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Aversive Behavior Rehearsal: A Cognitive–Behavioral Procedure

Ian Wickramasekera

The Aversive Behavior Rehearsal (ABR) technique (Wickramasekera, 1972, 1976a) is a procedure for the management of a specific subset of chronic sexual exhibitionists (repeated offenders as defined by police records). The in vivo ABR (I-V-ABR) therapist makes an appointment for a patient to come into the clinic and expose himself at a specific time and place to people who know of him. With the vicarious Aversive Behavior Rehearsal (V-ABR) technique, a therapist arranges for a chronic exhibitionist to observe via video tape the I-V-ABR treatment of a fellow exhibitionist. Twenty-three chronic exhibitionists have been treated within one to four treatment sessions with these methods, and only one relapse has been detected to date in follow-ups ranging up to nine years.

In the past fifteen years, I have experimented with a variety of techniques looking for a reliable and brief method of symptomatic control of sexual exhibitionism. I have tried many interventions including dynamically oriented psychotherapy, rational-emotive therapy, Gestalt therapy, hypnotherapy, systematic desensitization, op-
erant shaping of assertive heterosexual behavior (Wickramasekera, 1968), and aversive conditioning (shock).

In the summer of 1966, I was working with a 19-year-old, chronic male exhibitionist. After repeated pairings of exhibitionistic fantasy with electric shock, the patient reported an inability to form subjective images of the deviant fantasy. I doubted the accuracy of his verbal report, and urged him to imagine that he was being observed by an unseen female while he actually did expose himself. When I insisted on this in vivo behavioral rehearsal of his deviant act, the patient became quite anxious. After considerable pressure, he started to rehearse the deviant behavior in my presence. I planned to apply shock first to the terminal components (unzipping, genital exposure, and masturbation) of the deviant sequence. But as he approximated the terminal components, he began to tremble, burst out crying, and reported lightheadedness, tachycardia, weakness, and nausea. It became apparent that the use of electric shock was redundant in this case. The patient also stated that he saw clearly for the first time how foolish and dumb his behavior looked. I realized that with this type of patient the degree of involvement and arousal generated by this procedure exceeded anything I had observed during psychotherapy or aversive conditioning. Because his response to the procedure was rapid, positive, and appeared durable, I continued to experiment with the technique. To date at least three other clinical investigators (Jones & Frei, 1977; Reitz & Keil, 1971; Serber, 1970; Stevenson & Jones, 1972) also have reported independently stumbling onto a very similar procedure with similar results. Several years later I decided to call this cognitive behavioral procedure Aversive Behavior Rehearsal.

RATIONALE

In Vivo ABR (I-V-ABR) Procedure

The I-V-ABR procedure prescribes and elicits the patient's symptom (exhibitionism) under conditions that overlap substantially with the naturally occurring event but with certain critical alterations:

1. The exposure is deliberately planned by therapist and patient several weeks in advance and scheduled for a specific time and place.
2. The exposure is enacted under conditions of reduced anonymity.
3. During its enactment, the behavior is subjected by the patient and therapist to cognitive-verbal exploration of associated affect, bodily sensations, and fantasy.

The goal is to elicit and demythologize any autistic fantasies that may cognitively mediate the exhibitionistic behavior in its natural habitat. Conditions are arranged to increase the probability that the patient will take a pedestrian, critical, and analytical view of what he is doing during the act of exposure. It is, in a sense, a form of discrimination training for response-produced stimuli (fantasies). It has been hypothesized (Wickramasekera, 1972) that, at least for the subtest of exhibitionists discussed in this chapter, the enactment of sexual exhibitionism occurs under internal conditions of increased fantasy involvement (Sarbin & Coe, 1972) and reduced critical judgment (Hilgard, 1965). These patients show reduced critical judgment when they use public places, compulsively return to the same place with their car license plates clearly visible, and in numerous other ways temporarily ignore situational dangers. It appears that a cognitive shift from fantasy involvement to a critical pedestrian view may alter the future probability of exhibitionistic behavior occurring under the internal conditions (moods of self-pity, boredom, anger, failure) and external conditions (warm weather, parks, girls in short skirts) that previously set the stage for exposure. In some respects this intervention is equivalent to reducing the probability of "hypnotic" behavior under specific internal and external conditions which may operate as discriminative stimuli for hypnotic behavior as it has been conceptualized by some writers (Sarbin & Coe, 1972).

