FACILITATING OBJECTIVE-SETTING IN BEHAVIOR THERAPY THROUGH SOCIAL MEDIATION

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ABSTRACT: Three therapists were monitored as to their writing of short-term behavioral objectives on weekly progress notes following family therapy sessions. After a baseline period all therapists were given a verbal prompt to set weekly objectives with their clients and to document this procedure on weekly progress notes. The second intervention, using a multiple baseline across therapists, entailed implementing a prescription sheet whereby each therapist documented in writing objectives to be accomplished prior to the next session. Results suggest that the initial verbal prompt produced an improvement in the objective-setting behavior for two of the three therapists; however, use of the prescription sheet brought all three therapists to near 100% performance in objective-setting.

Facilitating Objective-Setting In Behavior Therapy Through Social Mediation

In the midst of healthcare reform, mental health practitioners can expect increased demands for documenting treatment practices and demonstrating progress in therapy (VandenBos, 1993). Consistent use of behavioral objectives may offer one important means whereby therapists can demonstrate accountability to institutions and agencies charged with monitoring service delivery and allocating reimbursement. Moreover, it has been proposed that therapy entails helping clients establish short and long term goals or objectives toward which they are committed to strive (Sprenkle & Fisher, 1980) and most schools of therapy have identified objective setting as critical to best practices (Notari & Drinkwater, 1991; Landesman & Ramey, 1989). The consistent use of these procedures may be problematic for many therapists, because setting and maintaining short-term behavioral objectives demands increased time and labor and is usually not associated with any immediate source of reinforcement for the therapist. Developing and maintaining behavioral objectives compels the therapist to come under the influence of certain types of rules regarding the formation and documentation of objective-setting procedures (Adams, Piercy & Jurich, 1991; Fox, 1987). Thus, an analysis of the types of rule-following that might contribute to facilitating such behavior seems warranted.

The two primary types of rule-following behavior which have been described in terms of the functional relations that sustain the actions of the listener are termed *pliance* and *tracking* (Hayes & Wilson, 1993). Pliance is defined as a type of rule-following under the influence of socially mediated consequences for correspondence

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between a specified rule and the required behavior associated with that rule (Hayes, Zettle, & Rosenfarb, 1989). Tracking is described as behavior under the influence of the naturally occurring consequences of observing rules imparted by others (Hayes et al., 1989) or coming under the influence of self-managed behavior (Ninness, Ellis, Miller, Baker, & Rutherford, in press).

One experimental procedure described by Hayes et al. (1989) for differentiating pliance from tracking, or dissimilar types of rule-following, is to contrast rule-following in a documentable and verifiable condition in which the rule and the relevant behavior are available to social mediators (versus a private context) in which either the rule and/or the relevant behavior are not available (e.g., Zettle & Hayes, 1982). Previous research comparing pliance with other types of rule-following performed in private contexts suggests that pliance was more effective in improving public speaking by speech shy college students (Zettle & Hayes, 1983), study skills (Hayes, Rosenfarb, Wulfert, Munt, Korn, & Zettle, 1985), and the number of accurate responses/comprehension passage for participants preparing for the Graduate Record Examination (Hayes et al., 1985). The fact that the above studies demonstrated a more pronounced therapeutic impact when critical behaviors were provided in a socially mediated context suggests a mechanism consistent with pliance.

Given the heightened emphasis on documenting treatment practices in the wake of healthcare reform, the purpose of this study was to assess the efficacy of social mediation procedures associated with pliance as a means of potentially increasing therapists' objective-setting in therapy sessions.

Method

Subjects and Setting

Three female advanced graduate interns, completing their respective rotations in the outpatient child and family therapy clinic of a university affiliated program, served as participants. The clinic served a diversified inner-city client population.

Dependent Variable

The dependent variable was the percentage of weekly progress notes with short term objectives written by therapists. Short-term objectives (e.g., using behavioral star charts on a daily basis, engaging in one family recreational activity, or using a school-home daily report card) were defined as overt behaviors that the family could perform between therapy sessions.

