

Psychological resources and mental health among the difficult-to-employ: Can a pre-employment training program make a difference?

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Abstract. Psychological distress and resources were examined in an ethnically diverse sample of low-education, unemployed, and difficult-to-employ persons who participated in a three-week pre-employment training program (STRIVE). Compared to the general population, applicants to the program exhibited significantly higher levels of psychological distress. Men showed significantly higher levels of depression and anxiety, less self-esteem, and more dysfunctional attributions than women. Caucasian applicants showed higher levels of depression and anxiety and lower levels of self-efficacy and self-esteem. The gender differences in depression and powerful other attributions were moderated by ethnicity. Graduates of the program showed the strongest improvements with respect to self-esteem ($d = 0.65$) and self-efficacy. Self-efficacy increased more for Latino ($d = 0.79$) and African-American ($d = 0.52$) than Caucasian participants ($d = 0.34$). Graduates showed significantly higher levels of internal attributions ($d = 0.42$), lower levels of chance attributions ($d = -0.16$), and less depression ($d = -0.38$) than when they applied to the program. A subsample of graduates completed follow-ups between 2–8 months after graduation, showing persistent though smaller improvements compared to baseline. These findings suggest that pre-employment training programs can play a potentially important role in reducing psychological distress and strengthening psychological resources in difficult-to-employ and ethnically diverse populations trying to reenter the labor market. Limitations of this study and future direction for applied psychological research in the large and growing population of hard-to-employ persons are discussed.

Keywords: Mental health, psychological resources, pre-employment training, STRIVE program

1. Introduction

Despite an official unemployment rate that is low in international comparison, the United States has a large population of hard-to-employ and long-term unemployed persons. For most of 2004, the official unemployment rate in the US hovered between 5 and 6%,

representing some 9 million persons who had no employment, were available for work, and had made specific efforts to find employment during the past four weeks [2]. An additional 1.4 million persons were marginally attached to the labor market, meaning that they wanted and were available for work but did not actively look for work over the past four weeks. A broader measure of unemployment is an index of labor underutilization known as U-6 that describes the percentage of the civilian labor force plus all marginally attached persons that are unemployed, marginally attached, or part-time employed for economic reasons. Between

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June 2003 and June 2004, this index has ranged between 9.6 and 10.6%.

Hidden behind the overall unemployment rate are racial and educational disparities. In June 2004, for instance, the unemployment rate was higher among African-American (10.1%) and Latino (6.7%) than among Caucasian (5.0%) persons. Unemployment rates were higher among persons with less than a high school diploma (8.8%) than among high school graduates without college (5.1%), HS graduates with some college (4.2%) and high school graduates with a Bachelor's degree or higher (2.7%). Some 1.8 million persons had been looking for work for 27 weeks or longer, representing 22% of the total unemployed.

In addition to local, national, and global economic factors that affect the labor market, there are other reasons why many persons in the US find it difficult to find employment. First, a large and increasing number of persons are struggling to reenter the labor market after having completed prison sentences. Between 1980 and 2002, the number of releases from prison increased from about 170,000 to 585,00 per year [20]. Among Western industrialized countries, the US has the highest incarceration rate. From 1980 to 2002, the number of sentenced inmates incarcerated per 100,000 residents under State and Federal jurisdiction (i.e., incarceration rate) more than tripled from 139 to 476. The total Federal, State, and local adult correctional population grew during 2002 to reach 6.7 million, and approximately 1 in 32 US adults (i.e., 3.1%) were incarcerated or on probation or parole at yearend 2002 [3]. With still growing prison populations and longer sentences, the reintegration of offenders into society will continue to pose significant challenges in the foreseeable future.

Second, with the enactment of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, another important group was added to the hard-to-employ population. With this legislation, Congress eliminated the legal entitlement to cash welfare assistance and replaced it with the Temporary Assistance for Needy Families (TANF), block grant, giving states control over the provision of aid to poor families [33, 43]. The new welfare-to-work policies emphasized work and responsibility over reliance on government benefits, and aimed at decreasing the welfare rolls by moving welfare recipients into the workforce. The Office of Family Assistance [28] reports that caseloads in the TANF program continued to decline into the first half of FY 2002 when the average monthly number of TANF recipients was 5.3 million, or 58 percent lower than the Aid to Families with Dependent Chil-

dren (AFDC) caseload in FY 1996. This compares to an AFDC peak of 14.4 million in March 1994.

