The treatment of homosexuality is receiving increasing attention by researchers and practitioners in the field of psychiatry and clinical psychology, after having been largely neglected. The present paper examines and reviews the treatments applied to homosexuality and discusses more recent trends. Cases and treatment procedures will be given.

PREVIOUS APPROACHES

Hypnosis

Hypnosis and suggestion were considered by many of the earliest authors, such as Fuchs, Frey, Kraft-Ebing, and Schrenck-Notzing, to be the most appropriate form of treatment. However, hypnosis as used by these writers tended to achieve only short-lived and limited success, although Fuchs and Frey published a series of cases which they considered to be cured. But Allen claims that neither hypnosis nor suggestion is of any use, and Diethelm further wrote that he had never come across a single case cured by these methods.

The major difficulty in evaluating the efficiency of any of the methods of treatment lies in the fact that the descriptions of the therapeutic procedures and successes have generally not been clear or precise, and that follow-up studies are superficial or absent, as are descriptions of pre- and post-treatment symptomatology. 'Cure' has not been adequately defined, and the goals of therapy vary with the therapeutic approach. The psychoanalytic orientation tends to concentrate therapy on the underlying, suppressed, unconscious conflicts and guilts of the homosexual, whereas the behaviourist focuses attention on the homosexual behaviour itself.

Psychoanalysis

Some of the main psychoanalytic concepts of the psychogenesis of homosexuality include 'castration anxiety', 'oedipal conflicts', 'anal fixations', etc. Friedman writes: 'The awareness that the woman has no penis implies a threat of castration. Moreover, the female genital may be perceived in oral sadistic terms as a castration instrument. The homosexual acknowledges the fact (that the female has no penis) but feels threatened by it... he reacts to them (males) with the tenderness he wished to receive from his own mother. In other cases, the identification with the mother, following oedipal disappointment, takes the form of a wish to obtain sexual gratification in the same way as the mother. The anus serves as a substitute for the maternal vagina...'

Such theories have, for many years, dominated much of the psychological thinking about the problem; although these theories do not lend themselves to experimental testing or to the formulation of practical treatment procedures. Furthermore, the lack of scientific validation for such theories confines them to the realm of speculation.

Some psychoanalytic writers have claimed to have treated homosexuality with some success, although Freud himself makes few claims for psychoanalysis as a treatment for this problem. Kronfeld denied that he had ever seen homosexuality successfully treated by psychoanalysis. The therapy suffers from the practical disadvantage of being extremely long drawn out. It would seem that the chief benefit obtainable from this treatment is that it might enable the homosexual to achieve greater acceptance of his problem, rather than a change in sexuality.

Various treatments tried and proved ineffective include such drastic measures as castration and vasectomy; treatment by the replacement of diseased glands by healthy ones, and the injection of male hormones, which even tended to cause a deterioration of the patient's condition. Such hormones administered to homosexuals influence the strength of the sexual drive but not its direction, and only one or two authors believed in the applicability of hormone treatment. Moll developed a technique which he termed 'associations-therapy', which basically aimed at redirecting the patients' inclinations from male to female 'love-objects'. He utilized similarities between the two, e.g. he would use attraction to boys as the basis for developing an attraction to boyish-looking females. He would direct the patients' imagination by means of persuasion, erotic literature and pictorial matter in order to encourage the normal associations and would 'methodically' suppress the 'perverted' associations. Moll reported good success with this method, but was contradicted by Kronfeld, who reported failures; unfortunately a clear formulation of this technique was not given and insufficient research was done to allow it to be evaluated or pursued.

Thus, a review of the literature concerning psychotherapeutic and physical means of therapy tends to indicate the failure of these methods as effective methods of treatment: in fact, many writers have expressed doubts about the very curability of the condition. Hirschfeld therefore, claimed not to have seen a single cure in the 15,000 cases seen by him. He later modified this to say that he had observed change to heterosexual behaviour in 'only the most exceptional cases'. Curran and Curran and Parr more recently expressed the same opinion after analysing a large number of cases which had been treated by psychotherapy. Curran also compared 25 homosexuals who had received intensive psychotherapeutic treatment, with an equal number of homosexuals who had received no treatment at all. He found no significant difference in the intensity of homosexual feelings between the two groups after a careful and lengthy follow-up. Harris found no psychotherapeutic treatment of any use and felt that therapy was only of value in cases of bisexuality.

