British Journal of Psychiatry (1988), **152**, 674–678

Dysmorphophobic Avoidance with Disturbed Bodily Perception

A Pilot Study of Exposure Therapy

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Five chronically disabled dysmorphophobic patients with disturbed bodily perception improved with systematic exposure to avoided situations that evoked dysmorphophobic discomfort, and refraining from behaviours which reduced that discomfort. As avoidance and anxiety improved with exposure, so did associated bodily delusions. Four of the patients had additional problems, for which three cases had drugs at some time. The encouraging pilot results warrant a controlled study of exposure for dysmorphophobic avoidance and anxiety.

Dysmorphophobia is a persistent complaint of a specific bodily defect that is not noticeable to others (Morselli, 1886; Korkina, 1959; Andreasen & Bardach, 1977; reviewed by Marks, 1987); sometimes several parts of the body are involved. Although the term 'dysmorphophobia' usually denotes defects thought to be visible, it can logically also refer to defects imagined in other sensory modalities like smell (Marks, 1987), examples of which have been called the olfactory reference syndrome (Pryse-Phillips, 1971). Patients may complain of both a visible and an olfactory problem at various times (see below). The fixity of the idea can amount to a delusion, and some cases have a schizophrenic, depressive, obsessive–compulsive or organic disorder at some stage (Hay, 1970, 1983; Connolly & Gipson, 1978; Hardy & Cotterill, 1982; Thomas, 1984; and see below); others manifest no other psychotic phenomena, even after prolonged observation.

Unrelated conditions including body image complaints are anorexia, where there is a conviction of being too fat, transsexualism, where the whole body is felt to be opposite to the gender identity, and hypochondriasis, in which concern about illness is expressed. None of these are features of dysmorphophobia.

Dysmorphophobic patients may importune plastic surgeons for help and be very disabled from social avoidance. Great anxiety may ensue if avoidance is not possible. This phobic element is shared with phobic and obsessive–compulsive disorders. The frequency of such phobic avoidance has not been reported but may be very common. It raises the possibility that dysmorphophobia may be treatable by the behavioural method of exposure.

Cases have been treated by drugs (Jenike, 1984), psychoanalysis (Phillippopoulous, 1979), and behavioural methods. Desensitisation reduced complaint of an overly red complexion (Munjack, 1978). Live and fantasy exposure was used in three patients who had delusions that they stank of flatus or bad breath (Beary & Cobb, 1981); in two of the patients the social avoidance diminished markedly and the delusions less so. Assertiveness training and ignoring of complaints about a wrinkled forehead improved social behaviour in an adolescent girl (Braddock, 1982).

As yet there have been no controlled studies in any treatment modality. Our pilot report is of five chronic dysmorphophobic patients whose improvement with exposure suggests that a controlled trial is warranted. Exposure treatment encourages the patient to resume activities that hitherto have been avoided because they bring on dysmorphophobic discomfort, and to refrain from checking behaviour that reduces that discomfort. The avoidance profiles central to exposure therapy are detailed to illustrate the approach.

All but case 4 were treated as in-patients as they lived far away. Three were women and two were men, aged 19–44, with problem durations of 4–16 years (mean 10 years). The five cases had (1) worry about hairiness, with past worry about smell; depression; and obsessive-compulsive disorder (OCD); (2) worry about red lips, about past worry about pubic bone protrusion, with current depression; (3) worry about nose, ears and hips, with current OCD, and fluctuating depression; (4) worry about smelly sweat only; (5) worry about smelly flatus, worsening when schizophrenia developed.

Case reports

Case 1

A woman of 21 had for three years believed she had hair on her face, body and legs, and that people looked at and

https://doi.org/10.1192/bjp.152.5.674 Published online by Cambridge University Press

laughed at this. It stopped her looking at herself in the mirror or other reflective surfaces or while bathing, lest that began a frantic search for hairs; mirrors in her room were covered or turned away. For three years she had avoided travel on public transport. For two years she had gone out mainly at night, to visit friends. By day she went out only briefly on her motor cycle, covering her face with a helmet and scarf, often going through red lights lest people saw her. She dressed and undressed in the dark to avoid seeing hair on her body. At ages 13 and 15–18 she was convinced that she smelt, although she never smelt anything; she washed herself and her clothes for hours daily. At 18 she cut her wrists and was admitted twice for depression and dysmorphophobia.

