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Self Efficacy and Distress in Women with AIDS: The SMART/EST Women's Project

Deborah L Jones¹, Mary Ishii Owens¹, David Lydston⁴, Jonathan N Tobin², Elizabeth Brondolo³, and Stephen M Weiss¹

¹University of Miami Miller School of Medicine

²Clinical Directors Network

³St. John's University

⁴University of Miami Miller School of Medicine

Abstract

Though African American and Hispanic women accounted for 14% of the female population in the US, they represented 66% of the total HIV/AIDS diagnoses among women in 2007. Among men living with HIV, increased coping self efficacy following a cognitive behavioral intervention has been related to decreased distress, anxiety, anger and confusion, but comparable studies had not been carried out with HIV+ women.

The purpose of this study was to examine the impact of changes in self efficacy following a cognitive behavioral stress management/expressive supportive therapy (CBSM+) intervention on depression and anxiety in low income, urban predominantly minority women living with AIDS. Women (n = 451) were randomized to a group CBSM+ or individual informational intervention condition and completed baseline, post-intervention and long-term follow-up (12 months) assessments of depression, anxiety and self efficacy. Women who were assigned to the CBSM+ group condition and increased their level of cognitive behavioral self efficacy reported significant decreases in anxiety and depression at post-intervention and long-term follow-up in comparison with controls who did not improve. Results suggest that both cognitive behavioral skills and a concomitant increase in the perceived level of self efficacy in the use of those skills are predictive of distress reduction.

Keywords

Self Efficacy; Distress; Women; AIDS; Group therapy

Introduction

Despite the advances in antiretroviral medications and community outreach prevention programs in the United States, ethnic minority women are still disproportionately affected by HIV. Though African American and Hispanic women account for 14% of the female population in the US, they represent 66% of the total HIV/AIDS diagnoses among women (CDC, 2007). African-American women are nearly 20 times as likely to be infected and 22 times more likely to develop AIDS than Caucasians and nearly four times more likely to be

infected than Hispanics (CDC, 2007). The primary mode of transmission among minority women is heterosexual sex, followed by injection drug use (IDU), both of which may be influenced by a perceived inability to cope with HIV/AIDS stressors (Murphy, Stein, Schlenger, & Maibach, 2001; Klein, Elifson & Sterk, 2008; Kang et al., 2004).

Self efficacy, or beliefs about one's capabilities and potential to meet situational demands, influences effort, perception of control, personal choices, thought patterns, depression and perceived stress (Bandura, 1995). Self efficacy refers to a personal judgment about a person's perceived ability to mobilize resources over events and has been related to both general and specific behaviors (Cruess et al., 2002). Behavioral interventions emphasize and increase self efficacy (Bandura, 1994) by providing opportunity to model and practice behaviors. Group cognitive behavioral interventions provide skills such as re-framing of stressors (looking at stressors from another perspective), coping, relaxation, assertiveness and anger management, while promoting attitude and behavioral change regarding stressors through increased self efficacy and collective (group) efficacy (Lazarus & Folkman, 1984; Compas, Davis, Forsythe, & Wagner, 1987).

Interventions targeting self efficacy also reduce feelings of helplessness, anxiety and depression, which may lead to reductions in sexual and IDU risk behaviors (Murphy, Stein, Schlenger, & Maibach, 2001). The construct of self efficacy has been applied to HIV risk behavior prevention in a variety of populations, e.g., inner-city women (Somlai et al., 2000; Sikkema et al., 1996), crack cocaine users (Montoya, 1997) and HIV seropositive persons (Kalichman & Nachimson, 1999). Few studies have examined self efficacy with regard to reductions in depression or anxiety among women living with AIDS.