Freud writing in 1960, after an exhaustive review of the literature on the treatment of homosexuality, wrote: 'There has been no proof of the efficacy of any form of treatment as applied to homosexuality'. He concluded that no qualitative or quantitative difference as regards efficacy in outcome could be shown, whether the psychotherapy applied was of psychoanalytic, non-verbal or non-interpretive kind. The significant factor in any therapeutic success appeared to be based on the principle of discouragement of homosexual activities and the encouragement...
of heterosexual activities. Finally, it should be mentioned that those writers who favoured the congenital, genetic aspect of homosexuality, such as Hirschfeld, sought chiefly to adjust the patient to his problem (Hirschfeld’s adaptation therapy). 34,35

Freud’s above-mentioned principle can be said to describe the technique of aversion or avoidance conditioning, which was widely applied in the late 1950s and early 1960s and which appeared to offer an effective, rapid, and empirical method of treatment. 4 The technique was apparently experimentally derived and was based on learning and conditioning theory, falling within the general group of behaviour therapies. In contrast to psychoanalytic formulations, which postulate homosexuality as the symptom of repressed underlying conflict or fixation, the learning theory model formulates homosexual behaviour as a learnt or conditional habit, focusing treatment upon the actual homosexual behaviour, by generally attempting to break this ‘habit’ through the conditioning of an aversion or avoidance response to it. Broadly speaking, aversion therapy as applied to homosexuality can be described as those forms of conditioning therapy whereby a powerful or noxious stimulus, usually unpleasant faradic shock, is used (nausea-inducing drugs such as apomorphine, testosterorum propionium, have been used, but are now hardly ever used for the noxious stimulus) to condition an aversion, repulsion or inhibition towards particular acts, stimuli, thoughts and behaviour associated with homosexual behaviour, by pairing in close temporal contiguity the shock with the undesirable behaviour. Thus, a homosexual might be shown pictures of nude men or asked to imagine homosexual acts. Immediately thereafter, or simultaneously, he would receive a shock; the procedure is repeated until the pictures or thoughts become associated with and elicit, through conditioning, the aversive, unpleasant properties of the shock. I have, in an earlier publication, described the similar use of aversion conditioning in the treatment of compulsive ruminations and a case of compulsive masturbation. 21

However, the development of this technique has been slow, and Rachman, writing in 1961, was able to cite only 3 major studies. 20,39,10 Nevertheless, the results appeared to be promising. Since then there have been an increasing number of reports, which have not clarified the position. 8,20 Like the early studies, although claiming good results, they have tended to lack clarity as regards both the methods used and the underlying learning and conditioning theory on which the methods were supposedly based. This has made evaluation difficult and the studies cannot be said to offer conclusive evidence of the efficacy of aversion therapy. Indeed, Feldman, writing in 1966, after exhaustively reviewing the literature on this topic concluded that aversion therapy techniques had not been shown to have been derived from the body of learning theory and no case had been made out for the efficacy of these techniques.

The chief difficulty seems to be that practitioners have paid insufficient attention to the general body of learning theory, in terms of the derivation and application of the aversion therapy techniques. 20,39 These writers show, after thorough examination of the literature concerning both animal and human conditioning studies, that an exper-
are unable or unwilling to make physical contact with females, the need for sexual relief driving them back to their former means of gratification. However, most workers in the field have apparently only concentrated treatment on the former aspect.

