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Self-Efficacy and Social Support: An Application of Social Cognitive Career Theory

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Acknowledgements

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Abstract

Self-efficacy is a driving force for motivation, conceived from agency. However, self-efficacy is not a one-dimensional concept that expresses itself uniformly across individuals. Rather, an individual's sense of self-efficacy is impacted by contextual variables such as social support and economic means. This paper evaluates the multidimensionality of self-efficacy, along with its contributing factors and barriers. These concepts are then applied to research measuring pre- and post-test levels of self-efficacy and social support for women participating in a job-training program. Measurements are taken using the Self-Efficacy Scale (SES) and the Social Support Appraisals Scale (SSA). Descriptive statistics are used to analyze the data, however, results prove to be inconclusive due to the small sample size and high dropout rate of initial participants. The results are discussed in light of potential contributors to outcomes and recommendations are made for future research. This study concludes in support of the effectiveness of such a training program due to the history of participant successes and numerous supports in place for participants, despite the inability of this study's numerical evidence to prove such a result.

Self-Efficacy and Social Support: An Application of Social Cognitive Career Theory

Over the course of one's lifespan, challenges present themselves in various forms. According to Erikson's model of psychosocial development, challenges are referred to as crises, and begin as early as infancy (Santrock, 2011). Challenges may present similarly to many individuals. However, the particular way in which the challenge is resolved may depend more on the individual's unique characteristics and context than the challenge itself.

This study explores the way in which individuals face challenges, illuminating agency and self-efficacy as the crux of accomplishing difficult tasks. This is used to evaluate women who face sociocultural and economic barriers and their capacity to maintain a sense of self-efficacy. The present research measures this psychological concept among women who are part of a job-training program that is hosted by a larger hospital organization in the Northeast region of the United States. Specifically, self-efficacy is measured as impoverished women approach the challenge of pursuing a career or higher education, moving away from dependence on welfare, and moving toward financial independence.

Statement of the problem

Although working toward financial independence through job training may seem like a basic, linear process, there are several factors that contribute to the difficulty of this task. Gender role socialization, societal power structures that limit access to resources for minorities and women, and generational cycles of poverty all comprise the contextual barriers to those seeking financial independence (Ozawa, 2006). Personalized barriers exist as well, including life experiences that do not entail a sense of accomplishment, or

mastery, over tasks (Bandura, 1994). Therefore, pursuing ultimate financial independence and committing to a job-training program can be strenuous tasks, especially for marginalized and underprivileged persons.

Background and Need

Considering these substantial obstacles, a community outreach program that is housed by a larger hospital system in the northeast United States has created a program that offers job training, career coaching, and continued case management for inner city mothers seeking to gain employment or pursue higher education. This program is offered in a group setting, with new groups of approximately 3 to 6 participants joining each month. The setting in which this program occurs, along with the content, is designed to increase participant levels of personal responsibility and prepare them for increased economic independence.

Purpose of the Study

The purpose of this study is to evaluate the resulting level of participant self-efficacy that the structure of the job training program is designed to increase. This research also measures the level of social support amongst women who participate in the program. In doing so, research is intended to determine whether or not the combination of social and psychoeducational aspects of this job-training program will impact participant levels of self-efficacy and social support. I hypothesize that participants will report higher levels of self-efficacy and social support upon completion of the job training program than reported at program orientation. Therefore, participants will demonstrate more belief in their ability to control external stimuli and create desirable outcomes as they pertain to self-sufficiency and goal achievement.

Significance to the Field

Regardless of particular outcomes, this study adds to the current knowledge of welfare-to-work programs as it incorporates a psychological perspective to a very practical program. That is, instead of evaluating the program's effectiveness by measuring which participants have moved off of welfare and onto financial independence, this study seeks to provide clues as to what contributes to participant successes or failures. More specifically, this research is intended to provide information regarding how a time spent in a job-training program influences participant levels of self-efficacy and social support—two variables shown to contribute to task completion and success. Using this information, future job training programs could design curriculum such that participant successes were more likely.

Limitations

Although this research can offer new knowledge, there are limitations to the information it can provide. First, this study measures pre-and post-test levels of self-efficacy and social support, it does not account for extraneous variables that could affect these variables. Second, a control group was not included, therefore it is difficult to ascertain whether the difference in levels of self-efficacy and social support were, in fact, due to the job training program or otherwise. An extensive review of limitations is provided in the discussion section.

Ethical considerations

Consent and confidentiality proved to be two paramount ethical considerations while conducting this research. Participants were informed of the specifics of the study, informed of their right to withdraw, and encouraged to ask questions regarding the

research process. After signatures were obtained indicating that each participant consented to the process, completed surveys were kept in a locked filing cabinet and only taken out for purposes of data analysis. During said analysis, responses were de-coded so as not be to associated with the name of the participant.

Self-Efficacy and Agency

When faced with challenges, various factors influence one's beliefs regarding whether or not the task is achievable. Such self-held beliefs about the capacity to control events, or master tasks, are referred to as self-efficacy (Bandura, 1997, 2001 as cited in Benight & Bandura, 2004). Self-efficacy is a multi-dimensional concept that is derived from one's sense of personal agency. This sense of personal agency is one's belief about the ability to exercise control over external stimuli (Bandura, 1994). Given a sense of control over external stimuli, the individual is able to build a sense of self-efficacy by maintaining the belief that outcomes are controllable. Furthermore, self-efficacious individuals believe that they can create desirable results while avoiding less desirable outcomes (Bandura, 2001). In this way, self-efficacy and agency are inherently tied together.

While one's sense of agency may be personal, social factors such as socioeconomic status or gender may play a part in hindering or reinforcing one's sense of agency and self-efficacy. Wright, Perrone-McGovern, White, and Boo (2012) refer to these environmental contexts as "person inputs," adding that these influence learning experiences, which contribute to an individual's sense of self-efficacy.

The following literature review explores the concept of self-efficacy and personal agency, including the contributors and multidimensionality of each. Social support is

evaluated as a contributor to self-efficacy, followed by a discussion of barriers to self-efficacy in light of sociocultural factors and economic strife. This review also discusses the application of self-efficacy to career choices using the theoretical framework of Social Cognitive Career Theory (SCCT).