Third, homeless persons traditionally constitute an important part of the long-term unemployed and hard-to-employ population. The size of this population is difficult to estimate because there is no agreed-upon definition of homelessness and because the population fluctuates over time, changes in composition, and is difficult to locate. Approximations based on the National Survey of Homeless Assistance suggest that 3.5 million persons experienced homelessness in 1996, 38% of whom were children [39]. While reliable data on changes in the homeless population are not available, the increase in the demand for shelter beds and other resources suggest this population continued to grow during the 1990s [27].

Finally, persons with disabilities represent an important and often neglected group among the unemployed. Based on data from the monthly Current Population Survey collected between 1981 and 2002, the employment rate among disabled persons was highest in 1991 when 39.4% of noninstitutionalized men and women were employed [17]. Since then, the employment rate has steadily declined, reaching a new low in 2002 when only 30.9% were employed. During the same period, the employment rate among persons without disabilities ranged from 79.9% (1983) to 85.7 (2000). For 2002, Houtenville [17] estimated the unemployment rate at 14.1% among persons actively looking for work who reported work-limiting health problems or disabilities. For the same year, the unemployment rate was 5.8% among persons who did not report work-limiting health problems or disabilities.

The problem of the hard-to-employ is not only large in magnitude, but multi-faceted and complex in nature, requiring integrated efforts from multiple disciplines to address the different needs of persons interested in joining the labor force. In addition to the obvious need for employment opportunities, the long-term unemployed and hard-to-employ face significant challenges in the workplace because of basic educational deficits, inadequate housing, childcare and transportation, physical and mental health impairments and disabilities, poor work history and job skills, stigmatization, deficient interpersonal skills, and unrealistic goal-setting [34].

The Welfare-to-Work (WtW) Program, administered by the US Department of Labor, provides an example of government-funded programs that target difficult to employ persons. The WtW program provides grants to States and competitive grants to local communities to place and retain in jobs person who have exhausted

their welfare benefits. Briefly put, the goal of the program is to quickly place individuals in a work activity (e.g., subsidized and unsubsidized job, work experiences, on-the-job training) while providing support services such as occupational skill training, general educational development, child care and emergency housing [39].

1.1. Unemployment and psychological wellbeing

Research on the effects of unemployment shows a common set of responses across age, gender, and ethnic groups. They include stress reactions (e.g., irritability, sleep problems), depression and anxiety, and lowered self-esteem [1,14–16,18,21,25]. Depression and lowered self-esteem are often associated with reduced self-efficacy and dysfunctional attributional styles that may interfere with job-seeking efforts, ultimately contributing to unsuccessful job seeking efforts and prolonged unemployment.

Kasl [19], Guindon [14], and Waters and Moore [44] have argued in support of the reverse causation hypothesis that positive psychological health, and in particular self-esteem and self-efficacy, facilitates re-employment. This hypothesis has been tested in several studies with young adults and professionals [11,26,30,40–42], supporting the notion that psychological interventions can increase self-esteem and self-efficacy, which in turn can lead to positive employment outcomes. For instance, Eden [11] assessed the impact of eight workshop sessions designed to boost general self-efficacy (GSE) on job-search activity and on reemployment among young professionals who had been unemployed for up to 18 weeks. They found that the GSE training improved self-efficacy, increasing job-search activity and reemployment among participants low in initial GSE but not among those with high GSE. This suggests that behavioral modeling training programs may be particularly suited for unemployed individuals low in GSE. However, little is known about the effects of such programs in older and difficult-to-employ, low-education populations.

1.2. The STRIVE pre-employment training program

STRIVE (Support and Training Result in Valuable Employees) is a three-week job readiness training program that targets difficult to employ, low-education adults. The program aims to develop appropriate workplace behavior, effective interviewing and job search techniques, and positive outlook toward working and

employment. The program consists of in-class training and a variety of support services.¹

1.2.1. In-class training

STRIVE classes meet Monday to Friday from 9 am to 5 pm with a trainer, and attendance requirements and dress code are strictly enforced. During an initial confrontation phase, STRIVE trainers challenge participants to face dysfunctional attitudes and behaviors, to overcome excuses, and accept responsibility for their actions. This is followed by a rehabilitation phase, in which the training focuses on social and interpersonal skills (e.g., firm hand-shake, eye-contact, speaking clearly, good manners, and listening skills) and constructive strategies to resolve problems. Through modeling and role-playing in a protected environment, STRIVE participants confront personal challenges and interpersonal dynamics that they are likely to encounter in the workplace when dealing with supervisors and coworkers. Trainers serve as role models and provide feedback to enhance personal awareness, to confront dysfunctional behaviors, to use critical thinking, to develop and use resources, and to build up confidence in the ability to effectively deal with challenges.