Adults living with HIV are twice as likely to be depressed as uninfected populations (Vance, Moneyham, Fordham, & Struzick, 2008), and the lifetime prevalence of depression in HIV infected individuals is between 22% and 45% (Penzak, Reddy, & Grimsley, 2000). Depression and anxiety have been associated with disease progression (Lesserman, 2003; 2008; Motivala et al., 2003; Akinson et al., 2008; Kalichman et al., 2002 in Klein, Elifson & Sterk, 2008) and mortality (Ickovics et al., 2001). Among a sample of women living with AIDS, 34% were moderately depressed (LaPerriere et al., 2005); in other samples, rates of anxiety have been as high as 70% (Shor-Posner et al., 2003; Catz, Gore-Felton, & McClure, 2002) which was associated with viral load (Cohen et al., 2002).

Coping strategies classified as active-behavioral (doing something, e.g., planning, seeking medical care) or active-cognitive (finding individual meaning in illness) have been associated with more positive affect and higher self-esteem (Spiegel, Bloom, & Yalom, 1981; Billings & Moos, 1981). In contrast, coping strategies such as denial (not acknowledging the stressor) and avoidance (avoiding the stressor) have been associated with greater depression and distress (Fawzy et al., 1990). Higher levels of depression have been associated with HIV symptoms and greater use of self-blame among women (Vosvick, Martin, Smith, & Jenkins, 2008).

The SMART/EST (Stress Management And Relaxation Training/Expressive-Supportive Therapy) Women's Project was designed to respond to the unique experiences of minority women living with AIDS through culturally tailored training in stress management and the acquisition of more effective coping and problem-solving strategies, learning cognitive behavioral skills (e.g., re-framing stressors) to gain new perspectives and developing effective ways to create and maintain social support systems. The intervention improves self efficacy through teaching participants active and emotion-focused (changing how one feels about the stressor) coping strategies (e.g., cognitive restructuring, relaxation exercises and assertiveness). The expressive/supportive component ("+") encouraged participants to

express feelings of depression, isolation, helplessness and hopelessness (Cohen & Syme, 1985), and to learn successful styles of adaptive coping (changing to respond to the stressor) employed by other group members (Nyamathi & Lewis, 1991).

Coping self efficacy has been related to decreased distress, anxiety, anger and confusion among men (Antoni et al., 1991; Cruess et al., 2000) and women with HIV (Ironson et al., 2005). The purpose of this study was to examine changes in self efficacy associated with a cognitive behavioral intervention and assess its influence on anxiety and depression among low income minority women living with AIDS.

Methods

Recruitment and Eligibility

Interested candidates were screened to determine eligibility for the study; prospective participants completed a screening informed consent form.

Inclusion Criteria—Women were required to be 18 years or older, meet the CDC classification for case-defined AIDS (i.e. CD4+ cell count below 200/mm² and/or one opportunistic infection; CDC, 1993), and have at least a 6th grade level of education.

Exclusion Criteria—Women with psychiatric (bipolar affective disorder, major depression, psychosis, alcohol and/or substance dependence), neuropsychiatric (dementia), or medical conditions (current hospitalization) that might interfere with them benefiting from the intervention were temporarily excluded pending treatment. Substance dependence and psychiatric status were assessed using the Structured Clinical Interview for the DSM-III-R, adapted for non-patient participants with HIV (SCID-NP-HIV; Spitzer et al., 1988). Those having major psychotic symptoms within past three months, or untreated major clinical depression within one month and a score of > 24 on the Beck Depression Inventory (BDI; Beck, 1961) were temporarily excluded under treatment. HIV dementia was a permanent exclusion (HIV Dementia Scale, Power et al., 1995, score below 8, or score 8 – 10 and the Mini Mental Status Exam, Folstein et al., 1975, score below 26).

Participants were primarily recruited from hospitals, community health centers/agencies and via participant referrals in Miami-Dade County, Florida, New York City and the New Jersey metropolitan area. Of those (n = 628) recruited, 28% were not eligible: 44% cognitive impairment, 10% substance dependent, 22% major depression, 8% psychosis, 16% repeated failure to appear for screening. Following informed consent and baseline assessment, 451 women were randomized using a table of random numbers, to CBSM+ group (n = 212) or individual information (n = 239) conditions. Participants completed psychosocial measures at baseline, post-intervention and 6 and 12 months post-baseline and were provided with a \$25 incentive at each assessment. The current analyses address the 387 (86%) participants who completed all measures related to distress and self efficacy at baseline; 297 completed post-intervention follow-up, 230 completed 6-month follow-up, and 214 completed 12-month follow-up measures.