Vicarious ABR (V-ABR) Procedure

A recent variant of the ABR procedure is called Vicarious Aversive Behavior Rehearsal (V-ABR). It is based on instructing and situationally arranging for an exhibitionistic patient to observe a video tape of a real exhibitionist being processed in vivo through the ABR procedure. The symptomatic consequences of V-ABR appear to be similar to the I-V-ABR procedure, but our sample is still small (N = 4) and our follow-ups are too inadequate (two to three years) to provide more than a tentative impression of a promising variant of ABR. The V-ABR procedure is probably indicated for the same type of patients who benefit from the in vivo ABR procedure, but who cannot be
processed through the entire I-V-ABR for one or more of the following reasons:

1. The patient is deficient in the motivation necessary to go through the in vivo ABR.
2. There are medical contraindications which require that the patient be exempt from the severe stress of the I-V-ABR procedure (e.g., positive history of cardiovascular or CNS complications, angina pectoris, cardiac decompensation, hypertension, or epilepsy.
3. A patient may have weak reality contact or marginal adjustment, or be prepsychotic or acutely disturbed. The V-ABR is offered only to patients who have carefully considered and refused the in vivo ABR procedure or to those who, in the clinical judgment of the therapist or his medical consultant, are likely to be hurt by the in vivo ABR.

Indications for I-V-ABR

Only the following subset of exhibitionists should be considered candidates for this procedure:

1. Chronic sexual exhibitionists. Repeated offenders as defined by police records or those who report a high frequency (several times a day to several times a week) of compulsive urges to expose.
2. Patients who are introverted or neurotic as defined by the Eysenck Personality Inventory (1968), or who have high trait anxiety on the MMPI.
3. Patients who are moralistic, inhibited, and “good” citizens in 90 percent of their public lives.
4. Patients who have failed to respond to conventional procedures such as psychotherapy and aversive conditioning.
5. A “voluntary” patient who wants to try the ABR after he has been offered conventional procedures (Wickramasekera, 1971).

Contraindications for I-V-ABR

1. Prepsychotic or psychotic diagnosis.
2. Any medical condition which is incompatible with severe phasic stress, e.g., cardiovascular or CNS disease or trauma.
3. Sociopathic personality disorder (DSM III017).
4. Large and ineffective doses of psychotherapy can develop an impenetrable cognitive defense in professional situations against engagement and absorption (Tellegen & Atkinson, 1974) in the deviant fantasy belief system that mediates sexual exposure. The patient must have access to the deviant fantasy in the clinical situation for positive clinical outcome.

Therapy for first or second offenders should first utilize conventional procedures like hypnosis, assertive training, psychotherapy, or a combination of systematic desensitization and operant shaping (Wickramasekera, 1968).

PROCEDURE

Component I (see Flow Chart 1) has diagnostic utility and also appears to potentiate certain active ingredients in the behavior influence process. These ingredients include the patient's self-disclosure, self-exploration, and commitment; structuring of the patient's positive expectations; and giving the patient responsibility for making the technique work. These variables have been empirically demonstrated to be effective in both the psychotherapy and the social psychological research literature (Strupp & Bergin, 1972; Goldstein, Heller, & Sechrest, 1966).

The patient is immediately told in the clinical interview that he suffers from a chronic addictive condition with which he cannot be helped unless he is completely honest (no falsification or omission of information) and willing to accept great discomfort and pain. He is told that his problem cannot be cured but if he is willing to be completely honest and accept great pain, he can learn to effectively control his condition. The previous times he has broken promises to himself are cited as evidence of the bankruptcy of his prior efforts.

Component IA eventually elicits and shapes the patient's self-exploratory and self-monitoring behaviors from very specific topics (e.g., first events of exposure, age, and so on) to a very general form of self-monitoring and self-exploration (identification of triggering events). At this more general level, the patient is attempting to relate the onset of his symptom to internal (e.g., conflict, failure, self-pity, boredom, etc.) and environmental events (the warm weather, specific location, length of women's skirts, types of female clothing, etc.).
FLOW CHART 1. ABR PROCEDURE

I. Diagnosis and assessment
   A. Collect the following facts and formulate relationships in the clinical interview.
      1. First event (age, circumstances)
      2. Frequency (in remote and recent past, and in present)
      3. Locations (car, parking lot, library, and so on)
      4. Time of day or night
      5. Duration of episode
      6. Age and sex of victims (special features)
      7. Masturbation, ejaculation, associated rituals, and fantasies
      8. Triggering events (e.g., conflict, failure, weather, female clothing, daydreams, and fantasies)

B. 1. Present treatment plan and alternatives with prognosis
     2. Present intervention as research, not routine treatment
     3. State side effects. Give the patient an article on ABR to read
     4. State restriction on intercourse for three weeks following procedures I and II

