

## AN INTEGRATIVE APPROACH TO THE TREATMENT OF HYPERHIDROSIS: REVIEW AND CASE STUDY

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### Abstract

A review of the world literature indicates that there is a multiplicity of treatment approaches for hyperhidrosis. Most of these concentrate on the symptom itself and range from topical applications to sympathectomy. This paper demonstrates the value of an integrative approach in which behaviour therapy, combined with hypnosis, is used in conjunction with psychodynamic psychotherapy. This is a case study of a 58-year-old single man who, due to his severe social anxiety, had suffered from excessive sweating throughout his life. The dual approach to treatment concentrates both on the hyperhidrosis as well as its causation. The patient made an excellent recovery and this was maintained over a two year period. Copyright © 2007 British Society of Experimental & Clinical Hypnosis. Published by John Wiley & Sons, Ltd.

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**Key words:** hyperhidrosis, integrative psychotherapy, social anxiety, special place

### Introduction

Hyperhidrosis is a debilitating disorder in which there is an overproduction of sweat by the exocrine sweat glands beyond that required for thermoregulation. The excessive sweating may either be ‘localized’, affecting the hands, feet or axillae, or ‘generalized’, affecting the whole body. Patients who suffer from hyperhidrosis often become very sensitive and acutely embarrassed about their sweating so that they avoid social situations which are likely to lead to the symptom. Often, the mere anticipation of the social event leads to such high levels of anxiety that the patient avoids the social event altogether. This might well have limiting effects on the patients’ social and professional life (Tögel, Greve and Raulin, 2002).

The simplest approach to the treatment of hyperhidrosis is the use of topical applications to the affected areas. However, many patients who have tried over-the-counter antiperspirants and have found them to be ineffective, are likely to go to their general practitioner for advice. The general practitioner rarely sends patients to a psychotherapist and usually prefers to refer patients to a dermatologist or, in severe cases, to a surgeon. These treatments may counteract the sweating, but do not take into account the psychological factors responsible for the production of the symptom.

Topical applications may be useful for patients with mild symptoms. Antiperspirants usually contain aluminium chloride hexahydrate as the active ingredient, and it is thought that they function by decreasing sweat secretion by obstructing the ductal opening of the sweat glands; they differ from deodorants, which are essentially designed to counteract the unpleasant odour of sweating. The amount of aluminium chloride hexahydrate

varies from 5% and 20%, the drying effect being directly proportional to the concentration of the aluminium chloride in the solution. Patients are advised to apply the antiperspirant at night and to wash it off the following morning to avoid skin irritation. In a study which was carried out as far back as 1978, patients with axillary hyperhidrosis were instructed to apply a 20% solution of aluminium chloride hexahydrate in alcohol every night for a week, and it was found that 64 out of 65 patients responded well, with no side effects (Scholes, Crow, Ellis, Harman and Saihan, 1978). The use of topical application is a simple and immediate remedy and is widely used today.

Another treatment, first introduced in 1952 (Boumann and Grunewald-Lentzer, 1952), is referred to as iontophoresis and this involves the use of an electric current through tap water, with or without the use of an anti-cholinergic agent (Tögel et al., 2002). It is thought that this form of treatment is effective because it introduces ions of soluble salts and other molecules into the skin, blocking the sweat ducts without damaging the sweat glands; however, this only gives relief for a period of two weeks up to three months, and then the treatment procedure has to be repeated.

Another approach is the use of Clostridium Botulinum Toxin often referred to as Botox. This form of treatment involves the injection of a small quantity of Botox into the skin, and the effect of this is to block the transmission of a successful secretory impulse to the eccrine glands (Jacobs, Desai and Markus, 2005). However, this only interferes with sweat secretion for a period of approximately three months; after this time, the nerve endings regenerate and the Botox injections have to be repeated.