Intervention Content

Intervention Condition—This condition was a 10-week manualized group therapy program of weekly 120-minute sessions (90-minutes cognitive-behavioral stress management, 30-minutes relaxation) with encouragement to practice between sessions. Sessions included didactic components on the physiological effects of stress, cognitive behavioral interpretation of stress and emotions, identification of cognitive distortions and automatic thoughts, rational thought replacement, coping skills training, assertiveness

training, anger management, and identification of social support, combined with group processing of personal issues as conceptualized within the CBSM framework (Antoni et al., 2003). The expressive-supportive therapy (EST) component (Spiegel et al., 1981) addressed participant needs for 1) mutual support and reduced isolation, 2) improved family and social support, 3) greater openness and emotional expressiveness, 4) integration of changed self and body image, 5) normalization of experiences, 6) improved doctor-patient relationships, 7) detoxification of death and dying issues (SET Manual, Spiegel).

Information-Education Condition—The comparison condition consisted of 10-weekly individual 120-minute information sessions (45-minute informational/educational videotape component supplemented by a 75-minute entertainment video tape). The videotapes related to stress management/relaxation training and coping with HIV/AIDS and were supplemented by entertainment tapes to minimize dropout and equalize session length with the group condition.

Outcome Measures

Sociodemographics—Sociodemographic data collected included education, ethnicity, number of children, mode of HIV infection, marital status and living situation.

Depressed Affect—The Beck Depression Inventory (BDI; Beck et al., 1961) is a standard measure of depressive symptoms with 21 Likert-type items to assess affective, behavioral and somatic aspects of depression experienced within the last 7 days. The scale assesses symptoms of sadness (e.g., "I do not feel sad"), pessimism (e.g., "I feel discouraged about the future"), guilt and loss of interest, among others. Items are scored zero to three, maximum score of 63; scores are summed to derive a total index of symptoms. Scores less than 10 indicate minimal depression; 10-18 indicate mild to moderate depression, 19-29 indicate moderate to severe depression, scores greater than 30 indicate severe depression (Beck et al., 1988). Split-half Spearman-Brown reliability coefficient was .93 for psychiatric patients (Beck et al., 1961) and .81 for nonpsychiatric subjects (Beck et al., 1988). The inventory has high internal consistency, high content validity (r = .67, p < .0001, Beck et al., 1961, .72 for psychiatric patients, Beck et al., 1988), validity in differentiating between depressed and nondepressed subjects (< .0004, 91% of the time), sensitivity to change, and international propagation. The scale has been validated with numerous populations including low income African American medical patients (Grothe et al., 2005), Hispanics (Kay et al., 1993; Nova et al., 2001) and medical populations (Arnau et al., 2008).

Anxiety—The State Trait Anxiety Inventory (Spielberger et al., 1983) is a 20-item Likert scale measure of anxiety symptoms currently (state, e.g., "I feel frightened") and generally (trait, e.g., "I feel satisfied with myself"). The 20 state questions address anxiety symptoms currently experienced; the 20 trait questions repeat the first ten symptoms and ask how the respondent generally feels. Items are summed to calculate a total score of anxiety and 2 subscales (state, normative mean = 36.54, sd = 10.22; trait, normative mean = 35.55, sd = 9.76). The scales have been widely used in medical, psychiatric, surgical and psychosomatic patients and translated into over thirty languages (Spielberger et al., 1983). Reliability under stress (state, .94; trait, .86) is high, and test-retest (women, trait, .76; state, .16,) is high for trait and low for state. The STAI has been correlated with the Taylor Manifest Anxiety Scale (Spielberger et al., 1983, .65) within adult groups.