Although STRIVE's initial confrontational approach shows some similarities with "tough-love" rehabilitation approaches – such as correctional boot camps – there are important differences [4,5,12,29]. First, participation in STRIVE is voluntary. Participants are free to leave at any time and may reapply at a later time. Second, STRIVE does not require participants' involvement in strenuous physical activity, as is common in boot camps. Third, while STRIVE imposes a strict schedule during regular work hours on weekdays, no restrictions are imposed outside of the 9–5 Monday-Friday schedule.

At the center of STRIVE's training model is the goal to change self-efficacy beliefs about finding and keeping employment [6,7], to increase self-esteem [31], and to change dysfunctional attribution styles [24]. The program is based on the idea that if individuals have strong efficacy beliefs, they will be more motivated and persistent in finding and keeping employment, will feel better about themselves, and will not be afraid of considering and engaging in activities previously seen as threatening (e.g., job interviews). Self-esteem is believed to play an important role because feelings of self-

¹ Additional information about the STRIVE curriculum can be obtained from Scott Silverman (ssilverman@secondchanceprogram.org).

worth, self-respect, and self-acceptance will influence goal setting, job satisfaction, and job performance, and will help buffer the effects of stress. Finally, STRIVE aims at changing an individual's locus of control to increase the sense of personal control and responsibility. The goal is to change external attributions (i.e., outcomes are unpredictable or a function of chance, fate, luck and powerful others) to internal attributions such that individuals develop the sense that the outcomes of their behavior are contingent on and under the control of their own behavior or personal characteristics [24, 32].

Similar to a workshop designed by Eden [11] to raise self-efficacy among unemployed individuals, the STRIVE curriculum uses modeling, enactive attainment, and verbal persuasion in order to enhance participants' efficacy beliefs. At STRIVE, modeling procedures include discussion and role play of functional and dysfunctional job-related behaviors. Program staff are trained to model desired workplace behavior (e.g., eye contact, respectfulness). Enactive mastery is implemented by requiring participants to adopt functional workplace behaviors, such as timeliness, a firm handshake, and dress code. Role-plays and daily assignments are used to rehearse, reinforce, and shape essential job-search behaviors (e.g., planning a job search, making a convincing self presentation) and on-the-job activities (e.g., dealing with supervisors' feedback). Trainers and fellow trainees provide verbal persuasion and emotional arousal through confrontation, role play, and discussion to challenge maladaptive attitudes and behaviors. Trainers and successful graduates provide opportunities for vicarious experiences of overcoming challenges, successfully completing a job interview, and keeping a job in the face of adversity.

Finally, STRIVE participants are involved in two major types of writing exercises to support personal growth and build writing skills. The first involves keeping a journal, in which participants write about their daily experiences. The journal entries are reviewed by the trainers and used in subsequent days to challenge attitudes or address specific needs. The second group of writing exercises involves preparing a resume and writing essays on specific topics, such as the type of job someone is searching and why someone is the best candidate for that job.

1.2.2. Support services

In addition to the in-class training, STRIVE offers a range of support services to participants and graduates,

such as case management, job developer assistance, sober living housing, and mental health services.

Particularly relevant to the present study are the integrated mental health counseling services provided by an experienced psychotherapist who is licensed as clinical social worker and marriage and family therapist [35]. STRIVE participants are introduced to the Pathways of Success Counseling Services by the therapist in a 30 minute presentation during the first week of the training program. To explore individual mental health needs, this group introduction is followed by 15–20 minute private meetings with each of the STRIVE participants.

Approximately one-third of STRIVE participants typically expresses interest in additional individual counseling during these initial visits. Of those, approximately one-half attends 1–2 sessions and one-fourth attends 6 or more session. The week after graduation, graduates are invited to participate in three 90 minute group sessions, in which the therapist provides supportive interactive group counseling. Approximately, four out of five graduates attend at least one of the graduate group sessions. In addition to individual and group counseling, the therapist is available for crisis intervention, makes referrals for emergency psychiatric hospitalization and psychiatric medication evaluations, and consults with STRIVE training staff.

In summary, STRIVE provides pre-employment training to hard-to-employ persons that makes use of a variety of established psychological principles of behavior and attitude change and offers a range of support services. The present study does not investigate the separate and possibly unique effects of different principles of behavior change or support services. Instead, it examines the overall impact of the combination of program components and services provided.

