Impact of Treatment Adherence Intervention on a Social Skills Program Targeting Criticism Behaviours

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Abstract

The present study investigates the effect of a cognitive-behavioural treatment adherence intervention in the course of a criticism skills group training program. Self-monitoring, goal setting, corrective feedback, behavioural contract, procedures to enhance commitment and reinforcement were the techniques used in this intervention. Eighty-six 23-year-old volunteer university participants, 62.2% females who reported they had difficulty giving/receiving criticism, and who had a high fear of negative evaluation, were randomly assigned to the treatment condition with or without the adherence intervention or to a waiting list control condition. We found treatment program attendance increased and percentage dropouts reduced by a factor of approximately one half. People who worked on treatment adherence reported differentially improved cognitive antecedents (reduced criticism concerns) and consequences (higher self-esteem/self-efficacy) and demonstrated better skills (videotape ratings of trained judges) in giving criticism to others. On the other hand, people in the adherence condition reported no differentially improved affective antecedents (fear of negative evaluation) nor cognitive/affective consequences (self-esteem/self-efficacy) nor did any demonstrate differentially better skills in the way they received criticism. Our results were interpreted in terms of an optimal arousal/avoidance learning paradigm whereupon people's adherence activities facilitated arousal optimal to greater program attendance and outcome gains in the proactive task of giving but not the more reactive task of receiving criticism.

Résumé

La présente étude enquête sur l'effet de l'intervention d'adhérence du traitement cognitif-behavioral à l'intérieur d'un programme d'entrainement de groupe sur les habiletés à critiquer. L'auto-observation, l'établissement de buts, le feed-back correctif, les contrats comportementaux, les procédures pour soutenir l'engagement et le renforcement étaient des techniques utilisées lors de l'intervention. Quatre-vingt-six participants volontaires âgés de 23 ans, étudiant à l'université, dont parmi ceux-ci 62,2% des femmes avaient signalés avoir de la difficulté à donner/à recevoir une critique et qui avaient une grande crainte de recevoir une évaluation négative, ont été assignées à la condition de traitement avec ou sans l'intervention d'adhérence ou bien à une liste d'attente de condition de contrôle. Nous avons trouvé que la participation au programme de traitement augmentait et que le pourcentage des décrocheurs diminuait par un facteur d'approximativement la moitié. Les participants qui ont travaillé avec le traitement d'adhérence soulignaient une amélioration différentielle des antécédents cognitifs (diminution de l'inquiétude face aux critiques) et des conséquences (estime de soi plus élevée/auto-efficacité) et démontraient de meilleures habiletés (évaluations sur magnétoscope de juges entrainés) à offrir une critique aux autres. De l'autre côté, les participants du groupe de condition d'adhérence ont rapporté aucune amélioration différentielle des antécédents affectifs (peur d'une évaluation négative) de même que des conséquences cognitives/affectives (estime de soi/auto-efficacité) et n'ont montré aucune amélioration différentielle des habiletés concernant la façon dont ils reçoivent une critique. Nos résultats ont été interprétés en

termes d'un paradigme d'apprentissage d'éveil/d'évitement optimal sur quoi les activités d'adhérence des participants facilitaient l'éveil optimal à une plus grande présence au programme et les gains dans la tâche proactive de donner mais pas la tâche plus réactive de recevoir une critique.

Of individuals who seek assistance from qualified professionals for physical or emotional problems, Jennings and Ball (1982) and Phillips (1985) estimate between 30% and 60% will drop out prior to completion. Baekeland and Lundwall (1975) suggest that the issue of treatment adherence has largely been studied in the context of treating chronic conditions that require prolonged treatment. We note that very little has been established concerning the issue of attendance in the short-term course of group treatment of individuals where the focus is on the improvement of social skills.

Piccinin, McCarrey and Chislett (1986) have found 57% of university undergraduates reported difficulties in giving/receiving criticism while Frisch and Froberg (1987) reported 79% of their student participants felt their fellow classmates had a problem handling criticism. Our study investigates the impact of an adherence intervention in facilitating more participants to complete the social skills program and for those who do, to reach higher levels of competence in giving/receiving criticism. Our goal was to see whether a treatment adherence intervention would have a beneficial effect on the level of attrition and treatment outcome of functioning young participants who had neither a chronic physical, nor a life-threatening disability.