The Formation and Multidimensionality of Agency and Self-Efficacy

Albert Bandura is known for his research and publications on agency and self-efficacy. His work on self-efficacy led to the formation of his Social Cognitive Theory (SCT) and eventually the Social Cognitive Career Theory (SCCT) developed by Lent, Brown, and Hackett (2000). This section will outline the basic concepts of agency and self-efficacy according to Bandura.

Agency

Personal agency is not a simple concept that is trivial in nature. Rather, one's sense of agency has biopsychosocial consequences and neurological research suggests that agentic thought contributes to neuronal function and brain structure. For example, an individual's sense of agency may lead to exploration of the physical and social environment. This, in turn, can produce biological effects, such as neuronal development. Furthermore, Bandura (2001) explains that this interactive, rather than merely reactive, approach to the world allows humans to be creative and generative. This in turn leads to a fluid, ever changing, sense of agency wherein an individual takes input from environmental contexts and produces feedback in the form of action. While operating within these environmental contexts, the individual executes agency, comprised by intentionality, forethought, self-reactiveness, and self-reflectiveness.

Intentionality. Intentionality refers to an individual's will to do something. This will is typically future oriented and involves creating plans of action. This aspect of agency must be fluid and flexible to allow for changes produced by unforeseen events. Nonetheless, an action must be intentional, planned, and committed to in order to allow for agentic expression (Bandura, 2001).

Forethought. While intentionality is one's expression of will to do something, forethought is the goal directed component of agency. Forethought that gives rise to goals is rooted in one's value system and personal identity. Goals are driven by forethought and create motivation for the individual to follow through with plans of action while anticipating desired future events. Bandura (2001) wrote that, "[Goals] enable people to transcend the dictates of their immediate environment and shape and regulate the present to fit a desired future" (p. 7).

Self-Reactiveness. Self-reactiveness refers to the self-evaluative component of agency. This self-evaluation is led by one's ability to self-regulate and evaluate performance in comparison with the goals set (Bandura, 2001). Through this, both short-term and long-term goals are created, while also maintaining a state of flexibility as the individual exceeds or fails to meet personal standards of performance (Bandura, 2001).

Self-Reflectiveness. This component of agency is one in which individuals judge their outcome expectations against the situational results. In doing so, individuals consider social factors, such as the beliefs and actions of others with regard to situational expectations. Consequentially, self-reflectiveness requires that the individual assess personal potential based on social and contextual factors available. In short, self-reflectiveness is synonymous with self-efficacy.

Self-Efficacy

Once individuals have an established sense of agency, they begin to incorporate a sense of self-efficacy into cognitive and affective processes (Bandura, 1994). This allows for increased interest and deeper investment in activities, thus creating stronger commitment to task completion. Conversely, the individual who has not established a sense of self-efficacy is more likely to give up on tasks when presented with challenges. However, Bandura (1994) stated that those who maintain a high level of self-efficacy are able to do so because of four critical experiences. These include mastery over tasks, vicarious learning, social persuasion, and cognitive and emotional states.

First, mastery experiences help to build one's sense of self-efficacy through successes despite challenges. These mastery tasks must be reasonably challenging and require perseverance. Bandura (1994) warned that tasks requiring little effort to achieve success contribute to a weakened sense of self-efficacy as the individual comes to expect quick success. However, mastery over tasks that require great effort leads to an increase in the likelihood that future challenges will also be met with sustained effort.

Second, self-efficacy is formed within a social context, and therefore vicarious learning serves to increase one's sense of self-efficacy. Social models provide opportunities for individuals to observe others' sustained effort when facing challenges and ultimate mastery over tasks. Bandura (1994) noted the importance of similarity between the observer and the observed in vicarious learning. That is, the social model must be perceived as similar to the vicarious learner in order for the learner to make judgments regarding personal efficacy beliefs.

The third contributor to strengthening one's sense of self-efficacy also requires interaction within social contexts. According to Bandura (1994), individuals who receive verbal persuasion that they have what it takes to complete a task are more likely to approach the task in with an efficacious attitude. However, false hope instilled by persuasion that the individual can achieve a task that is genuinely too difficult, will quickly produce a dramatic decrease in self-efficacy. Therefore, individuals often seek out tasks that they, and others, believe they can accomplish.

The fourth building block of self-efficacy consists of cognitive and emotional states. Specifically, stress reactions signal vulnerability and can lead to poor performance (Bandura, 1994). Bandura (1994) noted how physical activities that elicit aches and pain can decrease stamina based on the individual's judgment of capability amidst difficulty. Furthermore, mood and self-efficacy are correlated in that the better one's mood, the higher the level of self-efficacy; correspondingly, the lower one's mood, the lower one's level of self-efficacy.

An Application of Social Cognitive Career Theory

Lent, Brown, and Hackett (2000) incorporated Bandura's information regarding self-efficacy and developed the Social Cognitive Career Theory (SCCT). This theory evaluates social, psychological, and economic variables in relation to cognitive-person variables, or the way in which one thinks about the world (Zhao, 2012; Lent, Brown & Hackett, 2000). Furthermore, SCCT assesses self-efficacy, goals, and outcome expectations as they contribute to career pursuit. In essence, SCCT considers environmental/social contexts and self-efficacy the two pivotal aspects of an individual's formation of career aspirations.

Self-Efficacy, Social Contexts and Career Aspirations

Lent and Brown (2013) stated that social influence is a driving force for one's sense of self-efficacy, even for individuals who have already developed this aspect of cognition. Lent, Brown, & Hackett (2000) went as far to say that external factors, such as social support, may have a greater influence on choices than personal interests and self-efficacy. Wright, Perrone-McGovern, Boo, and White (2014) supported this notion, citing gender role socialization as one way in which this occurs. They elaborate by giving examples of men and women pursuing careers based on traditional stereotypes rather than personal interests (Wright et al., 2014). Others, such as Stajkovic and Luthans (1998), added that social learning is an imperative component of the creation of self-efficacy, but that individuals actively maintain their sense of efficacy by evaluating personal characteristics and unique experiences.