The youngest of three siblings, the patient had been a sensitive, moody and perfectionist child. She truanted from school for fear that she smelled, leaving at 16. She had three brief jobs at age 19, leaving as she was sure people laughed at her hair. The problem strained her formerly close relationship with mother. Her father was very critical and checked locks and doors unduly.

On examination she had eczema on the cheeks and neck but no excess hair apart from three hairs on a neck mole. She wore jeans and avoided wearing skirts and dresses that might reveal her legs. She was totally convinced that her face and body were hairy "like a man's", rebutting reassurances with, "You're just being polite". There were no other delusions or signs of psychosis. She was tense and eye contact was poor. Mood was normal.

Treatment

The patient was treated as an in-patient as she lived so far away. Exposure therapy lasted a month, with extending periods at home to do exposure homework supervised by a local co-therapist. With the patient's agreement, treatment aimed at her (a) re-entering discomforting situations that hitherto she had avoided because she felt hairy, and (b) ceasing checking whether she was hairy. Targets included the following: to eat meals facing other patients and sit steadily longer with them in the dayroom; to dress and undress with the light on, while looking at her body without checking for hairs; to look at mirrors for a few seconds without examining her face for hairs; to swim in the hospital pool. She achieved all these targets except the swim. She was asked to continually attend to rather than suppress thoughts of other people laughing at her, and imagine that passengers in passing cars, buses and even overhead planes laughed at her hairiness. Once she paradoxically made the fantasy absurd it ceased to upset her.

The patient rapidly adapted to going out by day rather than by night, and by four-week follow-up did this freely, going to pubs, cinemas and cafés, and looking in the mirror for ten seconds at a time without checking for hairs. On a scale of total conviction = 100%, no belief at all = 0%, her delusion had fallen from 100% at admission to 50% (= an overvalued idea). Sometimes she thought that people were laughing at her, but could render it absurd within 5–10 seconds. Her local co-therapist and her mother said she was more confident and relaxed. At 6-month and 2-year follow-up her gains continued: she worked in television, was on a part-time course, and her delusional belief was 0%. She had not yet swum in public.

Case 2

A red-headed nurse of 23 had for seven years complained that her face and especially lips were too red, and avoided talking, eating, or cashing a cheque in front of others. She tried to hide her lips and face with pale lipstick and make-up. Three months prior to admission, after trying to revive a patient at work, her conviction intensified, and she thought people looked, commented, and laughed at her. She checked her face and lips in the mirror 20 times a day for 2–3 minutes at a time, and avoided foods like ice cream that might make her lips wet and more noticeable. She avoided pubs, parties and discos increasingly, and had not eaten in a restaurant for nine months. She began to spend many hours in her room alone and often stayed away from work due to her dysmorphophobia. She avoided visiting her dentist. Handwashing rituals developed. Pimozide from her GP was stopped due to side effects, and diazepam did not help. The worries about red lips had superseded a fear of some years before that her pubic bone protruded, which had led her to wear long sweaters. At age 12, when at school in Africa, she was the only white girl, was teased about her freckles, and avoided swimming.

A paternal cousin had committed suicide after a chronic mental illness. The patient had an older brother. She had been a timid, conforming child with low self-esteem and dependence on her parents. She did well academically. She had had two boyfriends but disliked sex.

On examination her face and lips were normal. She was shy and quiet, with poor eye contact, low mood, and convinced that her colour was strange (80% on a scale where 100% = total conviction, 0% = none).

