>
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</table>

- Some evidence of an increase in CDMSE over the first college semester due to maturation

- Significant increase in CDMSE, beyond maturation, for the treatment group over the first college semester that is maintained through the second college semester

One-tailed test significance values presented. Significance indicated only for tests found to be significant in comparison to the Bonferroni corrected alpha (.05/3 = .017).
Sources of Self-Efficacy

- 11 (of 15) treatment group members made direct references to PAAs when discussing how career counseling contributed to their ability to confidently engage in career decision making.

- Approximately half of the treatment group interviewees expressed that engaging in PAAs were the most helpful aspect of their career counseling experiences.

Denise, 18, Black / African American, delayed posttest interview:

The best part, probably the resume… It wasn’t just the product of it; it was more of like “okay, these are my experiences,” and just kinda like reminded me of what I’ve done and also let me know what I should do or if I want to join more programs or just do more within the program I’m in, that kind of thing.
Sources of Self-Efficacy

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- When participants reflected experiences related to beliefs in their ability to confidently engage in academic and career choice tasks:
  - 69% of the CDMSE reflections related to career counseling included reference to PAAs
  - 5% of CDMSE reflections drawn from campus support services other than career services (e.g., academic advising, departmental advising, residence life) contained references to PAAs
Patterns of Change in Career Decision-Making Self-Efficacy
Patterns of Change Over Time

- **Consistent increase** *(3 treatment, 1 control)*
  - Found a connection to an environmental support on campus that helped them overcome or reinterpret past anxieties
  - As a result, they:
    - **Saw new possibilities** for their academic majors and careers
    - **Took active steps to get involved** in opportunities that are directly related to academic and career goals
  - **Active involvement served as a testing ground for potential future successes**
Patterns of Change Over Time

- Initial increase, not maintained \(4 \text{ treatment}\)
  - Attributed first college semester increases in CDMSE to:
    - Career counseling experiences \(\text{All}\)
    - Advisors in academic departments \(\text{Derek, Jacob}\)
    - Performance in classes \(\text{Derek, Hailey}\)
    - Independent research and reflection on options \(\text{Grant, Hailey}\)
  - In their second college semester, they experienced:
    - Waiting periods \(\text{Jacob, Derek}\), or
    - Regrouping/changing directions \(\text{Grant, Hailey}\)
Patterns of Change Over Time

- Initial decrease, followed by increase (2 treatment)
  - Came to their major decisions quickly in their first college semester
  - Career counseling moved on to other activities (e.g., learning about career opportunities, developing resumes, searching for internships, and building networks)
  - Although initially daunting, Chris and Emily:
    - Took immediate steps to engage new tasks
    - Made measureable progress by the end of their first college year
Survey findings from this study complement previous research, reporting increases in CDMSE related to career interventions.

Interview and mixed data analysis provide a more nuanced understanding of changes in CDMSE over time than the survey data alone.
Discussion

- **Readiness of college students** to engage supports influences observed outcomes
  - Those with low readiness may benefit from information on support networks and invitations to continue participation to promote knowledge and confidence building

- **PAAs stood out as a primary difference** between the career counseling intervention and other support services on campus, and contributed to increased CDMSE by providing:
  - An “extra push” to try a career-related task
  - Two types of feedback on PAAs:
    - Personal reflections on their performance and experiences, and
    - Insights from a career counselor who could help deepen their understanding of their experience, make normative comparisons to peers, and discuss potential next steps.
Complexity of CDMSE and career intervention studies

- Wavering increases and decreases in CDMSE are to be expected as students take on new developmentally-appropriate tasks
- Observed decreases in CDMSE do not necessarily signal a failed intervention, but alternatively, an opportunity for deeper exploration of how students are experiencing the career intervention
- Continued longitudinal and mixed methods research are needed to develop a deeper understanding of the career development process and the impact of career interventions
The scope of this study was delimited in many ways (e.g., single institution, single career intervention type, narrow student population, single career choice task).

Participation in the study was voluntary and self-selected. Attrition did occur over the course of the study. (Although, steps were taken to address this. See Makela, 2011.)

Mixed data analyses were carried out on a reasonably small data set. Additional work remains to be done, although current findings are compelling enough to warrant further consideration.
Patterns of Change Over Time

- No change (1 treatment, 3 control)
  - Chose not to seek assistance for exploring majors and careers beyond classes and personal reflection
  - Discussed a passive approach to exploration, taking things “day-by-day” and expecting that solutions would present themselves with time
Patterns of Change Over Time

- **Decrease only** (2 treatment, 2 control)

  - Consistent themes were difficult to determine

  - A combination of experiences seemed to contribute to the observed decreases in CDMSE, including:
    - Encountering **new barriers** (*Gina, Jennifer*)
    - Little involvement outside of class in relation to major and career choices (*Gina, Jennifer, Susan*)
    - Lackluster experiences with support services (*Gina, Jennifer, Rebecca*)