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The Relationship Between Social Support and Self-Advocacy in College Students with Disabilities

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THE RELATIONSHIP BETWEEN SOCIAL SUPPORT AND SELF-ADVOCACY IN
COLLEGE STUDENTS WITH DISABILITIES

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Abstract

In the last three decades, the number of college students with learning disabilities (LD) enrolled in colleges and universities has more than tripled (Stodden, Conway, & Chang, 2009). College students with disabilities represent a unique population on college campuses and many of these students have unique needs and are at an increased risk of performing poorly (Murray, 2013; Adams & Proctor, 2010). This study explored the connection between social support and self-advocacy in college students with disabilities. The College Students with Disabilities Campus Climate Survey (Lombardi, Gerdes, & Murray, 2011) was used to gather data from undergraduate students at a midsize western private university.

Social support was found to be a significant predictor of self-advocacy in college students with disabilities. Peer support, family support, and faculty teaching practices made up the construct of social support. Peer support and faculty teaching practices were found to be significant predictors of student self-advocacy. Family support was not found to be significant. The data was examined for group differences between genders, disability types, and disability status (high incidence disabilities versus low incidence disabilities). No significant group differences were found. These findings suggest helping students build social support will increase their level of self-advocacy, which in turn may increase academic success.

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Chapter One: Introduction and Study Purpose

High school students are enrolling in colleges and universities at a higher rate than ever before (U.S. Department of Education, 2013). Between 2001 and 2011, enrollment in postsecondary institutions increased by 32%, bringing the number of enrolled college students up to 21 million (U.S. Department of Education, 2013). This overall increase in students includes a corresponding increase in the number of students with disabilities who are attending postsecondary institutions. In the last three decades, the number of college students with learning disabilities (LD) enrolled in colleges and universities has more than tripled (Stodden, Conway, & Chang, 2009). While there has been an increase in overall numbers of students with disabilities in college, students with disabilities are still underrepresented (Sanford et al., 2011). College students with disabilities represent a unique population on college campuses and many of these students have distinct needs and are at an increased risk of performing poorly (Murray, 2013; Adams & Proctor, 2010).

Students with Disabilities in Post-Secondary Education

In the United States, key legislation such as the Americans with Disabilities Act Amendments Act of 2008 and the 2008 Higher Education Opportunity Act have improved the opportunity for students with disabilities to attend some form of postsecondary education (Raue & Lewis, 2011). Given this recent trend, the growing number of students with disabilities enrolling in postsecondary education is estimated to

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be approximately 707,000 (Raue & Lewis).   Despite this dramatic increase in postsecondary attendance, students with disabilities still remain far less likely to attend 4-year universities than their nondisabled peers (Lombardi, Gerdes, & Murray, 2011). Forty-six percent of youth with disabilities go on to some kind of college; 32% to a 2-year community college, 14% to a four-year college (Newman et al., 2009).

The post-secondary education system in the United States differs from its' K-12 system in that students are required to self-disclose their disability to receive accommodations. Students must advocate for themselves, yet over half do not disclose their disability (Murray, 2013).   College students with disabilities represent a unique population on college campuses and many of these students have distinct needs (Murray, 2013).

Students with disabilities are at an increased risk of performing poorly in postsecondary education (Adams & Proctor, 2010). They may face a very distinct set of challenges adjusting to the postsecondary environment, including disparities in the level of support provided to students as compared to the level of support received in high school, negative faculty attitude, the quality of postsecondary disability support services, and new demands related to disability disclosure and self-advocacy within the postsecondary setting (Lombardi, Gerdes, & Murray, 2011).   Other academic challenges may include concentrating on the task at hand, determining the saliency of information presented in class, applying test strategies, and managing time (Proctor et al., 2006). These challenges have been shown to potentially contribute to a higher level of anxiety and lower grade point average (GPA) (Proctor et al., 2006). These challenges are typically accompanied by social changes including adjusting to different living

arrangements, moving away from friends and family for the first time, and consequent changes in family and peer supports. Connor (2012) argues that these are a few reasons why measures outside of student outcome and success should include data besides GPA and grades for students with disabilities.

Assessing Students with Disabilities for Success

When researching students with disabilities, grades and GPA are not an accurate assessment of academic success (Connor, 2012). GPA is not strongly associated with other measures of success such as self-efficacy and self-determination when it comes to student with disabilities (Morningstar et al., 2010).   Murray and Wren (2003) suggest that nonacademic variables should be considered alongside GPA when considering student outcomes; other measures, which may or may not be correlated with GPA, are a more accurate representation of the population of students with disabilities. For example, when exploring student self-determination in students with disabilities, Jameson (2007) used GPA alongside retentions and employment success as success outcomes. DaDeppo (2009) found that academic and social integration were not unique predictors of GPA, but both were unique predictors of intent to persist. DaDeppo also found that students with learning disabilities are more likely to attribute their academic success, or lack thereof, to external factors, and their nondisabled peers were more likely to attribute academic success to study skills and academic characteristics such as time spent studying.

This study examined the effect of social supports on self-advocacy for students with disabilities. The literature has shown that self-advocacy in students with disabilities is a skill that can lead to academic success (Murray, Lombardi, & Kosty, 2014; Peggy, Sullivan, & Guerra, 2007; Hitchings et al., 2001; Hatch, Shelton, & Monk, 2009;

Zajacova, Lynch, & Espenshade, 2005; Barrios, 1997; Adams & Proctor, 2010). If self-advocacy can be increased for students with disabilities, it has the potential to increase GPA, improve grades, increase rates of persistence towards graduation, and lead to better adaptation to college (Zajacova, Lynch, & Espenshade, 2005; Barrios, 1997; Adams & Proctor, 2010).

The lack of information dealing specifically with students with disabilities at the postsecondary level has been recognized and some researchers have encouraged others to join them in researching this population. For example, Shaw and Dukes (2013) have called upon the field to set a research agenda dealing with the transition of students with disabilities from secondary to post secondary education. It is their hope that this research will result in evidence-based practices that will support the postsecondary educational goals of all students with disabilities. Research focused on college students with disabilities has the opportunity to have a wide-reaching impact, as 88% of 2-year and 4-year Title IV degree-granting postsecondary institutions reported enrolling students with disabilities (U.S. Department of Education, 2011). The growing enrollment and key legislation has generated increased interest in research on the accessibility of higher education for students with disabilities (Raue & Lewis, 2011).

Social support and self-advocacy. Two areas that have been shown to influence the outcome and college experience for students with disabilities at the postsecondary level are self-advocacy and social support (Lombardi, Gerdes, & Murray, 2011). Self-advocacy is the art of speaking up for yourself and your needs and being able to explain a disability clearly and concisely (Kallio & Owens, 2004). Self-advocacy is an important skill for students with disabilities because they need to articulate their needs in a clear,

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educated, and appropriate manner to faculty and support staff; this aids in getting their educational needs met (Janiga & Costenbader, 2002). College support staff has rated self-advocacy as the most crucial and necessary skill for incoming freshman (Janiga & Costenbader, 2002). In order to self-advocate effectively, students need to be aware of their disability, and know their rights under the law (Brinckerhoff, 1996, as cited in Lombardi, Gerdes, & Murray, 2011).

A major factor that has been shown to affect self-advocacy is social support (Morningstar et al., 2010; Dowrick et al., 2005). Social support has been identified as an important protective factor that can enhance developmental outcomes in college students (Constantine et al., 2003). In the presence of known risk factors, support from parents, peers, and others could have beneficial effects on the adjustment of post-secondary students with disabilities (Murray et al., 2012). Even though students with disabilities are shown to be at a higher risk for not completing college and for lower grades, among other negative outcomes, social support can help mitigate the risk factor of having a disability.

Social support can be defined as family and peer support in various forms of aid and assistance supplied by family members, friends, neighbors, and others (Barrera, Sandler, & Ramsay, 1981). Higher levels of perceived social support have been shown to predict better adjustment to university life and academics (Cutrona, Cole, Cloangelo, Assouline, & Russel, 1994), and higher levels of family support have been shown to result in increased positive self-determination and more postsecondary skill development (Lombardi, Gerdes, & Murray, 2011).

Measuring Social Support and Self-Advocacy

Most measures of student support and self-advocacy are not holistic, instead assessing just one of these concepts.   For example, the Social Support Questionnaire (SSQ) only looks at social support, not at other support factors or outcomes. It is also rare to find a measure that is specifically developed and evaluated for students with disabilities. To fill this gap, the College Students With Disabilities Campus Climate (CSDCC) survey was developed in 2011 by Lombardi, Gerdes, and Murray. The CSDCC survey is designed to measure the campus climate for students with disabilities by taking several factors into account. It is a measure of individual actions and perceptions of postsecondary and social supports, and is designed to measure the impact of individual actions and perceptions of postsecondary and social supports for college students with disabilities.   The CSDCC survey is a measure tailored to college students with disabilities, aiming to assess their social supports, individual actions, and postsecondary supports.

Although the CDSCC survey was intended to look at student perceptions of postsecondary supports and social supports (Lombardi, Gerdes, & Murray, 2011), this study used factors in the CDSCC survey to measure both the independent and dependent variables. Social supports (peer support, family support, and faculty teaching practices) were the independent variable of this study and self-advocacy was the dependent variable. In the original iteration of the CDSCC survey, self-advocacy was used as one of the influencers of outcome of student perceptions, not as an outcome measure.   This study used two factors from the original CDSCC survey and examined one as a predictor of the other, social support on self-advocacy.

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Social support is a variable that can be both measured and enhanced, unlike other more ambiguous factors that may be supportive to students with disabilities. This makes it a prime factor to be used as an independent variable in this study. If it can be shown that social support is correlated to levels of self-advocacy, social support can be enhanced and as a result, self-advocacy increases. This is especially important because self-advocacy has been identified as a critical element of transition in helping students understand their disabilities and the impact their disabilities can have on their lives (Hitchings et al., 2001). The benefits of social support for students with disabilities at the post secondary level has been studied, but there is a lack of research establishing the relationship between social support and self-advocacy for students with disabilities.

Proposed Study

There is a gap in the research in regards to students with disabilities in postsecondary education. To improve self-advocacy in college students with disabilities, data are needed to inform evidence based practices. Most of the studies on college students, including those pertaining to self-advocacy and social support, attrition/intent to graduate rates, and success, use a general population of college students with no regards to disability status. Very few studies have explored factors that may affect self-advocacy for college students with disabilities. This study helps enrich this aspect of the literature, using a measure specifically designed to assess college students with disabilities to explore the minimally studied effect of social support on self-advocacy as it pertains to college students with disabilities.

