The CHANGES Project: Coping Effectiveness Training for HIV+ gay men

**Main Findings**

- Having a positive emotional state can enhance health promotion among HIV+ persons.
- Coping Effectiveness Training (CET) can be an effective strategy for managing psychological distress and improving positive psychological states in patients confronting chronic illness.

**Background**

HIV+ persons confront a unique set of challenges and chronic stressors, including stigmatization, alienation from family and friends, complex treatment regimens, and, often, debilitating side effects as they attempt to manage the psychological and physiological consequences of their condition. For persons living with HIV, elevated distress and low social support take on added importance because they can accelerate disease progression. Helping HIV+ people to reduce stress and adhere to their medical care may in turn help to reduce their risky behavior.

The ability to cope successfully with a chronic illness such as HIV disease is influenced by a number of social and psychological factors. Stress and coping theory provides a framework for studying these factors and for intervention. Coping research draws attention to the co-occurrence of positive and negative psychological states and recognizes the importance of encouraging coping processes that help to sustain positive psychological states in the context of stress.

We evaluated a coping intervention, Coping Effectiveness Training (CET), designed to assist HIV+ gay men in sustaining psychological health despite the ongoing stress associated with HIV infection. The study was a randomized clinical trial of an innovative, theory-based coping intervention. The research questions addressed the problems of maintaining intervention effects, evaluating intervention effects on quality of life, health care utilization and adherence to medical care, and testing new advances in stress and coping theory.

**What is Coping Effectiveness Training?**

The purpose of CET is to teach people skills for coping with stress - from daily hassles to major life events. The program brings together recent developments in the theory of stress, coping and health with advances in stress management. Stress and coping theory emphasizes two processes, appraisal and coping, as mediators of the relationship between stress and an individual's psychological and physiological reactions.

This experimental intervention provided a framework for choosing among coping strategies to promote adaptive coping and reduce distress. The framework converts the major tenets of stress and coping theory into a series of practical straightforward steps, and emphasizes "fitting" the coping strategy to the extent to which stressful situations can be changed.

**Methods**

We enrolled 199 HIV+ men between March 1997 and March 2000. Recruitment methods included advertisements in local gay newspapers, distribution of brochures and posters, mailings to local health care providers and clinics treating HIV+ patients, and outreach to community-based organizations in the San Francisco Bay area. In a two-stage screening process, interested individuals who called for information about the study were initially screened by phone to determine if they met the basic inclusion criteria: self-identified gay or bisexual man; HIV positive; 21 years or older; and CD4 cell level of more than 50/mL. Potential participants who met these eligibility criteria and wished to enroll in the study were then scheduled for a face-to-face interview with a trained clinical interviewer.

Interviewers described the study's goals and procedures, answered questions, and obtained written informed consent. Potential participants then were screened for distressed mood as indicated by appropriate scores on at least two of three distress measures: 13 or higher on the Center for Epidemiological Studies Depression Scale, 15 or higher on the Perceived Stress Scale, and 42 or higher on the State Form of the State-Trait Anxiety Inventory.

Participants who met eligibility criteria were scheduled for baseline blood sampling and psychosocial assessment that provided the data that were analyzed for the current study. Participants

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**Coping Effectiveness Training (CET)**

- **General Stressor**
  - Unchangeable Aspects
  - Changeable Aspects
    - Problem-Focused Strategies
    - Problem-solving Negotiation skills
    - Emotion-Focused Strategies
    - Relaxation Reframing Physical activity

- **Specific Stressor**
Session 1: Introduction to CET. Begin to establish group rapport (introductions and expectations); orient participants to group goals and structure; introduce and explain concepts of stress appraisal and management; introduce weekly coping exercises and discuss barriers to “homework.”

Session 2: CET - First Steps. Introduce concept of positive experiences and meaning; teach and practice communication skills (listening and acknowledging); introduce the CET coping model by teaching how to distinguish between general stressful conditions and specific stressful situations; introduce and practice visualization exercises.