C. Psychological and psychophysiological tests
   1. MMPI
   2. Eysenck Personality Inventory
   3. Taylor Manifest Anxiety Scale
   4. Spiegel Eye-Roll Test of Hypnotizability
   5. SHSS Form A
   6. Hypnosis Attitude Scale
   7. Conjugate Lateral Eye Movements (Bakan, 1969; Gur & Gur, 1974)
   8. Absorption scale
   9. Respiration
   10. Skin conductance
   11. Skin temperature
   12. Heart rate

D. Medical tests and physical examination—any contraindications?
FLOW CHART 1 (continued).

E. Discuss treatment plan with patient's significant others and lawyers. Have patient read and sign consent for treatment and video tape forms

II. Intervention
   A. Procedure I: 40 minutes of intensive self-disclosure, intensive self-exploration, and confrontation, of which approximately 20 minutes is actual physical exposure
   B. Procedure II: 40 minutes of intensive self-disclosure, self-exploration, and confrontation, of which approximately 20 minutes is actual physical exposure

III. Evaluation Follow-up
   A. Follow-up three weeks later with observation of video tapes (neutral and aversive) with psychophysiological monitoring
   B. Follow-ups at intervals of 2, 6, 9, and 12 months; then once each year

These antecedents appear to overlap between subjects to some extent, but they are also highly idiosyncratic. The identification of these internal and external antecedents or triggering events is quite important in terms of helping the patient develop an "early warning" system for his post-therapy prophylactic use.

Component IB essentially involves selling the patient on the ABR technique, but doing so in a cautious and ethical manner. To create positive expectations, for example, the patient is instructed to find and read a favorable review of this intervention (Human Behavior, April 1973) written in nontechnical terms. Previously observed side effects are described (repeated nightmares, acute anxiety or depression, secondary impotence) and the requirement of abstinence from sexual intercourse for three weeks after treatment is presented.

Component IC is mainly intended to enable an eventually more precise and objective specification of the type of patient for whom this procedure is indicated or contraindicated. It has been hypothesized (Wickramasekera, 1972) that trait anxiety, hypnotizability, the
degree of socialization, and autonomic lability are implicated in the probability of certain sexual deviations. In addition, the combination of extensive psychological, psychophysiological, and medical tests may create the therapeutic expectation in the patient that “grave and healing events” are about to occur. The psychophysiological tests currently involve a 15 to 20-minute adaptation period; a 10-minute base-line period; instructions to the subject to solve simple mental arithmetic problems and to read aloud the titles of the books in the bookcase across the room; instructions to visualize, with eyes closed, a pleasant and relaxing scene (e.g., soaking in the bathtub or sipping a martini while relaxing by a fire); and instructions to visualize, with eyes closed, the last time he was arrested for indecent exposure. On-line data reduction procedures generate mean, standard deviation and range of all psychophysiological measures.

Component IE is the culmination of a series of progressively, tightly interlocking, tacit behavioral commitments to change. It requires the patient to make a full disclosure of his deviation and its frequency and chronicity to significant others (parents, wife) and to his lawyer. It also challenges him to persuade them of his wisdom in undergoing the ABR procedure, which in the process of doing he appears to strengthen his own commitment. One patient was lost at this point because his lawyer labeled the ABR procedure “insane” (which it probably is in some respects), and told the patient that if he cooperated with the video taping, he could expect to appear nude on the “Today Show” or “Huntley and Brinkley News.” This component closes with the patient signing a release which allows the therapist to video tape his naked body for the “advancement of science,” and releasing the therapist of all responsibility for possible negative consequences of the ABR procedure. The patient acknowledges on the release that the negative side effects have been carefully explained to him. Component I may take as many as four to six sessions to complete (each session 50 minutes), depending on the individual patient’s initial level of defensiveness and commitment.

In summary, the preliminary orientation and screening procedures carefully structure the patient’s expectations in a positive direction. They increase his commitment to public (self-disclosed) living and to socially appropriate risk taking and assertiveness in order to eliminate his exhibitionistic behavior. It is conceivable that these interventions alone could be sufficient to produce symptomatic
control. This is an empirical question which could be answered simply by putting patients processed to this point on a waiting list and comparing their relapse rate with patients who additionally receive the complete in vivo ABR processing.

Component II involves approximately two 40-minute sessions of full self-disclosure, self-exploration, and self-confrontation in the presence of five female and two male mental health professionals (social workers, senior medical students, psychiatric nurses, and psychology interns) in a large room with a one-way mirror and video taping of the entire proceedings. It is sometimes hinted at this point that there may be other authorized observers (e.g., referring probation officer or arresting law officer) on the other side of the mirror. A psychiatric nurse is included in the team in case of a medical emergency, and also a large, sturdy male video-tape operator in case the patient becomes combative (which has not happened to date). The therapist opens the session in a kind, but grave manner and becomes progressively more obnoxious and confronting as the session progresses. He begins by putting a series of rapid questions to the patient (Please state your name, age, address, marital status, occupation, children's names and ages, religion, specific deviant sexual acts, associated rituals and locations, objects of exposure, and so on).