Wright et al. (2014) evaluated the extent to which social supports impact self-efficacy by integrating attachment theory to college students' career aspirations. They wrote, "Secure attachment relationships foster individuals' active exploration and engagement in positive learning experiences, leading to increased self-efficacy and positive outcome expectations" (p. 37). They go on to state that positive attachments can create an expectation of trust and support from others when encountering challenges and career barriers (Wright et al., 2014). This research yields similar results as Isik's (2013) study that applied SCCT and discovered that positive vocational outcome expectations of college freshman was associated with the amount of social support perceived by the student.

Zhao (2012) also evaluated the effects of social supports on levels of self-efficacy and career choice amongst a group of Chinese farmers. Zhao (2012) specified that social support involves both the perception of a sufficient number of supportive persons, and the level of satisfaction with said individuals. Lent, Brown, and Hackett (2000) stated that supports met with satisfaction are considered positive supports while environmental barriers are considered negative supports (as cited in Zhao, 2012). Applying this principal, Zhao's (2012) research uncovered that positive supports impacted Chinese farmers' sense of self-efficacy, which then indirectly contributed to career choice. However, negative supports circumvented self-efficacy and instead affected farmers' career choice directly—in this case, limiting options despite self-efficacious beliefs regarding career alternatives.

Sociocultural and Economic Barriers to Self-Efficacy

Research by Zhao (2012) sheds light on the powerful influence of contextual barriers notwithstanding an individual's sense of self-efficacy. Although the contextual variables measured in Zhao's study were different than those that many Americans face, economic hardship, poverty, and career barriers are a reality for many in the United States. Dahling, Melloy, and Thompson (2013) reported that states such as Rhode Island and Nevada recently had unemployment rates up to 11% and that long-term unemployment rates are growing. Additional data reports that 46.5 million Americans live below the poverty line, which is currently an income of less than $22,000 – 29,000 per year for a four-person family (U. S. Census Bureau, 2013; U. S. Department of Health and Human Services, 2013).

Mowafi and Khawaja (2005) explained the multidimensionality of poverty and noted that impoverished persons not only face decreased economic resources, but also a lack in social capital and influential "power" or "voice" (p. 262). Power and voice, in this sense, are the ability of an individual to achieve his or her will. In other words, this refers to the amount of social influence one carries (Mowafi & Khawaja, 2005).

Mowafi and Khawaja (2005) elaborated on this by explaining that impoverished individuals may experience "capabilities deprivation" in which there is limited access to certain freedoms (Mowafi & Khawaja, 2005). For example, those living in poverty may not be able to afford higher education. Without such an education, they may not be able to attain gainful employment, thus unable to financially support themselves or their family. In this example, impoverished persons are unable to "convert commodities into valued functionings in the context of life," thus they are deprived of their capability to exercise freedoms to live a life of their choosing (Mowafi & Khawaja, 2005, p. 262). Ultimately, Mowafi and Khawaja (2005) stated that an individual's experience of capabilities deprivation and economic disadvantage often leads to social exclusion.

The impact of capabilities deprivation and social exclusion is compounded by variables such as race and ethnicity that also mitigate social power for minorities (Mowafi & Khawaja, 2007). Raque-Bogdan, Klingaman, Martin, and Lucas (2013) explored this phenomenon as it relates to self-efficacy and perceived career barriers amongst ethnic minorities. They noted that ethnic minorities may have an established sense of self-efficacy, yet due to systemic barriers such as institutionalized racism, they may not demonstrate sustained effort to achieve a goal (Raque-Bogdan et al., 2013). This

finding is similar to Zhao's (2012) by indicating that contextual factors have an equal, if not greater, role in career choice and development than does self-efficacy.

In order to examine institutionalized barriers and self-efficacy in greater depth, Lee and Vinokur (2007) conducted research among a group of women transitioning from dependency on welfare to self-sufficiency via employment. They state that aside from institutional barriers such as racism and sexism, many women seeking to gain employment are met with low paying jobs that offer poor benefits (Lee & Vinokur, 2007). This becomes particularly problematic for women who are mothers and must pay for childcare while working. Additional challenges are presented by mental health problems, low education, and limited work experience (Lee & Vinokur, 2007). These challenges may trump levels of self-efficacy and increase the likelihood that individuals stop working altogether and return to welfare support (Lee & Vinokur, 2007)

Finally, Dahling, Melloy, and Thompson (2013) sought to demonstrate how the state of poverty can decrease one's sense of career self-efficacy and detract from positive outcome expectations. Their research revealed that the experience of financial strain was negatively correlated with job search self-efficacy (Dahling, Melloy & Thompson, 2013). Specifically, impoverished individuals demonstrated disbelief in their ability to both find a job and obtain employment. This effect was exacerbated in areas facing high rates of unemployment, therefore highlighting the influence of the macrosystem on an individual's microsystem (Dahling, Melloy, & Thomson, 2013).

Applying the Research to a Job Training Program

The above research presents grim findings for the state of self-efficacy amongst individuals who are socially marginalized. In order to help local, inner-city mothers find

alternatives to these grim social and economic outcomes, a hospital system in the northeast United States has implemented a program that offers job training, mental health counseling, and psychoeducation classes. This program is available to women residing in the inner city of this northeastern town. Participants must be either pregnant or have at least one child under the age of two. Currently, 98% of the program's participants are either living at, or significantly below, the United States poverty threshold (A. Gintner, personal communication, February 10, 2014). This program provides transportation and childcare for all mothers as a means of decreasing contextual barriers and increasing program participation.

The focus of the present research is the job-training component of this community-based program. The job-training program has an intake rate of between 2 and 6 participants per month. Participants for this program are pre-screened for the presence of any outstanding barriers to success, such as mental health issues. Should such barriers be present, the participant is referred to the appropriate service and re-screened for job-training readiness three months later. Once admitted to the job-training program, participants build self-awareness, create career goals, complete in-house vocational training, and eventually graduate to job or school outplacement with continued case management.