Cognitive Behavioral Self efficacy (CB-SE)—The Cognitive Coping Self efficacy Inventory is a 7-item scale adapted from the 10-item Likert-type scale specifically tailored to evaluate participants' self efficacy to combat AIDS, for cognitive behavioral skills, and for antiretroviral medication adherence. The scale was developed for HIV patients (Ironson et

al., 1987) and was factor-analytically derived utilizing five items (alpha = .89; Wagner et al., 1996). Participants rate their confidence to perform the skill on a 5-point Likert-type scale with anchors labeled "not at all" and "all of the time." Items and factor loadings are presented in Table 1.

Statistical Analyses

Analyses were conducted using Pearson r correlations, analyses of variance (ANOVA) to assess group differences, repeated measures analysis of variance to assess group differences over time and hierarchical multiple regression to assess the ability of condition and self efficacy to predict depression and anxiety at post-intervention, controlling for baseline self efficacy. Baseline, post-intervention (10 week post-baseline follow-up) and long term follow-up (12 month follow-up) results are presented.

Results

Participants

Participants were a mean age of 38.6 ± 7.2 years with approximately 65% having a 12^{th} grade high school education or less. The majority of women (68%) were African American, 16% were Hispanic, 11% were Caucasian, and 5% were of other ethnic backgrounds, including Haitian, Caribbean Islander, and Pacific Islander. Most (75%) were unemployed and receiving government assistance and the majority (72%) reported cause of HIV infection as sexual intercourse.

There were no differences by condition for depression, state anxiety, trait anxiety or cognitive behavioral self efficacy (see Table 2). Cognitive-behavioral self efficacy and state anxiety (r = -.33, p < .001), trait anxiety (r = -.34, p < .001) and depression (r = -.29, p < .001) were inversely correlated. Levels of self efficacy between ethnicities did not differ at baseline (F = 2.19, p = .26), but at 12 month follow-up were lower among Creole speaking participants than among any other ethnic group (F = 3.41, p < .001). Group and individual scores on depression, state and trait anxiety and CB self efficacy over time are presented in Table 2.

To distinguish those who improved their cognitive-behavioral self efficacy (CB-SE) score from all others, change scores were computed, subtracting the baseline score from the post-intervention score, and dichotomized to represent increased CB-SE skill utilization and unchanged CB-SE. About half (n = 173) did not change or decreased CB-SE and n = 160 increased CB-SE. More than half of the CBSM+ group members increased CB-SE and most of those in the individual condition decreased or did not change CB-SE (Fisher's Exact test, p = .27). There was a modest dose-response relationship (r = .18, p < .01) between sessions attendance and change in CB-SE score.

Cognitive Behavioral - Self Efficacy (CB-SE)—We examined the impact of the CB-SE factor on depression and anxiety outcomes from baseline to post-intervention and long-term follow-up (see Table 3). From baseline to post-intervention and long-term follow-up, there was a significant inverse effect for CB-SE by time on depression, trait and state anxiety.

Condition—We tested the impact of condition assignment upon anxiety, depression and self efficacy (see Table 4). There was no effect for condition assignment over time from baseline to post-intervention or long-term follow-up on state or trait anxiety, depression, or self efficacy.

CB-SE and Condition—We selected those who had increased their CB-SE efficacy skills post-baseline and participated in the CBSM+ group condition and examined their levels of depression and anxiety at post-baseline. Those with increased CB-SE in the group condition had lower levels of depression [F (2,166) = 4.06, p < .05] and state anxiety [F (2, 166) = 7.58 p = .007] but not trait anxiety [F (2,166) = .488, p = 0.49]. However, at long term follow-up, no additional reductions between post-intervention and long term follow-up were seen in depression [F (2,166) = .17, p = 0.68] or trait anxiety [F (2,166) = 2.09, p = 0.15], though there was a modest trend towards significance in state anxiety [F (2,166) = .09, p = 0.7].

Condition, CB-SE, Depression and Anxiety—Hierarchical multiple regression was used to assess the ability of condition (group or individual) and self efficacy to predict the level of depression and anxiety at post-intervention, after controlling for baseline self efficacy (see Table 5). Two self efficacy change groups were created, increased self efficacy (ISE) and no increase or decreased self efficacy (NDSE).