The patient is instructed in the following number system to cue specific acts of exposure and masturbation. The use of numbers appears more effective in securing compliance under stress than verbal requests. The patient is told, "When I say one, you will unzip your pants; when I say two, you will get a firm grip on your penis (use patient's own word for penis, e.g., cock); when I say three, you will start to masturbate ("jack-off," etc.)."

During and between exposures, the patient is pointedly questioned by all the team members individually and requested to attend to different parts of his body or their legs, breasts, crotches, hips, and the like. For example, he might be asked to respond to all or some of the following questions and instructions: What is your mood when you expose yourself? What triggers the mood? What do you see now as you look at yourself in the mirror? Describe what you think we see as we look at you right now. What do you think we are feeling (thinking, etc.) as we look at you now? How do your hands feel? How does your head (legs, penis, stomach) feel? Give your penis a voice, let it talk to us. Tell us about the man you are in your public life. Tell
us about your private life. What are your masturbatory fantasies? And so on.

During component II, the patient is asked to disrobe and robe several times as he is encouraged to explore the relationship between his current feelings and his moods prior to and during exposure, and their relationship to antecedents, consequences, and immediate situational factors. He is frequently relieved to be asked to "zip up," or pull up his pants, but this relief is short-lived because soon afterwards he is asked to disrobe again. At the close of the session, the patient is frequently in tears, trembling, weak, and nauseous.

The therapist dismisses the team and changes abruptly into a warm, kind, supportive figure who wipes the patient's eyes and fetches him a drink of water. The therapist sincerely and freely expresses his admiration for the courage and strength the patient demonstrated during the previous "hell," and leaves him in doubt for a few days as to whether another procedure will be required.

The primary contraindications for another procedure are massive sympathetic arousal (check pulse) during the first procedure, insightful verbalizations with active patient participation, and any evidence of bizarre behavior during or after the procedure (very rare event). The primary indication for a second procedure is marginal arousal and "unauthorized" psychological escape behavior while physically present (disassociation). If a second procedure is scheduled, we begin by asking specific details about his cognitive, affective, and motor reactions during and after the first procedure—particularly his immediate and delayed reactions. The session continues with some variation on the previous material, loose ends from the previous session, or any new material. To disrupt any persisting disassociation, team members approach him physically and ask him to describe physical details of other team members, such as their clothing or bodies.

It is first particularly important during the procedure to elicit any idiosyncratic fantasies (e.g., girls being impressed with the girth of his penis) which may mediate the exhibitionism; and second, to subject this material to a critical analytic pedestrian type of verbal processing (left brain). It is also important, after the second step, to encourage the patient to practice and develop any alternative set of more acceptable assertive responses when tempted to expose himself. These may include whistling at an attractive female, or verbaliz-
ing aloud what was most attractive about the woman and what he would like to do with the female if not constrained by his own inhibitions and social restraints. He may also be encouraged to verbalize lewd remarks.

RESULTS

The in vivo ABR procedure has been offered to 28 patients. Five have refused or have not completed the I-V-ABR or V-ABR. Twenty-three patients have been treated with the ABR procedure to date, 19 with the in vivo ABR and 4 with the vicarious ABR. Only one patient treated with the ABR procedure has reported exposing himself. We have not detected any other relapses to date. All patients report having between one to four thoughts of exposure at least once in three months, but the thoughts are brief and easily terminated. Approximately one-half of the patients report mild to severe anxiety when thoughts of exposure occur to them. The rest of the patients report a "neutral" feeling if they have thoughts of exposure. All patients report that the frequency of exposure fantasies has been reduced dramatically since treatment, and the quality and duration of the fantasies—if they occur at all—"feel" vastly different from the pretreatment fantasies. The patients also report that they are more appropriately assertive with females.

The follow-ups for the in vivo procedure range from 22 months to almost nine years. The follow-ups for the vicarious ABR are too brief to attach much significance to them at this time. The follow-ups are based on four kinds of data:

1. Patients provide direct verbal reports during the periodic individual interviews. The systematic follow-up interviews appear to be reactive measures, because many patients report that their anxiety level increases prior to their follow-up appointment, and the previous ABR procedure is reactivated in memory. It appears that these regular follow-up sessions strengthen the ABR procedure and should be regarded as part of it. Since these are patients' subjective verbal reports, they are open to all the limitations associated with such sources of information.
2. Private interviews with significant others (wife, employers, parents), or telephone calls to them, are used at the time of the patient's follow-up interview to check on the patient's verbal report.