Dropout rates reported in the literature on treatment adherence are typically in the 30% to 60% range. Meichenbaum and Turk (1987) have identified clients' beliefs and feelings regarding the efficacy of a proposed treatment program as key factors in clients' overall decision to continue to adhere to that treatment plan in the face of accumulating experience that tests the person's resolve to continue. Brownell, Marlatt, Lichtenstein and Wilson (1986) have suggested that unsuccessful attempts to modify present behaviour patterns induced negative feelings in the client and were often viewed as personal failure. These outcomes would logically strengthen the person's view that the learning of the new behaviour was beyond him or her. On the other hand, unsuccessful attempts do not necessarily preclude learning, particularly if the person is encouraged to view these attempts as opportunities to prepare for later success. Craighead and Craighead (1980) note that the modification of what clients believe and say to themselves is fundamental to the success of cognitive behavioural therapy. Self-attribution of successful behaviour change to one's ability and effort has been shown to increase the likelihood of maintenance of that successful change (Kopel & Arkowitz, 1975).

This study investigates the effect of a cognitive behavioural treatment adherence intervention in the course of a criticism skills group training program. Self-monitoring, goal setting, corrective feedback, behavioural contracting, and procedures to enhance commitment and reinforcement were the techniques used in this cognitive/behaviour modification intervention. These types of cognitive/behavioural modification interventions have shown promise in the enhancement of adherence to longer-term medical regimens (Epstein & Cluss, 1982). On theoretical grounds, they give clients support and constructive feedback on their use of new skills towards the specific and personalized goals of high incentive value to these clients.

Hypotheses

Our first hypothesis was: there will be fewer dropouts in our criticism skills program with treatment adherence intervention in comparison to our program without it. Theoretically this would occur because our intervention program assesses people's antecedent beliefs and treatment consequence expectations before treatment begins, after which efforts are made to have these antecedents and consequences linked to specific achievable goals of high incentive value to the participants. Efforts were made to maximize clients' self-efficacy expectations (Bandura, 1986) with respect to giving and receiving criticism more effectively. Furthermore, efforts were made to enhance motivation and commitment as participants and trainers contracted in writing (Meichenbaum & Turk, 1987) to maximize their focus on the achievement of these specific attendee goals. Relapse prevention activities had people anticipate situations which would put them at risk with respect to treatment compliance, and involved them in the development of anticipatory corrective strategies. Overall, these adherence interventions were targeted to increase client motivation and commitment towards behavioural change and client satisfaction with their progress in the treatment program by means of the modification of people's antecedent beliefs and consequent expectations of the more effective criticism behaviours. Logically, then, fewer clients should drop out of a criticism skills treatment program which had these additional adherence parameters.

Our second hypothesis was: treatment gains would be greater on the part of attendees in the treatment program with adherence intervention compared to clients who took the program without the adherence intervention or to people who were in the no-treatment control condition. Our reasoning here was that not only would the adherence intervention prompt more people to stay in the program, but also it would facilitate their acquisition and demonstration of better social skills with regard to giving and receiving criticism. With increased motivation, attendees in the adherence intervention condition would invest more effort thereby

acquiring more positive feedback which would further induce them to additionally improve their criticism skills. By having clients reframe past problems, and develop corrective strategies for future problem situations, we expected these clients would experience greater treatment gains. It must be added, however, that those who did not take the adherence intervention would also spend time attempting to reduce irrational cognitions about the nature of criticism, and would also have role-played attempts to be more assertive in giving and receiving criticism because the basic cognitive-behavioural program included such activities. However, the much greater differential emphasis on these activities was certainly in the program with adherence intervention added. Confirmation of the hypotheses can provide practical direction for counsellors and counselling services in planning and designing treatment gains. Such programs will benefit both the clients and the professional counsellors alike whose time is related to the dollar cost of the treatment.

METHOD

Participants

Of the approximately 2,500 Introductory Psychology students originally screened for participation in the criticism skills training program, 330 met the inclusion criteria, namely: 1) their perception that they had a moderate to very significant problem in giving or receiving criticism, 2) a score of 47 or higher on Watson and Friend's (1969) *Fear of Negative Evaluation Scale*, and 3) an explicit request to participate in the skills training program. Students who completed all facets of the research study received a nominal payment of five dollars.