Method

The purpose of this study was to determine if time spent in a job-training program would have an impact on participant levels of self-efficacy and social support. This study took form as a quantitative pre- and post-test design with a sample size of five. Self-efficacy and social support were measured using surveys for both the pre- and post-test

wherein participants would select the appropriate response using a Likert-type scale. The Self-Efficacy Scale (SES) was written with the underlying assumption that mastery experiences and expectations thereof are a determinant of future efficacious attitudes (Sherer, Maddox, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982). The Social Support Appraisals Scale used in this study measured the extent to which participants believed they were loved by, and involved with, family, friends, and others (Vaux, Phillips, Holly, Thoompson, Willians, & Stewart, 1986). After both pre- and post-test data were collected, results were analyzed using descriptive statistics.

Setting

Research was conducted at one of the satellite locations of the hospital system through which the job training program is housed. The pre-test data for this study were collected during the orientation workshops of the program. Each workshop took place in a conference room that has comfortable capacity for up to 15 persons. Participants all completed the surveys sitting at a large U-shaped table during the first 15-20 minutes of the orientation.

Data for the post-test was collected in a less uniform environment. Participants had advanced through the stages of the job training program at varying rates, which meant that participants were not all accessible at one time as they were for the pre-test. As result, post-test data were collected in one of two offices at separate times, one used for mental health counseling and the other used for vocational advising. The availability of one of these offices during the time that participants were free to complete the post-test determined which of these two offices the posttest was completed. Regardless of office

availability, the principal investigator administered the post-tests to no more than two participants at a time, with no other individuals in the room.

Participants

The sampling for this study was purposive and specifically targeted to the job training program participants. Furthermore, participants were selected as they entered the program, so as to get a baseline measurement of their self-efficacy and social support prior to advancing through the job-training program. All participants were females with ages ranging from 18 to 30. These women all had one or more children under the age of two, and were inner city residents of this northeastern town in the United States. Sixty percent of participants were of Latino decent with 40% from African American descent. Approximately 98% of program participants lived significantly below the poverty threshold (A. Gintner, personal communication, February 10, 2014). Therefore, all participants joined this program with the intention of ultimately reducing or eliminating dependence on welfare systems and increasing economic independence.

Intervention and Materials

For this study, the researcher did not implement an intervention. Instead, the intervention, as it were, consisted of the job-training program itself. In addition, the independent variable was a component of the pre-existing intervention. Specifically, the independent variable was duration of time spent in the job training program between pre- and posttests. For two women, this time frame was five months; for three women, this time frame was three months. Accordingly, the dependent variable measured was participant levels of self-efficacy and social support between pre- and post-test.

Measurement Instruments

The instruments used to measure these variables were the Self-Efficacy Scale (SES) and the Social Support Appraisals Scale (SSA). These scales were taken from the second volume of the *Measurements for Clinical Practice and Research.* The SES is a thirty-item instrument that has two subscales—one measuring general self-efficacy and the second measuring social self-efficacy. Each of this instrument's 30 items ask the participant to respond using a Likert-type scale designating that A = Disagree strongly, B = Disagree moderately, C = Niether agree nor disagree, D = Agree moderately, and E = Agree strongly.

Responses to this survey are assigned a number code, with A = 1, B = 2, C = 3, D = 4, and E = 5. Thirteen items on this scale are then reverse scored, with A = 5, B = 4, C = 3, D = 2, and E = 1. In addition, seven items on this survey are filler items and are not scored at all. After the appropriate items have been removed or reverse scored, the numbers are added and higher scores indicate higher levels of self-efficacy.

Reliability measures of the SES show that this scale has good internal consistency. Reported alphas are .86 on the general subscale and .71 on the social subscale (Cochoran & Fischer, 2013). In addition, the SES presents with good criterion validity. This test has accurately predicted that individuals who have high self-efficacy will go on to have success in vocational and educational accomplishments as opposed to those low in self-efficacy (Cochoran & Fischer, 2013).

The SSA is a twenty-three item scale and requires that participants rank their answers according to the following key: 1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree. Five items are reverse scored, with a rank of 1 = 4 and so on.

Responses are then added, with lower scores indicating greater levels of perceived social support.

The SSA also presents with strong internal consistency, with has alphas ranging from .81 to .90. This survey is rated as having very good concurrent, predictive, and construct validity (Cochoran & Fischer, 2013). Research with this instrument has shown that it accurately reflects a variety of social support components including satisfaction with one's support network, perceived support, life satisfaction, and family environment (Cochoran & Fischer, 2013).

Procedure

Data for this study were collected during the first 20 minutes of the orientation workshops of the job-training program. For each pre-test, the research topic was introduced, explained in detail, and packets of surveys were handed to each willing participant. As specifications of the study were read aloud and gone through as a group, participants were encouraged to ask questions and reminded of their right to withdraw. The researcher remained in the room while completing the forms and answered any questions posed regarding the study and surveys. Participants took an average of 10-15 minutes to complete both the SES and SSA. As participants completed the surveys, packets were collected, stored, and locked in a filing cabinet until data analysis. All rounds of pre-test data collection followed the same procedure, with no more than four participants per round.

Data for post-tests followed the same structure with the researcher reminding each participant of the research topic and their right to withdraw. Again, the researcher was present as each participant completed the surveys. Important differences exist between

the pre-test and post-test recruitment procedures, however. Specifically, the research design required that participants would need to complete a follow up survey (post-test), and unfortunately, several women had either withdrawn from the job training program or were no longer reporting to the agency facility by the time a post-test was needed. Sample size therefore decreased drastically (by about 50 percent) between pre- and post-test rounds.

In order to maintain an adequate sample size, several women were called on the telephone and asked to come into the agency facility for the specific purpose of completing the survey. Others were recruited to complete the survey while they were at the agency facility completing a portion of their job training. Only one participant came into the agency facility for the specific purpose of completing the surveys, the remaining four were recruited during their job training tasks. Following the administration and completion of the post-tests, data were again collected and stored in a locked filing cabinet.

Data Analysis

Due to the small sample size, data were analyzed using descriptive statistics rather than inferential statistics. Data were also analyzed as one group as opposed to separately according to pre-test date. Therefore, participants who had a five-month gap between pre- and post-test were not differentiated between the participants who had a three-month gap between testing phases.

Results

Due to a low percentage of program completion rates, three rounds of pre-test data were collected, each one-month apart. However, all post-tests were held at the same

time—in September of 2014. Depending on the orientation group, the post-test either fell five months after the pre-test or three months after the pre-test. The first round of data collection yielded three participants, with two continuing in the program. The second round of data collection yielded three participants, with zero continuing in the program. Finally, the third round of data collection yielded three participants with three continuing. Only the participants who continued in the program were post-tested months later, thus producing the sample size of five.