3. Search of police records on indecent exposure in the three surrounding counties are used to verify the patient's verbal report. This procedure is recent and is still incompletely established. The law enforcement system appears responsive and supportive of this project, but their own records and those at a state-wide level are incomplete. Very few acts of exposure are followed by arrest.

4. Recently we have begun to add a fourth psychophysiological evaluation component to our follow-up system.

To determine the psychophysiological consequences of being processed through the ABR procedure and being reminded of it, the following instructional and situational arrangements are made: (see Flow Chart 2.) The patient is told to return to the therapist's office for "a test" approximately three weeks after the last in vivo ABR procedure. In the therapist's office, the patient is connected to a physiograph (which is screened from the patient) while he sits quietly on a comfortable recliner. In front of the subject, approximately eight feet away, are two video-tape monitors. The monitor above is programmed to show a portion of the video tape (aversive tape) of the patient's treatment. The monitor below is programmed to show a neutral or control tape consisting of a portion of the patient's initial diagnostic interview. After connection to the physiograph, the patient is given 20 minutes to adapt and "relax" in the situation. At the end of the adaptation period, the control tape is activated remotely by the therapist and allowed to run for four minutes. After the control tape is turned off, the aversive tape is activated remotely and allowed to run also for four minutes. The subject has previously been instructed to observe both tapes carefully, but he is not informed about the content of the video tapes or the order in which they will be shown. After four minutes of exposure to the aversive tape, it is switched off and the subject is simply instructed to relax for 10 minutes before he is disconnected from the physiograph, which has been monitoring and recording his heart rate (BPM), respiration, skin conductance, and skin temperature during the adaption, observation, and relaxation periods.
FLOW CHART 2. VIDEO-PHYSIOGRAPH ASSESSMENT PROCEDURE

1. Adaptation and base-line (20 minutes)
2. Control TV tape (4 minutes)
3. Aversive TV tape (4 minutes)
4. Return to baseline (10 minutes)

The purpose of the control tape is to determine the psychophysiological consequences of the patient becoming oriented to and observing a video tape of himself while connected to a physiograph. Simple inspection of the physiograph record during the patient's exposure to control and aversive tape sequences indicates clear and significant differences in heart rate, skin conductance, and respiration. Statistical analyses have not been done; they do not seem necessary for the seven records of this type we have collected to date with this evaluation procedure.

Figures 1–4 show psychophysiological changes occurring in an adult male during two base-line periods and while observing control and aversive tapes. The aversive video tape was of the patient rehearsing sexual exposure and masturbation in the presence of three females and two males. The upper trace is of heart rate (BPM), the middle trace is of galvanic skin response (GSR), and the bottom trace is of respiration. Paper speed is 6 inches per minute. This patient's record was selected because he demonstrated physiological changes in all three response systems (BPM, GSR, respiration). Not all subjects tested to date demonstrate clear changes in all three response systems. As indicated by Lacey (1959), individual patients appear to show response profiles. The patient is shown the results of this evaluation procedure. Showing him the results increases the credibility of the treatment effects. The routine psychophysiological testing (BPM, GSR, respiration) of the patient during the periodic follow-up interview is presented to the patient "to detect how much of the previous conditioning persists." Some patients perceive this new procedure as a lie detector test, which may have a modest deterrent effect on deviant behavior. During the follow-ups, the patient is instructed after a psychophysiological base-line period to expose
Figure 1. Psychophysiological changes in an adult male during base-line period 1 of the video-physiograph assessment procedure.

Figure 2. Psychophysiological changes in an adult male while watching himself in a "control" video tape.
Figure 3. Psychophysiologica changes in an adult male while watching an aversive-stimulus video tape.

Figure 4. Psychophysiologica changes in an adult male during base-line period 2.
himself in fantasy and then is casually asked, while still connected to the instrument, the number of times he has exposed himself since the last follow-up. Table 1 indicates the characteristics and treatment outcome of the 23 exhibitionists who have participated in the ABR treatment program to date.

COMPLICATIONS AND CLINICAL ISSUES

The in vivo ABR does appear to have some side effects which are observed between the two in vivo ABR procedures or immediately after the treatment. These side effects include moderate to mild anxiety, tension, and depression of one to four weeks duration. One or more of these symptoms have been reported by all in vivo ABR patients. These symptoms seem to disappear in all cases after five weeks. Repeated nightmares, in which the ABR procedure or a variant of it is rehearsed in sleep, have been reported by 5 patients. Secondary impotence of brief duration (two to four weeks) has been reported by 3 patients. Temporary loss of interest in sex has been reported by approximately 13 in vivo ABR patients. All symptoms appear to have cleared up two months after treatment.