Observations

A session was scored as having an *objective-set* if the therapist clearly recorded one or more objectives in the "goals/assignments for the next session" section of a progress note template. Data were the percentage of sessions with objective(s) set on a weekly basis for each individual therapist.

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Cross-validation

To assess correspondence between progress notes and session content, two independent raters scored videotapes of 12% of therapy sessions. Raters recorded the occurrence of objectives set in these tapes. Correspondence was judged as having occurred when the more salient details of objective-setting were documented on the progress notes. For at least 45% of the sessions, an independent observer collected data for reliability purposes. Agreements were designated as either *objectives set*, or *objectives not set* by the therapist during the videotaped session. Calculation of agreement was obtained by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. Reliability coefficients averaged 88.9% across all conditions. Of the films reviewed for correspondence 95% were rated as consistent with the progress notes. Therefore, agreement was judged to be adequately representative of the objectives specified by therapists in therapy sessions.

Interobserver Reliability

Progress notes

Two independent raters scored all progress notes with regard to occurrence and nonoccurrence of objectives set on a session by session basis. Reliability was calculated for occurrence, nonoccurrence, and overall agreement. Overall reliabilities for the three subjects averaged 96.5%.

Design (Multiple Baseline Across Therapists)

While the clinicians were provided inservice training regarding documentation procedures and progress notes (which included model objectives), they were not given explicit instructions as to how to make use of these progress notes. They were told only to complete and file them properly following each treatment session. All data were collected (baseline and treatment) from these progress notes.

Training

Subsequent to baselines, the first intervention was initiated for all three therapists concurrently. It consisted of brief and general instructions delivered by the clinic supervisor within the clinical setting at the end of the second week of baseline. These instructions entailed verbally prompting all therapists to document behavioral objectives on the progress notes for each client. The second intervention entailed implementing a prescription sheet whereby each therapist documented written objectives to be accomplished prior to the next session. The order of entry into treatment was determined randomly by selecting a therapist from those who had a stable rate of objective setting during baseline. Treatment for the second therapist was delayed until treatment effect stability was established for the first therapist, etc.

As a means of providing a documentable and verifiable objective-setting

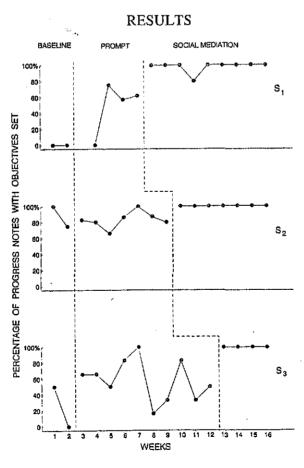
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procedure, the training director initiated treatment by instructing therapists to use a prescription sheet with specific assignments for clients. Although these prescription sheets ostensibly were designed to facilitate clients' homework completion, these data were actually collection sheets designed to make the therapists objective-setting more public. These prescription sheets were printed on pressure paper allowing the top white copy to be given to the family while the bottom yellow copy was placed in the client's permanent file folder.

At the beginning of social mediation treatment for each participant/therapist, the training director provided a verbal prompt in conjunction with a sheath of prescription sheets. A segment of those instructions is provided below:

Something we are doing now as part of Quality Assurance is to use these prescription sheets to help families remember to work on assignments. Use these at the end of each session and state the assignment in a way that can be documented and verified. For example, you would be as specific as: Talk with James at least 4 out of 5 school days about how things went in school and write it down on this sheet. Then you could have the family bring in the assignment to show you. You can also use these to prompt yourself to give and document assignments.

Important to note is the fact that there were no tangible or verbal consequences for following these instructions.



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During the 2-week baseline period, two of the three subjects did relatively little weekly objective setting for their combined clients. Following a verbal prompt given by the clinic supervisor, these two therapists increased their percentages of objective-setting behavior. Subject 1 moved from a weekly average of 0% to 48.5% objective setting behavior, and subject 3 moved from 25% to 58%. Subject 2 averaged 83% objective-setting across baseline and the first level of treatment.

