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A GROUP DESENSITIZATION APPROACH TO PUBLIC SPEAKING ANXIETY*

ABSTRACT: The authors outline a program designed to behaviorally reduce symptoms of public speaking anxiety in university student subjects. Program evaluation shows that a mixed behavioral format emphasizing practice situations produces results similar to traditionally operant or desensitization formats, with less attrition in attendance. Statistically significant changes on fear inventory scores is the measurable objective outcome of the program.

In addition, the study indicates that individual desensitization as a supplement to the group program may be clinically helpful for the exceptionally distressed subject, although this was not shown to be statistically significant on the measures employed. Meichenbaum's (1971) finding that "anxiety specific" subjects respond more positively to a behavioral approach than do globally anxious subjects is supported, although not at a statistically significant level. Finally, other factors selected for possible correlation with outcome as measured by fear inventory scores show no relationship.

Emphasis on verbal participation in modern university education has brought about increasing complaints from students suffering from public speaking anxiety or "stage fright." Kondos (1967) and Paul (1966) both deal with public speaking anxiety using a behavioral approach, but few other references relating directly to this problem are available in the literature.

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Several therapeutic techniques and approaches in designing the following study were considered with a group behavioral approach finally being selected. This decision was based on the fact that the principal researcher's frame of reference was behavioral, and that precedent had been established by Kondos and Paul. In addition, the choice of a group approach was deemed most practical because the anticipated number of students was large and the aggregate of subjects within a group provided a convenient, built-in audience effect for individual subjects.

Use of specific techniques evolved with the development of the program over a period of three years. During the first two years, group desensitization with relaxation was utilized with stress on operant procedures as well. Attrition rates exceeding 50 percent caused re-examination of procedures and consequent changes. First, relaxation appeared to have little "face validity" for many of the group members, and dependence upon operant procedures produced an apparent over-loading of homework in the program for students who already felt laden with credit-course material. Subjective evaluations by students suggested preference for an intensive program dealing directly with the speaking situation in a laboratory fashion. Hence, the program reported here evolved into a format which is a departure from conventional models.

Attrition rates were markedly reduced through the use of the present format, a series of eight sessions leading to a final exercise in which each subject was required to speak before a classroom audience unfamiliar to the subject. Each session was comprised of speaking tasks graduated in difficulty, from giving a simple informal statement before four group members during the first session, up to presenting a formal talk before the whole group during the eighth session with guest audience members (strangers) present. This format resembles Wolpe and Lazarus' (1966) *in vivo* desensitization format in that it is comprised of graduated tasks. However, since the group members could not progress at their individual rates, and backing up or repeating unsuccessful trials was not possible, Wolpe's model was not strictly followed. In order to maintain generalizability of response among group members, tasks were structured to provide simulated situations of great difficulty. Therefore, the format resembled to some degree in the latter sessions, Stampil and Levis's (1967) *implosive* therapy as no attempt was made in advanced sessions to minimize subject anxiety while performing tasks.

A general description of the format could be summarized as follows: the first three sessions were designed to ease the subject into speaking trials through exercises graduated in difficulty beginning with the initial minimally demanding task; next, a series of sessions was conducted during which group members were subjected to speaking tasks which possessed a variety of stimulus and response specification. The authors have termed these the "dimensions of difficulty" in speaking situations. During these sessions, by varying the speaking task, the environmental structure, and the media of communication, the authors intended to maximize transfer of training using the principles

summarized by Ellis (1972).

Following this series of tasks, the format required the subject to perform tasks which were greater in difficulty than are normal speaking assignments in the hope that further extinction of fear response and greater generalizability of positive response would occur. Finally, the program devoted one session to teaching and practising basic public-speaking skills so that further confidence could be gained through skill mastery. Throughout this entire process emphasis was placed on modelling and operant procedures as described by Bandura (1969). Anxiety ratings were provided by subjects, using a subjective scale of self-report, and all subjects were urged to perform speaking trials in vivo for positive reinforcement inherent in an operant conditioning paradigm.

Individuals who appeared to suffer from exceptional degrees of anxiety were offered relaxation and imaginal rehearsal as a supplement to the group sessions. Wolpe's (Wolpe & Lazarus, 1966) model was used for the supplemental individual treatment; that is, subjects were ultimately brought to the point of experiencing each group task imaginally without subjective anxiety to maintain a relaxed state during desensitization trials.

Since each in vivo session was fixed in relation to the program structure, individual sessions did represent a departure from Wolpe's desensitization model. The authors justified procedures on this basis with Wolpin and Raines' (1966) assumption that visual imagery and the extinction of fear responses through imaginal rehearsal of expected roles are the key factors in the desensitization process.

Subjects

A total of 158 individuals completed screening procedures including pre-testing. Of these, 84 subjects from nine small groups completed the training and were subsequently post-tested. This final subject group consisted of 66 males and 18 females, ranging in age from 18 to 38 years (median, 22 years). There were 17 first-year students, 39 upperclass students, and 13 graduate students, with one individual listed as a non-student; 14 did not indicate training level. Fourteen of 20 faculties or schools within the university were represented, with Agriculture having 25 (20 of these were from the special section for Agricultural students only), next were Arts and Science, each with 16, Commerce with 10, Architecture with five, Education with three, and the remainder with one or two each.

Procedures

The writers alternated individual screening interviews with all students applying to the public speaking program. The interview served to explore the student's motivation for enrolling in the program, and after establishing the appropriateness of this, the student was pre-tested with Paul's abbreviated form of *Gilkenson's Personal Report of Confidence as a Speaker* (Paul, 1966, p. 12). This form

consists of the 30 most discriminating items from the original 104; the items are keyed for an equal number of true and false responses. A single score for "performance anxiety" is derived. Upon completion of the final task of the public speaking program outlined above, the instrument was again administered. The following results were based on comparisons for pre- and post-testing.