The secondary impotence has particularly concerned us. In an attempt to reduce the future probability of it, we have introduced a prohibition against all sexual intercourse by patients for three weeks after the first in vivo ABR procedure. The mechanism of erection is primarily parasympathetic, and hence a temporary state of massive sympathetic arousal (post-treatment anxiety and tension) is probably antagonistic to effective sexual functioning in the male patient. Residual anxiety has usually subsided by the third week after treatment.

About one-half of the patients disassociate (become psychologically absent although physically present, or “go someplace else in their head”) during either ABR procedure to avoid the impact of the aversive reality that has been carefully arranged for them. They do not attend or they become “numb” to the full concrete impact of the aversive reality. This probably natural response to stress has to be rapidly terminated in this context. The “unauthorized form of escape behavior” (Azrin & Holz, 1966) has been terminated by insisting forcefully that the patient describe the present physical reality (color
Table 1. Characteristics of Male Sexual Exhibitionists and Outcome of their Treatment

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DURATION (IN YEARS) SINCE FIRST EXPOSURE</th>
<th>AGE</th>
<th>FREQUENCY OF EXHIBITIONS PER MONTH</th>
<th>METHOD</th>
<th>NUMBER OF TREATMENT SESSIONS</th>
<th>FOLLOW-UP (Years Months)</th>
<th>OUTCOME</th>
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<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>32</td>
<td>2-4</td>
<td>I-V-ABR</td>
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<td>7 3</td>
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R: Relapsed. N-R: Relapse not detected.
of female's eyes, hair, shape of their breasts, legs, or clothes), his own physical reactions, his current autistic fantasies, and his speculations about the thoughts and feelings behind the females' faces. The therapist can usually subjectively estimate the intensity of the aversion generated by the severity of his own exhaustion or tension after the procedure. The procedure is really quite harrowing to all concerned. It appears that if the ABR technique is continued over several sessions, the patient becomes desensitized to the technique. Hence, treatment should cease with a brief "resensitization" (Wickramasekera, 1970).

Many exhibitionists are quiet, nonassertive, moralistic individuals who take few risks in their public lives but become very daring figures during their "private" exhibitionistic episodes and fantasies. Their public image may be one of respectability, caution, reliability, and industry; whereas in their private feelings they are desperately bored, resentful, and self-pitying, and their fantasies are defiant and dangerously exciting.

During the ABR procedures, the patient frequently develops insight into this inconsistency between his public and private lives, and he is strongly encouraged to act in more adaptive risk-taking and assertive ways in his public life—e.g., asking for a raise or promotion; speaking back to his wife, boss, or a peer; changing jobs; or trying a love affair. It appears likely that the inhibition of aggressive, sexual novelty, and excitement needs episodically increases the probability of their maladaptive expression in indecent exposure. The patients appear to become more appropriately assertive after the ABR.

DISCUSSION OF RESEARCH IMPLICATIONS

Instructionally and situationally the ABR procedure arranges for the elicitation of strong aversive internal consequences. Typically, patients report or manifest one or more of the following before, during, or immediately after the procedure: trembling, nausea, lightheadedness, palpitations, weakness, cramps, butterflies in the stomach, headaches, tightness in the chest. "Voluntary" participation (Wickramasekera, 1971) ensures that the patient actively generates the aversive consequences in himself. The aversion is installed inside the subject and outside of his control, so that the aversive con-
tingency cannot be easily dismantled by the patient as, for example, with a portable and remotely controlled shock generator. It has been speculated (Wickramasekera, 1972) that the procedure may involve interoceptive conditioning, and this speculation appears to be reinforced by some theoretical and empirical data (Miller & Murray, 1952; Miller, 1959; Miller, 1964). Miller has suggested (personal communication, 1973) that if aversion is attached to internal cues, the gradient of generalization will be flatter. This hypothesis may explain the apparently reliable transfer of the suppression of exhibitionism from the clinical situation to the patient's natural habitat. But it is doubtful that aversive arousal alone is an essential and sufficient condition for the control of exhibitionism in this subset of patients.

First, it is necessary to recognize that the technique is clearly over-determined because it appears to incorporate several ingredients which previously have been shown to be or claimed to be effective ingredients in the psychotherapy, social psychological, and learning literatures.