Session 3: Emotion-focused Coping. Teach how to sort aspects of stressful situations into those that are changeable or unchangeable; introduce the concepts of emotion-focused and problem-focused coping; apply emotion-focused coping skills to specific stressful situations; teach the “Three O’s” - 3 steps to developing a coping strategy (Options/Outcomes/Order); introduce and practice relaxation exercises.

Session 4: Emotion-focused Listening and Problem-focused Coping. Teach additional communication skills, with a focus on listening for and acknowledging emotions; apply problem-focused coping skills to specific stressful situations; fit between stressful situations, problem-focused and emotion-focused coping, fit between stressful situations and coping strategies, and the use of social support. In addition, participants took part in skill-building group activities, relaxation guidance, a day-long retreat, and received CET workbooks that included take-home exercises designed to reinforce the group experience and integration of the training into their daily lives. Participants who missed a session met with a group leader individually to learn the material before the next group meeting. Each session lasted 90 minutes.

Although CET is a theory-based manualized intervention, its cognitive-behavioral treatment sessions are flexible and can be adapted to different patient populations and settings. The basic session format is: (1) Group check-in; (2) Review exercises from previous session; (3) Session topic (see Table 1 above); (4) Exercises; (5) Relaxation or visualization exercise.

CHANGES model

Appraisal training emphasizes identifying specific personally meaningful stressful situations (as opposed to global chronic conditions), and distinguishing between changeable and unchangeable aspects of these situations.

Emotion-focused training emphasizes relaxation and distancing skills that are useful for reducing distress when dealing with chronic threat and unchangeable situations.
Session Topics, Goals, and Objectives

Session 7: Giving and Receiving Social Support (Part 1). Define social support types - emotional, informational, tangible; introduce concept of social support networks (individual participant diagrams of "the social support wheel"); discuss impact of HIV on support networks; identify participants' strengths as support providers; demonstrate and practice "mini" relaxation techniques.

Session 8: Giving and Receiving Social Support (Part 2). Develop effective social support skills - finding needed support, appreciating those who help, saying no to unwanted help; practice techniques in role plays; discuss importance of "matching" types of support needed and received.

Session 9: Thinking About Priorities. Introduce concept of "regoaling" - begin process of helping participants to identify personal values and priorities, and consideration of possible change in goals; apply CET skills to create individual plans for carrying out desired change.

Session 10: Coping Sabotage. Introduce concept of self-sabotaging thoughts and statements; describe connection between thoughts and feelings, using examples of distorted thinking from A.T. Beck: filtering, polarized thinking, overgeneralization, mind reading, catastrophizing, personalization, control fallacies, fairness fallacy, blaming, shoulds, emotional reasoning, change fallacy, global labeling, being right, heaven's reward fallacy; help participants become aware of own self-sabotaging statements with individual diagrams of "the clouds of self-sabotage."

Session 11: Recovering from Coping Sabotage. Help participants to begin formulating coping strategies to recover and overcome self-sabotaging statements; explain the difference between self-enhancing and self-defeating thoughts; practice use of self-enhancing statements; immunize against failure by predicting relapses to self-sabotage, and practice recovery statements; remind group that next session is last weekly meeting.

Session 12: Changes. Discuss participants' thoughts and feelings about transition to less frequent meetings. Define expectations for maintenance meetings. Obtain feedback (oral and written).

Maintenance Sessions: Generalization of Skills. These sessions were designed to enhance participants' beliefs that they are competent to apply the coping skills they have acquired, with the objective of sustaining intervention effects over time. In all sessions, group leaders provide a context of support and help participants to integrate coping skills into their daily lives.

Problem-focused training emphasizes the development of problem-solving skills for use in changeable situations including communication, decision-making, and negotiation (see Table 2 for example).

Social support training emphasizes the development of skills to achieve a fit between the type of support one needs and the type of support that can be obtained from various support providers.

Maintenance training emphasizes the identification of forces that will interfere with maintenance of coping skills and the development of strategies to counteract these forces.