There are a number of surgical procedures which have been used in the treatment of hyperhidrosis: these include surgical removal of the sweat glands in the axillae, the use of liposuction or curettage, and bilateral upper thoracic sympathectomy. The procedure of excising the sweat glands from the axillae was in vogue at one time but is no longer carried out for various reasons: it was found that it was not effective in 10% to 20% of cases, and in some instances it produced infection, severe scarring and occasionally limitation of movement in the arm (Jacobs et al., 2005). Liposuction or curettage is a much safer form of treatment in that it produces less scarring, it has fewer complications and a higher success rate (Lee, Cho, Kim, Park, Lee and Park, 2006). Thoracic sympathectomy involves the cutting or clipping of the sympathetic trunk relating to the areas of excessive sweating. Recently, as a result of the new developments in endoscopic surgery, it has become possible for surgeons to carry out these operations with much smaller incisions. A variant of this approach is the use of electro-coagulation to the upper thoracic ganglia referred to as sympathectomy (Moya, Ramos, Morera, Villalonga, Perna, Macia and Ferrer, 2006).

For those patients who would prefer to deal with their hyperhidrosis with anti-depressant medication, the drug of choice is mirtazapine which has been shown to be very helpful. Ginsberg (2004) reported the case of a 30-year-old male patient who had not responded to a number of drugs, including lorazepam. The pre-treatment scores on the Hamilton Rating Scales for depression and anxiety were 20 and 14 respectively; however, he responded quite rapidly to mirtazapine with an initial dose of 30 mg/day. After only three weeks of treatment, the sweating was eliminated, though he did complain that the drug caused sedation during the course of the morning. At the 6-week follow-up visit, the Hamilton Scale was repeated and it was found that the depression and anxiety scores had fallen remarkably to 7 and 5 respectively. The patient was followed up for 16 months altogether and it was reported that the patient remained in remission on the lower dose of 15 mg of mirtazapine per day. In this article, it would appear that the authors made no attempt to explore the psychopathology responsible for the hyperhidrosis.

In 1985, Kraft reported a case of a 23-year-old male patient whose hyperhidrosis was of such a magnitude that he could literally wring out his shirt and empty his shoes, which had filled up with sweat. The focus of the hypnosis was to concentrate on the social situations which caused him distress and produced the excessive sweating. One of the important motivational factors for seeking treatment at this stage was that he had failed to be selected for a managerial training scheme: he knew that this was not due to any lack of ability on his part, but it was a direct result of his severe anxiety and hyperhidrosis. Essentially a non-drinker, he found that alcohol was effective in counteracting the sweating, but he realized that this was not an answer to his problem, and he was worried about becoming an alcoholic. The patient had 12 consultations altogether and, in three of these, hypnosis was used as an adjunct to psychotherapy. He reported that he had benefited very considerably from the treatment, and, at one year follow-up, he was pleased to report that he had now been promoted to a position of much greater responsibility – no doubt a direct result of the treatment. In addition, he had the occasional sweating attack but this was no longer of any significance (Kraft, 1985).

King and Stanley (1986) successfully treated a 28-year-old female patient who suffered from axillary hyperhidrosis in all social situations. In the first stage of the treatment, the patient was instructed to take a cold shower daily for 2 weeks, to say the word 'cold' out aloud, and also to ensure that the cold water ran over the axillae. In the second phase of the treatment, hypnosis was used to connect the 'cold response' to various specific social situations, and the patient was given further suggestions of coldness and dry armpits. A tape was also made and the patient was instructed to use this daily for the next week. Gradually, more difficult situations were introduced, and, after 5 weeks of treatment, she was pleased with the progress that she had made in that she was able to attend a large party without any sweating. The therapy was terminated at this stage.

Minichiello (1987) reported an interesting case of the use of hypnosis for the treatment of hyperhidrosis. The patient described in this paper was a 38-year-old male who was born with pseudoarthritis of the tibia. He had had a bone graft operation after which he had developed a hematoma and a staphylococcal infection; as a result, he had to have his leg amputated and needed to wear a prosthesis. Six years later, he developed a severe sweating response and this was of such severity that it caused ulceration and an inability to wear the prosthesis.