**Procedure**

Until recently, when anticipatory avoidance conditioning was first described in the literature, I used the usual aversion conditioning procedure in the following manner: the patient was seated in a comfortable chair and the electrodes of the transfaradic unit were attached to his forearm. He was then presented with pictures of clothed and unclothed males (which he found sexually attractive) and was asked to look at these pictures and visualize the carrying out of homosexual acts. On presentation of the picture he would be shocked, a partial random reinforcement schedule of about 1 in 3 being used—i.e. the patient is shocked about 1 in 3 presentations (according to learning theory, such a schedule is most effective).

By comparison, Anticipatory Avoidance Conditioning procedure is briefly as follows: the patient is, as before, seated in a comfortable chair and the electrodes are attached. He is similarly presented with the male pictures and asked to visualize homosexual acts. However, he is not shocked immediately but told that he might receive a shock a few seconds after presentation of the male stimulus pictures. He is further informed that he can put the picture face down (so that it is no longer visible), whenever he wishes, thereby avoiding the shock, if it has not already been switched on, or stopping it if it is already on. He is further told that he will never be shocked while not looking at a picture, but that he should look at it as long as he finds it sexually attractive. Should the patient put the picture down within 8 seconds he is not shocked; should he not, he is shocked. The patient can thus avoid or stop the shock by removing the picture. The crux of the method involves the following additional techniques:

(a) One-third of all attempts to avoid shock are allowed to succeed immediately, i.e. he is allowed to remove the stimulus.

(b) One-third of all attempts to avoid shock are not allowed, i.e. he is made to keep on looking at the picture for 8 seconds and to receive a brief shock—shock and picture being removed simultaneously.

(c) Delayed trials. One-third of all avoidance attempts are delayed for 4-6 seconds, i.e. he is made to continue looking at the picture, after trying to avoid shock, for a further 4-6 seconds, but allowed to finally remove the picture before administration of the shock.

Table 1 compares the results of treatment using Anticipatory Avoidance Conditioning (AAC) with the results obtained using the usual avoidance conditioning method (AC). The patients comprising these groups are the homosexuals treated during a 12-month period. Patients coming for treatment were randomly assigned to either the AAC or AC groups.

**Criteria for Assessment of Outcome of Therapy**

As shown above, patients were classified as 'no change', 'improved', 'cured' or 'relapsed', and there was a group of patients who discontinued therapy.

It was relatively easy to classify those in the 'no-change' group as those patients whose homosexual behaviour (which includes overt homosexual behaviour as well as homosexual fantasies and desires) was modified very little or not at all after at least 5 treatment sessions. 'Discontinued' describes those patients who (a) terminated therapy before at least 5 treatments or (b) terminated treatment at any later stage when there appeared (to the therapist) to be some change. 'Relapsed' denotes those patients who were classified as either improved or cured at termination of treatment, but who subsequently reverted back to their former homosexual behaviour.

Difficulty was found in determining the criteria for the 'improved' or 'cured' categories, and the following criteria used are not held to be perfect, but seemed the best and most practical. Cured: (a) Complete absence of overt homosexual behaviour and contact, (b) 'satisfactory' heterosexual behaviour (partaking in, desire for and enjoyment of), (c) complete absence of any homosexual fantasies, (d) complete lack of desire for homosexual activity.

Improved: (a) Absence of overt homosexual behaviour and contact or very markedly reduced homosexual behaviour, if the contact had been unsatisfactory and less 'enjoyable' than previously and if the homosexual behaviour was becoming less frequent and less enjoyable (where the patient continued to have homosexual contact as often or almost as often as before treatment or where his homosexual experiences, albeit reduced in frequency of occurrence, continued to be as pleasurable to the patient, he was classified as 'no change'); (b) some heterosexual activity, which was pleasurable for the patient and for which he continued to strive, (c) absence or very marked reduction in frequency and intensity of homosexual fantasies and desires.

Using these criteria, the patients were grouped on the strength of the therapist's assessment, the patients' own reports, reports from the referring doctor and reports from the patients' family or friends. A self-administering rating scale, in questionnaire form, was given to the patients before and after treatment. The scale measures various facets such as frequency of homosexual contact, fantasies, context of fantasies, etc., and asks such questions as 'Are you ever attracted to members of your own sex?', the patient having to tick off 'often', 'sometimes' or 'never'.