Pre-test Data

Descriptive pre-test data for the SES revealed a mean of 81.6, with scores ranging from 63 to 94 giving a range of 31. The median for this data set was 87 and the standard deviation was 12.82. The pre-test data for the SSA revealed scores that were less dispersed than on the SES. This is evident through a smaller standard deviation of 6.54, a mean of 52.4, and a median of 52. Pre-test data for the SSA also had a smaller range of only 14.

Post-test Data

Descriptive post-test data for the SES had a slightly larger mean of 88.2, with scores ranging from 71 to 98 providing a range of 28. The median for this data set was 94 and the standard deviation was similar to the pre-test SES at 12.52. The data for the post-test SSA results were more dispersed than the pre-test, with a mean of 54.4, and scores ranging from 42 to 66 giving a range of 24. The median was 54 and standard deviation was larger than the pre-test at 8.96.

In total, the average score on the SES increased by 6.6 from pre-test to post-test, moving from 81.6 to 88.2. The average score on the SSA increased as well, but only by

two points, showing an increase from 52.4 to 54.4. Scoring regulations dictate that higher scores on the SES indicate higher levels of self-efficacy, whereas lower scores on the SSA indicate increased perceived social support.

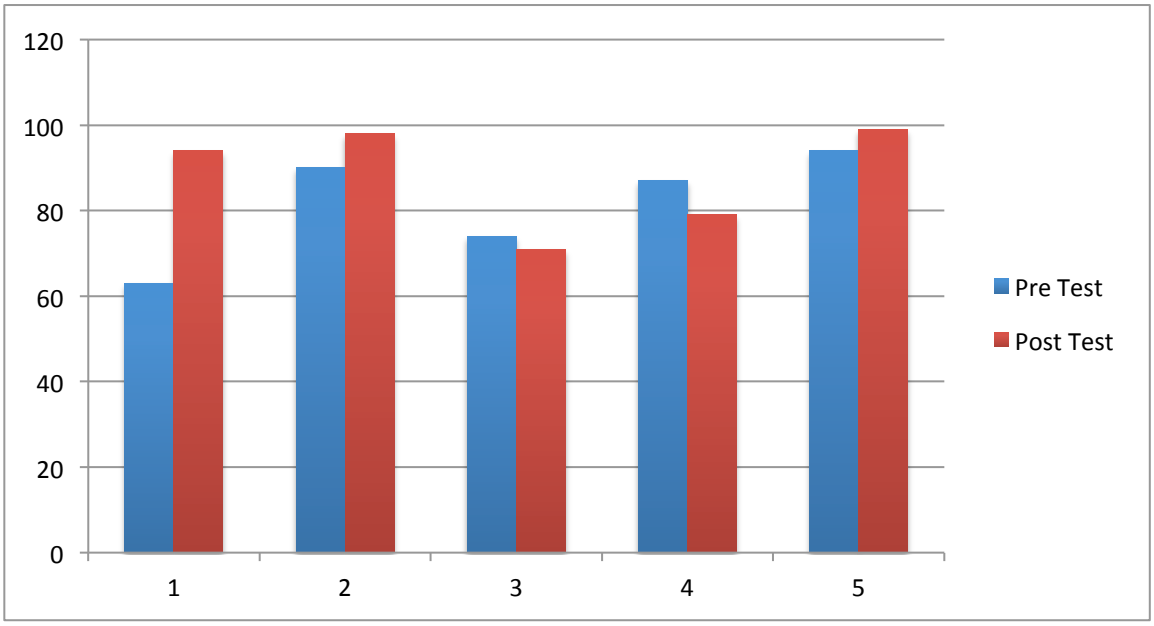

Figure A1. Self-Efficacy Scale (SES) pre- and post-test raw scores for each participant.

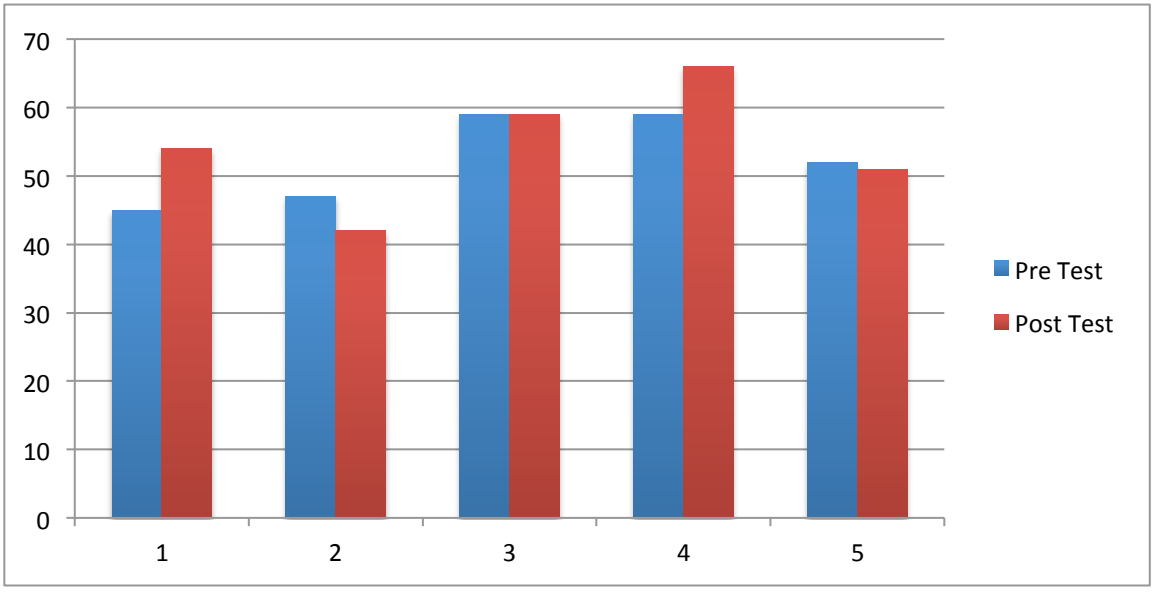

Figure A2. Social Support Appraisals Scale (SSA) pre- and post-test raw scores for each participant.