Research Questions

1. Is social support a significant predictor of self-advocacy in college students with disabilities?

2. Which aspects of social support are the strongest predictors of student self-advocacy?

    a. Peer Support

    b. Family support

    c. Faculty Teaching Practices

3. Are there group differences in the hypothesized effect of social support on self-advocacy? Different groups include:

    a. Gender

    b. Disability Status (high incidence vs. low incidence)

    c. Disability Type (physical disability, psychological disability, learning/cognitive disability, medical condition)

Definition of Key Terms

There are several key terms introduced in this chapter that will appear throughout this study. It is important the reader and researcher share the same definitions. In order to avoid confusion, the operational definitions of key terms are below:

Disability: A disability is defined as a physical or mental condition that causes functional limitations that substantially limit one or more major life activities, including mobility, communication (seeing, hearing, speaking), and learning.

High-Incidence Disability: High-incidence disabilities are considered to be

learning disabilities (LD) and attention deficit hyperactivity disorder

(ADHD)/attention deficit disorder (ADD).

Low-Incidence Disability: Low-incidence disabilities are all other disabilities

that do not fit into the high-incidence disability category. Low-incidence

disabilities include, but are not limited to: physical disabilities, psychological

disabilities, and health-related disabilities.

Post-Secondary Education: Post-secondary education is considered to be any education

beyond high school. In this study, it primarily refers to education in the traditional 4-year

setting of a college or university.

Self-Advocacy: Self-advocacy is the art of speaking up for yourself and your needs. In

the specific case of students with disabilities, this also includes being able to explain a

disability clearly and concisely (Kallio & Owens, 2004).

Social Support: Social support can be defined as family and peer support in various forms

of aid and assistance supplied by family members, friends, neighbors, and others

(Barrera, Sandler, & Ramsay, 1981).

Chapter Two: Literature Review

This chapter is a review of the literature on the challenges students with disabilities face at the postsecondary level of education, and factors that may be used to predict outcomes of self-advocacy and success for those students. First, there is a review of the rates at which students are entering college and the disparities between typical students and those with disabilities. Next, there is a discussion of the research on social support for both typical students and those with disabilities, and the effect it can have on postsecondary education outcomes of success. Then, self-advocacy is discussed as a potential outcome variable to measure success for students in postsecondary education.

Postsecondary Education

High school students are enrolling in colleges and universities at a higher rate than ever before (U.S. Department of Education, 2013). Between 2001 and 2011, enrollment in post secondary institutions increased by 32%, bringing the number of enrolled college students up to 21 million. This increase in students includes an increase in the number of students with disabilities who are attending post-secondary intuitions.

A disability is defined as a physical or mental condition that substantially limits one or more major life activities, including mobility, communication (seeing, hearing, speaking), and learning (Disability Services Program at the University of Denver website, n.d.). The most common disabilities seen in schools, both high school and college, are learning disabilities (LD) and attention deficit hyperactivity disorder (ADHD); these are

often referred to as high-incidence disabilities. In the last three decades, the number of

college students with learning disabilities (LD) enrolled in colleges and universities has

more than tripled (Stodden, Conway, & Chang, 2009).   The current national policy

mandates are holding schools and states more accountable for the post high school

outcomes for students with disabilities (Sanford et al., 2011). These mandates coupled

with the 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA)

has had a part in the increase of students with disabilities who are enrolling in colleges

and universities (Sanford et al.). While there has been an increase in the overall numbers

of students with disabilities in college, they are still underrepresented as compared to the

percentage their peers without disabilities attending college (Sanford et al.).

The transition from high school to college can be a challenging time socially and

academically, no matter a student's disability status. Extensive research has been

conducted on the transition students go through when progressing from high school to

college, but not many studies have examined the specific transition of students with

disabilities. Exploring factors that contribute to the success of all students adds to the

knowledge base, but the lack of information on students with disabilities makes the

literature less applicable to a diverse population of students, including those with

disabilities (Shaw & Dukes, 2013). Shaw and Dukes have called upon the field to set a

research agenda dealing with the transition of students with disabilities from secondary to

post secondary education. It is their hope that this research will result in evidence-based

practices that will support the postsecondary educational goals of students with

disabilities. While transition is not the main focus of this study, the information learned

about social support and self-advocacy and positive outcomes for students with disabilities will most certainly provide information and support for evidence based practices.

Students with Disabilities Going to College

Unlike the K-12 education system in the United States, in post-secondary education, students with disabilities must self-disclose their disability to receive accommodations; they must advocate for themselves (Murray, 2013). Of students with disabilities who attend an institution of post-secondary education, over half do not disclose their disability even though over three-quarters (79%) of post secondary institutions report distributing materials designed to encourage students with disabilities to identify themselves to the institution (Murray; Raue, Lewis, & Coopersmith, 2011). The majority of students with disabilities (85%) receive accommodations during high school, but at the postsecondary level the rate drops to less than one fourth (24%) of students with disabilities receiving accommodations and supports. It is estimated that less than 50% of college students with disabilities disclose their disability to their institutions of postsecondary education (Newman et al., 2011). Common accommodations at the post secondary level include, though are not limited to: extended time on exams, tutors, testing in alternative locations, alternative exam formats, classroom note takers, help with study strategies, faculty provided written course notes or assignments, adaptive equipment and technology, and other classroom technologies or aids (Newman, Wagner, Cameto, & Knokey, 2009; Raue, Lewis, & Coopersmith).

Eighty eight percent of 2-year and 4-year Title IV degree-granting postsecondary institutions report enrolling students with disabilities (U.S. Department of Education, 2011). Although a small percentage of the national student body, students with disabilities account for approximately 707,000 students. College students with disabilities represent a unique population on college campuses and many of these students have distinct needs (Murray, 2013).

Students with disabilities who do attend colleges and universities are at an increased risk of performing poorly in post-secondary education settings as compared to their nondisabled peers (Adams & Proctor, 2010). Murray, Lombardi and Kosty (2014) point out that students with disabilities have less access to postsecondary education; issues of access to schooling are compounded by difficulties adjusting to academic and social demands. These difficulties manifest in higher course failure rates, lower retention rates, and significantly lower rates of graduation as compared to nondisabled peers. In other words, not only do students with disabilities have a more difficult time getting admitted to institutions of higher education, but once there, they face greater challenges than their non-disabled peers in staying there.

Nonacademic variables have been shown to influence students in postsecondary education as much as the academic challenges they face. One study that suggests nonacademic variables are more predictive of college success for students experiencing academic difficulties was conducted by Pickering, Calliotte, and McAuliffe (1992). Students were divided into two groups: a college GPA of 2.0 or above was considered to be successful, whereas a student with a GPA below 2.0 was classified as experiencing

academic difficulties. Cognitive variables, including high school GPA, high school rank, and SAT scores were not able to predict a student's success in college; such variables were only able to correctly classify 2% of participants into the category of academic success (or nonsuccess) to which they belonged. Non-cognitive factors, such as attitudes, opinions, and self-ratings resulted in 31% correct classification of participants into the successful or academic difficulties group. Pickering, Calliotte, and McAuliffe (1992) showed that non-cognitive variables, such as self-advocacy, are more predictive of academic success. Lombardi, Gerdes, and Murray (2011) also found self-advocacy to be an accurate measure of success for college students with disabilities. The Lombardi, Gerdes, and Murray (2011) study will be discussed at length later in this chapter, as it is the reliability and validity study for the measure being used in this dissertation.

The transition from high school to postsecondary education is a time when many of the unique challenges students with disabilities have may surface. Students with learning disabilities are especially vulnerable in making the high school to college transition, where increased demands for all students include social expectations, emotional/personal growth, and academic demands (Connor, 2012). At the post-secondary level, students without disabilities are more likely to attribute their academic success to study skills and to their academic characteristics. Students with disabilities are more likely to attribute their academic success or lack of success to external factors (Heiman, 2006), and perceive themselves as having less social support than did students without disabilities. Exploring connections between social support and self-advocacy in students with disabilities will aid in developing better support for students with

disabilities. Increasing the knowledge base around different supports for students with disabilities and helping them be more successful at the postsecondary level should benefit not only students, but colleges and future employers, among others.

Measuring Success in College Students with Disabilities

Academic success is typically defined the same for students with disabilities as it is for students without disabilities – by Grade Point Average (GPA) and grades. GPA and grades may not be an accurate measure of academic success or of a student's level of work for students with disabilities. DaDeppo (2009) found that academic and social integration were not unique predictors of GPA, but both were unique predictors of intent to persist. Murray and Wren (2003) state that nonacademic variables should be considered in examining student outcomes alongside GPA, noting that GPA is not necessarily the best or only indicator of college student success. When looking at factor intercorrelations as part of the reliability and validity study of the College Students with Disabilities Campus Climate (CSDCC) survey, GPA was the least correlated with any CSDCC, College Self-Efficacy Inventory (CSEI), and Social Support Questionnaire (SSQ) factors (Lombardi, Gerdes, & Murray, 2011). Correlations were investigated between GPA and factors in the CSDCC (peer support, utilizing accommodations, disability services, self-advocacy, family support, campus climate, faculty teaching practices, faculty attempts to minimize barriers, stigmatization of disability), the CSEI (course efficacy, roommate efficacy, social efficacy), and the SSQ (social support appraisal, social support total people). GPA had the lowest number of significant

correlations, though it did have low to moderate correlations with the self-advocacy and course efficacy factors within the CSDCC.

Johnson, Zascavage, and Gerber (2008) explored the success of students with disabilities at a four-year college. Their main focus was students' previous attendance of a two-year college, which was found to be a significant factor in the likelihood of the student to graduate from a four-year college. They also found there was no significant difference in GPAs earned between students who were more likely to graduate and those that were not likely to graduate. Hall and Webster (2008) compared GPA for college students with learning disabilities and without learning disabilities. They found that GPA was not significantly different for the two groups; however, the students with learning disabilities indicated self-doubt about not being able to perform as well in academic coursework as their non-learning disabled peers.