Depression—Baseline self efficacy was entered at Step 1, explaining 17% of the variance in depression in the ISE group and 6% in the NDSE change group. After entry of condition and post-intervention self efficacy at Step 2, the total variance explained by the model as a whole was 32% in the ISE group and 13% in the NDSE group, controlling for baseline self efficacy in both groups. Within the model, condition was inversely associated with depression in the ISE group (r = -.17, p = .02) but not in the NDSE group (r = .035, p = .32).

State Anxiety—Baseline self efficacy was entered at Step 1, explaining 11% of the variance in state anxiety in the ISE group and 6% in the NDSE change group. After entry of condition and post-intervention self efficacy at Step 2, the total variance explained by the model as a whole was 17% in the ISE group and 15% in the NDSE group, controlling for baseline self efficacy in both groups. Within the model, condition was not associated with state anxiety either the ISE group (r = -.12, p = .07) or the NDSE group (r = -.004, p = .48).

Trait Anxiety—Baseline self efficacy was entered at Step 1, explaining 19% of the variance in trait anxiety in the ISE group and 16% in the NDSE change group. After entry of condition and post-intervention self efficacy at Step 2, the total variance explained by the model as a whole was 29% in the ISE group and 24% in the NDSE group, controlling for baseline self efficacy in both groups. Within the model, condition was not associated with trait anxiety in either the ISE group (r = -.06, p = .22) or the NDSE group (r = -.440, p = .15).

Discussion

This study examined the impact of a group cognitive behavioral stress management *plus* expressive supportive therapy (CBSM+) on self efficacy, distress and anxiety in women living with AIDS. Self efficacy (SE) was associated with lower levels of depression and anxiety, and that in combination with the group intervention, increased CB-SE had a significant impact on the long term reduction of depression, state and trait anxiety. Findings indicate that the CBSM+ group intervention had the greatest impact among women who increased their cognitive-behavior skills in self efficacy.

Results may explain those previously obtained (Antoni et al., 1991; Chesney et al., 1996; Cruess et al., 2000) regarding the association between cognitive behavioral interventions, increased self efficacy and decreased depression and anxiety (Ironson et al., 2005). The

association with long term reductions implies that the skills acquired in the intervention may require time to integrate, which may then cause depression and anxiety to decrease as they are applied.

Increased self efficacy among those not in the intervention was only slightly predictive of decreased depression. CBSM+ interventions are designed to facilitate the acquisition of self efficacy, but may also enhance the use of cognitive behavioral skills associated with reductions in depression, e.g., a sense of control, decreased helplessness, and empowerment. These elements should be targeted in future interventions. The "dose-response" relationship of skill acquisition to number of sessions attended supports the importance of intervention participation in achieving increased self efficacy. Elements of the group intervention, e.g., group practice, support by peers, may also contribute to the increased response with session attendance.

Increasing coping strategies within CBSM, e.g., active coping and seeking social support, have been related to reduction in distress and increased self efficacy (Cruess et al., 2002). Similarly, changes identified in the current study are likely derived from these elements of the intervention and their implementation during skill-training. However, results suggest that increased self efficacy is also related to the skills being used at the onset of the study. Finally, reductions in depression may also be associated with the cognitive elements present in depression (Beck, 1961). Cognitive behavioral stress management, as its name implies, teaches participants to reduce dysfunctional thinking, a common element of depression.

Increases in self efficacy were predictive of reduced anxiety in both the group and individual intervention, and only slightly more so in the intervention condition. Both the group intervention and individual videotapes appeared helpful for participants. Thus, relaxation and stress management videos may also represent useful adjuncts for therapy and clinic waiting areas.

Limitations of this study include the lack of a true control condition. Due to ethical considerations associated with working with participants with chronic illness, potentially helpful stress-related information was not restricted from participants. Therefore, the individual condition received stress management information and thus was more of a low-intensity experimental condition than a "true" control condition (i.e., "comparison condition"). In addition, as self efficacy is the perceived ability to control the environment and stressors, its measurement is inexact.

