

Effects of Person-Centered Psychological Assistance on Workers in Stressful Jobs

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Abstract

This paper describes a study that evaluated person-centered psychological assistance in reducing the stress of workers in stressful jobs. Randomly-assigned experimental group participants received written information on basic person-centered counseling. Participants were asked to implement these methods while talking with an assigned co-worker for 10 minutes a day for one week about the co-worker's stresses or emotions relating to the workplace. Participants in the experimental group completed a distress measure before and after the intervention. Post-intervention distress levels of the experimental group significantly decreased compared to the control group which received no intervention. The findings suggest that providing workers in stressful jobs opportunities to receive person-centered psychological assistance from co-workers informed about basic person-centered counseling may be helpful in reducing distress.

Introduction

Stress is a reaction to harm, loss, threat, or challenge (Lazarus, 1999) and has many sources, including work (Arvey, Renz & Watson, 1998; Murphy, 1988). Work-related stress reactions tend to involve anger, anxiety, depressed mood, mental fatigue, and sleep disturbances and can have a significant effect on life expectancy (Fletcher, 1988). For the employer, work-related stress tends to lead to employee job dissatisfaction, loss of productivity, burnout, absenteeism, turnover, and increased health care costs or premiums (Fletcher, 1988; Kalliath, O'Driscoll, Gillespie & Bluedorn, 2000; Murphy, 1988).

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Some organizations have attempted to reduce stress by introducing employee stress management training and organizational interventions (Fletcher, 1988). A meta-analytic study found that employees tended to benefit from stress-reduction interventions (Blonk, Dijk, Schene, & Van Der Klink, 2001). A significant effect was found across 48 studies involving 3,736 participants. The meta-analysis focused on four different types of stress-reducing interventions. Three types involved stress management training for individuals (cognitive-behavioral, relaxation training, and multimodal) and one involved organizational changes. The analysis found that stress management training (with a Cohen's *d* of .44) was significantly more effective than organizational changes.

A comparison between different stress-management interventions revealed that cognitive-behavioral approaches were significantly more effective than relaxation techniques, but that the cognitive-behavioral treatment effect size overlapped with the multimodal program effect size, which itself overlapped with the relaxation training effect size. Hence, the meta-analysis supported the efficacy of stress management training in general, but it gave no definite answer as to which was the most effective method and did not examine person-centered counseling.

Carl Rogers described person-centered therapy as the expression of core therapist attitudes of acceptance, empathy, and genuineness (Rogers, 1961; Rogers, 1980). Clients often attribute their improvement to these therapist characteristics (Lambert & Barley, 2001). Considerable evidence shows a correlation between therapist expression of these attitudes and client improvement (Lambert & Bergin, 1994; Orlinsky, Grawe, & Parks, 1994). Experimental research has shown that therapist expression of acceptance, empathy, and genuineness leads to positive effects, although not more so than other approaches to therapy (Greenberg, Elliott, & Lietaer, 1994).

The present study examined whether employee distress levels could be decreased by talking about strong emotions elicited in the workplace with a co-worker who had received written instructions in person-centered methods of helping. This approach went beyond the intervention methods of previous research by examining the use of peers to provide person-centered psychological assistance. It was hypothesized that the level of distress experienced by workers would decrease as a result of the person-centered intervention.

Method

Participants

An insurance company gave permission for its employees to be recruited for the study. A total of 141 call center operators (89 women and 52 men) agreed to participate. The average age of the participants was 28.52 years, *SD* = 8.91. Seventy employees participated in the intervention group; 71 employees participated in the control group. Common stressors for the operators included a queue of customers waiting on the phone, the strong emotions of customers who have been in an accident, and hostility from callers who are told they do not have coverage for an accident.

Groups

Person-centered intervention group. All participants in the intervention group were (a) given brief printed instructions explaining non-verbal listening cues, such as nodding and smiling, as well as how to show empathy and genuineness; (b) randomly assigned a listener, also in the intervention group; (c) asked to talk to the assigned listener for 10 minutes each day for five consecutive days about any event at work that had caused them distress or elicited strong positive or negative emotions; and (d) asked, after disclosure, to take on the listening role within the same session. Participants were advised not to become a counselor, but to offer support and listen to their partner's disclosure, while keeping all conversations confidential. Participants in the intervention group were asked not to discuss the study with other employees.