A 1993 study by Vogel et al. found that youth with learning disabilities who graduated from college did not differ on variables related to ACT scores (of which included GPA), intellectual ability, or academic achievement. Rather, youth with learning disabilities who graduated from college were older and were more likely to have spent time receiving private tutoring during childhood and adolescence than their peers without disabilities. This suggests that variables other than GPA, and academic and cognitive functioning, are associated with the success of college students with disabilities. The present study explored self-advocacy as an alternate measure of success, and the effect social support has on it.

Social Support

Social support can be defined as various forms of aid and assistance supplied by family members, friends, neighbors, and others (Barrera, Sandler, & Ramsay, 1981). Social support has been identified as an important protective factor that can enhance developmental outcomes in college students (Constantine et al., 2003). Higher levels of perceived social support have been shown to predict better adjustment to university life and academics (Cutrona, Cole, Cloangelo, Assouline, & Russel, 1994). In the presence of known risk factors, support from parents, peers, and others could have beneficial effects on the adjustment of post-secondary students with disabilities (Murray et al., 2013). Even though students with disabilities are shown to be at a higher risk for not completing college and for lower grades, social support can help mitigate the risk factor of having a disability. Though social support generally is a beneficial protective factor, Friedlander et al. (2007) found that increased social support from friends, but not from family, predicted improved adjustment to college among first-year undergraduates. Friedlander et al. also found that increased global, academic, and social self-esteem predicted decreased depression and increased academic and social adjustment. Student perceptions of social supports, including friendships, peer mentorship, and inclusion felt within the overarching campus environment was found to be distinctly important (Smith, 2010).

Students with disabilities and social support. Social support is an important protective factor for students with disabilities. Higher levels of family support have been shown to result in increased positive self-determination and more postsecondary skill

development for students with disabilities (Lombardi, Gerdes, & Murray, 2011). This postsecondary skill development particularly pertains to student self-advocacy and student requests for accommodations (Lombardi, Gerdes, & Murray; Morningstar et al., 2010). Accommodations, such as extended time testing or a note taker, are mandated by law and are in place to help students with disabilities achieve their full potential. Unlike at the high school level where accommodations are given to all students who qualify, the only way to receive accommodations at the postsecondary level is to request them. The skills of self-advocacy and requesting accommodations have been shown to increase academic achievement and self-efficacy in college students who have disabilities (Lombardi, Gerdes, & Murray). This means increased social support, both on its own and as a factor that improves upon self-advocacy, directly affects a student with disabilities' ability to achieve academically in college.

Murray et al. (2012) found that for students with disabilities, being satisfied with their social support had positive effects on their post-secondary adjustment. There is a significant positive relationship between students' successful academic adjustment in college and their perceptions of social support (Demaray & Maleck, 2002). The social support provided by both parents and peers was found to be associated with increased academic achievement of postsecondary students, and to have a positive effect on their psychological wellbeing (Winter & Ben-Knaz, 2000, as cited in Heiman, 2006).

Self-Advocacy

Self-advocacy is considered to be an important skill for college students with disabilities, primarily because students with disabilities must advocate for their own

services in postsecondary settings (Murray, Lombardi, & Kosty, 2014). Self-advocacy is the art of speaking up for oneself and one's needs. In the specific case of students with disabilities, this also includes being able to explain a disability clearly and concisely (Kallio & Owens, 2004). Self-advocacy has been identified as a critical element of transition in helping students understand their disabilities and the impact their disabilities can have on their lives (Hitchings et al., 2001).

Self-advocacy skills serve a particularly critical role for students with disabilities, as it relates to the need for students to recognize when they are not receiving appropriate accommodations and ask for them when necessary (Hatch, Shelton, & Monk, 2009). This is especially pertinent in postsecondary education when students only receive accommodations when they self-identify as having a disability, and ask for accommodations. At the high school level, Norton (1997, as cited in Hatch, Shelton, & Monk, 2009) found that most students with disabilities were apprehensive to ask for accommodations in the classroom, and that most did not clearly explain their disability to their instructors. While the present study does not focus on students in high school, students who are apprehensive to ask for accommodations in the high school classroom are likely to be apprehensive in asking for them in the college classroom as well.

Self-advocacy has been shown to contribute significantly to the prediction of student adaptation to college (Adams & Proctor, 2010). Adams and Proctor assert that this finding supports the documented need for self-advocacy skills in post-secondary settings. As previously stated, students with disabilities must identify their own needs before colleges and universities will provide accommodations. Self-advocacy therefore

becomes an integral part of how students with disabilities get their academic needs met, giving themselves the best chance of success.

Connecting Social Support and Self-Advocacy

Social support and self-advocacy often affect similar aspects of a student's experience when it concerns college students with disabilities. Skinner (2004) asked college students with disabilities what it takes to be successful in postsecondary education. Two themes that came up repeatedly were the importance of self-advocacy, and the importance of support systems. Social support has also been shown to be a predictive factor in college adaptation and success (Adams & Proctor, 2010). Students with learning disabilities have reported lower stress management skills and lower adaptability, higher levels of anxiety, feelings of lower self-efficacy, and have experienced large gaps in their self-perceived competence and their actual achievements (Heiman, 2006). Social support can act as a buffer against the effects of stress and the support of family and friends has been shown to help moderate the effects of stressors (Heiman).

Murray, Lombardi, and Kosty (2014) examined the profiles of college students with disabilities. Participants were categorized into one of three profiles defined by the researchers: poorly adjusted, average adjusted, or highly adjusted. College students with disabilities were overrepresented in the poorly adjusted profile. These students also had significantly lower self-efficacy, self-advocacy, and family support. Another finding that is of interest is the adjustment profiles (poorly adjusted, average adjusted, or highly

adjusted) did not differ on other theoretically relevant variables, including GPA, time spent studying in high school, and financial stress.

The benefits of social support for students with disabilities at the post secondary level has been widely studied, but there is a lack of research showing the connection social support has as a predictor to academic success for students with disabilities. Students with learning disabilities are more likely to attribute their academic success, or lack there of, to external factors; their nondisabled peers were more likely to attribute academic success to study skills and academic characteristics. While a numerical measure, GPA does not have standard meanings of what number is considered to be successful. The meaning of the GPA numerical value is somewhat subjective; therefore a student with a disability may have what others consider to be a low GPA, but still consider themselves to be academically successful. This variation from academic and societal norms on the intrinsic values placed on GPA makes other measures, such as self-advocacy, a more accurate measure of a student with disability's outcome and success.

Measuring Social Supports for College Students with Disabilities

The effects of social support for college students have been researched extensively. Measures such as the College Student Social Support Scale (CSSSS) are tailored to defining and assessing social support in college students (McGrath, Gutierrez, & Valadez, 2000). No matter what measure is used, it is important to take student perceptions of social supports, including friendships, peer mentorship, and inclusion felt within the overarching campus environment into account (Smith, 2010).

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While there are many measures that examine the social support of college students and college student perceptions of social support, using a measure that is specific to college students with disabilities will make the findings of this study better aligned with the goals and questions presented here. The College Students with Disabilities Campus Climate survey (CSDCC; Appendix A) was developed in 2011 by Lombardi, Gerdes, and Murray and was designed specifically for students with disabilities. This measure accounts for accommodations, disability services, and self-efficacy, therefore giving a more accurate, whole picture of a student with disabilities.

College Students with Disabilities Campus Climate Survey. The College Students with Disabilities Campus Climate (CSDCC) survey was developed in 2011 by Lombardi, Gerdes, and Murray. The CSDCC survey is a measure tailored to college students with disabilities, aiming to assess their social supports, individual actions, and postsecondary supports. In determining the reliability and validity of the CSDCC survey, Lombardi, Gerdes, and Murray cross-referenced the results of the CSDCC with those from the College Self Efficacy Inventory (CSEI), the Social Support Questionnaire (SSQ), and GPA. This cross-referencing aided in the determination that the CSDCC is a valid measure for accurately predicting self-efficacy and social support. The CSDCC is broken into nine factors: peer support, utilizing accommodations, disability services, self-advocacy, family support, campus climate, faculty teaching practices, faculty attempts to minimize barriers, and stigmatization of disability.

Lombardi, Gerdes, and Murray (2011) conducted a validation study on the CSDCC survey with 521 college students with disabilities used as the sample. The

sample was from a university in the Pacific Northwest region of the United States; students with self-disclosed disabilities comprised approximately 4% of the university's population, which is consistent with national average (Newman et al., 2009). The response rate was 38%. Reliability was examined using Cronbach's alpha both on the whole CSDCC survey, and within factors. Validity was examined using exploratory factor analysis (EFA). Cronbach's alpha was estimated at .80; well within the criterion of .70 or higher the authors (Lombardi, Gerdes, & Murray, 2011) were looking to achieve. According to Nunnally (1975), adequate reliability for a measure such as the CSDCC is .80 or above; therefore, the CSDCC is considered to have adequate reliability. The nine factors were also tested separately for reliability: peer support, α= .88; utilizing accommodations, α= .72; disability services, α= .77; self-advocacy, α= .80; family support, α= .79; campus climate, α= .79; faculty teaching practices, α= .74; faculty attempts to minimize barriers, α= .60; stigmatization of disability, α= .64.

Concurrent and convergent validity were also measured by correlating factors from the CSDCC and the College Self-Efficacy Inventory (CSEI), Social Support Questionnaire (SSQ), and grade point average (GPA). The CSEI was developed in 1993 by Solberg, O'Brien, Villareal, Kennel, and Davis, and is intended for all college students, regardless of disability status. It is a 20-item scale measuring level of confidence of performing various tasks associated with college students' success. The SSQ was developed in 1987 by Sarason, Sarason, Shearin, and Pierce. It was found that the self-advocacy subscale had the highest number of significant correlations and was moderately to strongly correlated with all CSEI factors. Peer Support was moderately

correlated with all CSEI and SSQ factors. GPA had the lowest number of significant correlations.

Lombardi, Gerdes, and Murray (2011) used a multivariate analysis of variance to examine potential group differences according to gender and disability status on CSDCC total score and subscales. Disability type was dichotomous, with students being classified as (a) high incidence, which included LD and/or ADD/ADHD, or (b) low incidence, which included all other disability types. No statistically significant differences were found. Lombardi, Gerdes, and Murray concluded that the instrument functions similarly for students with high- and low-incidence disabilities, and for males and females.