Results obtained may not generalize to other populations with additional mental health issues, such as substance dependence or dementia. The concept of self efficacy may differ between cultures and cognitive behavioral skills may not be as meaningful in certain cultures. Though the intervention was culturally adapted for this population, there may be culture-specific issues regarding the concept of self efficacy. Finally, cognitive behavioral stress management teaches a variety of techniques to reduce stress, improve mood, quality of life and health. While all the elements are practiced, the elements of the intervention that may be responsible for changes in self efficacy, depression and anxiety should continue to be explored. Other elements of the study, such as cluster effects within cohorts, could be examined in future studies.

The results of this study have important implications for clinical practice in medicine and mental health as they highlight techniques that may be useful to achieve treatment goals, e.g., improved quality of life, stress reduction, treatment retention. Depression and anxiety are important therapeutic targets in part because of their association with morbidity and mortality (Ironson et al., 2005; Antoni et al., 2006; Ickovics, 2000), but also due to their association with healthcare and medication adherence (Chesney et al., 2000; Patterson et al.,

2000). The techniques in the intervention are easily conveyed and adapted as short term interventions. Behavioral interventions that focus upon improvement in self efficacy as a bridge to reducing depression and anxiety may accomplish multiple aims in HIV healthcare while improving the quality of life for this growing patient population.

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Figure 1. Retention and attrition flowchart.

Table 1

Rotated Factor Loadings of the Individual Cognitive Behavioral Self-Efficacy Inventory Items

No	Items	CB-SE	AIDS-SE
1	To what extent do you believe you are able to prevent infection/re-infection with the AIDS virus over the next five years?	.313	.779
2	To what extent do you believe you could slow down the development of AIDS related symptoms and prolong your life?	.491	.624
3	To what extent are you able to interpret stressful events realistically (rather than catastrophically)?	.663	.419
4	To what extent are you able to reduce anxiety-provoking thoughts?	.719	.349
5	To what extent are you able to control disturbing thoughts?	.674	.345
6	In a difficult situation, to what extent are you able to see positive as well as negative thoughts?	.681	.371
7	To what extent are you able to really relax yourself when you need to?	.625	.168

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Table 2

Depression, Anxiety and CB-Self efficacy means and standard deviations by condition and time point.

	Depre	Depression	Anxiety	Anxiety - State	CB-Self	CB-Self Efficacy
	Individual Group	Group	Individual	Group	Individual	Group
Baseline	8.75 ± 6.47	8.75 ± 6.47 8.63 ± 7.20	17.00 ± 5.89	17.00 ± 5.89 17.33 ± 5.89	21.19 ± 3.96 21.34 ± 4.24	21.34 ± 4.24
	F(1,392) =	F(1,392) = .31, p = .86	F(1,392) =	F(1,392) = .34, p = .56	F(1,385) =	F(1,385) = .12, p = .73
Post	9.13 ± 8.63	9.13 ± 8.63 7.86 ± 7.52	16.89 ± 6.39	16.89 ± 6.39 16.28 ± 5.65	21.36 ± 4.43 22.03 ± 3.89	22.03 ± 3.89
2 months	7.73 ± 8.28	6.73 ± 7.07	16.18 ± 6.09	12 months 7.73 ± 8.28 6.73 ± 7.07 16.18 ± 6.09 15.75 ± 5.34 22.07 ± 4.24 21.91 ± 4.41	22.07 ± 4.24	21.91 ± 4.41