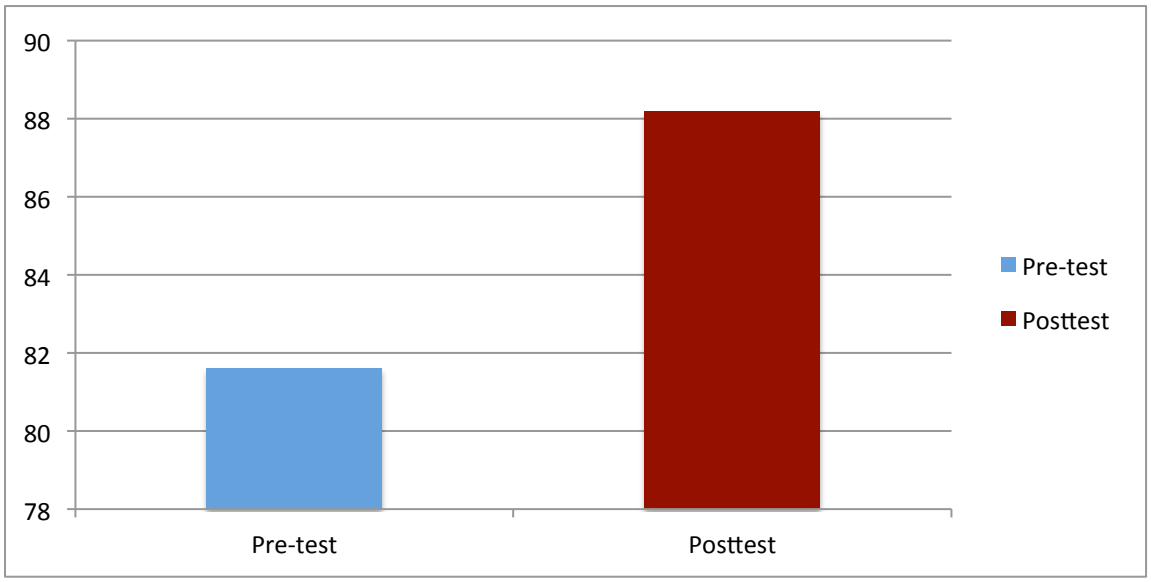

Figure B1. Self-Efficacy Scale (SES) mean difference between pre- and post-tests.

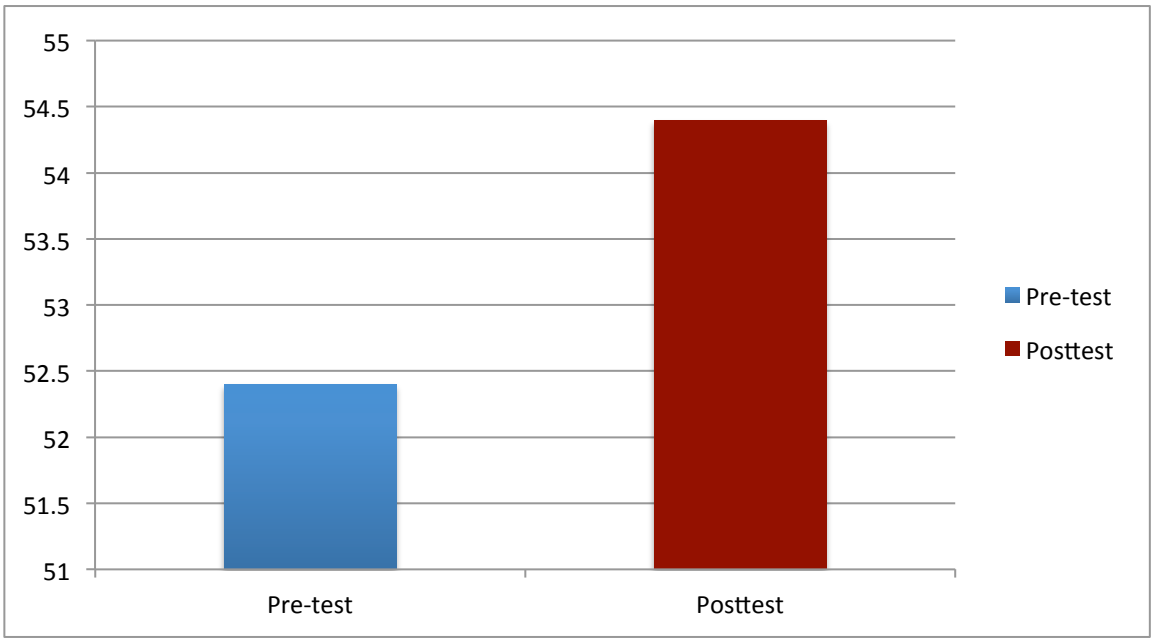

Figure B2. Social Support Appraisals Scale (SSA) mean difference between pre- and post-tests.

Discussion

The purpose of this study was to determine whether or not time spent in a job-training program would have an impact on participant levels of self-efficacy and perceived social support. The above results are too few and too varied to state whether the job-training program had a specific impact on participant levels of these two variables. Overall, the pre- and post-test differences on the Self-Efficacy Scale (SES) and the Social Support Appraisal Scale (SSA) were not changed enough, nor was the sample size sufficiently large, to report any statistical significance. However, a comparison of mean scores for each instrument between pre- and post-test reveals that self-efficacy generally increased, whereas perceived social support generally decreased.

These results, particularly the SSA data, are surprising considering the social structure of the job-training program. As the women progress through this program, they often do so with other participants that began at the same time, therefore creating a cohort progression. One could infer that this would create a network of social supports. In addition, participants are exposed to vicarious learning by hearing the success stories of other women who have completed the program before them. Per Bandura (2001, 1994) this vicarious learning serves to increase self-efficacy, but is also largely dependent on a functional social environment. It appears that the social environment in which this study took place was functional enough to increase self-efficacy, and yet overall levels of social support did not increase.