It is possible to offer several explanations of why the ABR controls the frequency of exposure. These explanations should have implications for empirical research manipulations. For example, the reduction of exhibitionism may be attributed to extinction or non-reinforcement of the private fantasies and exhibitionistic role behaviors in the clinical exposure situation (females do not react with shock or fear). Punishment (Azrin & Holz, 1966) of the exhibitionistic fantasies and role behavior by the connection of aversive visceral consequences to internal cues, or insight and self-disclosure (Mowrer, 1964) may explain the positive outcomes. Cognitive dissonance theory predicts maximum attitudinal changes under conditions of "voluntary" participation, minimal reward, and maximum effort. All three ingredients are incorporated into the ABR procedure. Powerful structuring of demand characteristics (Orne, 1970) may be said to explain the positive outcome. Credibility or face validity is an important property of a therapeutic procedure to a patient, and five exhibitionists have spontaneously told me that they had anticipated a technique like the ABR and wondered if it would help them.

At an even lower level of abstraction, it may be said that the treatment simply arranges for a series of events that identify highly motivated exhibitionists who would respond to any form of treatment. Hence the results are due to some nonspecific effect. Alter-
nately, it may be said that the screening events are arranged to make the patient increasingly vulnerable to interpersonal influence, and once such an orientation is established, the specific treatment technique is irrelevant. The treatment procedure involves several components, some of which may be effective and the others “superstitions.” The technique is highly researchable and may be dismantled along several empirical dimensions such as verbal instructions, situational arrangements, and frequency and duration of treatments. For example, men could be substituted for women or verbal instructions and patient self-exploration could be increased, reduced, or eliminated. The diagnostic screening could be eliminated, or the diagnostic screening retained and the treatment procedures eliminated. Another alternative would be to retain the diagnostic screening and replace the “exposure” procedure with an equally unpleasant aversive (shock) conditioning procedure. At a strictly empirical level, the independent variables need to be manipulated and symptomatic outcome monitored over several years.

Currently we are attempting to look rather grossly at the motivational hypothesis by attempting to narrow the patient’s choice from three alternatives, i.e., psychotherapy, threat of legal action, or ABR; to two alternatives, i.e., threat of legal action or ABR; and, finally, to secure involuntary legal commitment of exhibitionists to the ABR procedure. To achieve the last purpose, to expand our follow-up net, and to secure more base-line data on this deviation, we are conducting exploratory negotiations both at local and state-wide levels (while protecting patient confidentiality) with law enforcement agencies and the courts.

We are also attempting to identify the cognitive, behavioral, and psychophysiological characteristics that predict maximum response to this treatment procedure. The extensive diagnostic screening was initially intended to improve prediction of positive outcomes with this procedure, but the small relapse rate to date has frustrated this purpose. It is likely that, as our sample increases, we will detect more relapses which will enable us to look more closely at our techniques. Clinical impressions confirm the view that hypnotizability, the degree of socialization, religiosity, introversion, autonomic responsivity, and manifest anxiety are salient predictors of positive outcome with this procedure. Nearly all the exhibitionistic subjects we have screened to date and treated either with V-ABR or in vivo ABR have had most of these subject characteristics.
MODIFICATIONS OF THE ABR

There are currently two creative modifications of the ABR which seek to extend the technique to other symptoms. Boudewyns has described an interesting and promising adaptation of the ABR for use with obscene telephone callers. Forgione (1974) has described a creative adaptation of the ABR for use with pedophilia. These procedures are described in sufficient detail for clinical implementation, but we do not have experience with them. In fact, the treatment failure about to be described may have been avoided if certain modifications in the ABR technique had been made.

Case Study of a Treatment Failure

T. was a 29-year-old, right-handed married male referred by the court from a very large and distant city. He had been arrested for this offense at least four times since the age of 16. He reported feeling moralistic, guilty, and depressed after each incident. He stated that he had observed his father practice indecent exposure several times, and his mother was the first female to whom he had deliberately exposed himself when he was around age 9. His sexual relationship with his wife was very poor and, in spite of seeing over 10 psychotherapists and marriage counselors, neither his sexual-social relationship with his wife nor his control over his sexual exhibitionism had improved. T. had seldom seen any therapist longer than 15 sessions. He reported exposing himself exclusively to teenage females, ages 13 to 16, and to a very specific type of female: "gum chewing, slutty girls in blue jeans". This patient had greater pre-ABR intellectual insight into the etiology, precipitating factors, and the dynamics of his sexual problem than any patient who had previously received the ABR. In fact, his most recent therapist had been one of the most illustrious medical psychoanalysts in the United States. T. did not appear to know of the analyst's national reputation. He spontaneously stated that he had developed more understanding of himself and his symptoms through this therapist (15 sessions) than from any previous treatment. After his most recent arrest and referral to me, his base-line rate of exposure was quite variable (one to six times a week) and was enacted exclusively in public libraries, parks, and parking lots. The frequency of his exhibitionistic fantasies was more stable, 7 to 10 times per day, and was associated with
masturbation and ejaculation about 5 percent of the time. The patient was a very bright, rational-verbal, handsome, and superficially outgoing person. He was always very attractively dressed, but in a manner more appropriate to an older adolescent. Careful evaluation of his conjugate lateral eye movements (Bakan, 1971; Gur & Gur, 1974) indicated over a 90 percent tendency to engage the left hemisphere in response to standard reflective questions.