The CSDCC survey measure used self-efficacy alongside GPA as a success outcome (Lombardi, Gerdes, and Murray, 2011). When GPA was regressed on the CSDCC factors, the overall model was not statistically significant, explaining only 8% of the total variance in GPA. Within the CSDCC survey, self-advocacy was shown to be the factor to have the strongest relationship to GPA and the College Self-Efficacy Inventory and Social Support Questionnaire factors (Lombardi, Gerdes, & Murray). Content validity was established, as was concurrent validity with CSEI and SSQ factors.

The CSDCC survey is a measure tailored to college students with disabilities, aiming to assess their social supports, individual actions, and postsecondary supports. These factors can be assessed and aggregated into data that may help in deciphering what aspects of social support are significant predictors of self-advocacy for students with disabilities. This measure has adequate reliability and strong evidence for validity,

making it a good choice for this study.   Within the CSDCC survey, self-advocacy

explained a significant amount of unique variance. This made it a prime candidate for

use as the outcome measure of this study.

Conclusion

In the United States, over 700,000 students with disabilities are enrolled in an

institution of postsecondary education, with 88% of degree granting postsecondary

institutions enrolling students with disabilities (U.S. Department of Education, 2011).

College students with disabilities often report lower self-esteem and lower self-efficacy

with regard to their academic skills and abilities than their peers without disabilities

(Murray, 2013). Smith (2010) believes that by shedding light on social supports, college

access practitioners can help increase students with disabilities' success in college.

Based on a thorough review of the literature, the College Students With

Disabilities Campus Climate (CSDCC) survey was selected to further explore the

relationship between social support and self-advocacy among postsecondary students

with disabilities (Lombardi, Gerdes, & Murray, 2011). The literature makes it clear that

there is a relationship between social support and self-advocacy for students with

disabilities who are enrolled in postsecondary education. By using the CSDCC in a new

way, the impact each factor has on the other was determined. Discovering what factors

are significant predictors of self-advocacy will allow colleges and universities to better

support their students who have disabilities.

Chapter Three: Method

The method chapter consists of a description of how this study was conducted. As discussed in Chapter Two, many factors can contribute to a student with a disability's level of self-advocacy at the college level. These factors can vary more than for a typical college student, as self-advocacy has more of a day-to-day role for this population of students.

To gain further understanding of which factors help students with disabilities have a high level of self-advocacy in college, this study used an established survey instrument that was designed to examine postsecondary supports, social supports, and individual actions of college students with disabilities. This study answered the following questions:

1. Is social support a significant predictor of self-advocacy in college students with disabilities?

2. Which aspects of social support are the strongest predictors of student self-advocacy?

    a. Peer Support

    b. Family support

    c. Faculty Teaching Practices

3. Are there group differences in the hypothesized effect of social support on self-advocacy? Different groups include:

a. Gender

b. Disability Status (high incidence vs. low incidence)

c. Disability Type (physical disability, psychological disability, learning/cognitive disability, medical condition)

Design

The study design was causal-comparative; results of the analysis of an online survey given to students with disabilities studying at a private midsize 4-year university in the western United States were used to address the research questions. The measure that was used in this study was the College Students with Disabilities Campus Climate (CSDCC) survey (Lombardi, Gerdes, & Murray, 2011). The CSDCC survey contains 43 items with six response options, from 1 (never true) to 6 (always true). In the original study using the CSDCC, self-advocacy was used as an independent variable. However in this study, it was used as the dependent variable. Detailed information about the measure can be found later in this chapter in the "instrument" section.

Data collection. Survey research was most appropriate for this study for several reasons. There are many facts that can be obtained only by asking people about themselves (Fowler, 2009). Fowler suggests considering sampling approach, type of population, question form, question content, response rates, costs, available facilities, and length of data collection when deciding on a survey method. The survey used in this study was electronically administered and anonymous. The invitation to participate was sent out via email addresses, which were provided by the disability services program at

the university at which the participants are students. Participants were incentivized to respond by being entered into a drawing to win one of three $30 gift certificates to Amazon.com. A follow-up email was sent a week after initial contact had been made. The disability services program at the university called a random sample of 100 eligible participants to encourage them to participate. The students were selected at random by disability services, independent from the principal investigator of this study. Prior to participation, informed consent was obtained, and resources were listed in the event of participant distress.

Sampling Approach

A nonprobability/convenience sample of undergraduate students enrolled in a midsize private 4-year university in the western United States was used. Time, cost, and accessibility constraints led to the selection of a convenience sample for this study. In addition to the advantage of accessibility, this sample, like all convenience samples, had the advantage of being economical. While not considered the ideal sample selection, convenience samples are useful in examining the relationship between variables or the difference between groups (Gliner & Morgan, 2000). An electronic survey whose participants were invited via email ensures the intended participant is the actual recipient of the survey. Also, since email addresses were universal and easily accessible for this population, it was feasible to use it as the main data collection mode (Fowler, 2004). The main limitation of this convenience sample was the ability to generalize to college students with disabilities outside of the selected university.

<u>Population</u>

The participants for this study were undergraduate college students with disabilities attending a private midsize four-year university in the western United States. All participants were enrolled with their university's disability services program (DSP); this program serves over 1000 students, 826 of whom are undergraduate students and therefore eligible to participate in the study. All DSP students received an email invitation to participate in this study.

<u>Question Form</u>

The question forms on the CSDCC are all closed statements. This lends itself well to a survey. This ease of response makes answers more accurate, and maximizes returns (Fowler, 2004). According to Fowler, a self-administered survey has an advantage when the response categories are numerous. In the case of the CSDCC, there are six possible responses, a rating scale ranging from 1 (never true) to 6 (always true). With a self-administered survey, participants can keep track of the meaning of their responses in the way that works best for them.

An electronic survey as the method of data collection relied on the computer skills of the population, their reading and writing skills, and their motivation to cooperate (Fowler, 2004). The population of this study consisted of college students who have proven to have the reading skills, writing skills, and motivation to be accepted into an elite private university. Their computer skills can also be assumed, as college applications are online. These facts and assumptions about the population alleviate many of the typical concerns about using an online survey.

Question Content

The items in the CSDCC ask about topics that may be sensitive to some participants. Information about social support and disability status may be tough for some students to share. The informed consent page had resources for students who may have become distressed by the survey. Resources included, though were not limited to, the on-campus student health center. A self-administered survey has been shown to be accurate when sensitive topics are being discussed. It has been shown that a computerized format does not influence honesty. The reason for this increase in honesty, accuracy, and participation is thought to be that a participant does not have to share answers with an interviewer and this makes the collection of sensitive data easier (Fowler, 2009).

Response Rates

The current generation of college students has an increased presence online. By communicating with them in a familiar method, online surveys have the potential of higher completion rates than paper or phone surveys. The response rate for an email survey depends heavily on the population and the purpose behind the survey (Fowler, 2009). A low response rate will likely be the most pervasive issue with the use of an email survey as the method of data collection. The literature suggests that the response rate for an online survey is still lower than that of a pencil and paper survey (Kaplowitz, Hadlock, & Levine, 2004).

Cost

An online survey is considered to be the lowest cost method of data collection (Fowler, 2009).   If an acceptable rate of response can be achieved, an online survey is a preferred method when cost is a factor.

Available Facilities

Fowler (2009) notes that the facilities and staff available should always be considered when selecting a data collection mode. The development and training of an interview staff can be time consuming and costly. An online survey completely eliminates this factor. There is no need to hire staff, train staff, worry about attrition rates, or find a suitable facility for interviews and/or data collection.

Length of Data Collection

An Internet survey eliminates the wait time of a traditional survey. Answers are instantaneously available in a machine-readable form and there is the potential for high speed of returns. An online survey was a good match for this study due to its speed.

The positive aspects of using an online survey include easy access to participants, low cost, no facilities or staff needed, and the ability to have a short period of time for data collection. Negative aspects and limitations of utilizing an online survey design is the potential for a low response rate, the inherent error that comes with having participants self-report, the potential restriction of the sample due to the use of Internet. In the case of the present study, the sample being limited to internet users and the need

for a valid email address is moot; all students at the university at which data was collected from are required to have an email address and a laptop computer.

Participants

The participants of this study were undergraduate college students with disabilities who attend a private midsize four-year university in the western United States. All participants were enrolled with their university's disability services program (DSP). This program serves over 1000 students, though this number includes graduate student and law students. Only the 826 undergraduate students enrolled in DSP were eligible to participate in this study.

Participants of this study all had at least one disability. For the purposes of this study, the definition of disability was the same one used by DSP: a condition that substantially limits "major life activity," such as walking, hearing, seeing, speaking, breathing, or learning. This includes disabilities including, though not limited to, physical disabilities, psychological disabilities, health-related disabilities, learning disabilities, and attention deficit hyperactivity disorder.

Due to the nature of disability services at the postsecondary level, the sample consisted only of students who have self-identified as having a disability to the university, and who have likely sought accommodations for their disability/disabilities. Demographic questions were added onto the existing measure to gain more information about the participants, including disability type, gender, year in school (asked in years of enrollment rather than class classification), self-report GPA, and age.

The limitations of this sample include self-selection (both by participation in the survey and enrollment in DSP) and type of student as determined by who the university may attract. The admission standards for the university already make the sample for this study a very specific part of the population of college students with disabilities. The student profile for the middle 50% of admitted students includes an SAT score of 1140-1310, an SAT CR score of 550-660, an ACT composite of 26-31, and a high school GPA of 3.48-4.0 (University of Denver website, n.d.).

Instrument

The instrument that was used for this study was the College Students with Disabilities Campus Climate (CSDCC) survey (Lombardi, Gerdes, & Murray, 2011). The CSDCC survey consists of 43 items with six response options on a rating scale; possible responses range from 1 (never true) to 6 (always true). The theoretical model of this measure has three facets that Lombardi, Gerdes, and Murray (2011) feel influence outcomes of college students with disabilities: individual actions, postsecondary supports, and social supports.

Outcome Measure

The outcome measure was the self-advocacy factor from the CSDCC survey. There are six questions included in the CSDCC survey that are categorized under the self-advocacy factor: I perform as well as other students in my course(s); Generally, I feel good about myself and my abilities at this university; I keep up with the reading in most of my courses; My disability is not an issue for me and my performance at this university; I feel comfortable advocating for myself and my needs at this university; I know about

my rights and responsibilities as a student with a disability. These six questions were used as the outcome measure of self-advocacy. The comprehensive literature review in chapter two has shown that self-advocacy is a desired outcome for students with disabilities.

