

# Acceptance and Commitment Therapy for Work Stress: Variation in Perceived Group Process and Outcomes

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**Abstract**—Employees commonly encounter unpredictable and unavoidable work related stressors. Exposure to such stressors can evoke negative appraisals and associated adverse mental, physical, and behavioral responses. Because Acceptance and Commitment Therapy (ACT) emphasizes acceptance of unavoidable stressors and diffusion from negative appraisals, it may be particularly beneficial for work stress. Forty-five workers were randomly assigned to an ACT intervention for work stress ( $n = 21$ ) or a waitlist control group ( $n = 24$ ). The intervention consisted of two 3-hour sessions spaced one week apart. An examination of group process and outcomes was conducted using the Revised Sessions Rating Scale. Results indicated that the ACT participants reported that they perceived the intervention to be supportive, task focused, and without adverse therapist behaviors (e.g., feelings of being criticized or discounted). Additionally, the second session (values clarification and commitment to action) was perceived to be more supportive and task focused than the first session (mindfulness, defusion). Process ratings were correlated with outcomes. Results indicated that perceptions of therapy supportiveness and task focus were associated with reduced psychological distress and improved perceived physical health.

**Keywords**—Work stress, Acceptance and Commitment Therapy, therapy process.

## I. INTRODUCTION

**W**ORK Stress is a significant occupational health problem. Traditional cognitive behavioral interventions for work stress typically attempt to help clients identify, challenge and replace problematic appraisals and associated behavioral responses. This is achieved through techniques such as challenging irrational thoughts, thought stopping, and problem solving skills training.

Acceptance and commitment therapy (ACT) is a relatively new cognitive behavioral approach that diverges from traditional cognitive behavioral therapy. In ACT, clients are encouraged to accept problematic appraisals rather than attempt to control, eliminate, or replace them. Additionally, ACT encourages clients to develop a clearer understanding of life values so that they can more effectively commit themselves to taking action that will allow them to more effectively achieve important life goals.

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ACT may be particularly well-suited for work settings because of the unalterable nature of some work stressors. In a previous report, we examined the effectiveness of ACT for work stress [1]. In the present investigation, we examined how clients participating in a group-based ACT intervention perceive the experience and the extent to which their perceptions of ACT were associated with variation in outcomes.

## II. METHODS

### A. Participants

Participants were recruited from the Bowling Green, Ohio community using advertisements, community bulletin boards, and emails sent to employees of interested organizations. Of the 51 people who expressed interest in the study, 45 completed both pre and post treatment assessments.

Participants were primarily female (78%), white (93%), and had obtained their bachelor's degree or post graduate degree (75%). Age ranged from twenty-three to sixty years ( $M = 43.64$ ,  $SD = 11.30$ ). Approximately two thirds (69%) of the participants were employed as mental health workers while the remaining third worked in the field of education. Ninety-one percent of participants were employed full time.

### B. Procedure

The initial assessment session was conducted one week before the intervention at either Bowling Green State University or employees' workplaces. During the initial assessment session, the project was described in detail and written informed consent forms were supplied. Following completion of the informed consent process, participants completed pre-treatment questionnaires. Participants were then randomized to either the intervention condition or a waitlist control condition. Post-treatment questionnaires were completed within a week following the completion of the intervention.

### C. Treatment Conditions

**ACT Condition.** Twenty-one participants were randomly assigned to the ACT intervention group. The two-session ACT Intervention was run in five groups consisting of 3-8 participants. Each session was 3-hours long and spaced one week apart.

The ACT intervention protocol was developed by researchers in the UK to reduce negative consequences of worksite stress [2]. The protocol was revised by researchers in the Bowling Green State University Mindful Behavior Therapy and Psychophysiology Lab (MAPLab). The revised protocol was piloted with two groups of undergraduate research students. After minor revisions, the protocol was

piloted again with Bowling Green State University graduate students. The revised protocol was then reviewed by Bond (personal communication), who confirmed it was consistent with the original protocol developed in the UK.

*Wait list control group.* Twenty-four participants were randomized to the wait list control group. They completed measures at the same time points as the ACT intervention group, and were offered the ACT intervention after a three-month follow-up period.