Group leadership

Successful delivery of the CET model requires an integration of clinical skills and an ability to teach cognitive-behavioral skills. We used paired male and female group co-leaders to implement CET group sessions. All had graduate experience in social work, clinical psychology, or community-based HIV services. The co-leaders received intensive training in CET based on the intervention's manualized protocol, were regularly updated on issues related to HIV disease, and were supervised by both the principal investigator and the senior co-leader. To monitor the fidelity of the treatment conditions, all group sessions were audio taped (with participants' consent) for quality control and the group co-leaders attended weekly clinical supervision meetings.

After the intervention phase, participants continued to meet for maintenance sessions during the remainder of 1 year. Maintenance training is an important component of CET given that HIV+ individuals are living with a progressive disease and their illness-related stressors can be expected to persist and new challenging situations may appear. The maintenance sessions were designed to enhance participants' beliefs that they are competent to implement the appraisal and coping skills they have acquired, with the objective of sustaining intervention effects over time.

Key Findings

Socio/Demographics

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<tbody>
<tr>
<td>Age (range)</td>
<td>41.6 (26-69)</td>
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<tr>
<td>Ethnicity (white)</td>
<td>77%</td>
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<tr>
<td>College educated</td>
<td>51%</td>
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<tr>
<td>Working full- or part-time</td>
<td>41%</td>
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<tr>
<td>Permanent or temporary disability</td>
<td>50%</td>
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<tr>
<td>Annual income (US$)</td>
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<tr>
<td>Years HIV+ (range)</td>
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<tr>
<td>CD4 count (range)</td>
<td>404 (1-1,353)</td>
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<tr>
<td>AIDS diagnosis</td>
<td>63%</td>
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<tr>
<td>On medication</td>
<td>79%</td>
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Program results

CET participants demonstrated greater improvement in psychological distress and well-being than did the MCC participants during the 3-month...
intervention phase. These differences were maintained during the 9-month maintenance phase.

When compared to MCC, CET participants showed significantly greater decreases in perceived stress, burnout and negative morale and significantly greater increases in coping self-efficacy, positive states of mind and personal growth. During the maintenance phase, there were no significant differences between the standard and enhanced CET treatment arms, so they were again combined for analyses.

When compared to MCC, CET participants were significantly better in maintaining their decreased levels of depression and negative morale and their increased levels of coping self-efficacy, positive states of mind and personal growth.

Changes in coping self-efficacy and positive states of mind mediated the effect of CET on decreasing distress and increasing positive states.

Fatigue
The issue of side effects and symptoms, particularly fatigue, has emerged as a major topic in relationship to adherence to HIV care and continuation in medical treatment. A central challenge in HIV clinical trials and treatment is medication “burnout” from patients struggling to manage HIV’s intrusions on their quality of life. That 87.5% of our CHANGES Project participants report at least some level of fatigue underscores the importance of this problem.

Older adults
An additional emerging topic is the increasing number of older HIV+ adults. Older adults with HIV/AIDS, often having lived with the condition longer, are more likely to be confronted with the stress of managing further-advanced HIV disease than their younger counterparts. Older persons are also more likely to have lower levels of social support and higher levels of distress than younger persons with HIV. In this study we found that the influence of social support on both negative and positive moods was significantly greater among older than among younger participants. To date, most research has shown social support to be a buffer for negative affect. This study extends this finding to positive affect, showing that high levels of social support can boost positive affect for older patients and, conversely, that low levels of social support are associated with low levels of positive mood.

Recommendations
• Our findings suggest that CET could be included as a component of HIV care with only occasional booster sessions to help sustain positive psychological states.

– Special efforts may be needed to create social support interventions that are both effective and sustainable with the older population. Such interventions may need to emphasize outreach for patients with increasing limitations and be designed to continue to convey support despite possible rejection from patients who may be depressed and suffering from disease progression.

References


In Appreciation
We are especially grateful to the project participants, who gave us their time and experience and taught us so much. Our studies would not have been possible without their dedication.