Procedure

The survey was administered online; all students enrolled in the university's Disability Services Program (DSP) were invited to take the survey via email, but it was not mandatory. All participants were asked to provide informed consent before participating in the study. A small incentive (three chances to "win" a $30 gift certificate to Amazon.com via a raffle open to all participants) was given to participants to encourage participation.

Data Analysis

Data were handled in two parts: descriptive statistics and inferential analysis. Descriptive statistics included percentages, means, medians, skewness, and kurtosis. Inferential analysis included examining missing data, regression, multiple regression, and analysis of variance. All data were checked to make sure assumptions of independence, linearity, homoscedasticity, homogeneity of variance, and normality were met.

Preliminary analysis. Descriptive data about the sample were compiled and analyzed. Gender, year in school (asked in years of enrollment rather than class classification), and disability were presented. High incidence disabilities included all learning disabilities (LD) and attention deficit hyperactivity disorder (ADHD). Differences between participants grouped according to disability type (high incidence or

low incidence), gender, and years enrolled in postsecondary education will be assessed using one way between subjects Analyses of Variance (ANOVA).

Descriptive data were complied on all answers to CSDCC survey items. The CSDCC survey contains 43 items with six response options, from1 (never true) to 6 (always true). Internal consistency reliability estimates will be computed for each CSDCC subscale.

Primary analysis.

Is social support a significant predictor of self-advocacy in college students with disabilities? A linear regression using social support as the predictor variable and self-advocacy as the dependent variable was run in an attempt to answer the first research question, Is social support a significant predictor of self-advocacy in college students with disabilities?

Which aspects of social support are the strongest predictors of student self-advocacy? A multiple regression was used to analyze all factors of social support (peer support, family support, and faculty teaching practices) as the independent variables and self-advocacy as the dependent variable. This sought to determine which aspects of social support were the strongest predictors of student self-advocacy.

Are there group differences in the hypothesized effect of social support on self-advocacy? A two-way Analysis of Variance (ANOVA) was preformed with self-advocacy as the dependent variable and gender, disability status, and disability type as the independent variables. This ANOVA determined if there were group differences in the role of social support on self-advocacy.

The Statistical Package for the Social Sciences (SPSS) version 22.0 was the software package used for statistical analysis.

Conclusion

The present study distributed the CDSCC survey invitation via email to all undergraduate students enrolled in DSP during March 2015. The survey was closed to participants four weeks after it was sent out. After data collection was complete, data analysis began.

This study used regression, multiple regression, and analysis of variance to examine the relationship between social support and self-advocacy among college students with disabilities. The CSDCC survey, with added demographic questions, was used to gather data. Data was collected via an online survey from college students with disabilities. Self-advocacy was used as the outcome measure, creating a new model that hopes to establish predictors of self-advocacy among students with disabilities at the postsecondary level. Answering the question of social support's influence on self-advocacy can help in providing measures to support students with disabilities. Determining what factors are significant predictors of self-advocacy allows colleges and universities to better support their students who have disabilities.   More evidence-based supports will help ensure the increased success of students with disabilities.

Chapter Four: Results

This chapter discusses the results of the research questions. As previously stated, a regression, multiple regression, and analysis of variance were used to explore the potential relationship between social support and self-advocacy in college students with disabilities. Results are presented in the form of tables and explanations of the data. The research questions that were addressed were:

1. Is social support a significant predictor of self-advocacy in college students with disabilities?

2. Which aspects of social support are the strongest predictors of student self-advocacy?

    a. Peer Support

    b. Family support

    c. Faculty Teaching Practices

3. Are there group differences in the hypothesized effect of social support on self-advocacy? Different groups include:

    a. Gender

    b. Disability Status (high incidence vs. low incidence)

    c. Disability Type (physical disability, psychological disability, learning/cognitive disability, medical condition)

This chapter is organized by research question, with a separate section for descriptive statistics.

Descriptive Statistics

The first step in data analysis was to examine the descriptive statistics of the study participants. Table 1 presents the frequency and percentages of the gender, disability category, and years enrolled in college of study participants, as well as the frequency and percentages of similar variables for 726 of the 826 students receiving at least one accommodation through the disability services program. The participant descriptives data are for the participants who were found eligible to complete the survey. 129 students responded to the survey, though only 101 of those respondents were undergraduate students and therefore eligible to participate. This study received consent to participate from 21 graduate students and 7 law students, however they were disqualified from participating. Graduate students and law students were not included in the sample because the original study of the CSDCC survey did not include them (Lombardi, Gerdes, and Murray, 2011). Keeping the educational level of the participants the same across studies aims to uphold the reliability and validity of the CSDCC survey.

Table 1
Descriptive Statistics of Study Participants and Disability Services Undergraduate Population

Participant Descriptives	Frequency	Percent
Gender		
Male	31	24.2
Female	62	48.4
Transgender	1	.8
Declined to Answer	34	26.6
Disability Category		
Physical Disability	8	6.3
Mental Health/Psychological Disability	22	17.2

Learning/Cognitive Disability	64	50
Medical Condition	25	19
Choose not to Disclose	2	1.6
Years Enrolled in College		
1	25	19.5
2	26	20.3
3	20	15.6
4	20	15.6
5	2	1.6
6+	1	.8
Population Descriptives	Frequency	Percent
Gender		
Male	396	54.5
Female	330	45.5
Disability Category*		
Physical Disability	45	6.2
Mental Health/Psychiatric Disorders	160	22.0
Learning/Cognitive Disability	291	40.1
ADHD/ADD	316	43.5
Medical Condition	61	8.4
Class Ranking** (based on estimated graduation year)		
First Year	192	26.4
Second Year	165	22.7
Third Year	125	17.2
Fourth Year	205	28.2
Other	34	4.7
Total Population Receiving Services	726	100

*Note: Some students may be counted more than once due to co-morbid disabilities. Some students may not be counted at all due to only main categories being reported.
**Note: Class ranking is comparable to years enrolled. It should be noted though that, for example, there might be a first year student (freshman) who has been enrolled for several years, yet is still technically a first year due to passed credit hours.

Table 2 shows the mean, standard deviation, skewness, and kurtosis of the compiled scores for peer support, family support, self-advocacy, and faculty teaching practices. Each variable is comprised of several questions, which Lombardi, Gerdes, and Murray (2011) categorized into factors. Item level descriptives can be found in Appendix B.

Table 2

Descriptive Data for Utilized Factors

Factor	Mean	Standard Deviation	Skewness	Kurtosis
Peer Support	17.93	4.32	-.509	-.384
Family Support	19.15	4.27	-1.063	.834
Faculty Teaching Practices	17.08	3.66	-.470	.084
Self-Advocacy	26.60	4.48	-.453	.048

The data gathered in this study generally met the assumptions of independence, linearity, homoscedasticity, homogeneity of variance, and normality. The factor *Family Support* was slightly negatively skewed with a value of -1.063. But the data were robust enough to withstand the skewness of this factor (Schmider, Ziegler, Danay, Beyer, & Bühner, 2010). There was a significant difference found between the gender distribution and the disability category distribution for the sample and the population. There was no significant difference in the distribution of years enrolled/class ranking between the participants and the population.

Is Social Support a Significant Predictor of Self-Advocacy in College Students with Disabilities?

To examine the relationship between self-advocacy and social support in college students with disabilities, a linear regression was run using social support as the predictor variable with self-advocacy as the dependent variable. Social support is comprised of the factors Peer Support, Family Support, and Faculty Teaching Practices. Disability services was not included in the original model, but was tested as part of social support in a separate model to be sure it was not a significant factor that was being ignored and

negligently left out of the model. The Disability Services factor was found to make the

model weaker. It was therefore left out, as originally planned.

Social support significantly predicted self-advocacy in college students with

disabilities, $b = .232$, $t(81) = 4.011$, $p < .05$. A large effect size was found ($R^2=.167$).

Table 3
Summary of Regression Analysis for Self-Advocacy related to Social Support

Variable	B	SE(B)	β	t	Sig. (p)
Social Support	.232	.058	.409	4.011	< .001

Note:
$R^2=.167$

Which aspects of social support are the strongest predictors of student self-advocacy?

A multiple regression was run to answer the second research question, Which

aspects of social support are the strongest predictors of self-advocacy? Family support,

peer support, and faculty teaching practices were used as independent variables to see

which was the strongest predictor of student self-advocacy. Faculty teaching practices

was found to be the strongest predictor. Peer support and family support were not found

to be significant predictors of student self-advocacy.

Table 4
Summary of Multiple Regression Analysis

Variable	B	SE(B)	β	t	Sig. (p)
Peer Support	.19	.11	.19	1.76	.083
Family Support	.14	.11	.14	1.32	.190
Faculty Teaching Practices	.45	.13	.36	3.55	.001

Note.
$R^2=.208$

When run in separate regressions, peer support and faculty teaching practices were found to be significant predictors of student self-advocacy. Family support was still not found to be a significant predictor. These findings can be found in Table 5 below.

Table 5
Summary of Separate Regression Analyses

Variable	B	SE(B)	β	t	Sig. (p)
Peer Support	.263	.109	.251	2.401	.018
Family Support	.157	.111	.153	1.415	.161
Faculty Teaching Practices	.505	.124	.409	4.057	< .001

Note.
R^2=.063, .023, .167

Are there group differences in the effect of social support on self-advocacy?

The third research question looked to explore group differences in the effect of social support on self-advocacy for college students with disabilities. Group differences in the effect of social support on self-advocacy were examined for gender, disability status (high incidence or low incidence), and disability type. When analyzing group differences for gender, the categories included male and female. One participant identified as transgendered; this participant's data were not included in the group differences statistical test. This participant had enough missing data that the statistical software package used to analyze these data excluded them. Based on a regression by gender, group differences in the effect of social support on self-advocacy were not found.

Table 6
Summary of Regression by Gender

Gender	B	SE(B)	β	t	Sig. (p)
Male	.451	.126	.528	3.577	.001
Female	.185	.064	.371	2.884	.006

Note.
R^2male=.339;
R^2female=.138

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A two way ANOVA was run and also found that gender has no significant effect on self-advocacy (p=.781). Another two way ANOVA showed disability status had no significant effect on student self-advocacy (p=.120). Disability type also showed no significant effect on student self-advocacy (p=.648).