An innovative treatment approach was employed here: in the treatment sessions, the therapist directed a fan towards the amputation stump at the same time as cooling and drying suggestions were given in hypnosis. These direct suggestions were checked with thermo-biofeedback. The result was highly successful. At the beginning of the treatment he scored 10 on a sweating severity scale (from 0 to 10), but, at end of the therapy, he scored 0 and this was maintained at the 2 year follow-up (Minichiello, 1987).

An entirely different approach to the treatment of hyperhidrosis was reported by Lerer and Jacobowitz (1981): they used a purely psychodynamic approach in which no attention was paid to the symptom, and the whole of the therapy concentrated on the underlying psychological mechanisms which were responsible for the hyperhidrosis. They described the case of a 19-year-old woman who had suffered from hyperhidrosis of the palms, soles and axillae since the age of 5. The therapy focused on her relationship with her father, and it became clear, during the course of the therapy, that she found it impossible to meet the high demands which were set by her father. She had feelings of inferiority and felt rejected by her parents and these fears led to a strong and negative belief that she would fail in life. Indeed, she had similar feelings that the psychotherapy would inevitably fail. The feelings that she had towards her father were reflected in the transference to her

therapist, and these fluctuated between affection and intense feelings of rejection. As the treatment progressed, the patient became increasingly aware of the emotional reasons for the excessive sweating: as a result of this increased awareness, her sweating response gradually reduced in intensity. She also recognized that the degree of sweating was a sensitive barometer of her inner conflicts. The patient remained in therapy for 14 months and treatment sessions were carried out once a week. At the 2 year follow-up, it was clear that she had benefited considerably from her course of treatment: she showed a continued symptomatic improvement, she was less inhibited, and there was a marked reduction in her sweating response.

In the case study to be presented in this paper, the senior author used an integrative approach: this consisted of a combination of systematic desensitization using hypnosis, and psychodynamic psychotherapy. During the course of treatment, this patient had to work through some of the very important issues relating to his father and, at the same time, attention was focused on present-day situations which caused the sweating. As a result, he developed insight into the nature of his crippling symptom which had considerably interfered with his life.

## **Case study**

This paper refers to a 58-year-old man, whom we shall refer to as Daniel, who sought treatment for his hyperhidrosis. In the initial assessment consultation, Daniel told me that, on many occasions, he would sweat so profusely that his shirt would be drenched in sweat. He made it quite clear that the sweating tended to occur when talking to people in authority, but it did not occur when talking to his own staff. At this early stage, he was already aware that his father, a highly successful business man and entrepreneur, had been a very powerful personality in his life and that this had some bearing on his hyperhidrosis. Daniel was keen to get a better understanding of how the treatment might help him, and it was explained to him how hypnotherapy might counteract the excessive sweating. It was here that the senior author described another patient who had been successfully treated for this condition some 30 years earlier; the patient found this extremely helpful and commented that he could relate to the severity of his problem.

When Daniel came for his second session three weeks later, he said that he had recently come back from the Middle East and the USA, and he had not experienced any sweating whatsoever. However, when walking towards the consulting room, he happened to meet an ex-girlfriend and this immediately led to profuse sweating. He added that there seemed to be a large difference between being abroad and encountering people in England. Daniel spontaneously volunteered that an important factor in the sweating response was a feeling of inferiority; he also indicated that there was a high degree of anxiety in various members of the family – both father and uncle were nervous people.