Of the 330 students invited, 98 became subjects in the study. Of these, 86 were participants, that is to say, came to the first training session. Fifty-five attendees – students who missed no more than one training session – completed all facets of the research study, 63.2% of whom were female. Twelve students made up the waiting list control group. The respective mean ages for male and female participants were 23.2 and 22.5, the range for both being 17 to 45 years.

The individuals were randomly assigned to three groups, on a 2:5:1 ratio: 1) the training program with treatment adherence intervention ($N = 26$), 2) the training program without treatment adherence intervention ($N = 60$), and 3) the no treatment–no adherence intervention group ($N = 12$). The logistics of the programs as well as the reduced payoff to waiting list controls prompted the above differential group sizes.

Dependent Measures: Attendance

Participants were considered attendees if they attended 3 of 4 sessions of the training program without adherence intervention, or 4 of 5 sessions of the training program with treatment adherence intervention. Participants who missed more than one training session were considered dropouts. The percentage of sessions attended and the number of dropouts were the two measures of treatment adherence attendance behaviour.

Dependent Measures: Self-Report

Fear of Negative Evaluation Scale (FNE)

The 30 true-false items of the *FNE* Scale (Watson & Friend, 1969) were developed to measure "apprehension about others' evaluations, distress over their negative evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively." All participants were administered the *FNE* at pre-test and post-test.

Reliability estimates of the *FNE* are good. Corcoran and Fischer (1987) report average item-total correlations of .72. Kuder-Richardson 20 internal consistency correlations of .94 and .96 were reported for a sample of 205 college students and a separate sample of 154 students respectively.

The level of scale homogeneity is high. Watson and Friend (1969) report a mean biserial correlation of the *FNE* items of .72 (N = 205). The same authors report a product-moment test-retest correlation of .78, while Lemelin, Piccinin, Chislett and McCarrey (1986) reported .79 after a four-week interval (N = 80). Scores on the *FNE* were negatively correlated (r = -.25) with scores on the Crowne-Marlowe (1964) Social Desirability scale.

Criticism Concerns Scale (CCS)

The *CCS* (Lemelin, *et al.*, 1986) is a 15-item questionnaire which assesses irrational beliefs concerning the consequences of giving and receiving criticism. "Most people can't handle criticism so if I did criticize I would just be making enemies" is an example of items found on the *CCS*. The test-retest reliability of the *CCS* with a four-week interval was .72 (Lemelin, *et al.*, 1986). A Cronbach's alpha of .57 indicated adequate internal reliability for the 15 *CCS* items (N = 257). Participants were administered the *CCS* at pre-test and at post-test.

Self-Esteem Criticism Scales

The *Self-Esteem Criticism Scales* (McCarrey, Piccinin & Chislett, 1986) contain 14 items: half are related to the subject's self-esteem in giving criticism (*SEG*), the other half to the subject's self-esteem in receiving

criticism (*SER*). Cronbach's alphas were .92 and .94 for the *SEG* and *SER* scales, respectively, indicating a high level of internal reliability (N = 28) (Welburn, 1989). The Semantic Differential (Osgood, Suci & Tannenbaum, 1957) format was used to make the seven-step Likert-type scales: favourable-unfavourable, confident-nonconfident, high-low, strong-weak, valuable-worthless, optimistic-pessimistic, relaxed-tense.

Dependent Measures: Behavioural Role-Play

Eight standardized role-play episodes, typifying people in roles of friends, authorities, intimate others and counterparts in business transactions, constituted the Behavioural Role-Play measure. Each participant had to respond to a situation presented via audiotape that assigned one role to him/her and another to the confederate prompter. The prompter then initiated the interaction by either actively criticizing, or behaving in a manner which invited criticism. For each set of eight role-play episodes, four involved a female and four involved a male prompter.