**Procedure**

T. was processed through the in vivo ABR technique with no deviations or omissions from the procedure previously described. For obvious ethical and legal reasons, we were unable to use teenage adolescent females and were restricted to three attractive females in their late twenties. The patient was administered two ABR sessions of approximately 60 minutes each, followed three weeks later by the video-physiograph evaluation procedure.

**Results**

T.’s reactions to the procedure were atypical in at least four objective respects. His behavioral response to the instruction to expose himself was rapid, (10 to 20 seconds) and there was no need for the therapist to use threats or verbal pressure to secure compliance. He showed no overt (blushing, trembling, sweating) or covert (pulse rate 80 to 92) indications of strong sympathetic activation. He demonstrated no observable (e.g., defocused eye movements) indications of dissociation (Hilgard, 1976). His rate of verbal responding did not appear to decrease or increase during the ABR procedure. (See Figures 5–8.)

During the video-physiograph evaluation procedure three weeks after the ABR, T.’s heart rate, respiration, and GSR responses were not significantly different on stimulation by control and experimental video tapes. This atypical finding suggests that the aversive tape was not physiologically stressful to the patient.

During the ABR procedure, T. verbalized many insights he had previously shared with the therapist during the screening period. The patient and a female co-therapist stated that they believed the treatment was effective, but the senior therapist had many reservations, mainly because the patient had manifested no observable signs of alteration in physiological arousal. During the ABR procedure, the therapist urged the patient to terminate future masturbation to
deviant fantasy in his natural habitat. Three weeks later, during the video-physiograph evaluation, the patient remained optimistic that the treatment was effective; but the physiological data did not fit our previous observations with successful patients. Based on this data, the therapist made a prediction to his co-therapists that the patient would relapse. T. also reported none of the typical side effects (e.g., nightmares, transient depression, or lack of sex drive) of the ABR. One month after the video-physiograph evaluation, the senior therapist received a long-distance telephone call from T. He stated that he had exposed himself three times on the same day in a parking lot and several times afterwards. He was again depressed, guilty, moralistic, and remorseful.

Current Theoretical Position

Based on the previous clinical observation, it appears that there is at least one strong contraindication for the use of the present ABR procedure. If the patient has had prior exposure to large and frequent doses of ineffective psychotherapy, he probably has developed an impenetrable cognitive defense, in professional situations, against absorption in the deviant fantasy-belief system (Wickramasekera 1972, 1976a) that mediates sexual exposure. It appears that this patient used his motor and verbal-subjective response systems to insulate his visceral response system from the typically intrusive and invasive properties of the ABR. Based on the previous observations, it seems even clearer that cognitive-verbal manipulations which do not elicit and alter the belief system which is pregnant during deviant enactment are ineffective in inducing long-term behavioral changes in the case of behaviors enacted in “altered states of consciousness” (Wickramasekera 1972; 1976a, b: 1977). Originally it was hypothesized (Wickramasekera, 1972) that exposure in this subset of patients occurs in an altered state of consciousness, characterized by reduced critical judgment and at least partial amnesia as to motivation, in a quasi-automatic fashion. The critical-analytic cognitive component of the ABR cannot impact the relevant belief-fantasy system of the patient unless there is some approximation to the altered physiological and cortical activation pattern that apparently prevails during enactment in the patient’s natural habitat. The belief systems that mediate exposure probably are only partially encoded verbally and may be stored in the minor (Galin, 1974) or hypnotic hemisphere (Bakan, 1969; Gur & Gur, 1974; Graham & Pernicano, 1976), to be
elicited only on appropriate visual stimulation. This specific type of sexual visual stimulation may be associated with increased probability of enhanced engagement of the right hemisphere (Cohen, Rosen, & Goldstein, 1976) and with potentiation of, and absorption (Tellegen & Atkinson, 1974) in, the deviant fantasy belief system that mediates exposure.
CONCLUSION

It appears that sexual exhibitionism in this subset of patients (Wickramasekera, 1972) is a state-specific learning phenomena that remains impervious to critical-analytic cognitive interventions which are nonintrusive of that specific learning state. It is assumed that this
intervention failed because we were unable to approximate the appropriate conditions of visual (adolescent girls) and visceral stimulation sufficiently. It seems that an alteration in arousal and concomitant critical analytic attenuation of the relevant deviant belief-fantasy systems are the essential and sufficient conditions to reduce the probability of sexual exhibitionism in this subset of chronic patients.

REFERENCES