#### D. Measures

*Perceived Therapy Process.* The revised session reaction scale (RSRS) is a 23 item self-report inventory has three subscales measuring therapy process. The Task subscale contains 10 items and measures client perception of the extent to which the session provided opportunities to learn about difficulties and possible solutions to them. The Relationship subscale is comprised of 4 items and measures client perceptions of therapist support, empathy, and understanding. The Hindering subscale contains 8 items that measure therapist behaviors that interfere with progress in therapy (e.g., I felt uncared for). RSRS items are rated on 5-point that ranges from "not at all" (scored as "1") to "very much" (scored as "5") The RSRS has been evaluated in prior research and found to have a factor structure and internal consistency indicators that support the three subscales [3].

*Psychological Flexibility.* The Acceptance and Action Questionnaire (AAQ-II) was used to measure psychological flexibility. The AAQ-II consists of 10 items that measure the degree to which an individual fuses avoids feelings and feels unable to act in the presence of difficult private events. Higher scores indicate greater psychological flexibility. The AAQ-II has adequate criterion-related, predictive, and convergent validities [1]. The internal consistency in the present study was .90.

*Psychological Distress.* The 12 item General Health Questionnaire (GHQ-12) was used to measure general mental health. Higher scores indicate more psychological distress. This scale was found to be internally consistent ( $\alpha = .84$ ) and has good convergent validity with depression and anxiety [4].

*Physical Health.* The Short Form-12 Health Survey (SF-12) was used to measure perceived physical health. The SF-12 is a self-report measure that assesses general health constructs such as physical functioning, energy/fatigue, and pain (e.g., "During the last four weeks, how much did pain interfere with your normal work?"). Higher scores on this measure indicate better functioning. Reliability estimates range from .81 to .84 for the mental and physical health subscales, indicating good reliability [5]. Only the physical health subscale was used for purposes of this study, which had an internal consistency of .76.

### III. RESULTS

#### A. Manipulation and Internal Validity Checks

*Treatment Integrity.* Each session was audiotaped and evaluated for adherence to the protocol by trained raters to

ensure treatment integrity. The raters listened to the audiotapes and then indicated whether the key topics for each session were explicitly covered. Results indicated that the therapists were in compliance with the protocol 97-100% of the time.

*Therapy Process Ratings.* Means, standard deviations, and paired t-test results are presented in Table 1. The means for the Task Subscale and Relationship subscale indicated that the participants rated that the therapists created a supportive and task focused therapy experience. Additionally, t-test results indicated that the second session was viewed as being significantly more supportive and more task-focused than the first session.

*Process Outcome Relationships.* Pearson Correlations were calculated among the process subscales and post-treatment outcome variables levels. Results indicated that the Relationship subscale from the first session was marginally significantly associated with Psychological Flexibility  $r(22) = .34, p = .06$ . This indicated that higher ratings of relationship satisfaction were associated with higher levels of acceptance and psychological flexibility. The Relationship subscale from the second session was significantly or marginally significantly associated with Psychological Distress  $r(18) = -.40, p = .05$ , and perceived Physical Health  $r(18) = .36, p = .075$ . The Task subscale from the second session was significantly associated with Psychological Distress  $r(18) = -.49, p = .037$ . Finally, the Hindering subscale from the second session was inversely associated with Psychological Flexibility  $r(18) = -.61, p = .008$  and positively associated with Psychological Distress  $r(18) = .32, p = .095$ .

TABLE 1  
MEANS, STANDARD DEVIATIONS AND STATISTICAL TESTS FOR THE REVISED SESSIONS REACTIONS SCALE

Subscale	First Session		Second Session		Paired t (df)	p
	M	SD	M	SD		
Task	3.16	.60	4.09	.59	5.56 (16)	.001
Relationship	3.32	.92	3.80	.80	1.93 (18)	.035
Hindering	1.27	.48	1.10	.19	0.67 (16)	.510

### IV. DISCUSSION

Participants in ACT for work stress reported that they experienced the group-based intervention as a supportive and task focused experience that provided them with an enhanced sense of: insight into self and others, feeling of being understood, relief, and closeness with others. Additionally, they reported that they perceived the ACT intervention to be virtually absent of experiences that would have a negative impact on them such as feeling criticized, distressed, or confused. Taken together, these findings suggest that ACT is experienced in a favorable light and one that may exceed process oriented humanistic therapies [3].

Group process ratings were associated with outcomes in the expected directions. That is, hindering ratings were associated with more adverse outcomes while relationship and task

ratings were associated with more adaptive outcomes. The relationship between therapy processes and outcomes in cognitive behavioral therapy is understudied [6]. Yet, these results indicate that ACT, within the context of a work stress intervention that is group-based, is perceived to be a positive and enhancing experience and that client perceptions of these therapy processes are important predictors of outcomes.

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