Summary

Overall, the study results indicate that social support was a significant predictor of self-advocacy in college students with disabilities (p<.01), with a medium effect size (R^2=.167). The second research questions looked for the strongest predictors of student self-advocacy, putting the ranking of these three aspects of social support as: faculty teaching practices, peer support, and family support. The factors that contributed to the social support factor were all found to predict student self-advocacy, but not all at a statistically significant level. When run in a multiple regression with each other, peer support and family support were not found to be statistically significant, but faculty teaching practices was found to be a statistically significant contribution of student self-advocacy (*p*=.001). When run in separate regressions, peer support and faculty teaching practices were found to be significant predictors of student self-advocacy. Family support was not found to be significant.

The third research question looked for group differences according to gender, disability, and disability status (high incidence or low incidence). Results indicate there was no difference in the predictive value of social support for self-advocacy between genders, disability status, or disability type.

Chapter Five: Discussion and Summary

The purpose of this study was to explore the idea of social support as a predictor of self-advocacy in college students with disabilities. In addition to the general question of social support as a predictor of self-advocacy, the different aspects that make up social support were also examined to see which was the strongest predictor. Group differences between genders, disability status (high incidence or low incidence), and disability type were also investigated. Previous research has shown that higher levels of perceived social support predicted better adjustment to university life and academics (Cutrona, Cole, Cloangelo, Assouline, & Russel, 1994). Smith (2010) believes that by shedding light on social supports, college access practitioners can help increase students with disabilities' success in college.

The College Students with Disabilities Campus Climate Survey (Lombardi, Gerdes, & Murray, 2011) was used to gather data from undergraduate students with disabilities who are enrolled in the disability services program at a midsize private university in the western United States. College students with disabilities represent a unique population on college campuses and many of these students have unique needs and are at an increased risk of performing poorly (Murray, 2013; Adams & Proctor, 2010). The results of this study will help inform research, interventions, and practices that will help minimize the risk college students with disabilities have of performing poorly. This chapter summarizes the descriptive data and each research question,

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discusses the results and interprets the findings, and provides conclusions and recommendations.

Research Questions: Results and Interpretations

      Descriptive data. The data met assumptions of independence, linearity, homoscedasticity, homogeneity of variance, and normality. All research measures needed for analysis were suitable to use. When the sample descriptives were compared to the descriptive data of the population of all undergraduate students enrolled in disability services at the university from which this sample was taken, the mean values of gender and the mean values of the disability categories were found to be significantly different. These were both unexpected findings. The difference in disability categories was likely due to the differences in the categorization of disabilities between this survey and disability services. There was ample co-morbidity in many of the disability categories, namely learning/cognitive disabilities and ADD/ADHD. Due to the way disability category was measured, disability services may have counted the same student twice, whereas those categories were already combined into one for the purposes of this study. Given the murky nature of how the categories were measured calls the significant difference found between the sample and the population into question. These differences may also be attributed to who chose to participant in this study. The results should be interpreted with caution, with participant self-selection in mind

      Future replications of this study should make disability categorization clearer and align it with previous data, which would improve the strength of the study. Another reason this difference may have been found is due to the personal participation reminders

some students received. The university from which this sample was drawn has a fee-based program for students who have a learning disability and/or ADHD in which the students meet weekly, one-on-one, with an academic counselor. While reminder phone calls were placed to as many students from the population as could be called over the lifespan of the survey, it is likely that the LD/ADHD sample size of students were a higher response rate than the population of LD/ADHD students because many of them received personal encouragement to complete the survey, as well as offered time to do it.

Social support as a predictor of self-advocacy. The first research question examined the possibility of social support as a significant predictor of self-advocacy in college students with disabilities. It was hypothesized that social support would be found to be a significant predictor of self-advocacy in college students with disabilities. The findings of this study suggest that social support is a statically significant predictor of self-advocacy for college students with disabilities. These results supported the findings of Constantine et al. (2003) that social support is an important protective factor that can enhance developmental outcomes in college students. The findings also aligned with the conclusion of Cutrona et al. (1994) that higher levels of perceived social support predict better adjustment to university life and academics. Skinner (2004) found that college students reported self-advocacy and support systems to be important factors in succeeding in post-secondary education. That social support was found to be a significant predictor of self-advocacy demonstrates a connection between these two important themes. The findings of this study suggest that bolstering social support would possibly increase academic success for college students with disabilities. A large effect

size (R^2=.167) was found for social support as a predictor of self-advocacy. This effect size gives substance to the idea that positively manipulating social support may have a positive effect on self-advocacy.

Comparing aspects of social support. The second research question examined peer support, family support, and faculty teaching practices to see which factors were the strongest predictors of student self-advocacy. It was hypothesized that peer support and family support would be statistically significant predictors of student self-advocacy. This question found that faculty teaching practices and peer support were statistically significant factors in predicting self-advocacy in students with disabilities. These results support the findings of Friedlander et al. (2007) that increased social support from friends, but not from family, predicted improved adjustment to college among first-year undergraduates. While self-advocacy is not the same as adjustment, self-advocacy can help the student get their needs met, helping them adjust to their college environment and experience to suit their needs. These findings also align with Winter and Ben-Knaz's (2000, as cited in Heiman, 2006) conclusion that social support provided by peers is associated with increased academic achievement of postsecondary students, as well as having a positive effect on the psychological well-being of the student. The results of the present study were interesting in that they allow family influence to be minimally considered when addressing social support. Further, this finding may simplify the logistics of potential interventions since many students in this population are living away from home.

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Faculty teaching practices was the found to be the strongest predictor of student self-advocacy. This finding supports the results of Madaus, Scott, and McGuire (2003), that students with disabilities can profit from specific instructional strategies used by faculty, as well as perceive other faculty teaching practices as barriers to learning. Positive or negative, faculty teaching practices had a strong effect on student learning and student perceptions on learning. The findings of the present study also align with the ideas of Yuen and Shaughnesy (2001), who suggest that faculty teaching practices and curriculum may aid in increased engagement and retention in postsecondary students with disabilities. Dowrick et al. (2005) also concluded that interactions with faculty can influence the overall college experience for students with disabilities.

Due to the nature of the population from which the sample was taken, it is likely the parents of the students surveyed were very involved and supportive in helping their student make it to a prestigious four-year college. A possible explanation for the lack of significance of family support is that the students surveyed feel prepared enough and have been supported so well their entire academic career that family support is assumed and students do not actively rely on their families. Survey questions such as "I rely on family support when I face challenges at this university" may not pick up the complexities of the history of 18 or more years of family relationships.

Group differences. The third research question explored the possibility of group differences in the effect of social support on self-advocacy for students with disabilities. It was hypothesized that no group differences would be found in the effect of social support on self-advocacy. No group differences were found with respect to gender,

disability type, or disability status (high-incidence or low-incidence). These results

match the findings of the original study of the CSDCC survey, in which no group

differences were found between genders or disability status (Lombardi, Gerdes, &

Murray, 2011). Lombardi, Gerdes, and Murray did not examine group differences

between disability type. No between group differences for any of the tested groups gives

insight into similarities between all students with disabilities. Independent of what aspect

of the student made them categorically different, such as their gender, the same

conclusions and findings can be applied. These results make the implications for practice

more streamlined. No modifications would have to be made based on differing gender or

disability. All college students with disabilities will have an equal opportunity to benefit

from the same interventions to increase social support and self-advocacy.

     Summary. This study found social support to be a significant predictor of self-

advocacy in college students with disabilities. Within the construct of social support used

in this study, peer support and faculty teaching practices were found to be significant

predictors of student self-advocacy, with faculty teaching practices being the most

significant factor. No differences were found between genders, between different

disability statuses, and between different disabilities. Family support not being a

significant predictor of self-advocacy was a surprise and goes against the findings of

Lombardi, Gerdes, and Murray (2011) who found that higher levels of family support

have been shown to result in increased positive self-determination and more

postsecondary skill development for students with disabilities.

The finding that social support is a significant predictor of self-advocacy in college students with disabilities adds another dimension to the robust body of findings that social support has positive effects on college students (Winter & Ben-Knaz, 2000, as cited in Heiman, 2006; Demaray & Maleck, 2002; Murray et al., 2012; Lombardi, Gerdes, & Murray, 2011). With peer support and faculty teaching practices found to be significant predictors of students' self-advocacy, there are now more specific avenues to explore when researching or intervening in social support and or self-advocacy for students with disabilities.

The finding that faculty teaching practices is a significant predictor of student self-advocacy supports the literature that classroom teaching practices can positively or negatively affect student experiences (Beilke & Yssel, 1999; Hartman-Hall & Haaga, 2002). The significance of faculty teaching practices as a factor in social support reinforces Hartman-Hall and Haaga's finding that even when faculty members make accommodations for students, as required by law, students are able to discern if faculty members accept them and have positive attitudes about them or not. This possible incongruence in faculty actions and attitudes can affect a student's perceptions of social support and therefore influence their willingness to self-advocate.

Limitations

The main limitation of this study was the sample. It was shown to be statistically significantly different than the population it was pulled from in both gender distribution and disability type. This difference reduces the generalizability of this study's findings both to other college students with disabilities at the institution at which the sample is

from, and the general population. Further, some of the demographics of the university from which this sample was taken may also restrict the ability to generalize this study. The two areas that limit the ability to generalize this study the most are a lack of ethnic/racial diversity and socioeconomic status. The first year students in fall 2014 were 20.5% students of color (University of Denver website, n.d.). The estimated cost of attendance for the 2014-2015 school year for a traditional student is $60,275.

The timing of this study may have limited the response rate. The survey was made active and sent out to potential participants a week before spring break, which also coincided with the university's finals week. This unfortunate timing likely depressed the number of students who would have participated in the study.

Another limitation of this study centered on the CSDCC survey measure. The dependent variable used in this study was the self-advocacy factor from the survey. The factor was made up of six questions. Though it is labeled self-advocacy by the authors of the measure, the questions that make up the factor only contain one question that directly addresses self-advocacy. If this question alone (not the factor) is used as the dependent variable, the results of this study vary slightly. Social support is still a significant predictor of self-advocacy, peer support turns into the strongest predictor, and faculty teaching practices is no longer significant. Considering faculty teaching practices is the strongest predictor in the study as-is, this modification based on the survey measure would be a weighty adjustment. This limitation is worth keeping in mind for future research in this area.