Even in the first hypnosis session, Daniel was able to relax extremely quickly, and he very soon reached a level approaching sleep. When asked for a special place, he immediately referred back to a time when he was playing tennis with his coach in Florida. In this situation, he felt extremely well and confident, and the way that he described the situation made it very obvious that he was enthusiastic about playing against the coach. It was clear from his facial expression that the whole experience of playing against his tennis coach was exhilarating and gave him a huge amount of confidence. I then asked him for a relatively easy social situation, and he said that he wanted to rehearse meeting the ex-girlfriend on the street. It was indicated that we could reduce the sweating

response by introducing this experience in imagination followed by the special place. This was repeated several times until he felt comfortable in this situation. He was also given the post hypnotic suggestion that he should carry out self-hypnosis for 10 minutes every day, using the association word 'calm' for the induction.

When he came for his third session, Daniel said that he felt decidedly better in a number of social situations and, although he still felt hot, he did not get the excessive sweating which had always caused him distress. He went on to say that there had been other times when his symptoms had decreased in intensity and he therefore wanted to exercise caution before attributing it to the therapy. He was surprised that there was a very noticeable improvement at this early stage and it was pointed out to him that patients recover at different rates.

During the hypnosis, Daniel wanted to rehearse a potentially difficult situation at a house warming party involving approximately 200 guests. His anxiety level was reduced by alternating this difficult situation with the special place – again, this consisted of playing against his coach in Florida. This special place was used repeatedly during the course of the therapy and Daniel found this extremely helpful.

A week later, when Daniel came for his next session, he recognized one of the patients in the waiting room: under normal circumstances, this would have caused severe sweating, but, on this occasion, it did not cause him any distress. Although he acknowledged that there had been an improvement in the sweating response, he was reluctant to attribute this to the treatment. Again, he was concerned about the forthcoming house warming party and he wanted to go over this in the hypnosis. We rehearsed three possible scenarios: a sit-down meal, a buffet supper and drinks and canapés. In addition, he was keen to envisage two further social events – a cocktail party at his brother's house and a quiz night at his synagogue.

When he came for his next treatment session, the fifth, he told me that he had coped extremely well with the three social events, but, despite this improvement, he was disappointed that he had experienced a further episode of sweating when meeting senior officials in Italy. Indeed, Daniel continued to be negative about his treatment and was reluctant to admit that the therapy was helpful.

He was keen to talk at some length about the relationship he had had with his father whom he described as a very powerful man. His father had died 13 years previously. Daniel gave a verbatim account of what it felt like to talk to clients on the telephone when his father was present: on many occasions, his father tapped him on the shoulder, admonished him and undermined his authority. He could distinctly remember how he felt when talking to the clients on the telephone and that this caused a feeling of heat: this heat which he had felt in relation to his father had now generalized to a number of difficult social situations. Daniel began to understand the source of his debilitating social anxiety.

In the sixth session, he reported that he had unexpectedly met his ex-girlfriend on the street: he was surprised to find, however, that he did not develop any symptoms whatsoever. Notably, he did not experience any feeling of heat or sweating. He had also coped very well at a restaurant in central London; however, despite his many improvements, he was reluctant to show any enthusiasm in case this was only of a temporary nature.

In the second half of the session, hypnotherapy was used where, once again, the special place involved Daniel playing tennis with his coach in Florida. Whenever this scene was introduced in the therapy, his face would light up and he would feel that he had been 'charged' with a tremendous feeling of confidence. We then rehearsed the

forthcoming event in his synagogue as well as a rather prestigious dinner dance event in London; again, whenever he found the situation difficult, he was immediately returned to his special place.

A week later, he reported that not only he had coped very well at the synagogue, but he had also enjoyed the dinner dance, and this was despite the fact that there were over 300 guests and that the room was decidedly hot. Indeed, he felt comfortable conversing with many of the guests and was free of all his symptoms. However, when he met his ex-girlfriend again when going to the bank, this did produce a sweating response, and he commented that the surprise element was particularly potent in producing symptoms. In the second half of the session, we rehearsed a number of forthcoming social events in hypnosis: on this occasion, uncharacteristically, he was prepared to admit that his sweating had diminished significantly over the last year. This improvement was maintained during the next week; and, at the next session, the eighth, he was pleased to report that he had attended the synagogue and was able to cope with the whole of the service without developing any symptoms.

