J. Behav. Ther. & Exp. Psychiat. Vol. 5, pp. 53–57. Pergamon Press, 1974. Printed in Great Britain.

MULTIPLE BEHAVIOR THERAPY TECHNIQUES WITH A HOMOSEXUAL CLIENT: A CASE STUDY

LYNN P. REHM* and RONALD H. ROZENSKY

University of Pittsburgh

Summary—A case is described in which various aspects of a client's homosexuality and heterosexual avoidance were modified by education, self-management, desensitization, covert sensitization, aversive conditioning, aversion relief, orgasmic reconditioning and assertive training. The analysis of an individual's homosexual behaviors may lead to the application of multiple techniques. Dimensions of analysis and problems in sequencing are discussed.

DESCRIPTIONS of behavior therapy frequently report the use of multiple techniques with a single client (e.g. Mahoney, 1971). Frequently in dealing with homosexuality two broad classes of behavior, homosexual approach and heterosexual avoidance, are treated by separate techniques (e.g. Kendrick and McCullough, 1972; Feldman and MacCulloch, 1971). Still, in nearly all these studies these classes of behavior are each treated by a single method. The following case illustrates a more detailed analysis of sexual behavior, and a matching of each form of response with a treatment intervention. In contrast to the diffuseness of what Lazarus (1971) terms "broad-spectrum behavior therapy", this report describes the specification of response topographies, and the resulting application of a specific therapy technique to each.

CASE HISTORY

The client, a 21-yr-old male veteran, was referred for behavior therapy to the second author. Originally, he had complained of difficulty in finding a job and of fainting spells for which no organic cause could be ascertained. He had started group psychotherapy and had only then revealed that he was very concerned about his homosexuality: thus the referral.

His history included several homosexual experiences at age 12 which were initiated by a group of neighborhood boys. He experienced these as frightening, and their memory continued to be anxiety-provoking for some time. From 14 to 17, the client had an active heterosexual life including intercourse with several girls. From 17 to 19, in the army, his frequent sexual experiences were exclusively homosexual. He attributed his homosexual behavior to drinking and the unavailability of women. Upon discharge, he met a girl and quickly became engaged. He worried considerably about his readiness for marriage, and taking note of occasional sexual attraction to males, broke off the engagement. He concluded that he was a homosexual, and that his heterosexual orientation in high school was only an attempt to "compensate". For the next 2 yr his life increasingly centered on homosexual behavior. At the time of his referral, most of his friends were homosexual. His sexual experiences were almost exclusively single occurrences resulting from being picked up while hitch-hiking or meeting males in bars. He had approximately 16 such contacts per week. He reported feeling no attraction to females and considerable discomfort at any approach to them, due to a feeling that he "couldn't make it with a girl any more". He

*Requests for reprints should be sent to Lynn P. Rehm, Department of Psychology, University of Pittsburgh, 160 N. Craig Street, Pittsburgh, Pennsylvania, 15260.

stated that he was disgusted with his homosexual life and felt pessimistic about the possibility of change since his friends had told him homosexuality was a "deep seated personality problem" which was almost impossible to "analyze out".

TREATMENT

An initial behavioral analysis revealed three target behaviors. These were (1) verbal–cognitive misconceptions about the nature of homosexuality, (2) verbal–cognitive heterosexual anxiety, and (3) overt-motor homosexual approach responses.

Therapy focused sequentially on these target behaviors. Each was approached with a technique deemed best able to modify its particular topography.

Changing conceptions of homosexuality

The client's statements about homosexuality included many misconceptions and inaccuracies. Thus, an informational–educational strategy was the focus of the second and third weekly sessions. The therapist gave the client an account of homosexuality as a learned pattern of behavior. Conceptions of homosexuality as a sickness or as a constitutional personality type were discounted. Discussion of these and related issues recurred sporadically throughout therapy. After these initial discussions, the client reiterated his strong feeling that for him homosexuality was dissatisfying in the long run and that he wanted to work towards an entirely heterosexual orientation. The therapy proceeded on this basis.