The current study examined 21 cohorts of applicants and participants in the STRIVE pre-employment training program. In this ethnically diverse sample, we investigated gender and ethnic differences among applicants in self-efficacy, self-esteem, locus of control, and mental health and explored changes among program graduates. In addition, we explored the extent to which these changes may be moderated by gender and ethnicity and persisted beyond the end of the three-week program.

2. Methods

2.1. Design

Because of the cyclical turnover in the STRIVE program, this investigation employed a cohort design

Table 1
Socio-demographic characteristics among program applicants

	Men (N = 614)	Women (N = 519)
Applicants (%)	54	46
Median Age (Years)	36	34
Ethnicity (%)		
Caucasian	31	26
African American	35	31
Latino	21	29
Other	12	14
Marital Status (%)		
Married/Living with partner	18	20
Single never married	58	45
Separated/Divorced	23	34
Other	1	2
Education Level (%)		
Some high school	24	29
Graduated high school	27	22
GED	15	12
Some college	21	25
Graduated college	9	7
Other	5	5

with baseline, posttest, and follow-up assessments. The cohorts consisted of 21 STRIVE training classes conducted between February 2000 and January 2001 and between July 2001 to April 2002. Baseline data were collected up to four weeks before the start of each program cycle at the time a person applied to STRIVE. Posttest data were collected on the last day of the STRIVE program (i.e., Friday of the third week). Follow-up data were collected between 2 and 8 months after the end of the program by phone-interview or through paper-and-pencil questionnaires. Incentives were provided to increase the response rate at follow-up, including cash payments (up to \$10), \$100 raffle, pizza and soda, and socializing with alumni.

2.2. Participants

STRIVE participants were recruited through referral by graduates, local news media, referrals from drug and alcohol rehabilitation facilities, and probation officers. At the time of their application to STRIVE, applicants were invited to participate in this study, and read and sign the informed consent forms. Of the 1,133 applicants who consented to participate in this study, 509 entered the program, 298 graduated from the program, and 74 completed the follow-up assessment. More information on drop-out patterns and predictors of drop-out can be found in Budinetz [8]. Table 1 provides detailed socio-demographic and personal background information.

2.3. Measures

2.3.1. Application

The application form asked applicants to report demographic information such as age, gender, ethnicity, marital status, education level, criminal, substance abuse history, previous and current employment situation, health status, and network support.

2.3.2. General Self-Efficacy Scale (GSES [36,37])

As a self-report measure of general self-efficacy, the 10-item GSES measures a person's perceived ability to cope efficiently with general challenges of life. Internal consistency reliability was reported in [38], with coefficient alpha ranging from 0.75 to 0.90. The Cronbach alpha estimate in the sample of STRIVE applicants was 0.86 [9].

2.3.3. Self-Esteem Scale (SES [31])

The Rosenberg Self-Esteem scale is a 10-item self-report measure that assesses a person's perceived self-worth. The scale is known to have good reliability, convergent and discriminant validity [13,22]. The Cronbach alpha estimate in the sample of STRIVE applicants was 0.83.

2.3.4. Internality, Chance, and Powerful Others Scales [24]

This is a self-report instrument composed of three sub-scales that measure different facets of locus of control. The Internality (I) sub-scale measures the extent to which individuals believe that they have control over their lives; the Chance (C) scale measures the degree to which individuals believe that the outcomes of their behaviors are affected by chance; the Powerful Others (P) sub-scale assesses the belief that other people control one's life [23]. Cronbach alpha estimates in the sample of STRIVE applicants were 0.60, 0.78, and 0.78 for the I, C, and P scales, respectively.

2.3.5. Brief Symptom Inventory (BSI): Depression and Anxiety Scales [10]

The BSI is a 53-item self-report symptom inventory designed to measure current psychological distress symptoms of clinical and community non-patient populations. Each item of the BSI is rated on a five-point scale of distress (0–4), ranging from “not at all” to “extremely”. Standardized T scores > 60 are interpreted as suggesting “possible clinical levels”, and T scores > 65 as indicating “clinical levels” of depression and anxiety. The depression and anxiety sub-scales of the Brief

Symptom Inventory (BSI) are well established with reported internal consistency estimates of 0.85 and 0.81, respectively. Convergent validity correlation with relevant MMPI scales range from 0.46–0.72 for depression and 0.40–0.48 for anxiety. In the sample of STRIVE applicants, the internal consistency estimates for the depression and anxiety subscales were 0.88 and 0.83, respectively. The correlations between the two scales were 0.73, 0.63, and 0.77 at application, graduation, and follow-up, respectively.