**TABLE 1. OUTCOME OF TREATMENT**

<table>
<thead>
<tr>
<th>Discontinued treatment</th>
<th>No change</th>
<th>Improved</th>
<th>Cured</th>
<th>Relapsed</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. in group</td>
<td>No. patients</td>
<td>No. sessions</td>
<td>No. patients</td>
<td>No. sessions</td>
</tr>
<tr>
<td>AC</td>
<td>20</td>
<td>5(25%)</td>
<td>6</td>
<td>3(15%)</td>
</tr>
<tr>
<td>AAC</td>
<td>12</td>
<td>3(25%)</td>
<td>6-6</td>
<td>-</td>
</tr>
</tbody>
</table>
The use of crude, perhaps naive methods of assessment was forced by lack of objective, empirical or physiological indices. The only other possible index which could have been employed, but which also has its drawbacks, was the galvanic skin response, for which the equipment was not available.

Treatment for all patients ended at least 6 months before writing, so that follow-up studies of at least 6 months are available for all patients. The 4 patients who relapsed all did so within 1 month of termination of treatment, whereas all other patients rated as cured or improved have maintained their improvement.

The lack of a no-treatment control group makes definite conclusions difficult to draw. Yet, it should be remembered that all the patients were practising homosexuals of at least 3 years' standing and many of them (about 40% of the total number) had been subjected to various other forms of therapy, such as psychoanalytic interpretive therapy, supportive therapy and chemotherapy, and group therapy, without apparent benefit. Fifty per cent of the AC group were classified as either cured or improved (25% and 25% respectively) and 58% of the AAC group were similarly classed (33% and 25% respectively). It can also be seen that a considerable proportion of patients discontinued therapy (some after only 2 or 3 treatments), the reason apparently being poor motivation. If the figures are analysed for only those patients who completed treatment, i.e. disregarding those who discontinued therapy, a much more favourable picture emerges.

Thus, in the AC group 66% of all patients who underwent therapy were cured or improved (33% and 33% respectively) and 77% of all patients in the AAC group who underwent therapy were cured or improved (44% and 33% respectively). It should be noted that some of the patients who discontinued therapy did so at a time when there had been an improvement in their condition, i.e. a diminution in their homosexual drive. They did so because during the course of treatment they had decided that they did not wish to change; as one patient put it, 'the fact that I am beginning to change and lose my homosexual desires, makes me realize that I don't want to'.

The statistics indicate a possible greater effectiveness of the AAC technique, although the difference between the two groups, as regards percentage patients improved and cured, is slight (AC—50%, AAC—58%) and a larger comparative study is required before statistically significant results can be obtained. However, Table I indicates that by using the AAC method fewer therapy sessions were required to achieve improvement or cure than by using the AC method.

The response to therapy using both forms of aversion treatment is relatively good when compared with the results obtained by other methods. Furthermore, it is a rapid form of treatment and thus practical, enabling a large number of patients to receive treatment. As regards relapse, this occurred in 4 of the patients treated. The reason for such return to homosexuality was carefully analysed in each case and although a factor may have been insufficient treatment, the ostensible causes were the following: Three patients stated that they had found it extremely difficult to 'break into' heterosexual society and to meet females, and that out of loneliness and frustration they had returned to their former homosexual companions. The fourth patient reported a severe rejection at the hands of a female with whom he had been attempting intercourse. She had mocked his technique and performance.

There is, however, no evidence in the literature to support the notion that aversion therapy is only a symptomatic treatment and that patients treated by this method must either relapse or acquire substitute symptoms. This notion is based on the psychoanalytic interpretation of homosexuality and neuroses. Since psychoanalytic theory is unvalidated, criticism based on such theory can only be hypothetical and not scientifically valid. But it is also clear that haphazard aversion therapy which is not firmly based on and carried out according to learning theory principles is bound to give poor results. In fact, injudicious use of the method has often only served to obscure its real value.

REFERENCES