Reducing heterosexual anxiety

The two other potential target behaviors were the simultaneous focus of the next series of sessions. The client's heterosexual anxiety occurred in response to imagined or anticipated heterosexual situations. For this response topography, desensitization using imaginal stimuli was deemed appropriate. A 10-item hierarchy of heterosexual approach situations was constructed, and relaxation training begun. Three items were covered in the first three desensitization sessions. At the next session (Week 8) the client reported gleefully that he had struck up a lengthy conversation with a girl on a long bus ride. He reported that his confidence in his ability to approach girls had been restored and that the remaining hierarchy items no longer aroused anxiety. Desensitization was therefore discontinued.

Deconditioning homosexual approach

Beginning at the same time as the desensitization, a second target behavior was attacked—overt approaches to males in hitch-hiking, bar and washroom situations. The initial focus was on the first response in the chain that led to the homosexual acts. Since this behavior could not be reproduced in the office, it was decided to approach it by a combination of self-management and covert sensitization.

The self-management program began at the third week by requesting the client to report weekly on the number of homosexual and heterosexual contacts (including extended conversations and dates as well as physical contacts). It was assumed that besides providing objective data, the monitoring of homosexual contacts

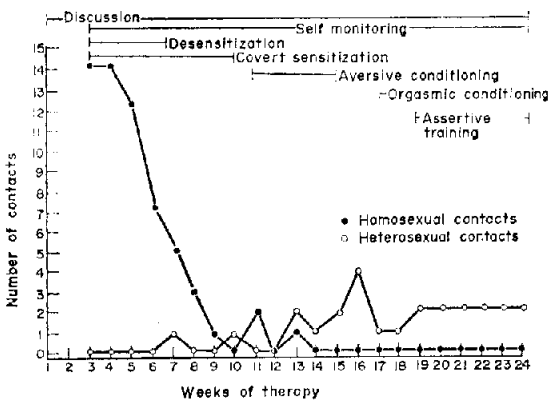

FIG. 1. Sexual behavior reported by the client and timing of various treatment techniques.

was an aversive event that might serve to reduce the frequency of these contacts. The aversiveness of having to report the number of homosexual contacts was confirmed by the client in subse-

quent weeks. At Week 8, the client was given the graph of overt behavior which he carried with him in his wallet. He reported that with each homosexual or heterosexual contact, he thought of the negative and positive aspects of entering them on the graph. This modification of the method was intended to strengthen reinforcements by making them more immediate.

Covert sensitization was also initiated at the third week. During Weeks 3–8, the client was seen in successive sessions of 45 min each with a break in between to separate the desensitization and covert sensitization procedures. Although the homosexual response reproducible in covert sensitization is an imaginal one, it was assumed that the overt behavior also involved imaginal stimuli, and that transfer would occur. A typical scene covered in covert sensitization involved entering a bar, noticing an attractive homosexual male, approaching him and striking up a conversation. Descriptions of increasing nausea and vomiting were introduced progressively earlier into the sequence over trials. The technique was carried out in Weeks 3–10. At that point the client reported 2 weeks without a homosexual contact and said that homosexual bars had lost their attractiveness. All subsequent contacts resulted from hitch-hiking which remained the client's primary mode of transportation.

Altering homosexual fantasies

During these last weeks of the covert sensitization program, the client began describing a slightly different aspect of homosexual behavior which became the target for the next procedure. He reported that, although he was engaging in less overt homosexual behavior, his homosexual fantasies in other environments were increasing. Arousing fantasy images were occurring in response to attractive males noticed on the street, or elsewhere. In order to treat this particular response, a faradic aversion technique was employed in Session 7. Using a Farrell Instrument Co. AV-6 Visually Keyed Conditioner, slides of males and females were presented to the client. He could terminate a male slide and escape or avoid a randomly delayed shock by a button push. The button also advanced the projector to a female or heterosexual slide shown for 15 sec. An interval of 15 sec with no slide preceded the next trial. This procedure is an adaptation of Feldman and MacCulloch's (1971) aversion relief paradigm.