Respondent behaviour was videotaped and three judges, blind to the purpose of the study, were given eight hours' training on rating the components of both the verbal and non-verbal criticism behaviours on the scales. Based on the work of Butler (1981), Monti, Corriveau and Curran (1982) and Weisinger and Lobsenz (1981), the following behaviours were criteria of effective verbal-giving criticism: 1) the taking of personal responsibility for the critical feedback, 2) specific criticism about a specific behaviour, 3) expression of empathy, 4) clear behavioural change requested, 5) providing a balance of positive and negative criticism, and 6) an overall judgement of global effectiveness in giving criticism. The criteria of effective verbal-receiving criticism behaviours were: 1) a clear paraphrase of the criticism ("So you're saying . . ."), 2) request for precision if required, 3) position taken (for example: "Yes, I agree" or "No, I'm not convinced . . ."), 4) expressed willingness or unwillingness (with reason or with explicit right not to provide reason, as in "And I really don't feel I have to give a reason for this.") to change, and 5) global effectiveness in receiving criticism.

The criteria of effective non-verbal criticism behaviours were: a) appropriate eye contact–focused attention but not staring, b) voice tone and inflection well modulated versus whispered monotone or shouted indignation, c) facial expression consistent with verbal content, d) well-balanced posture, directly facing the other person, e) verbal fluency–continuous and well-paced speech delivery, without gaps and awkward pauses, and f) smooth, fluid gestures consistent with the verbal content, with the absence of mechanical or abrupt gestures.

The Social Skills Training Program

The social skills training program involved four meetings of 2½ hours each for the no-treatment adherence intervention group and five meetings for the treatment adherence intervention group: meetings were held exactly one week apart. The content of the social skills training program was the same for both groups. However, the need to focus explicitly on the adherence variables in the treatment adherence intervention group necessitated an additional training session for that group. The group-training format was cognitive-behavioural in nature and involved skill acquisition as well as changing irrational or self-defeating cognitions. Complete details of the training program may be found in the training program manuals (Piccinin, Chislett & McCarrey, 1984). There were nine treatment groups of approximately ten participants each: three groups in the treatment adherence condition and six groups in the training condition without treatment adherence intervention. Each group had both a male and a female leader present at each session. One group leader was an experienced professional counsellor (mean experience = 10 years), and the other leader was a senior doctoral student in clinical psychology.

Independent Variable Manipulation

The independent variable in this study was the provision of individual pre-treatment adherence interviews to the 26 randomly chosen participants in the treatment adherence condition, as well as additional focus on adherence behaviour, in the context of the same cognitive behavioural social skills program referred to earlier. The comparison was to 1) the participants who did not have the pre-treatment adherence interviews nor the additional focus on treatment adherence, and also to 2) those who had no treatment and no pre-training interview.

The Treatment Adherence Intervention: Pre-Training Interview

The pre-training treatment adherence interview was held prior to the adherence training program with the following objectives: 1) assess the individual's perceptions and beliefs and level of discomfort experienced in social situations where she/he either gave or received criticism; 2) help the participant arrive at a couple of specific, clear operational goals that could be written down and realistically achieved, in the eyes of both the participant and the interviewer (for example, the next time the supervisor takes for granted the participant's willingness to work overtime, the participant will give rounded criticism with respect to this assumption, and the participant will request appropriate advance notice); 3) increase the participant's awareness of potential personal/situational obstacles (dysfunctional cognitions) and facilitators to goal

achievement, especially the facilitator of continued commitment to the goal of improved criticism skills in the face of unsuccessful/embarrassing attempts to use the skills. Participants were encouraged to keep salient the idea that improvement was possible and that it would come in the face of understandable difficulties which normally accompany novel behaviour in the context of ongoing relationships with other people. The pre-training inteview also 4) encouraged participants to explore any unrealistic fears or expectations they might have related to the training program (for example, "This will be easy," or the misconception that they will be "cured" with little effort on their part); and 5) provided information to participants so that they could evaluate the costs and benefits of participation in the training program. The specific focus here was the idea that participants were giving up time and other activities to improve their skills. In addition, new behaviour using the skills would often be unexpected by others and consequently could be met with surprise, criticism and extended negotiation. The attempt might be unsuccessful. Participants were urged to remain calm, call for time-outs ("Let's get back to this later . . .") and to persevere in a reasonably flexible fashion. They were encouraged to maintain the incentive strength of the new response by realizing that this behaviour will "empower" them with respect to making progress towards a specific outcome (e.g., in the earlier example concerning overtime, their supervisor will not take them for granted and will ask and provide notice of overtime requirements) which is strongly desired.