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Table 3

Impact of cognitive behavioral self efficacy (SE) on depression & anxiety

	Depression	sion		Anxiet	Anxiety -State		Anxiet	Anxiety-Trait	
Time period	u	M	SD	u	M	SD	u	M	SD
Baseline									
No increase SE	149	8.4	6.37	149	16.43	5.44	148	19.03	5.52
Increased SE	149	8.85	6.42	143	17.3	5.84	143	19.2	5.7
	F(1,32)	F(1,325) = .09, p = .77	<i>TT.</i> = .	F(1,32)	F(1,325) = .66, p = .42	= .42	F(1,32)	F(1,325) = .52, p = .47	= .47
Post-intervention									
No increase SE	149	9.81	8.63	148	17.63	6.51	148	19.45	6.1
Increased SE	149	7.34	7.17	143	15.44	5.21	143	17.26	5.55
	F(1,32)	0 = 10.24	F(1,320) = 10.24, $p = .002$	F(1,32)	F(1,320) = 15.66, p < 0.001	p < 0.001	F(1,32)	F(1,320) = 22.55, p < 0.001	p < 0.001
12 months									
No increase SE	122	9.13	9.37	122	17.34	6.51	124	18.4	6.34
Increased SE	120	6.43	6.48	120	15.23	4.97	122	16.68	5.02
	F (1,26	F(1,268) = 9.08, p = .003	p = .003	F(1,26)	F(1,268) = 8.92, p = .003	= .003	F(1,26)	F(1,268) 9.77, p = .002	.002

Table 4

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	Self E	Self Efficacy	Depression	_	Anxiet	Anxiety -State	Anxiety-Trait	ait
Time periocd	M	SD	M	SD	N	SD	M	SD
Baseline								
Individual	21.28	4.14	8.67	6.2	16.68	5.62	19.28	5.58
Group	21.4	4.19	8.69	89.9	17.29	5.67	19.1	5.78
	F(1,418) =	F(1,418) = 1.2, p = .73	F(1,438) =	F(1,438) = .03 p = .86	F(1,438) =	F(1,438) = .34, p = .56	F(1,438) = .39 p = .54	.39 p = .54
Post-intervention	디							
Individual	21.62	4.19	8.94	8.21	16.76	6.27	18.46	80.9
Group	22.2	3.82	8.12	7.69	16.38	5.82	18.35	5.71
	F(1,325) =	F(1,325) = 1.45, $p = .23$	F(1,342) =	F(1,342) = 1.38 p = .24	F(1,342) =	F (1,342) = 1.95 p = .16	F(1,342) =	F(1,342) = .05, p = .83
12 months								
Individual	22.16	4.1	8.69	8.64	16.62	6.12	18.3	6.13
Group	22.96	4.0	7.33	7.42	15.73	5.41	17.2	5.27
	F(1,228) =	F(1,228) = .1, p = .75	F(1,265) =	F(1,265) = .14 p = .71	F(1,265) =	F(1,265) = .24, p = .63	F(1,265)=	F(1,265)=1.18, p=.28

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Table 5

Prediction of depression & anxiety by condition controlling for baseline self efficacy

V ariable	ع	${f R}^2 \Delta$	FΔ	d	Œ,	df	ď
Depression							
No change Self Efficacy (SE)	lf Effica	cy (SE)					
Condition	90.						
SE time 1	38	.07	11.79	.001	8.15	1,166	.001
SE time 3	.03	90.	5.71	.004	11.79	3,164	.000
Increased Self Efficacy (SE)	Efficac	y (SE)					
Condition	16						
SE time 1	51	.17	30.87	000	30.89	1,152	.000
SE time 3	04	.15	16.09	000	23.07	3,150	000.
Anxiety - State							
No change Self Efficacy (SE)	lf Effica	cy (SE)					
Condition	.02						
SE time 1	47	90.	10.66	.001	10.66	1,166	.001
SE time 3	.12	60:	8.43	000	9.49	3,164	.000
Increased Self Efficacy (SE)	Efficac	y (SE)					
Condition	11						
SE time 1	33	Π.	18.93	000	18.93	1,152	000
SE time 3	09	90.	5.75	.004	10.54	3,150	000.
Anxiety - Trait							
No change Self Efficacy (SE)	lf Effica	cy (SE)					
Condition	.10						
SE time 1	43	.16	31.	000.	31.	1,165	.000
SE time 3	08	60:	9.18	000.	17.48	3,163	.000
Increased Self Efficacy (SE)	Efficac	y (SE)					
Condition	08						
SE time 1	46	.19	36.82	000	36.82	1,153	000
SE time 3	10	10	10.75	000	71	2 151	000