Science to Community

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

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Main Findings

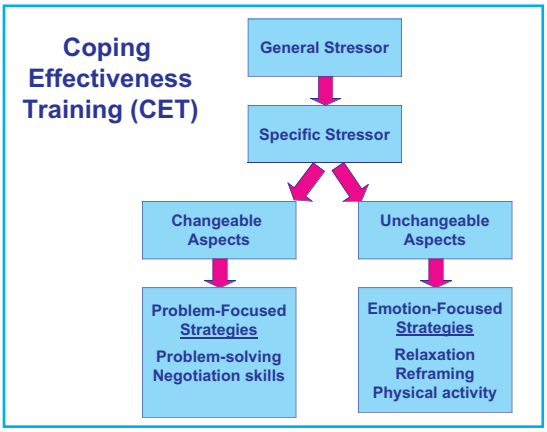
- Having a positive emotional state can enhance health promotion among HIV+ persons.
- Coping Effectiveness Training (CET) can be an effective strategy for managing psychological distress and improving positive psychological states in patients confronting chronic illness.

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 psychologic 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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Table 1: CET Intervention -

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; further practice of the "Three O's;" introduce concept of recognizing and appreciating that "the little things matter;" discuss interrelationship of coping skill types.

Retreat Day: Participants spend a full day together in a restful and relaxing location.Purposes are to: provide opportunities for greater participant bonding with a focus on common HIV stressors; provide intensive practice in CET coping skills; help participants integrate coping skills into daily lives. Activities include: generating a "master list" of participants' HIV-related stressors and coping strategies; aerobic, relaxation, and visualization exercises; sharing of meals; acknowledging positive experiences and sharing affirmations.

Session 5: *Retreat Review*. Review skills learned in Sessions 1-4 and used at the retreat; review and affirm participants' strengths and difficulties using the CET coping model; practice affirmations; make plans to integrate specific coping skills knowledge into daily lives.

Session 6: *Negotiation Skills*. Teach negotiation skills; discuss interpersonal stress, and the goals and phases of negotiation - entry, exploration, give-and-take, closing; apply new skills by structured modeling and role play.

Table 2: Example of problem-focused training: changeable and unchangeable situations

George woke up and discovered that his cocker spaniel, Pickles, had eaten a favorite pair of slippers belonging to his lover, who was still blissfully asleep in the next room. The mangled slippers now looked like beef jerky wrapped in strips of used boxer shorts. His Lover prizes his belongings and has a violent temper. While George walked to the bathroom mirror, he experienced an intense conflict of loyalty. His heart was pounding.

"What is unchangeable about this stressful situation?" George brainstormed. "Well, there is no way I am going to reproduce the slippers before he wakes up. He is going to have a reaction, no doubt, which I also cannot change. It is also obvious that, much as I love the cute little poochie, Pickles sometimes has a mind of his own and cannot be changed."

In short, George cannot change what has already happened, nor can he totally change other sentient beings.

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were paid $35 for completing the assessment interview and blood sampling.

Men were assigned to one of three conditions:

1) CET with an enhanced maintenance program (CET-E), n=68
2) CET with standard maintenance (CET-S), n=66 and
3) a minimal monitoring control condition (MCC) to control for the effects of assessment. n=65

After a 12-week intervention phase, the men were followed for an additional 9-month maintenance phase. During this time the CET-S participants met for 6 booster sessions (approximately monthly), while the CET-E participants met for 18 booster sessions (every other week). The MCC participants were monitored with periodic telephone calls and referred to care as necessary.

Assessments at baseline and 3, 6 and 12 months included 12 key outcome and mediating measures of social support, coping self-efficacy, personal growth, and psychological distress and well-being. Analyses were based on the 178 participants who completed the 3-month assessment. During the intervention phase, the program was identical for the two CET treatment arms, so they were combined for analyses.

Intervention

The CHANGES intervention consisted of 12 weekly group training sessions in appraisal of 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

Age (range)	41.6 (26-69)
Ethnicity (white)	77%
College educated	51%
Working full- or part-time	41%
Permanent or temporary disability	50%
Annual income (US$)	$25,000
Years HIV+ (range)	8 (1-17)
CD4 count (range)	404 (1-1,353)
AIDS diagnosis	63%
On medication	79%

Program results

CET participants demonstrated greater improvement in psychological distress and well-being than did the MCC participants during the 3-month

Table 2: Example, cont'd

"What can I do then to resolve the situation?" George continued. "I could hide the slippers, but that would be dishonest. I could take Pickles and leave forever, but Pickles likes it here. I could wake up Lover and tell him right now. No I can't, not while he is half asleep. I could pretend to beat the dog and scream, 'Bad Pickles, bad dog!' to prove that I share Lover's anger. No, he'd see through that because he knows that I would never hurt a hair on Pickle's smoochie-poochie little head."

Then George had an "ah-hah" experience about what can be changed:

"I'll wait till Lover wakes up, make him a cup of coffee, just the way he likes it, bring him his paper, then very softly say, 'Pickles would bring you your slippers too, but he mangled them last night, and he and I both feel terrible about it.' That might control his rage. Then I'll offer to get him another pair."

In the future what could George do to avoid or eliminate the situation? Pickles could probably be made to sleep outside, George and Lover could go to a counselor, the slippers could be stored where the dog can't get them. The options are many to a brainstorming mind!

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.
- Our findings also indicate that providing informational material alone is less effective than training in coping skills for reducing aspects of psychological distress.
- It would be valuable to investigate socioenvironmental conditions that could be created at the community and family levels to encourage the natural development of positive states.
- There is a critical need interventions related to fatigue management and HIV treatment burnout.
- 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

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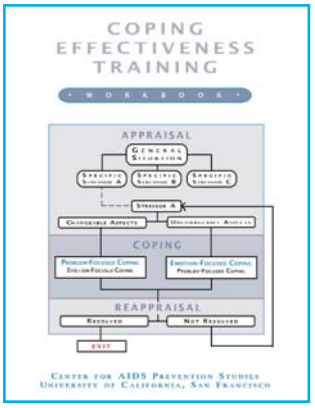
In Appreciation

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.

If you are interested in learning more about Coping Effectiveness Training, the CHANGES Project's Facilitator's Manual and Participant Workbook are online at:

www.caps.ucsf.edu/projects/CHANGES/



The manual and workbook specify content, objectives and goals, facilitator's instructions, procedures, exercises and activities for each intervention session.

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