2.3.6. Employment status

Employment history since graduation and current employment status was assessed at the baseline and follow-up assessments. Employment was defined as paid full-time or part-time (i.e., ≥ 10 h/week) employment.

3. Results

3.1. Socio-demographic characteristics

Table 1 presents information about socio-demographic characteristics of applicants to the STRIVE program. The applicant sample was composed of 614 men and 519 (46%) women. Age ranged from 18 (minors were excluded from the study) to 81 years with a mean and median of 36. Approximately 29% of applicants were Caucasians, 33% were African Americans, and 24% were Latino. The remaining 14% of applicants were of other ethnicities including Pacific Islanders, Asians, and Native Americans. The majority of applicants reported to be single never married (52%). Nineteen percent of applicants were married or living with their partner and 28% were divorced or separated. About 39% of STRIVE applicants reported to live in relative's house/apartment, 28% in their own apartment or house, 15% in a drug-treatment facility, and 8% in a shelter. Sixty percent of clients reported having children, of which 41% reported that their children were living with them. A majority (52%) reported no monthly income.

Twenty-eight percent of applicants reported past alcohol abuse, and 15% reported they had been charged with driving under the influence. About 55% percent of all applicants admitted having used illegal drugs, and 19% had used drugs in the 6 months before their application to STRIVE. Sixty-six percent of clients reported ever having been arrested. Just over half reported ever having been convicted of a crime (55%), ever serving

probation/community service/or work release (52%), and ever being incarcerated (57%). In addition, approximately 41% of applicants were currently under supervision, such as parole, probation, or work release.

Twenty-six percent of applicants had attended some high school without graduating, 24% had graduated from high school, 22% of applicants had attended some college, but only 8% had graduated from college. For the vast majority of applicants (86%), English was the first language. Approximately 32% of applicants reported having held no job during the last year, and about 16% reported having held three or more jobs in the past year. The most frequently reported reason for leaving a job was quitting (23%). Fifty-nine percent of applicants indicated actively looking for a job. About 39% percent of clients had job interviews in the two months preceding the application to STRIVE and approximately 25% had received job offers.

3.2. Mental health among applicants

A large proportion of applicants to the STRIVE program reported substantial levels of depression and anxiety. Based on the standardized T-scores for non-patient community populations, 55.4% of men and 43.7% of women reported "possible clinical levels" of depression ($T > 60$). These levels are approximately 3 times higher than in the normative sample of community residents. Similarly, 32.5% of men and 28.5% of women reported possible clinical levels of anxiety. These levels are approximately two times higher than in the normative samples. Table 2 presents percentages of depression and anxiety by ethnic and gender groups.

3.3. Gender and ethnic-racial differences among applicants

Two-factorial between-subjects analyses of variance (ANOVA) were conducted to examine gender and ethnic-racial differences among applicants to the STRIVE program. Significant gender differences were found for depression ($F(1,1051) = 45.7, p < 0.001$), anxiety ($F(1,1051) = 33.4, p < 0.001$), self-esteem ($F(1,1117) = 6.1, p = 0.014$), chance attributions ($F(1,1,117) = 5.5, p = 0.019$), and powerful other attribution ($F(1,1,117) = 10.2, p = 0.001$). Men showed higher levels of depression and anxiety, less self-esteem, and more dysfunctional attributions. No gender differences were found for general self-efficacy or internality. Significant ethnic-racial differences were found for depression ($F(1,1051) = 8.0, p < 0.001$),

Table 2

Percentage of applicants with clinical levels of depression and anxiety (N = 1,133)

	Depression		Anxiety	
	PCL	CL	PCL	CL
African-American	45	14	27	11
Men (%)	44	16	25	13
Women (%)	47	12	30	8
Caucasian	59	25	39	15
Men (%)	66	37	41	21
Women (%)	50	9	37	7
Latino	46	15	23	7
Men (%)	54	22	27	14
Women (%)	39	9	20	1
Other	44	23	34	14
Men (%)	54	31	29	20
Women (%)	35	15	28	9
Total	49	18	31	12
Men (%)	54	26	32	16
Women (%)	44	10	28	6

PCL: "possible clinical level" indicated by T scores > 60; 16% of the general population are expected to score in this range.

CL: "clinical level" indicated by T scores > 65 or above the 93rd percentile; 7% of the general population are expected to score in this range.