With the introduction of the objective-setting prescription sheet, all three therapists exhibited near 100% objective-setting behavior for all of their clients. This transition represents a 48%, 17%, and 42% improvement over the previous treatment condition for subjects 1, 2, and 3 respectively. These changes correspond to 15% - 48% increases over baseline.

Discussion

The most critical function of language is instructional control, and the primary attribute of instructional control is the fact that verbal stimuli may supersede natural contingencies (Catania, 1992). Such behavior, primarily established by verbal antecedents, has been described as rule-governed and stands in contrast to behavior maintained by the effects of direct-acting contingencies (Skinner, 1969).

Interpreting the above results as a demonstration of the subjects coming under the influence of direct-acting contingencies appears to be an insufficient explanation of these outcomes, because there were no direct-acting physical or verbal consequences associated with objective-setting. Additionally, stimulus control established via direct-acting contingencies could not operate effectively across the extended time periods (Wasserman & Neunaber, 1986) that transpired between the training director's instructions and the objective-setting behavior eventually emitted by the therapist.

The factors that influence a therapist's specification of short-term objectives in the absence of direct supervision (of that particular behavior) are related to the unique history of the individual. Such complex behavior, however, is at least functionally related to formation and following of rules linked to purely verbal antecedents and consequences.

Although it was not possible to know the specific verbal repertoires of behavior therapists prior to this intervention procedure, we do know something of their histories during the training period. With advent of the verbal prompt some improvement was demonstrated by two of the three therapists. With the introduction of documenting objective-setting on prescription sheets and the apparent corresponding socially mediated consequences for doing so (pliance), all therapists demonstrated a change in their objective-setting behavior. They exhibited near perfect maintenance of behavioral objective-setting for all subsequent therapy sessions.

This outcome has ramifications for extending the experimental research of instructional control, as well as heuristic value for those interested in rendering quality assurance and demonstrating practical accountability. A verbal prompt to write short-term objectives was insufficient to maximize objective-setting. These therapists initiated constant use of a prescription sheet with their clients only after coming under the influence of social mediation from supervisors and clients. This is

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consistent with findings by Lloyd (1994) suggesting that prompting alone is inadequate to positively effect behavior change.

We recognize that setting objectives does not ensure that those objectives will be adequately monitored or reviewed by those who set them. Nor does objective-setting provide evidence to suggest that clients are actually meeting those objectives in accordance with the assignments specified by the therapist. Nevertheless, the fact that these procedures resulted in a dramatic and sustained increase in the therapists' behaviors relative to setting objectives represents a reasonable starting point for future research.

Improved performance as a function of pliance has been shown to occur among children (Rosenfarb & Hayes, 1984) and college students (Hayes et al., 1985; Hayes & Wolf, 1984; Zettle & Hayes, 1983). It is now reasonable to suggest that pliance is equally important in the development and maintenance of therapeutic goals.

Important to note is the fact that the process was effective despite the fact that therapists apparently were not specifically aware of the dependent variable and felt no particular pressure to change the format by which they set therapeutic objectives. Debriefing of all three therapists revealed that they were not able to precisely identify any of the variables being measured during the time this study was being conducted. Although all three participants were aware of a heightened level of visibility when using the assignment sheets to specify objectives for their clients, their primary source of feedback was obtained from clients rather than supervisors. This suggests that some types of training may be enhanced through processes involved in pliance and may be conducted in a manner which is minimally intrusive and maximally effective. Perhaps, more importantly, the procedures described above may be useful for therapists who will later come under the influence of a social standard specified by quality assurance requirements forthcoming in health service delivery systems. Rule-following behavior in the form of pliance may prove increasingly important to behavior therapists who will need to abide by the guidelines laid out by insurance cost and managed care policies. This study suggests a format which appears minimally distracting, economical, and practical.