Although the increase in self-efficacy and decrease in social support were seemingly contrary to the evidence provided by literature on this topic, there are several contributors that may have influenced such outcomes. First, all participants faced

significant contextual challenges—challenges that would classify as "negative supports" according to Lent, Brown, and Hackett (2000). Specifically, these were impoverished mothers with significant trauma backgrounds, most of who were the sole caretakers for their children. Considering long histories of trauma and minimal support from current partners, many participants of this job training program likely experienced insecure attachment styles. Research regarding attachment style, self-efficacy, and career exploration by Wright et al. (2014) indicated that securely attached relationships would foster increased self-efficacy and active career exploration. However, if securely attached relationships were not commonplace among these women, then the program itself may have served to increase self-efficacy, but forming new relationships with other program participants may have been a struggle. In short, the demands of creating a new, securely attached social network while also completing the requirements of the program may have proven overwhelming.

In addition, as these women progressed through this program, many became more personally responsible for change in their life and begin to embark on a new path separate from their previous lifestyle. This change in lifestyle and marked difference in behavior (e.g. keeping a regular schedule, coming in for workshops and work hours, creating a resume, applying for jobs) may have pushed these women to end former relationships that were not supportive to this new goal. Moreover, friends and family of participants may have shown less support after seeing their loved one embark on a lifestyle different from their own.

The increase in average self-efficacy score was less perplexing, as this a prime component of the mission of the job-training program. This program is built on the value

of educating and empowering women to end dependence on social welfare systems and increase self-sufficiency and independence. After completing the educational workshops and gaining practical job training, it is reasonable to expect that self-efficacy would increase along with new skills and knowledge. Applying this to the research on self-efficacy, the skills and knowledge gained within the job training program could classify as Bandura's (2001, 1994) mastery experiences.

However, in spite of this increase in average self-efficacy score, a closer look at individual raw scores indicates that two participants actually had a decrease in self-efficacy between pre- and post-tests. The variation in time between pre- and post-tests may be the accountable factor in this case. That is, the two participants who showed the greatest amount of increase in self-efficacy between testing phases had been in the program for at least five months. The remaining participants were in the program for a shorter period of time—only three months. It is possible that the longer duration of time in the job training program was liable for these individual increases in self-efficacy.

Limitations

The most notable and hindering limitation of this study was the small sample size. The target sample size was between 10 and 15 participants. The original number of pre-tests administered was nine, falling just short of the minimum size target. The nearly 50% dropout rate that occurred between pre- and post-test inhibited the researcher's ability to gauge differences in levels of participant self-efficacy and perceived social support over time.

A second limitation to this study was time constraint within a pre- and post-test study design. The three month time duration between tests was likely insufficient to

gather an accurate change in variable levels, especially as they were influenced by participation in the job training program. Similarly, the five month time duration may have also been too short of a time period. However, due to the small number of new participants for each round of orientation workshops, multiple pre-test groups were required in an attempt to have a sufficient sample size.

Third, the research design itself posed problems. The quantitative design was intended to provide numerical evidence of the social phenomena occurring within this program. Unfortunately, this was not possible due to the small sample size, and definitive conclusions cannot be drawn about the individual or group factors that contributed to outcomes. Therefore, instead of applying a quantitative design to such a small pool of participants, a qualitative design may have been more telling. In this way, the researcher could have asked direct questions that would have provided greater depth to the present research. In short, a qualitative design may have answered the question of *why* the outcomes were such for each participant.

Fourth, this study did not include a control group. Therefore, overall levels of self-efficacy and perceived social support for participants in the whole program, not just those in job training, could not be tested and compared. Had there been a control group for this study, any observed differences in variables between groups could have been more easily attributed to the job-training program itself as opposed to extraneous variables.

Lastly, participants were not screened for learning disabilities or language difficulties before completing the surveys for this study. Although the researcher was present while participants completed these instruments and encouraged the women to ask

questions, it is possible that participants did not fully understand the questions and therefore responded erroneously. Even if participants did not have a learning disability, any misunderstandings of survey questions would have skewed the data to reflect variable levels that were inaccurate.

Recommendations for Future Research

Despite the glaring limitations of this research study, a pre- and post-test design amongst women in this job training program could still prove effective under certain conditions. For instance, future research with this population should include a control group that tests participants throughout the entire program, not only those in the job training program. In addition, this project should be conducted with a greater time allotment. This would put less strain on the researcher to obtain a certain number of participants within a specific time period. An increased time period would also allow the researcher to collect data from participants who have been in the program for several months (ideally more than five) and compare their results to those who have only been in the program one month, for example.

Aside from increased time devoted to data collection, this study could be improved by including a qualitative component, thereby structuring it as a mixed methods design. This qualitative portion could consist of interviews with each participant so as to draw out themes of common factors that influence self-efficacy and social support while in the job training program. These interviews would then serve to give the research a "voice" and ultimately allow the researcher to draw more powerful conclusions.

Conclusion

Despite the inconclusive results of this study, the current literature supports the structure of this job-training program as a means of creating self-efficacy and social support amongst participants. Specifically, this program is designed to allow participants to obtain mastery experiences via job training and eventual employment, vicarious learning through seeing other women who have been successful in this program, social persuasion by having participants complete this program as a cohort, and easy access to mental health counseling services should cognitive and affective states begin to work against the participant's success. Furthermore, the present research did not capture the individual reports of women who have successfully completed this program. These accounts of their experiences speak to this program's value in empowering participants and creating self-efficacy.

Above all else, the present research highlights the importance of an effective study design that could capture the reality of each participant's experience while completing the job-training program. Although a pre- and post-test design may be effective, a larger sample size is certainly needed to determine any significance between test results. In short, this job training program is currently implementing components that would allow for the best possible participant outcomes – education, practical experience, emotional and social support, transportation, childcare. Unfortunately, it seems that this study simply was not able to reflect how these components are relative to self-efficacy and social support.

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Appendices

Appendix A

Consent to Participate in a Research Study: Measuring Self-Efficacy and Social Support

Introduction:
You are being asked to participate in a research study conducted by Kristin Morgan, who is an intern with [agency name] and currently earning her Master's degree in Counseling. This study is a part of her graduate course requirements. This form contains important information regarding the research study. If you have any questions about this information, or the study in general, please feel free to ask. Participation in this study is entirely voluntary, and you may choose not to participate.