The Contract

In the course of the interview, each participant in the Treatment Adherence Intervention group was asked to sign a written contract pledging commitment to the individual's specific treatment goal(s) as identified during the interview. In this contract, the subject agreed to a) attend and participate actively in all five training sessions and b) carry out all assignments to the best of his or her ability. At the same time, both group leaders agreed to c) be present and prepared to conduct each of the five training sessions, and d) work as hard as they could to ensure learning of participants. Participants were given a copy of their individual contracts for future reference during the training program itself.

Self-Monitoring Chart

A self-monitoring chart was also introduced in the pre-training interview. At the end of each day, participants were asked to describe one or two instances in which giving or receiving criticism had been at stake: the preamble to the situation, the people involved, the verbal and non-verbal exchanges that had taken place. They were also asked to detail the outcome, in terms of the resulting situation as well as their thoughts and

feelings at the time. Finally, participants were asked to assess their own behaviour, both in terms of the positive aspects and the areas that needed to be improved. They were encouraged to bring their charts to the training sessions.

The Treatment Adherence Component of the Common Cognitive-Behavioural Training Program

The cognitive-behavioural training program with the treatment adherence intervention was identical to the standard program with the addition of the following elements: 1) the pre-training interview as described above, 2) systematic specific focus on relapse prevention in which "at risk" situations were identified so that participants would be better prepared to cope with setbacks, 3) inoculation training so that if and when lapses did occur, participants would not panic nor engage in self-denigration: by viewing each slip as an incremental learning experience they would be less likely to engage in catastrophizing thoughts and guilt feelings, such as "What a failure. . . . I knew I couldn't do this. I'll never be able to." Finally, 4) attribution training and/or retraining, in which criticism behaviours would be seen as instrumental behaviours of high incentive value towards strong personal objectives, behaviours for which they were ultimately responsible. Participants were taught that attributing criticism behaviours only to hostility and anger, such that criticism was always seen as incompatible with maintaining friendly relationships, was erroneous and dysfunctional. As recipients of criticism, they were taught skills such as paraphrase and clarification, which would allow them to identify and distinguish the two.

Procedure

Participants assigned to the group with treatment adherence intervention were interviewed individually prior to the first training session. All participants were given the self-report measures and participated in the behavioural role-play at pre-test. After completion of the training program, the self-report measures and the parallel form of the behavioural role-play were administered once more.

RESULTS

Attendance

Attendance data was found equivalent across groups within conditions so the data was combined within conditions. The 26 participants in the Treatment Adherence Intervention condition attended 79.2% of the five sessions, whereas participants in the training program without adherence intervention attended only 66.3% of the four sessions. (Recall that a student was required to be present at the first training session in order to

be considered a participant.) This difference was found to be statistically significant ($t(59) = 1.99$, $p = .03$).

The dropout rate (percentage of participants who missed more than one training session) was almost twice as high in the No Treatment Adherence Intervention condition (mean = 41.7%) than in the Treatment Adherence Intervention condition (mean = 23.1%). This 18.6% difference in the dropout rates in favour of the Treatment Adherence Intervention group was also found to be significant, using a one-tailed test ($X^2(1) = 2.71$, $p = .05$) of this directional hypothesis.

Self-Report Measures

Fear of Negative Evaluation (FNE)

A multivariate analysis of variance (MANOVA) using a repeated measures design revealed a main effect of time/being tested twice on the *FNE* scores obtained at post-test versus those obtained at pre-test ($F(2,59) = 13.77$, $p = .001$). No significant interaction effect of the adherence intervention on *FNE* scores was found.

Criticism Concerns Scale (CCS)

A similar analysis conducted on the *CCS* measures found a main effect of time/being tested twice ($F(2,59) = 3.62$, $p = .03$) and in addition revealed a significant interaction effect of treatment by time ($F(2,59) = 8.73$, $p = .001$). Post-hoc tests revealed that the Treatment Adherence Intervention group indicated fewer criticism concerns at post-test than either the Treatment with no Adherence Intervention group or the control group ($F(2,63) = 11.2$, $p = .001$), the latter two groups failing to show any improvement.