All slides were first rated for attractiveness by the client and a matched subset of slides was set aside for a post-test of generalization. The remaining slides were divided into sets of 10 arranged by rated attractiveness. Set 1 included the five least attractive male slides and five most attractive female slides. Set 2 contained the next 5 slides in each sequence, and so on, for a total of 5 sets. Conditioning began with the presentation of the first two sets. Each set was considered completed when the subject had avoided each of the five male slides within 2 sec on two consecutive presentations of the set. Then the next set was introduced. In three sessions the client saw 140 presentations of male slides, received a total of 52 shocks and reached criterion on four of the five slide sets. At this point he reported that the slides were no longer attractive and that he was not noticing attractive males on the street. But since he was still experiencing frequent homosexual fantasies with no apparent external stimulus, the procedure was modified to a paradigm more like Marks and Gelder's (1967). He was instructed to visualize specific fantasies and to signal when he had a clear image, whereupon the therapist administered a shock of short duration on this signal. After two sessions of this the client reported that these fantasies had essentially disappeared.

Modifying masturbation fantasy

Upon inquiry in Session 16, the client reported that despite the disappearance of the spontaneous fantasies he continued to find that homosexual fantasies aroused him when he wished to masturbate. He complained that heterosexual fantasies were not sufficiently arousing. At the next session he was instructed in the use of Marquis' "orgasmic reconditioning" procedure (Marquis, 1970), whereby he was progressively

to switch from homosexual to heterosexual fantasies at successively earlier points in the mastubatory sequence beginning with a switch just before orgasm.

Increasing heterosexual approach

During these same sessions the client discussed the fact that, although he was feeling quite successful in his efforts to control his homosexuality, he nevertheless was discouraged about his heterosexual life because he was having difficulties in his relationships with females. As a consequence Sessions 19–24 were spent in assertive training with role-playing and discussion of situations involving approach to females. At this point therapy was terminated.

RESULTS AND FOLLOW-UP

Overt behavior as monitored and recorded by the client is shown in Fig. 1. Homosexual contacts were defined in terms of actual sexual behavior with a male. Heterosexual contacts were defined more broadly as any prolonged interaction with a female, whether social (e.g. a date) or sexual. The client did have intercourse with several females during the latter weeks of the program.

Subjective ratings of homosexual and heterosexual slides were made at Week 10 before beginning aversive conditioning and after the procedure was terminated at Week 14. The ratings were made on a nine point scale from +4 as most attractive to −4 for most unattractive with zero as the neutral point. After the pre-test, the neutral and positively rated slides were divided into therapy and test sets. The test slides were seen by the client only at the time of the two ratings while the therapy slides were used in the aversive conditioning and aversion relief procedures. Table 1 illustrates the fact that the homosexual slides lost their attractiveness following the aversive conditioning procedure and the effect seemed to generalize to the matched group of homosexual test slides as well. Contrary to expectations, the heterosexual slides used in the aversion relief paradigm also decreased significantly in attractiveness. This effect did not seem to generalize to the test slides.

TABLE 1. SLIDE RATINGS

	Therapy slides		Test slides	
	Homo-sexual	Hetero-sexual	Homo-sexual	Hetero-sexual
N	19	20	13	13
Pretest	1·00	3·45	1·38	3·62
Post-test	−0·84	2·20	−0·23	3·54
t	−5·792*	−7·812*	−4·864*	−0·449

*$p < 0{\cdot}001$.

At a follow-up interview 40 weeks after termination, the client reported that he had had one homosexual encounter shortly after ter mination of treatment. It was initiated by the driver of a car with whom the client had hitched a ride. He described the incident as unpleasant and felt that it was a test of his therapy which proved that homosexuality was no longer attractive to him. He also reported that he was dating a girl regularly and felt that this relationship was a close and satisfying one. He had completed his high school equivalent General Education Degree, had begun courses at a local community college and was working part time.