Treatment

An in-patient programme was begun of exposure to avoided cues and self-prevention of checking for redness in mirrors. At first her mirror was covered; later it was uncovered and she had to sit nearby without checking her face until the urge to check diminished. She was encouraged to ride on buses, walk in busy streets, attend groups, eat in company on the ward and then in restaurants, and brush her teeth leaving toothpaste on her lips. Use of make-up was banned, and she had to eat juicy fruit. She became more depressed, and was given phenelzine (45 mg daily). Exposure treatment was suspended until the depression lifted, and resumed thereafter. From then onwards her belief that her lips were too red began to decline. Phenelzine was reduced after seven weeks, and depression returned and the dysmorphophobia worsened slightly. Restoring phenelzine to 45 mg led to the problems receding again. The patient was counselled as to how to relate to her mother and assert herself.

After 14 weeks the patient felt more confident, was eating and travelling in public, and had been to pubs and parties, which she enjoyed. Belief in the redness of her lips had reduced and her depression had lifted. She rated herself 50% improved. At 12-month follow-up she had lost some of her gains, after a stressful time with her parents. By her 15-month follow-up she had improved further, secured a part-time job, and was on a typing and computing course.

https://doi.org/10.1192/bjp.152.5.674 Published online by Cambridge University Press

Case 3

During exposure therapy for contamination fears, washing rituals, and reassurance-seeking of 18 months' duration, a 19-year-old male disclosed dysmorphophobia that had been present for many years. He was sure that his ears, nose and hips were too large and protruded, and that people stared at him and his way of walking. He avoided social situations, especially girls his own age. He wanted surgery for his nose, covered it with his hand, avoided eye contact, grew his hair long to cover his ears, and wore loose sweaters and trousers to hide his hips. He checked his appearance in mirrors ten times daily for five minutes at a time. Three months earlier he had had eight ECTs elsewhere for depression with a suicidal attempt; this helped his mood but not his rituals. Other past treatment included two admissions, clomipramine, chlorpromazine, and trifluoperazine.

The patient was close to both parents as a child and lived with his widowed mother. The second of three sons, he did well academically at school. He had trouble making friends, never had a girlfriend, and was a perfectionist.

On examination the patient was normal physically, a bit depressed, avoided eye contact, kept his head down, held his hand over his nose, hid his ears with long hair, and spoke very softly and slowly.

Treatment

With the patient as an in-patient, graded exposure was begun to ritual-evoking cues, and after two weeks imipramine (200 mg daily) was added, for ten weeks only, for worsening depression. At first the patient carried out exposure for his rituals dilatorily, but he complied well when pressured. He allowed his mother and her man friend to become exposure co-therapists. As his contamination fears and rituals improved he was encouraged to widen his social circle, which led him to reveal his dysmorphophobia.

From then on (12 weeks into exposure therapy for his compulsive rituals, and two weeks after stopping imipramine), treatment included tasks to reduce avoidance due to his dysmorphophobia. The patient was asked to go to pubs and shops without trying to hide his nose, ears or hips, to check only once in the mirror before going out, and to discuss his imagined defects with relatives. Increasing social homework was set for extending periods on home leave. The patient had six sessions of social skills training to improve eye contact and speech. Within a month he tied his hair back for the first time in years, and then cut his hair short to expose his ears. Self-consciousness and shyness reduced. Eye contact improved markedly. He became able to go to pubs, shops, and on public transport with little anxiety. He was on no medication. At three-month follow-up he rated himself 70% improved, no longer hid his nose, ears or hips, and had joined a sports club. By 18-month follow-up he was studying successfully at university and leading an active social life.

Case 4

A woman of 35 had worried for 16 years that her sweat smelt terrible. For five years this worry made her avoid going anywhere unless accompanied by her husband or mother. She had not spoken to the neighbours for three years because she thought she overheard them speak about her to friends. She avoided cinemas, dances, shops, cafés, and private homes. When visiting in-laws she sat far from them. Her husband was not allowed to invite friends home, she constantly sought reassurance from him about her smell, and strangers who rang the doorbell were not answered. Television commercials about deodorants made her panic. She refused to attend the small local church lest the members of the congregation commented. The family had to travel to a church eight miles away in which the members of the congregation were strangers; there they sat or stood apart from the others. Her husband bought her clothes as she was afraid to try them on in the shop. She used vast quantities of deodorant and always bathed and changed her clothes before going out, up to four times daily. At assessment she was timid, blushed often, and avoided eye contact.