Self-Esteem in Giving Criticism Scores

A MANOVA using a repeated measures design showed a significant interaction effect of treatment by time ($F(2,59) = 8.13$, $p = .001$). Post-hoc tests showed no indication of significant change from pre- to post-test on the Self-Esteem Giving scale for the Treatment with no Adherence Intervention condition (pre-mean 30.9 versus post-mean 27.5) or control group (pre-mean 35.2 versus post-mean 26.2), but did show significantly higher self-esteem in giving criticism in the Treatment Adherence Intervention condition (pre-mean 30.7 versus post-mean 40.7, $F(2,63) = 11.9$, $p = .001$).

Behavioural Role-Play Intercorrelation and Factor Analysis of the Verbal and Non-Verbal Behaviour

It will be recalled that there were three sets of behavioural role-play measures: six non-verbal variables, six giving-criticism verbal variables

and five receiving-criticism verbal variables. The average inter-class alpha coefficient of inter-rater agreement for the three judges who viewed the videos and made these ratings was .87, suggesting these ratings were made consistently across the three judges. Intercorrelations were computed within each of these sets, followed by three factor analyses in order to determine the extent of independence between each rated behaviour. It was found that within each set of variables, that is to say the non-verbal, verbal giving-criticism and verbal receiving-criticism, the average intercorrelation of each behavioural element with the global rating was quite high (.76, .94 and .86 respectively).

One main factor emerged from each of the factor analyses, which explained 56.3% of the common factor variance. These global factors thus explained a substantial portion of the non-verbal (59%), verbal giving (63%) and verbal receiving (47%) variance. For the sake of parsimony, it was therefore decided to use the three global behavioural ratings in subsequent analyses.

Behavioural Role-Play Measures

An analysis of variance of the pre-test global verbal behavioural ratings on verbal giving criticism indicated a signficant pre-program difference on that variable, ($F(2,54) = 6.29$, $p = .003$). When this initial difference between groups at pre-test was removed (ANCOVA), a significant difference was still found between the three group means at post-test ($F(2,55) = 3.65$, p .03), indicating a significant treatment by time interaction.

DISCUSSION

Attendance/Drop-outs

The dropout data lend support to our first hypothesis: the treatment adherence intervention resulted in a significant reduction by about one half in the percentage of people who dropped out of a short-term group social skills training program. Given that individuals in the Treatment Adherence Intervention group were asked to attend five sessions instead of four, as was the case for the training program without the treatment adherence intervention, this reduction of approximately 50% in dropout rate when people had to attend an additional session, was noteworthy. In addition, participants in the Treatment Adherence Intervention condition attended, on an average pro-rated basis, 13% more of the training program sessions, such that they attended more than 79% of the five sessions. Thus, people who received the treatment adherence intervention attended proportionately more group treatment sessions and showed approximately half the drop-out rate compared to participants who did not receive the intervention.

The data are consistent with increased motivation and commitment to the social skills program as an enabling instrumental process towards realization of specific, realistic, personal goals of high incentive value to clients. In general terms, the adherence intervention explicitly elicited people's collaboration (in a fashion much more direct than did the treatment program itself) in changing the antecedents and consequences of their habitual non-assertive criticism behaviours to antecedents/consequences of assertive criticism skills. We did this by having attendees 1) reduce their irrational beliefs concerning the nature of criticism and learn the notion of a balanced criticism, 2) develop higher self-efficacy expectations with respect to giving/receiving criticism, 3) contract, and 4) monitor their commitment and practice of these skills, 5) develop anticipatory strategies to use in conditions they knew will put them at risk, and 6) attribute successful outcomes in the acquisition of the skills to their own ability and effort. People's efforts at altering these antecedents and consequences were certainly consistent with the outcome that almost twice as many of these people proportionately completed the criticism skills program in which such antecedents/consequences were explicitly targeted.

Self-Report and Role-Play Treatment Outcomes

In comparison to the people in the treatment condition with no adherence intervention, as well as those in the no-treatment control condition, we found attendees in the adherence intervention condition to report reduced irrational concerns regarding giving and receiving criticism, as well as greater self-esteem with respect to their ability to give criticism to others across a variety of social roles. These greater qualitative outcome gains on the part of people who received the adherence intervention are consistent with the view that their beliefs about the meaning and intent of giving criticism (antecedent beliefs) were more rational and facilitative to their expending more effort to give criticism. It also appears they altered their attributions of these outcomes in a fashion which facilitated the development of higher self-esteem (increased self-efficacy as a consequence) with respect to taking the initiative and proactively giving criticism to others.