Control group. Members of the non-treatment control group did not receive the PC intervention and were asked not to discuss any part of the study with other employees. The control group completed the General Health Questionnaire-12 and the evaluation questionnaire.

Measures

General Health Questionnaire-12. The General Health Questionnaire-12 (Goldberg, 1992) assesses psychological distress. The measure consists of 12 items that are rated on a 0-3 scale. A typical item asks to what extent the person "*felt constantly under strain.*" This study used a time frame of "*over the last week.*" Possible scores on the General Health Questionnaire range from 0 to 36, with higher scores indicating more distress.

The scale is made up of 12 items that produce a valid and reliable discrimination between mentally healthy and mentally disturbed individuals (Banks, Clegg, Jackson, Kemp, Stafford & Wall, 1980; Goldberg & Williams, 1988). Validity evidence includes associations with measures of depression and significantly higher scores in individuals identified through a clinical interview schedule as having a psychiatric disorder and in individuals who have sought professional help for stress or emotional problems (Banks, 1983; Bhui, Bhugra, & Goldberg, 2000; Goldberg, Gater, Sartorius, Ustun, Piccinelli, Gureje, & Rutter, 1997; Hardy et al., 1999). The General Health Questionnaire-12 has a Cronbach's alpha coefficient of .89 (Jacob, Bhugra & Mann, 1997) and a two week test-retest reliability of .73 (Hardy, Shapiro, Haynes, & Rick, 1999).

Stress question. Participants in both intervention and control groups were asked before the beginning of the intervention: "Do you find your job stressful?" Possible responses included "not at all," "sometimes," "often," and "all the time."

Evaluation questionnaire. At the completion of the intervention participants in the intervention group responded to a series of written questions:

- 1) "On how many occasions did you talk with a co-worker about job-related stresses or emotions?"
- 2) "What did you think of the 10 minute talks? What effect if any did they have on you?"

- 3) “Did you find talking about situations that caused stress in the workplace beneficial?”
- 4) “Will you continue to talk about situations which you find stressful?”

Procedure

At the start of the study, all participants assigned themselves a code name to put on materials so as to maintain anonymity and completed the General Health Questionnaire-12 and the stress question. Workers were randomly assigned to either the intervention group or a no-intervention control group. Workers in the intervention group received written instructions, specified below, about person-centered interaction methods and then applied these methods to each other in pairs in 10-minute segments on five consecutive days. One week after the start of the intervention all intervention group and control group participants again completed the General Health Questionnaire-12. The intervention group and control group were then compared with regard to post-intervention distress level, controlling for pre-intervention distress levels.

Data Analysis Strategy

The main analyses planned involved a comparison of groups in post-intervention distress levels, controlling for pre-intervention scores on the same measure. ANCOVA was used for this analysis. As a preliminary, we planned to evaluate whether all the assumptions of ANCOVA were met by the data. The final planned analyses involved descriptive statistics about the intervention group members' reactions to the intervention.

Results

Preliminary Analyses

Although 141 employees completed consent forms, four participants did not complete various other components of the study. Two members of the intervention group and two members of the control group did not complete the post-assessment; this was attributed to illness, being gone on annual leave, or to personal, unspecified reasons. One hundred and thirty seven employees completed all components of the study. Of the 137 participants who completed the study, 127 (93%) indicated that their job was stressful at least “sometimes.”

In preparation for the main analysis involving an ANCOVA, an evaluation of assumptions of normality, homogeneity of variance-covariance matrices, reliability of the covariate, linearity, homogeneity of regression slopes and non-multicollinearity was conducted. All assumptions were satisfied. The General Health Questionnaire-12 was found to have good internal reliability in this study, with a Cronbach's alpha of .88 at pre-intervention for the 137 individuals who completed the study.