Table 3

Means and standard deviations among male and female applicants (N = 1,133)

Measure	Women		Men	
	Mean	SD	Mean	SD
Global Self-Efficacy	31.6	5.4	31.3	5.2
Self-Esteem*	31.3	5.4	30.6	5.2
Locus of control				
Internality	35.9	5.6	36.4	5.2
Powerful Others**	23.3	7.6	25.0	7.1
Chance*	24.2	7.7	25.5	7.3
Depression**	55.6	10.3	60.3	12.1
Anxiety**	51.4	10.9	55.7	12.6

* $p < 0.05$ and ** $p < 0.01$: The difference between women and men is statistically significant.

anxiety ($F(1,1051) = 11.3, p < 0.001$), general self-efficacy ($F(1,1171) = 4.3, p = 0.005$), and self-esteem ($F(1,1117) = 7.9, p < 0.001$). Caucasian applicants showed higher levels of depression and anxiety and lower levels of self-efficacy and self-esteem. Ethnic-racial groups did not differ on attribution styles. Means and standard deviations are presented in Table 3.

The gender differences in depression and powerful other attributions were moderated by ethnicity as indicated by statistically significant interaction effects ($F(1,1051) = 4.9, p = 0.002$); ($F(1,1051) = 3.1, p = 0.027$). Further investigations revealed that men of Caucasian ($d = 0.59$), Latino ($d = 0.49$), and other ethnic background ($d = 0.63$) had significantly higher levels of depression (all $p < 0.001$) than women, whereas African-American men and women did not differ from

Table 4

Means and standard deviations among graduates before and immediately after the STRIVE Program (N = 298)

Measure	Application		Graduation	
	Mean	SD	Mean	SD
Global Self-Efficacy**	31.5	4.9	33.8	4.6
Self-Esteem**	31.1	5.1	34.3	4.8
Locus of Control				
Internality**	36.5	5.2	38.7	5.0
Powerful Others	23.6	7.3	23.2	7.4
Chance*	23.5	7.0	22.3	7.7
Depression**	58.1	10.9	54.4	10.4
Anxiety	55.0	11.6	56.3	10.7

* $p < 0.05$ and ** $p < 0.01$: The difference between baseline (application) and posttest (graduation) is statistically significant.

each other ($d = 0.07$). With respect to powerful other attributions, Latino men showed significantly higher levels than women ($d = 0.52$). In contrast, men and women of Caucasian ($d = 0.10$), African-American ($d = 0.27$), and other ethnic background ($d = 0.03$) showed equivalent levels.

3.4. Changes between application and graduation

To investigate changes associated with participating in the three-week STRIVE program, repeated measures ANOVAs were performed among program graduates. The repeated measures factor compared baseline measures taken at the time of application and posttest measures taken at the time of graduation. In addition, we examined whether changes were moderated by gender and ethnicity. Table 4 reports means and standard deviations for the graduate sample.

3.4.1. General self-efficacy

A repeated measures ANOVA performed in the graduate sub-sample showed that general self-efficacy significantly increased from intake to graduation, $F(1,285) = 42.7, p < 0.001$. The effect size d (i.e., standardized mean difference) for the change between intake and graduation was $d = 0.50$, indicating that self-efficacy increased by approximately 1/2 standard deviation unit between intake and graduation.

A significant time-by-ethnicity interaction ($F(3,285) = 4.1, p = 0.007$) indicated that the self-efficacy changes depended on ethnicity. Further investigations revealed that Latinos showed the largest improvements ($d = 0.79$), followed by African-American ($d = 0.52$), Caucasian ($d = 0.34$), and other ethnic background ($d = 0.13$).

3.4.2. Self-esteem

Repeated measures ANOVA showed that self-esteem significantly increased from intake to graduation, $F(1,285) = 106.99, p < 0.001$. The effect size of the increase for the graduate sub-sample was $d = 0.65$. This indicates that self-esteem increased by approximately 2/3 standard deviation units between intake and graduation. The change in self-esteem was not moderated by gender or ethnicity ($p > 0.30$), indicating that an improvement in self-esteem was attained regardless of ethnic background and gender.

3.4.3. Locus of control: Internality, chance, and powerful others

Repeated measures ANOVAs showed that Internality significantly increased from intake to graduation, $F(1,285) = 46.5, p < 0.001$. The effect size was $d = 0.42$, indicating that internality increased by approximately 1/2 standard deviation unit between intake and graduation. The effect of internality was not moderated by gender or ethnicity ($p > 0.15$), indicating that the improvements held for men and women of all ethnicities.