The fact that this outcome was not accompanied by its corollary with respect to greater self-esteem/self-efficacy in receiving criticism may be due to the fact that this latter may be more directly linked to inhibitory affect (anxiety) connected to their elevated fear of negative evaluation by others (Wood & Hokanson, 1965). This fear of negative evaluation was not successfully differentially reduced on the part of the adherence condition attendees. But why should fear of negative evaluation inhibit people's coping with the criticism of others while not at the same time impeding their own verbal criticism behaviours targeted towards others?

Possibly because attendees learned how to criticize others in the program in a balanced fashion which, along with their reduced irrational beliefs about the intent/nature of criticism, allowed them to give balanced criticism without activating their fear of retaliatory negative evaluation by others. This more proactive paradigm seems different than the more reactive paradigm where someone criticizes them, probably in a much less balanced fashion, which more instantaneously (flooding) activates anxiety (stemming from their fear of negative evaluation) which in turn inhibits their ability to mobilize their newly learned verbal skills. We are making a distinction between the acquisition of a new skill in the training program and the use/performance of that behaviour in an appropriate interpersonal context.

Subsequent work might test this anxiety (flooding) interpretation as an antecedent condition to non-assertive verbal behaviour on the part of people with high fear of negative evaluation in cases where they are criticized by others. Adherence intervention efforts may here need to focus more directly on anxiety arousal/avoidance behaviour by use of systematic desensitization and counter-conditioning in role-play efforts. The acquisition of more realistic cognitive interpretations and especially the affective implications of greater self-worth in the face of direct criticism by other people also seems warranted.

By way of summary, in comparison to no-treatment controls and people in treatment who got no adherence activities, we note people from the adherence condition to have demonstrated superior verbal skills in giving criticism to others across four scenarios involving peers, authorities, intimate others and others in business transactions.

What implications do our findings provide? They suggest firstly the value of treatment adherence intervention with respect to altering antecedents and consequences of treatment program attendance to the effect that attendance was improved, and dropouts in a short-term group social skills program were reduced by a factor close to 50%. If such improved attendance and reduced dropouts are sustained in future research, counselling service providers have a powerful tool which will warrant the additional resources.

Our findings also suggest treatment adherence can be effective in prompting more rational antecedent beliefs and consequent self-efficacy expectations about the nature and implications of criticism. In addition, people who focus on adherence behaviours can gain greater self-esteem with respect to their ability to give balanced criticism to other people across a variety of roles. This was a significant outcome on the part of individuals who, over the years, had learned to avoid criticizing other people for fear of being negatively evaluated themselves in return.

Our findings indicate a lack of adherence intervention impact on people's self-report of greater self-efficacy with respect to receiving criti-

cism, as well as no greater behavioural ability to receive criticism when this was rated by trained observers. When it came to the way people with elevated fears of negative evaluation interpreted the criticism they received from others, our adherence intervention program seems to have been able to alter actor attributions of criticism but not observer attributions concerning criticism they, as evaluatively dependent people, received from others. We suggest an instantaneous flooding of anxiety which inhibits people's efforts to use the criticism reception skills they had learned during the treatment program. Within the paradigm of optimal arousal, it would appear we may have a balance of inhibitory anxiety that was incompatible with the performance of responses recently learned in favour of those learned previously over the years.

We must conclude, however, that our findings are limited to a group of reasonably well functioning undergraduate students, and that our interpretations and implications await replication from studies using subject pools wth a broader age range and wider life experiences. In summary, our study suggests that a treatment adherence intervention module can reduce group social skills program drop-outs by a factor of almost one-half as well as facilitate greater self-reported and demonstrated outcome games in the area of giving balanced criticism to other people in the role of friend, authority, intimate other and counterpart in business transactions. However, the program did not differentially reduce attendees' fear of negative evaluation by other people, so that when they receive criticism from others they reported and demonstrated no greater skill in responding to these more reactive situations. We conclude the intervention package increased the motivation of more people to complete the program as well as the self-confidence of program attendees in the proactive domain represented by the giving of balanced criticism to others. Our results were interpreted in terms of an optimal arousal/avoidance learning paradigm whereupon people's adherence activities facilitated arousal optimal to greater program attendance and outcome gains in the proactive task of giving but not the more reactive task of receiving criticism.