In the tenth session, there was a distinct turning point in his treatment: he now wanted to know why he had had to suffer from the hyperhidrosis all his life, and this was now of paramount importance to him. It was stressed that these symptoms were directly related to his relationship with his father, and that this would require further exploration. It was pointed out to him that, in subsequent sessions, he would need to analyse the feelings that he had toward his father. In particular, he should focus on those occasions when his father would appear unexpectedly. Indeed, it was explained to him that these sudden interruptions were inextricably linked to his severe sweating response on chance meetings in the present day.

During the next three sessions, Daniel preferred to talk about some of his problems in the workplace as he had now become much more competent in social situations. In the fourteenth session, Daniel accepted that he was now much calmer, but that sudden, unexpected encounters still produced some sweating though it was markedly diminished.

In the sixteenth session, he was delighted to be able to tell me that his tennis had improved and, while this was not the aim of his therapy, he felt that this was a very welcome bonus. In the seventeenth and eighteenth sessions, he reported that not only had his sweating response been highly reduced but that he also felt calmer in himself. When he began treatment, he had always needed to be accompanied when going to social events, but this was no longer necessary for him as he could now attend these on his own. He found that this was a difficult adjustment to make as he had always needed an escort in the past.

In the nineteenth session, Daniel described a trip to the Middle East which involved a busy itinerary, and he was pleased to report that he did not have any sweating whatsoever. Although the outside temperature was high, Daniel did not experience any sweating beyond that required for thermoregulation. Daniel remarked that he no longer had any sweating symptoms when making phone calls, but, although this was a most welcome improvement, again he found that this required a great deal of re-adjustment.

In the twentieth session, his last, Daniel agreed that his sweating symptom was much reduced. In particular, he was delighted that he did not experience any symptoms when making telephone calls to clients and that he did not feel that someone was listening to what he was saying over his shoulder. He now understood the origin of his symptoms and that these were a direct result of his relationship with his father. It was pointed out to him that, in fact, the hyperhidrosis symptom came from early childhood at a time

when he was petrified of his father; indeed, his fear of authority figures had remained with him throughout his life. He now felt that he had recovered sufficiently to terminate the treatment at this stage.

In a follow-up interview on the telephone seven months later, he said that, while there had been considerable improvement, the therapy had not been a complete success. However, in reality, it was clear that he had made a vast improvement: he was able to cope with prestigious social functions and attend these on his own, he was able to speak on the telephone without any trepidation and he was no longer frightened of authority figures. But, most importantly, his sweating had been eliminated in all these social situations.

## Comment

Physicians and surgeons have made strenuous efforts to control hyperhidrosis by medical and surgical means without paying any attention to or considering the psychological factors responsible for the symptom. The introduction describes the many treatment approaches from topical application to the invasive procedures such as thoracic sympathectomy. It has been the experience of the senior author that patients who have had a sympathectomy feel that they are worse off than they were prior to the operation. The excessive sweating is a release mechanism for their social anxiety; but, after the sympathectomy, they are unable to express their fears in this way and this makes them feel extremely uncomfortable. In the present case study, the authors have drawn together both the sweating symptom and its causation. As a result, the patient learned to cope with a whole series of social situations which had previously been impossible for him, and this, in turn, opened up a new series of behaviour patterns – for example, being able to go to social functions on his own. It should be emphasized that social anxiety is at the heart of all patients suffering from hyperhidrosis other than those who suffer from medical conditions such as pheochromocytoma. Social anxiety is particularly responsive to hypnotherapy (Kraft and Wijesinghe, 1970), but it is important to combine this approach with psychodynamic psychotherapy, to establish the underlying causative factors and to ensure that the patient explores and works through these emotional traumas.

This case study demonstrates the efficacy of using a combination of hypnotherapy and psychodynamic psychotherapy.

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