DISCUSSION

Although the treatment techniques are confounded in this case and therefore do not lend themselves to specific causal interferences, the case nonetheless illustrates a general organizing principle for behavior therapy. The principle is that techniques should be chosen and applied according to the topography of the various responses to be modified. This contrasts with approaches which deal with homosexuality as a single behavior complex (e.g. Feldman and MacCulloch, 1971). It also contrasts with the use of multiple behavior therapy techniques simply to increase the power of therapy (e.g. Gershman, 1970).

This principle assumes that behind homosexuality may be various behaviors that are relatively independent of one another. These behaviors may be classified in Lang's (1968)

terms as verbal–cognitive, overt–motor and physiological–autonomic. Any individual will manifest some subsets of these classes of homosexual behaviors in a unique pattern. Individuals seeking therapy for homosexuality differ in their manner of making homosexual contacts; in the form of overt homosexual behavior; in the degree of masturbation to homosexual fantasies; in the degree of subjective and physiological arousal to pictured or fantasied homosexual stimuli; in the degree of identification as "a homosexual"; in the degree of association with a homosexual community, *inter alia*. Similar distinctions could be made with regard to the same individual's heterosexual behavior.

Thus a behavior therapy program for the modification of homosexual behavior ought to be essentially a multiple-baseline, single subject design experiment in which the various responses are sequentially modified by a series of techniques. The goal of therapy is the modification of each of these responses through the application of a specific technique.

The sequencing of these applications remains a separate problem. Mahoney (1971) reported a sequence of treatments in "order of acceptability to the patient". Laboratory research on punishment (Johnson, 1972) suggests that it is more effective when an alternative response is available in the organism's repertory. It follows that in dealing with homosexuality the therapist should consider strengthening alternative sexual responses prior to, or at least concommitant with, suppressing homosexual responses. In the case described here, the attitudinal responses were approached first since some degree of acceptance or understanding of a behavioral model is probably a prerequisite for following a behavioral program. Next, overt homosexual approach responses were the focus of intervention since these behaviors resulted in powerful reinforcements which were likely to maintain a variety of correlated homosexual responses. Such sequencing may not be entirely predictable in advance. In the middle of therapy the client in the present case described the occurrence of homosexual fantasies of a type which he had not described earlier. Responses fairly low in strength became more salient once other responses had been weakened. Sequence as well as selection of techniques requires individualized application.

Acknowledgement—The authors would like to thank Arnold Freedman and Lynn Rickert for their consultation and facilitation with this case at the Oakland V.A. Hospital, Pittsburgh.

REFERENCES

FELDMAN M. P. and MACCULLOCH M. J. (1971) *Homosexual Behavior: Therapy and Assessment*, Pegamon Press, Oxford.

GERSHMAN L. (1970) Case Conference: A transvestite fantasy treated by thought-stopping, covert sensitization and aversive shock, *J. Behav. Ther. & Exp. Psychiat.* **1**, 153–161.

JOHNSON J. M. (1972) Punishment of human behavior, *Am. Psychol.* **27**, 1033–1044.

KENDRICK S. R. and MCCULLOUGH J. P. (1972) Sequential phases of covert reinforcement and covert sensitization in the treatment of homosexuality, *J. Behav. Ther. & Exp. Psychiat.* **3**, 229–232.

LANG P. J. (1968) Fear reduction and fear behavior: Problems in treating a construct, *Research in Psychotherapy*, (Edited by SHLIEN J. M.), Vol. 3. American Psychological Association, Washington, D.C.

LAZARUS A. A. (1971) *Behavior Therapy and Beyond*, McGraw-Hill, New York.

MAHONEY M. J. (1971) Sequential treatments for severe phobia, *J. Behav. Ther. & Exp. Psychiat.* **2**, 195–197.

MAHONEY M. J. (1972) Research issues in self-management, *Behav. Therapy* **3**, 45–63.

MARKS I. M. and GELDER M. G. (1967) Transvestism and fetishism: Clinical and psychological changes during faradic aversion, *Brit. J. Psychiat.* **113**, 711–729.

MARQUIS J. N. (1970) Orgasmic reconditioning: Changing sexual object choice through controlling masturbation fantasies, *J. Behav. Ther. & Exp. Psychiat.* **1**, 263–272.