References

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory.* New York: Prentice-Hall.

Baekeland, F. & Lundwall, L. (1975). Dropping out of treatment: a critical review. *Psychological Bulletin, 82*(5), 738-83.

Brownell, K. D., Marlatt, G. A., Lichtenstein, E. & Wilson, G. T. (1986). Understanding and preventing relapse. *American Psychologist, 41*(7), 765-82.

Butler, P. (1981). *Self-Assertion for Women.* New York: Harper and Row.

Corcoran, K. & Fischer, J. (1987). *Meausres for Clinical Practice.* New York: Macmillan Inc.

Craighead, L. W. & Craighead, W. E. (1980). Implications of persuasive communication research for the modification of self-statements. *Cognitive Therapy and Research, 4*(2), 117-34.

Crowne, D. P. & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence.* New York: Wiley.

Epstein, L. H. & Cluss, P. A. (1982). A behavioral medicine perspective on adherence to long-term medical regimens. *Journal of Consulting and Clinical Psychology, 50,* 960-71.

Frisch, M. B. & Froberg, P. M. (1987). Social validation of assertion strategies for handling aggressive criticism: evidence for consistency across situation. *Behavior Therapy, 2,* 181-91.

Jennings, R. M. & Ball, J. D. (1982). Patient compliance with CHAMPUS mental health referrals. *Professonal Psychology, 13,* 172-73.

Kopel, S. & Arkowitz, H. (1975). The role of attribution and self-perception in behavior change: implications for behavior therapy. *Genetic Psychology Monographs, 92,* 175-212.

Lemelin, M., Piccinin, S., Chislett, L. & McCarrey, M. (1986). Consistency between self-report and actual proficiency in giving and taking criticism. *Psychological Reports, 59,* 387-90.

McCarrey, M., Piccinin, S. & Chislett, L. (1986). Self-Esteem Criticism Scales, unpublished manuscript, University of Ottawa, Ottawa, Ontario.

Meichenbaum, D. & Turk, D. C. (1987). *Facilitating Treatment Adherence–A Practitioner's Guidebook.* New York: Plenum Press.

Monti, P. M., Corriveau, D. P. & Curran, J. P. (1982). Social skills training for psychiatric patients: treatment and outcome. In J. P. Curran & P. M. Monti (eds.), *Social Skills Training: A Practical Guide for Assessment and Treatment.* New York: Guilford Press.

Osgood, C. E., Suci, G. & Tannenbaum, P. W. (1957). *Measurement of meaning.* Urbana, Ill.: University of Illinois Press.

Phillips, E. L. (1985). *Psychotherapy revisited: New frontiers in research and practice.*

Piccinin, S. J., McCarrey, M. & Chislett, L. (1986). *Giving and Receiving Criticism Skills: Self-Reports of University Students.* Unpublished manuscript. University of Ottawa.

———, Chislett, L. & McCarrey, M. (1984). *Criticism Training Manual for Giving and Receiving Criticism.* Unpublished manuscript. University of Ottawa.

Southam, M. A. & Dunbar, J. M. (1986). Facilitating patient compliance with medical interventions. In K. Holroyd & T. Creer (eds.), *Self-Management of chronic disease.* New York: Academic Press.

Watson, D. & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology, 33*(4), 448-57.

Weisinger, H. & Lobsenz, N. M. (1981). *Nobody's Perfect: How to Give Criticism and Get Results.* New York: Warner Books.

Welburn, K. (1989). *Expectancies, perceptions and beliefs associated with the generalization of criticism skills over a one year interval.* Unpublished doctoral dissertation, University of Ottawa, Ottawa.

Wood, G. C. & Hokanson, J. E. (1965). Effects of Induced Muscular Tension on Performance and the Inverted U Function, *Journal of Personality and Social Psychology,* vol. 1, pp. 506-10.

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