REFERENCES

- Adams, J. F., Piercy, F. P., & Jurich, J. A. (1991). Effects of solution focused therapy's "formula first session task" on compliance and outcome in family therapy. *Journal of Marital and Family Therapy*, 17, 277-290, http://dx.doi.org/10.1111/j.1752-0606.1991.tb00895.x
- Catania, A. C. (1992). Learning: Third Edition Englewood Cliffs, NJ: Prentice-Hall. Fox, R. (1987). Short-term, goal oriented family therapy. Social Work, 68, 494-499.
- Hayes, S. C., Rosenfarb, I., Wulfert, E., Munt, E. Korn, Z. & Zettle, R. D. (1985). Self-reinforcement
 - effects: An artifact of social standard setting? Journal of Applied Behavior Analysis, 18, 201-214. http://dx.doi.org/10.1901/jaba.1985.18-201
- Hayes, S. C. & Wilson, K. G. (1993). Some applied implications of a contemporary behavior-analytic account of verbal events. *The Behavior Analyst*, 16, 283-301.
- Hayes, S. C, & Wolf, M. R. (1984). Cues, consequences, and therapeutic talk: Effect of social context and coping statements on pain. Behavior Research and Therapy, 22, 385-392. http://dx.doi.org/10.1016/0005-7967(84)90081-0
- Hayes, S. C., Zettle, R. D., & Rosenfarb, I. (1989). Rule-following, In S. C. Hayes (Ed.), Rule-
- governed behavior: Cognition, contingencies, and instructional control (pp. 191-220). New York: Plenum.

 Leaderman S. & Borrow, C. (1980). Developmental possible leader and grantal retordation. Integrating
- Landesman, S & Ramey, C. (1989). Developmental psychology and mental retardation: Integrating scientific principles with treatment practices. *American Psychologist*, 44, 409-415http://dx.doi.org/10.1037/0003-066X.44.2.409 Lloyd, K. E. (1994). Do as I say, not as I do. *The Behavior Analyst*, 17, 131-139.

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- Ninness, H. A. C., Ellis, J., Miller, W. B., Baker, D. & Rutherford, R. (in press). The effects of self-management procedures on the transfer of improved conduct in the absence of supervision. Behavior Modification.
- Notari, A, R. & Drinkwater, S. G. (1991). Best practices for writing child outcomes: An evaluation of two methods. *Topics in Early Childhood Special Education*, 11, 92-106. http://dx.doi.org/10.1177/027112149101100309
- Rosenfarb, I., & Hayes, S. C. (1984). Social standard setting: The Achilles' heel of informational accounts of therapeutic change. *Behavior Therapy*, 15, 515-528. http://dx.doi.org/10.1016/S0005-7894(84)80053-2
- Skinner, B. F. (1969). Contingencies of reinforcement: A theoretical analysis. New York: Appleton-Century-Crofts.
- Sprenkle, D. H., & Fisher, B. L. (1980). An empirical assessment of the goals of family therapy. *Journal of Marital and Family Therapy*, 6, 131-139. http://dx.doi.org/10.1111/j.1752-0606.1980.tb01297.x
- VandenBos, G. R. (1993). U.S. Mental health policy: Proactive evolution in the midst of health care reform. *American Psychologist*, 48, 283-290.http://dx.doi.org/10.1037/0003-066X.48.3.283
- Wasserman, E. A., & Neunaber, D. J. (1986). College students responding to and rating of contingency relations: The role of temporal contiguity. *Journal of the Experimental Analysis of Behavior*, 46, 15-35.http://dx.doi.org/10.1901/jeab.1986.46-15
- Zettle, R. D., & Hayes, S. C. (1982). Rule-governed behavior: A potential theoretical framework for cognitive-behavioral therapy. In P. C. Kendall (Ed.), Advances in cognitive-behavioral research and therapy, volume I (pp. 73-118). New York: Academic Press.
- Zettle, R. D., & Hayes, S. C. (1983). Effect of the social context on the impact of coping self-statements. Psychological Reports, 52, 391-401. http://dx.doi.org/10.2466/pr0.1983.52.2.391