Repeated measures ANOVA for chance attributions also revealed a significant improvement over time, $F(1,285) = 4.9, p = 0.027$. The effect size was $d = -0.16$, revealing a decline in chance attributions by about 1/6 of a standard deviation units. The change in chance attribution was not moderated by gender or ethnicity ($p > 0.24$). Repeated measures ANOVA for attributions to powerful others showed no main or interaction effects involving time ($p > 0.20$).

3.4.4. Psychological distress

Repeated measures ANOVA showed a significant decrease in depression, $F(1,263) = 33.2, p < 0.001$. The effect size was $d = -0.38$, indicating that depressed mood decreased by approximately 1/3 standard deviation unit. This improvement was not moderated by gender or ethnicity ($p > 0.19$).

No significant main effect of time was observed for anxiety ($F(1,263) = 1.6, p = 0.214$). However, there was a significant time-by-gender-by ethnicity interaction ($F(1,263) = 3.1, p = 0.026$), indicating the changes in anxiety depended on gender and ethnicity. Further investigations revealed that anxiety levels remained approximately the same for women of all ethnicities and for Caucasian and Latino men. However, anxiety levels increased significantly for African-American men ($d = 0.41$) and significantly decreased for men of other ethnic backgrounds ($d = -0.48$).

3.5. Changes from graduation to follow-up

Follow-up data were available for 36 men and 38 women, approximately 25% of the graduates. Of these 74 graduates, 72 (94%) held one or more jobs since graduating and 55 (74%) were employed full-time at the time of the follow-up. An additional three graduates were enrolled in an educational or training program at the time of the follow-up. Based on this subsample of program graduates, repeated measures ANOVAs were conducted to examine changes from graduation to follow-up and whether changes were moderated by gender and ethnicity. Means and standard deviations for the follow-up sample are reported in Table 5.

For depression ($F(1,61) = 0.1, p = 0.785$), self-esteem ($F(1,66) = 2.1, p = 0.149$), internality ($F(1,66) = 0.3, p = 0.562$), chance attributions ($F(1,66) = 0.8, p = 0.378$), and powerful other attributions ($F(1,66) = 1.2, p = 0.276$), there were no statistically significant changes from graduation to follow-up. Moreover, there were no significant interaction effects involving time.

A significant main effect of time was observed for anxiety ($F(1,61) = 22.0, p < 0.001$), indicating a decline in anxiety levels from graduation to follow-up. The effect size $d = -0.48$, indicating a further reduction in anxiety of 1/2 standard deviation unit. This effect was not moderated by gender or ethnicity.

A significant time main effect ($F(1,66) = 4.2, p = 0.044$) and a significant time-by ethnicity interaction ($F(3, 66) = 3.5, p = 0.020$) was observed for general self-efficacy. Further investigations indicated that general self-efficacy declined overall ($d = -0.29$). However, this overall decline is mostly due to Latino graduates, whose self-efficacy substantially declined from graduation to follow-up ($d = -0.70$). In contrast, self-efficacy levels for African-Americans ($d = -0.16$), Caucasians, ($d = 0.04$), and other ethnicities ($d = 0.03$) remained virtually unchanged.

4. Conclusion

Changes in social policies over the past decade have contributed to a large and growing population of persons who experience difficulties finding and maintaining employment. This is the case because they often lack education, have poor job skills, face physical and mental impairments and disabilities, and have spent an important part of their adult lives in prison or addicted to drugs. The present study is one of a few to examine

Table 5
Means and standard deviations among graduates before, immediately after, and two to eight months after completing the STRIVE program (N = 74)

Measure	Application		Graduation		Follow-Up	
	Mean	SD	Mean	SD	Mean	SD
Global Self-Efficacy*	31.7	5.3	33.9	4.5	32.5	5.5
Self-Esteem ⁰	31.7	4.9	34.1	5.1	33.1	5.7
Locus of Control						
Internality ⁰	35.8	5.4	38.1	5.0	37.7	5.3
Powerful Others ⁰	23.7	7.4	23.0	7.0	22.0	8.5
Chance ⁰	22.9	7.6	21.8	8.0	22.0	8.6
Depression ⁰	58.7	10.4	55.4	11.0	55.7	11.6
Anxiety**	54.5	10.3	57.7	10.3	51.9	12.3

⁰ $p > 0.10$: The difference between posttest (graduation) and follow-up was not statistically significant.