Purpose of Study:
This study is designed specifically for [job training program] participants. The purpose of this study is to measure your level of self-efficacy. In other words, the study measures how much you believe that you can accomplish the goals you have set. This study also measures the level of social support you believe is present in your life.

Description of Study Procedures:
The first phase of this study will require that you complete two short surveys that take about 10 minutes to complete. One survey measures your level of self-efficacy; the other measures your level of perceived social support. After five months of continued participation in [the job training program], you will be asked to complete the same short surveys. Your results from the first time you completed the surveys will be compared with your results from the second time you completed the surveys. I will look for changes in scores to see if your levels of self-efficacy and social support have changed while in [the job training program].

This procedure will require your willingness to take both the first and second round of surveys with the five-month gap in between. Note: depending on the speed at which you go through [the job training program], the second round of surveys may be conducted during your case management session after you have been placed in an external work setting.

Number of Participants:
The number of participants for this study would ideally range between 10 and 20.

Risks of Participating:
There are very few risks associated with this study. The risks that you may encounter would likely be psychological. These psychological risks could include things such as triggering bad memories, or having self-doubts about future plans. Otherwise, risks may

include a breach in confidentiality pertaining to your survey scores. However, once surveys are submitted, results will be coded using a numbering system and information with your identifying information will be kept in a locked filing cabinet.

Benefits of Participating:
It is not possible to determine whether any personal benefit will result from your participation in this study. Your participation will help the researcher gain information regarding your levels of self-efficacy and social support, which will help her complete her thesis.

Alternatives:
You may choose not to participate in this study as an alternative to participating.

Costs:
There is no cost to you to participate in this study.

Payments:
No payment for participation will be given.

Study Investigator Payment Conflict of Interest:
[Agency name] and The College at Brockport are not paying the researcher to conduct this study. There is no conflict of interest between the researcher and [agency name] or The College at Brockport.

Circumstances for Dismissal of the Study:
If you do not follow the survey instructions, your results may not be included in the study. In addition, if you do not complete both sets of surveys, your results may be exempt from the study.

Contact Persons:
For more information concerning this research, you should contact Kristin Morgan at 585-368-3471.

If you have questions about your rights as a research participant, you may contact the Office of the Institutional Review Board at [agency name] at 585-723-7490, Monday through Friday, 8:15am to 5:00pm.

Voluntary Participation:
Participation is voluntary. You are free not to participate or to withdraw at any time, for whatever reason without risk to present or future care. In the event that you withdraw from this study, the information you have already provided will be kept in a confidential manner.

Signature/Dates:

I have read (or have had read to me) the contents of this consent form and have been encouraged to ask questions. I have received answers to my questions. I agree to participate in this study. I have received (or will receive) a copy of this form for my records and future reference.

_____
Print Name

_____ _____
Signature Date

Appendix B

Self-Efficacy Scale

Name: _____ Date: _____

This questionnaire is a series of statements about your personal attitudes and traits. Each statement represents a commonly held belief. Read each statement and decide to what extent it describes you. There are no right or wrong answers. You will probably agree with some of the statements and disagree with others. Please indicate your own personal feelings about each statement below by marking the letter that best describes your attitude or feeling. Please be very truthful and describe yourself as you really are, not as you would like to be.

A = Disagree strongly
B = Disagree moderately
C = Neither agree nor disagree
D = Agree moderately
E = Agree moderately

____ 1. I like to grow house plants.
____ 2. When I make plans, I am certain I can make them work.
____ 3. One of my problems is that I cannot get down to work when I should.
____ 4. If I can't do a job the first time, I keep trying until I can.
____ 5. Heredity plays the major role in determining one's personality.
____ 6. It is difficult for me to make new friends.
____ 7. When I set important goals for myself, I rarely achieve them.
____ 8. I give up on things before completing them.
____ 9. I like to cook.
____ 10. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.
____ 11. I avoid facing difficulties.
____ 12. If something looks too complicated, I will not even bother to try it.
____ 13. There is some good in everybody.
____ 14. If I meet someone interesting who is very hard to make friends with, I'll soon stop trying to make friends with that person.
____ 15. When I have something unpleasant to do, I stick to it until I finish it.
____ 16. When I decide to do something, I go right to work on it.
____ 17. I like science.
____ 18. When trying to learn something new, I soon give up if I am not initially successful.
____ 19. When I'm trying to become friends with someone who seems uninterested at first, I don't give up very easily.
____ 20. When unexpected problems occur, I don't handle them well.
____ 21. If I were an artist, I would like to draw children.
____ 22. I avoid trying to learn new things when they look too difficult for me.
____ 23. Failure just makes me try harder.
____ 24. I do not handle myself well in social gatherings.
____ 25. I very much like to ride horses.
____ 26. I feel insecure about my ability to do things.
____ 27. I am a self-reliant person.
____ 28. I have acquired my friends through my personal abilities at making friends.
____ 29. I give up easily.
____ 30. I do not seem capable of dealing with most problems that come up in my life.

Appendix C

Social Support Appraisal Scale

Name: _____ Date: _____

Below is a list of statements about your relationships with family and friends. Please indicate how much you agree or disagree with each statement as being true.

1 = Strongly agree
2 = Agree
3 = Disagree
4 = Strongly disagree

____ 1. My friends respect me.

____ 2. My family cares for me very much.

____ 3. I am not important to others.

____ 4. My family holds me in high esteem.

____ 5. I am well liked.

____ 6. I can rely on my friends.

____ 7. I am really admired by my family.

____ 8. I am respected by other people.

____ 9. I am loved dearly by my family.

____ 10. My friends don't care about my welfare.

____ 11. Members of my family rely on me.

____ 12. I am held in high esteem.

____ 13. I can't rely on my family for support.

____ 14. People admire me.

____ 15. I feel a strong bond with my friends.

____ 16. My friends look out for me.

____ 17. I feel valued by other people.

____ 18. My family really respects me.

____ 19. My friends and I are really important to each other.

____ 20. I feel like I belong.

____ 21. If I died tomorrow, very few people would miss me.

____ 22. I don't feel close to members of my family.

____ 23. My friends and I have done a lot for one another.