Group Comparison

The Table shows the pre and post-intervention means on the General Health Questionnaire for the two groups. We used an ANCOVA to test for main effects, as suggested by Tabachnik and Fidell (2001) for outcome studies with a pre- and post-measure. An ANCOVA comparing the post-intervention distress scores of the experimental group and the control group, controlling for pre-intervention scores on the same measure, showed that the experimental group's post-intervention mean was significantly lower than the control group's mean, $F(1,134) = 23.89, p < .001$, Cohen's $d = 0.57$, indicating that intervention employee distress levels decreased just over half a standard deviation more than those of the control group. Cohen (1988) suggested standards of at least 0.50 for a medium effect and at least 0.80 for a large effect. The present effect thus was medium.

Table: Group Means for the General Health Questionnaire-12

Group	Pre-Intervention			Post-Intervention	
	n	M	SD	M	SD
Control	69	11.33	5.35	11.25	5.55
Client-Centered Approach	68	11.76	5.58	8.41	3.93

Intervention group characteristics

Analysis of post-intervention questions for members of the intervention group showed that 38% of employees spoke on five occasions as requested, 95% conversed about stressors or emotions at least twice during the intervention, and 4% did not talk at all. Further analysis showed that 100% of 68 participants who conversed with a listener reported that they found the intervention beneficial. All but two of the 68 participants (97%) indicated that they would continue to talk about situations which they found to be stressful.

Discussion

Implications of the Findings

The aim of the study was to determine whether employee distress levels could be reduced by an intervention involving person-centered psychological assistance. The results indicate that employees who were involved in the person-centered intervention showed significantly reduced distress levels compared to participants in the control group. The

results provide support for Carl Rogers' theory of person-centered psychological assistance, extending prior findings supportive of the methods (Greenberg et al., 1994; Lambert & Bergin, 1994; Lambert & Barley, 2001; Orlinsky et al., 1994) to helping peers in the workplace.

The finding that almost all of the participants (93%) found their work at least sometimes stressful illustrates the need for an intervention. The distress-reduction effect size for the intervention was medium, with a d of 0.57. This effect size compares favorably to effect sizes for psychological well-being in other workplace stress interventions, which were found overall in a meta-analysis to be smaller, with a Cohen's d of 0.44 (Blonk et al., 2001).

Acceptability of the Intervention to Workers

The findings indicated that 100% of the participants who spoke with a co-worker about their emotions found the intervention beneficial and 97% reported that they would continue to talk about situations that they found stressful. This finding suggests that participants found the intervention methods acceptable, as well as effective.

Effective Aspects of the Intervention

The results do not make clear what aspects of the intervention produced the effect. It could be that receiving person-centered psychological assistance from a co-worker was the main effective ingredient; however, it could be that something else, such as providing person-centered psychological assistance to a co-worker, was the main effective ingredient.

Limitations of the Findings

While the strengths of the present study lie in its experimental method and the use of a well-validated outcome measure, there were also limitations. Practical limitations of applying the person-centered method used in the study are that not all workers in some work places may be willing to participate in self-disclosure of stress and strong emotions with a co-worker and not all workers may be capable of providing person-centered psychological assistance as skillfully as was provided by the insurance call-center employees who participated in the present study.

The present study also has methodological limitations important to consider in interpreting the results. First, the study used only a self-report outcome measure, and self-report measures can be susceptible to experimenter demand effects where the participant wants to help the experimenter by answering as they think they should rather than as they actually feel (see Orne, 1962). Second, the study did not have any follow-up assessment. Hence, it is not known how long the effect lasted. It may be that the effect lasts only as long as the person-centered listening continues or that the effect dissipates even if person-centered assistance continues.

Directions for Further Research

Due to the various strengths and limitations of the study, the study produced some evidence that person-centered psychological assistance in which co-workers of workers in a highly stressful job provides reduces distress. Future research might examine whether similar outcomes occur in other types of workers and work places, whether the effects of a person-centered intervention extend to objective measures of distress, how long the effects last, and what aspects of the intervention are most important to the outcome.

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