Recommendations

The results and conclusions of this study are both straightforward and comprehensive. Simply, if social connections can be fostered, students are likely to increase their self-advocacy. Troiano (2003) recommends that students with disabilities need to be taught how to advocate for their own needs. While the benefits of teaching self-advocacy skills are undeniable, the resources it would take to teach this skill set are likely too extensive for many postsecondary institutions. For students with disabilities in particular, a "training" to build a skill would likely not be met with enthusiasm. Students are likely to better attend gatherings and events that encourage social interaction, and colleges are more likely to put resources behind them. The resources needed will be less than those needed for a formal self-advocacy training. While a gathering focused on making social connections will not teach self-advocacy skills as Troiano recommends, it will nevertheless increase the amount that students self-advocate.

Students.

Gatherings. The most obvious recommendation for students to increase their social support is to provide the opportunity for students to meet each other. Social gatherings on a large and small scale will be beneficial in their own ways. Large gatherings would give students a broader group to socialize with, as well as a more diverse group to try and make a connection with. Smaller groups may be a better fit for some students. A smaller setting may allow for more meaningful, long-lasting connections to be made. A modified version of a mixer would be smaller groups that meet throughout the academic year. These might be groups based on interests, housing

location (which dorm a student lives in), by major, or randomly assigned. These social gatherings could be put on by disability services if students with disabilities are the target. It would be an easy way to both engage students, as well as increase their peer support. Even if no strong friendships are made, bonds may be formed and regular contact ensures students stay connected to those around them. A casual acquaintance is most likely better than nothing, and still contributes to the social support network of a student. Encouraging the usage of common study areas in dorms and in libraries is another less labor-intensive way to promote social connections between students.

A possible challenge with student gatherings and social activities is a lack of participation and/or buy-in. Seemingly trivial details that can be added to these events such as free food, a comfortable space, or activities done in unique ways (such as showing a movie outside on big screen instead of inside in the student union) may pique student interest and increase participation.

Increasing connections. Adding disability services as a conceptual aspect of social support may help to strengthen social support networks for students with disabilities. A statistical model that included disability services as an aspect of social support was run for the purposes of this study to rule out its involvement. This study did not find disability services to be a predictor of self-advocacy in the construct of social support. A specific contact person at disability services for each student may make students feel more connected to disability services. A point person for each student may make the department feel more personal and accessible. Even if the point person for a student is not the correct person to help with a specific problem, the point person could

help connect the student with the right person. This one-on-one connection would help bolster a student's social support network, give the student someone who can help them self-advocate and learn how to self-advocate if the need arose, and allow the student to feel more comfortable using the services provided by disability services.

Education. Though many of the recommendations in this paper focus on supporting self-advocacy through social support, it cannot be assumed that all students have the skills to advocate for themselves when they so desire. A handout or email with "tips and tricks" about self-advocating for students enrolled in disability services would provide students with a resource and a place to start when they consider the idea of talking to a professor or to disability services or anyone else about their needs. This could be done with incoming students as well as current students. Regular outreach at stressful times in the academic cycle such as around midterms and finals may provide students with information they did not know they needed; an email that is typically deleted may have the information a student needs at the right time. If there is student interest, a discussion group could be provided for students to learn self-advocacy skills such as prompts or correct terms for talking to faculty. A discussion group or other small-scale intervention might not be feasible due to the time, money, and staffing it would take. However one way to satisfy this need could be to have a graduate student oversee the group. This could benefit the graduate student by way of experience, and would have the added advantage of having a more relatable person lead the group. This same course of action could be taken with social skills.

Students with disabilities may benefit from being taught skills to make friends and other social connections (Nevill, 2011). There are several disabilities, that may include but are not limited to Autism, anxiety, or some learning disabilities, that negatively affect the skills students use to make social connections. A skill-building gathering would help give students the skills to build their social network at the college level. This kind of event could be promoted for all students or just for students with disabilities. It also has the flexibility to be considered and promoted to students as a way to learn to network for future employment. This kind of skill building event would benefit from being built into a social gathering. The event would market better to students, as well as giving them an immediate opportunity to practice and observe the kinds of social support building skills that will benefit them.

Another recommendation is to offer information to non-disabled students about different disabilities to increase their understanding of disabled peers (Nevill, 2011). In his paper that targets college students with Autism, Nevill recommends university student organizations providing increased information to student bodies on Autism Spectrum Disorders and its increased prevalence. In the case of the present study, all disabilities could and should be included in the information. Nevill's theory is that by providing explanatory information to students on college campuses, it can help decrease negative evaluations and promote peer acceptance. There is evidence for the positive impact of such programs with children (Campbell et al. 2005, as cited in Nevill).

Promote balance. The idea that school-life balance will increase academic success seems backwards, but the findings of this study suggest otherwise. Helping

students take the time to have a life outside of studying and class will help build and fortify their social networks. Promoting a school-life balance can be done on a grander scale by a student life department, or on a more individual level by residential advisors in the dorms. While this recommendation does not specifically target students with disabilities, students with disabilities are still part of the general population of their colleges and universities. And as mentioned before, strong social support will benefit all students in some way. This promotion of school-life balance can be done through hall activities and outings, helping students schedule study/school time and social time. It is likely some students will focus on school and some will focus on socialization. Both sides of the spectrum would benefit from a reminder to focus on both areas.

Faculty. Faculty teaching practices were shown to be the strongest predictor of student self-advocacy in this study. The following are recommendations for how to improve faculty teaching practices and make faculty an even better social support to students with disabilities. Many of these recommendations may mean extra work or training for faculty members. One way to increase participation and buy-in among faculty would be to show faculty the results of this study and remind them they just how much they matter.

Events with students. Events with both professors and students may make faculty members seem more approachable to students. The goal would be for students to feel more at ease talking to professors, which could transfer into ease when it comes to self-advocating for issues that matter. This may be as simple as a meet-and-greet between incoming students and faculty members. A questions and answer session/panel

specifically for student with disabilities may benefit both students and faculty. Faculty could become more aware of the questions and issues that plague this population of students, and students would be able to see that their faculty is vested in their success and willing to be open to talking, answering questions, providing accommodations, and working with students.

A more casual recommendation is sporting competition between professors and students. This would help increase the feeling of connectedness between faculty and students as well as increase camaraderie, and likely increase the social support students feel from their faculty members. This increase in perceived faculty support was shown by this study to be a strong predictor of increased self-advocacy for students with disabilities.

Education. The results of this study indicate that using an inclusive curriculum is important to students with disabilities. Training for faculty on universal design would inform a better, more inclusive approach to teaching. Universal design is an approach to inclusive instruction that is responsive to the diverse learning needs of a changing postsecondary population (McGuire, Scott, & Shaw, 2003). Instead of retrofitting changes for specific students via accommodations, the use of universal deign would aim to make instruction accessible to all students.

Providing training on how to work with students with disabilities is another way to improve faculty teaching practices. Updated information from disability services to faculty on laws concerning students with disabilities, best practices, and possible accommodations would allow faculty members to be fully informed when a student

approaches them. General information from disability services about the number of students with disabilities would also be beneficial for faculty to have. This may help remind faculty that there is likely a student with a disability in each of their classes whether they know it or not. This sharing of information may also make faculty feel more connected to disability services and more likely to reach out with questions or concerns they have about a student. This may allow faculty to better support their students.

Policy. While there are no policy recommendations, it would behoove professors and other university faculty members to be informed of the policy around students with disabilities. To know that students need to advocate for themselves to get what they are qualified for by law, faculty may be more open to student requests. As previously discussed, accommodations have to be met as per the law, but the faculty member's attitude and general level of support are as variable as the individual.

Future Research

Future research in this area can and should be more specific when it comes to defining self-advocacy. A more pointed approach to finding out about how students self-advocate, how often, and whether or not it is successful, would be beneficial to this field of study. Qualitative methods exploring these same ideas would bring new ideas and give life to the words. Interviews with college students with disabilities have the possibility to fill in and provide explicit examples of the types of support they most value and give a real picture of what works and what does not work when it comes to

supporting social support and self-advocacy. The words of the students themselves

would hopefully give light and color to the findings of this study.

The current study restricted participants to undergraduate students, so as to follow

the same format as the original CSDCC survey. This was done to make sure the

measure's validity and reliability remained intact. Expanding upon this study to include

other types of students, such as graduate students and law students with disabilities,

would likely yield beneficial results, as there are a higher percentage of students with

disabilities in post secondary institutions than ever before (Stodden, Conway, & Chang,

2009).

While the focus of this study is on the students themselves, the results show that

one of the biggest influences in social support and on student self-advocacy is faculty

teaching practices. More research focused on faculty, faculty teaching practices, and how

they address disabilities would provide information on what exactly faculty are doing to

aid students with disabilities. This faculty-centered research would likely benefit all

students, as an accessible, supportive learning environment would help everyone, not just

those students with disabilities.

One final direction for this research to go is to explore the role social media plays

in providing social support for students with disabilities. Social media introduces a host

of new questions concerning how social support may have an impact for students with

disabilities. How would social media factor into social support? How might the

geographic proximity or distance to the friend influence social support? Would the

specific social media platform affect the degree of influence it has on the perception

social support (i.e., Facebook or Twitter or Instagram, etc.)? Does social media count as peer support at all? Would social media count as family support? How does it influence perceived support? Would type of peer support (virtual or real life) matter? With more students maintaining relationships in this manner, social media will be an important aspect of the connection between social support and self-advocacy and should be explored accordingly.

Conclusion

The post-secondary education system in the United States differs from its' K-12 system in that students are required to self-disclose their disability to receive accommodations. Over half do not disclose their disability (Murray, 2013).   This fact alone is indicative of why increased self-advocacy is important for this population. With increased self-advocacy comes accommodations and having needs met, which in turn aids academic and personal success. The present study has shown that social support is a significant predictor or self-advocacy. This study has chosen to focus on social support instead of self-advocacy itself because interventions for self-advocacy are more complex and lengthier, with special training often required.   For the population of college students, attendance and buy-in is less likely at a self-advocacy training than a social event. By focusing on social support, college students are more likely to be receptive and therefore any benefit is greater than they would get by not showing up to a training.

In the last three decades, the number of college students with learning disabilities enrolled in colleges and universities has more than tripled (Stodden, Conway, & Chang, 2009).   The connection between these facets of social support and self-advocacy is a new

way to help support this increase in students. With resources stretched thin, fostering

peer social connections and adding to ongoing faculty training are simple ways to

promote student success. Increasing peer support and improving faculty teaching

practices has the possibility to give students with disabilities better academic outcomes.