* $p < 0.05$; ** $p < 0.01$: The difference between posttest (graduation) and follow-up was statistically significant.

self-esteem, self-efficacy, attribution styles, and mental health in an ethnically diverse population of low-education, difficult to employ persons who are trying to re-enter the labor market. To the best of our knowledge this is the first study to examine the effects of a three-week, intensive pre-employment training program that aims at changing dysfunctional attribution styles and increasing self-efficacy among hard-to-employ persons.

In addition to personal histories of drug use, incarceration, poor job skills, and low education, applicants to the STRIVE program faced important additional obstacles to successful job-seeking and employment. Approximately half of the applicants reported clinically significant levels of depression or anxiety, characterized by worrying, apprehension, irritability, low self-esteem, hopelessness, trouble concentrating, and depressed mood. These findings are consistent with existing literature on mental health and employment, stressing the importance of job training programs in particular and vocational rehabilitation effort in general to address important psychological factors that may interfere with job seeking behavior and successful employment [14–16,18,21,25].

This study found significant gender and ethnic differences in mental health and psychological resources among program applicants. Overall, men reported higher levels of depression and anxiety, less self-esteem, and more dysfunction attributions than women. Moreover, Caucasian applicants showed higher levels of depression and anxiety and lower levels of self-efficacy and self-esteem. This suggests that Caucasian men in particular felt more distressed than women and other ethnic groups at the time they applied to the training program. While the reasons for these differences are not fully understood, one factor is likely to have contributed. The relatively high proportion of

depressed and anxious Caucasian men among the applicant pool may reflect a selection mechanism such that non-depressed Caucasian men with high levels of self-esteem are more likely to be employed or to seek employment on their own and thus are not applying to a pre-employment training program. In turn, this would create the situation we observed in this study: Caucasian men who applied to the training program were more depressed and showed lower self-esteem than their colleagues of Latino and African-American, and other ethnic backgrounds.

Our findings indicate that men and women of different ethnic backgrounds who graduated from the three-week STRIVE program showed improvement in self-esteem, self-efficacy, attribution styles, and depression. Changes in self-esteem were robust across gender and ethnic groups. Self-efficacy increased more among Latino and African-American participants than Caucasian participants. In addition, graduates showed desirable changes in attribution style, indicating more internal and less chance attribution. Consistent with improvements in self-esteem, self-efficacy, and attribution styles, graduates reported a reduction in depression across all gender and ethnic groups.

To examine whether the improvements observed immediately after graduation persisted, we examined a subsample of graduates who could be reached for follow-up 2–8 months after graduation. Overall, improvements observed at graduation persisted at follow-up, though their size had diminished. One noticeable exception was anxiety, for which levels had increased at graduation and then decreased below baseline levels at follow-up. Moreover, almost all respondents to the follow-up assessment had held one or more jobs since graduating, and 74% were employed full-time at the time of the assessment.

While our initial findings are promising, important questions for future research remain. First, approximately two out of three applicants did not enter the program, and of those entering the program, approximately one out of two did not continue to graduation. Very little is currently known about the reasons for applying to but not entering the program and for dropping out of the program once enrolled. Understanding these selection processes can help design better recruitment strategies, address obstacles to participation, and design new training programs to meet the needs of this diverse population. Second, more research is needed on the longer-term effects of the STRIVE program. While the follow-up data presented here are promising, they are limited by a low response rate. Within 8 months after graduation, we were unable to obtain responses from 75% of graduates despite considerable efforts. While low response rates are not uncommon for populations in transition out of drug rehabilitation programs or prisons, follow-up data with better response rates are needed to learn more about long-term effects and the potential need for continued support services. Third, the data presented here relied on a pre-post comparison of applicants and participants in the STRIVE program. In the absence of a no-treatment or treatment-as-usual control group, it is unclear whether the observed changes can be attributed to the pre-employment training program. Clearly, randomized experimental trials with lower attrition from follow-up data collection are required to better understand the causal effects of pre-employment training programs. Finally, our findings indicate that the ethnically diverse, large and growing population of hard-to-employ persons experiences mental health challenges and poor psychological resources for which psychology has developed powerful theories and interventions [6,7]. Yet, little empirical research on this population has made it into the academic literature, probing the effectiveness and generalizability of psychological interventions that have been studied in more middle class populations. The present study suggests that pre-employment training programs, such as STRIVE, aimed at improving mental health, self-efficacy, self-esteem, and attribution styles can play an important role in strengthening psychological resources to meet the challenges on the way to constructive personal futures.

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