Results

The basic assumption for generating analytical hypotheses was that, among individuals inquiring into the program, there would be no difference in performance anxiety. Following completion of training there would be a significant difference in the form of reduced performance anxiety for participants. Other findings were not based on generated hypotheses due to the evolving nature of the program.

A *t* test was performed on the mean scores of pre-tests between 84 subjects who completed the program and the 74 subjects who were screened but did not complete the entire program. The mean for pre-test scores of subjects completing the program was 20.61 (SD, 5.11) and of dropouts was 20.98 (SD, 5.19), with resultant $t = 0.448$. The difference between the pre- and post-test mean scores for the 84 subjects completing the program was 10.61, with a $t = 15.74$ ($p < .001$), indicating a decrease in performance anxiety.

In order to assess the general effect of the treatment variable, that is, training only in group desensitization, and training plus individual desensitization, two additional analyses were performed with the data. The first, a simple covariance analysis, resulted in a *F* value of 3.52, ($p > .10$). A step-wise multiple regression analysis was performed using post-test scores as the dependent variable, and five independent variables including training with and without individual treatment, an intuitive therapist judgement of each individual as generally shy or symptom specific, and age, year in school, and sex. Results for this analysis indicated that a combination of the treatment and intuitive judgement variables yielded a multiple *R* of 0.325. Inclusion of the remaining variables resulted in a multiple *R* of 0.384, indicating that age, year in school, and sex contributed little in prediction of post-treatment measure.

Discussion and Conclusions

The statistical results suggest parallels to the authors' observations. First, drop-outs from the program possessed scores on the anxiety inventory similar to subjects who completed the program. Hence the authors were led to conclude that the positive outcomes observed in the program did not result from a "creaming-effect" inherent in the program whereby "stars" in performance or minimally anxious subjects were somehow selected out from the population by the process of the program. In terms of test scores, dropouts were remarkably similar to those subjects who completed the program.

Secondly, the mean 10-point positive change between pre-test

and post-test scores was statistically significant. It appears that the program for one reason or another had a significant effect on test scores, consistent with positive subjective reports of students completing the program. This would indicate that the program had some benefit for a good portion of students applying for relief from "stage fright." Whether or not this relief is in the form of "conditioning," "implosion," "practice-effect," or some strong "placebo-effect" is beyond the scope of this study.

There were further implications in comparing the differences of scores (pre- and post-) between subjects who received the group program plus individual desensitization with subjects who received group treatment alone. The fact that the former group possessed positive mean changes of 15 points on the fear inventory as compared to a positive mean change of 10 on the latter group's scores is suggestive of a possible trend. This trend implies that supplementary individual treatment may enhance the group treatment in terms of power. Clinically, the authors were impressed by the fact that subjects receiving supplementary treatment represented a sub-sample reporting a greater degree of subjective anxiety initially. Nevertheless all ten of these subjects not only remained in the program to completion, but also indicated a mean positive change on the inventory to the extent of 5 points greater than the mean change shown by subjects receiving group treatment alone. The authors concluded that supplementary individual attention in all likelihood facilitates the progress of the highly anxious student.

Thirdly, the authors were interested in exploring Meichenbaum, Gilmore, and Fedoravicus's (1971) observations which concluded that stage-fright sufferers whose anxieties were specific to public-speaking situations responded better to desensitization than did subjects who were generally shy. Even though the authors' means of testing this observation were admittedly crude (clinical impression during screening interviews) they did find a trend in the direction of Meichenbaum's conclusions. Multiple regression analysis relating five variables with test-score changes indicated that the authors' "anxiety specific" category resulted in a higher correlation with greater positive change on test-scores than did the "globally-anxious" category. As programmers the authors concluded that perhaps this evidence is sufficiently suggestive to explore further into Meichenbaum's recommendations that "insight-oriented" groups be considered for "globally anxious," or shy subjects, either in addition to or separate from a behavioral program which addresses itself exclusively to the formal speaking situation.

Finally, none of the other factors selected out for regression analysis produced further relationships. Of all factors examined only the previous ones indicated some kind of trend in relationship. Even those the authors examined were not measured in a scientifically rigorous way but were instead viewed in an "after-the-fact" fashion as an outgrowth of program evaluation. Further study does seem warranted in order to test this program using objective measures of anxiety, adequate control groups, and more sensitive instruments of

classification. However, as a pilot study the present program reveals some practical significance in dealing with the widespread personal difficulty of "stage fright" as well as a potential means of studying further the elements that may be critical within the syndrome of public-speaking anxiety.

RESUME: Les auteurs décrivent un programme de désensibilisation comportementale destiné à réduire les symptômes de l'anxiété à parler en public chez les étudiants universitaires. L'évaluation du programme montre qu'une approche comportementale mixte, c'est-à-dire qui met l'accent sur les situations pratiques, a produit des résultats semblables aux techniques traditionnelles de conditionnement opérant ou de désensibilisation avec moins d'absentéisme. La mesure objective de l'efficacité du programme est le changement statistiquement significatif dans les scores à l'échelle d'évaluation de la peur (fear inventory).

De plus, l'étude indique que la désensibilisation individuelle peut constituer un complément clinique utile pour les sujets très perturbés; toutefois ceci n'a pas été démontré d'une façon significative avec les méthodes de mesure utilisées. Les résultats confirment, mais non d'une façon statistiquement significative, ceux de Meichenbaum (1971) selon lesquels les sujets éprouvant une anxiété spécifique répondent mieux à l'approche comportementale que les sujets éprouvant une anxiété globale. Finalement, d'autres facteurs choisis pour leurs corrélations possibles avec le critère de rendement se sont avérés sans relation avec ce critère.

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