Self-advocacy for college students with disabilities is all the more important because

students with disabilities must self-disclose their disability to receive accommodations;

they must advocate for themselves (Murray, 2013). It is estimated that less than 50% of

college students with disabilities disclose their disability to their institutions of

postsecondary education (Newman et al., 2011). When students disclose their disability,

a form of self-advocating, they receive services that help them be successful in the

classroom. Increasing student self-advocacy is a sure path to increased academic success

for students with disabilities.

From the data gathered in this study, we can conclude that family support and

involvement, or lack thereof, is less important to college students with disabilities than

other factors of social support. This study only explored the relationship within the

framework of social support and self-advocacy, but the questions asked about family

support are general enough to be applied to ideas outside social support and self-

advocacy. The idea that family support is not significant is particularly interesting for

this population because it is likely that families who include a student with a disability

have been more involved the educational process than the average family. The

unimportance of family support may be mismeasurement, a symptom of adolescence or

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of where college students are developmentally, or it may be pushback of years of involvement in the educational process.

This study showed that faculty teaching practices are a significant predictor of self-advocacy for college students with learning disabilities. This finding is particular important because it demonstrates another way in which teaching and method of instruction is important. At the high school level, Norton (1997, as cited in Hatch, Shelton, & Monk, 2009) found that most students with disabilities were apprehensive to ask for accommodations in the classroom, and that most did not clearly explain their disability to their instructors. While the present study does not focus on students in high school, students who are apprehensive to ask for accommodations in the high school classroom are likely to be apprehensive in asking for them in the college classroom as well. But the current study shows that students who felt more supported by their instructors were more likely to self-advocate. Feeling that a faculty member is supportive and inclusive can lead to disability disclosure, which in and of itself is a form of self-advocacy.

This study adds strength to the body of literature that has investigated the importance of social support. The current findings can help illustrate how social support may lead to self-advocacy. When students perceive themselves to have a strong social support system, in this case made up of peers and faculty, they feel secure to speak up for themselves. They are not alone, they have others to support them and share in their goals. As family was found to not have a significant impact in this study, it can be concluded that college students are choosing their own support system. This study

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suggests the support system of the college student centers around their college life and

college campus, not their greater microsystem of family.

Faculty can make a real impact on students, not only in teaching course material,

but also in the way in which students experience the course. For a student with

disabilities, learning in an environment that is friendly to their learning style and meets

their needs makes for a supportive experience. Data from this study suggests that this

supportive experience is translated into increased self-advocacy. In addition to faculty

and professor interactions with students, teaching style, too, is an important factor for

educators. Inclusive curriculum design and overall teaching style were two items

participants ranked as being important to feeling supported. A takeaway message of just

how important faulty and professor interactions are to students is paramount.

While the focus of this paper was social support and it being a significant

predictor of self-advocacy in students with disabilities, with the framework that increased

self-advocacy leads to between academic outcomes (better grades, higher class

attendance, greater retention, intent to persist), an overarching theme is the importance of

school-life balance. Social support cannot be achieved without a social network.

Students need friends and a peer group to feel supported. The item that scored the

highest in the "peer support" factor of the survey was "I have strong and rewarding

friendships with other students at this university." That item also had the least standard

deviation of any item in the peer support factor. Strong, rewarding friendships are

necessary in many ways that are not explored or talked about in this paper, such as

mental health. School-life balance is beneficial for promoting social connections, self-

advocacy, and ultimately greater academic success. It seems backwards to focus less on school to excel academically, but the findings of this paper give merit to this idea.

This study investigated the relationship between social support and self-advocacy for college students with disabilities. Social support was found to be a significant predictor of self-advocacy, namely peer support and faculty teaching practices. While not a direct measure of academic success, using self-advocacy as a proxy follows the recommendation and trend of the literature that nonacademic variables should be considered when considering student outcomes (DaDeppo, 2009; Jameson, 2007; Murray and Wren, 2003; Lombardi, Gerdes, & Murray, 2011). Social support is a variable that can be both measured and enhanced, unlike other more ambiguous factors that may be supportive to students with disabilities. The conclusions and recommendations made in this paper were tailored to busy institutions of higher education and therefore they aim to be real world applicable and achievable. Supporting students with disabilities is important in the same way supporting all college students is important. Shaping the educational experience of young adults effects who they become and what they do with their lives after college. Each student deserves the best possible outcome they are capable of. College students with disabilities represent a unique population and many have unique needs (Murray, 2013; Adams & Proctor, 2010). The connection made in this paper between social support and self-advocacy has the possibility to improve the college experience of students with disabilities.

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Appendix A

College Students with Disabilities Campus Climate (CSDCC) Survey

Peer Support
1. I have trouble making friends at this university
2. I make friends easily at this university
3. I have difficulty meeting new people at this university because of my disability
4. I have strong and rewarding friendships with other students at this university

Utilizing Accommodations
1. I don't utilize accommodations unless absolutely necessary
2. I don't utilize my accommodations unless I am not doing well in a class
3. I request faculty notification letters from Disability Services
4. I utilize Disability Services to assist me in arranging my accommodations as needed
5. I find that I do not utilize my accommodations because it is not convenient to arrange them

Disability Services
1. Disability Services effectively responds to specific incidents of insensitivity
2. I feel comfortable discussing challenges related to my disability with people who work in Disability Services
3. I feel satisfied with the support I receive from Disability Services
4. I utilize advising/counseling support provided by the Disability Services office as needed

Self-Advocacy
1. I perform as well as other students in my course(s)
2. Generally, I feel good about myself and my abilities at this university
3. I keep up with the reading in most of my courses
4. My disability is not an issue for me and my performance at this university
5. I feel comfortable advocating for myself and my needs at this university
6. I know about my rights and responsibilities as a student with a disability

Family Support
1. My family members have helped me in college by providing me with emotional support
2. I rely on family support when I face challenges at this university
3. My family members have helped me seek out or find support services in college
4. My family members have helped me in college by providing me with financial support

Campus Climate
1. I wish I attended a different university
2. I do not feel comfortable on this campus
3. I feel comfortable on this campus

4. I feel the overall campus environment is supportive of students with disabilities

Faculty Teaching Practices
1. My instructors use an inclusive curriculum design so that my accommodation needs are minimized
2. My instructors provide more than the minimum modifications needed to accommodate my disability
3. Generally I feel instructors are supportive of me at this university
4. The overall teaching style of my instructors at this university permits all students to learn the course material regardless of their individual needs

Faculty Attempts to Minimize Barriers
1. My instructors include a statement in their syllabus inviting students with disabilities to discuss their needs with them
2. My instructors make a statement in class inviting students with disabilities to discuss their needs
3. My instructors have general knowledge about accommodations
4. My instructors provide grading rubrics in order to clarify the expectations of major assignments prior to deadlines

Stigma Associated With Disability
1. If I do not disclose my disability early in the term, my instructors are reluctant to provide accommodations
2. I feel my instructors are not willing to provide requested accommodations
3. I am reluctant to disclose my disability to my instructors
4. My instructors are willing to provide the accommodations outlined in my notification letter
5. I feel my instructors doubt my ability to succeed even when accommodations are provided

Item Level Descriptive Statistics

Factor and Question	Mean	Standard Deviation
Peer Support		
I have trouble making friends at this university**	3.93	1.549
I make friends easily at this university	4.32	1.262
I have difficulty meeting new people at this university because of my disability**	4.79	1.370
I have strong and rewarding friendships with other students at this university	4.89	1.075
Utilizing Accommodations		
I don't utilize accommodations unless absolutely necessary**	2.70	1.510
I don't utilize my accommodations unless I am not doing well in a class**	3.74	1.671
I request faculty notification letters from Disability Services	3.92	1.808
I utilize Disability Services to assist me in arranging my accommodations as needed	4.22	1.402
I find that I do not utilize my accommodations because it is not convenient to arrange them**	4.11	1.360
Disability Services		
Disability Services effectively responds to specific incidents of insensitivity	4.55	1.202
I feel comfortable discussing challenges related to my disability with people who work in Disability Services	4.90	1.179
I feel satisfied with the support I receive from Disability Services	4.82	1.290
I utilize advising/counseling support provided by the Disability Services office as needed	3.47	1.780
Self-Advocacy		
I perform as well as other students in my course(s)	4.66	1.055
Generally, I feel good about myself and my abilities at this university	4.71	.877

I keep up with the reading in most of my courses	4.12	1.179
My disability is not an issue for me and my performance at this university	3.73	1.268
I feel comfortable advocating for myself and my needs at this university	4.57	1.209
I know about my rights and responsibilities as a student with a disability	4.78	1.025
Family Support		
My family members have helped me in college by providing me with emotional support	5.07	1.239
I rely on family support when I face challenges at this university	4.40	1.426
My family members have helped me seek out or find support services in college	4.31	1.488
My family members have helped me in college by providing me with financial support	5.35	1.155
Campus Climate		
I wish I attended a different university	2.45	1.397
I do not feel comfortable on this campus**	4.67	1.328
I feel comfortable on this campus	4.92	1.042
I feel the overall campus environment is supportive of students with disabilities	4.77	1.239
Faculty Teaching Practices		
My instructors use an inclusive curriculum design so that my accommodation needs are minimized	4.04	1.295
My instructors provide more than the minimum modifications needed to accommodate my disability	3.74	1.424
Generally I feel instructors are supportive of me at this university	4.79	.995
The overall teaching style of my instructors at this university permits all students to learn the course material regardless of their individual needs	4.52	1.076
Faculty Attempts to Minimize Barriers		
My instructors include a statement in their syllabus inviting students with	5.44	.889

disabilities to discuss their needs with them		
My instructors make a statement in class inviting students with disabilities to discuss their needs	4.59	1.211
My instructors have general knowledge about accommodations	4.55	1.124
My instructors provide grading rubrics in order to clarify the expectations of major assignments prior to deadlines	4.73	1.056
Stigma Associated With Disability		
If I do not disclose my disability early in the term, my instructors are reluctant to provide accommodations**	3.51	1.509
I feel my instructors are not willing to provide requested accommodations**	4.51	1.215
I am reluctant to disclose my disability to my instructors**	3.89	1.587
My instructors are willing to provide the accommodations outlined in my notification letter	5.07	.936
I feel my instructors doubt my ability to succeed even when accommodations are provided**	4.32	1.291

**Reverse Coded