Treatment

Treatment was out-patient exposure therapy involving gradually resuming social contact and ceasing to use deodorants or wash excessively. After six sessions of therapist-aided exposure and many months of self-exposure with the husband acting as co-therapist, the patient stopped avoiding social situations or averting her gaze, and the fear of body odour slowly faded. Gains were maintained to one-year follow-up.

Case 5

A 44-year-old decorator had for 16 years been convinced that he passed flatus and smelled so that others noticed. He carefully located toilets wherever he went and turned down jobs where toilets were not easily accessible. He visited toilets 19 times daily for 10–15 minutes at a time to 'pass wind', used 20 sheets of toilet paper at a time, and showered twice daily. He avoided proximity to others and sat away from them in buses lest he have an urge to go to the toilet. For three months he had heard a voice ("Tommy") commenting on his actions and telling neighbours he was dirty, believed Tommy watched him with a mirror, and on the street shouted at and searched for Tommy. He hallucinated the voices of neighbours (men, women, children) talking about his bowel noises. For a week he had withdrawn to his room. He thought he could guess other people's thoughts. Over ten years, extensive bowel investigations, X-rays and a barium enema were normal.

Between the ages of 20 and 40 he had drunk 15–20 pints of beer daily, developed blackouts, and stopped drinking at the age of 40. He was a shy loner without friends, orderly, perfectionist and clean. His mother had died of TB when he was young and he lived in a flat owned by his father. He was born in Eire and came to London at the age of six. He truanted often from school and had nocturnal enuresis and encopresis until the age of 24. He was self-employed and had worked continually until three months before admission. He was a virgin.

https://doi.org/10.1192/bjp.152.5.674 Published online by Cambridge University Press

On examination the patient sat far away, was quietly spoken with good eye contact, suspicious, and hearing voices. Reassurance that no smell could be detected elicited, "you're just trying to encourage me". He wondered if he was going mad, thought others could hear his thoughts, and heard voices in the third person talking of his past. He was diagnosed as having schizophrenia and dysmorphophobia.

Treatment

On trifluoperazine (20 mg *nocte*) the patient stopped hallucinating, although he heard a "voice of conscience". After two weeks on drugs, visits to the toilet remained frequent, so exposure therapy was begun. He was asked to sit in the dayroom next to other people for an hour or more daily, and later to sit next to a passenger on a bus and stay seated until the ensuing urge to go to the toilet declined. He had to slowly reduce his visits to the toilet, and achieved his agreed target of no more than two visits a day within eight weeks of the programme starting. The anxiety and urge to visit the toilet evoked by sitting next to people fell, as did his belief that he smelled. After ten weeks of treatment he was only 10% convinced that he smelled, compared with 100% on admission. He no longer avoided other people and public transport, but remained unwilling to socialise much. His improvement, without complaint of voices, continued at 3-week and 18-month follow-up; he continued on trifluoperazine (15 mg daily).

Discussion

Phenomenology

In all five cases, the chronic dysmorphophobia caused major handicap through social avoidance and isolation. Only case 5 had always been a loner and remained so after treatment. In our remaining four patients, social avoidance and anxiety arose from the dysmorphophobia and remitted as it improved.

All but one of our patients also developed other pathology requiring treatment: two were treated for depression (one of these and a third patient had previously been treated for depression), two for compulsive rituals (both also had fluctuating depression), and one for schizophrenia. In two, the chronic dysmophophobic belief had followed an earlier different one – worry about red lips followed fear that the pubic bone protruded, and concern about hair succeeded worry about smelling.

Our two cases who were currently deluded that they smelled would not be universally called dysmorphophobic, but their features were so like those in delusions of defective bodily appearance (the main problem being a fixed conviction of a bodily defect, leading to anxious avoidance of relevant situations) that they are included here. There seems no good reason to restrict the label of dysmorphophobia to complaints of visible defects when complaints of olfactory defects are otherwise indistinguishable, even to the point of patient asking for, and having, plastic surgery to remove "smelly" axillary glands (case of first author, outside the present series). The social phobic aspect of our cases was like "contrite" behaviour in the olfactory reference syndrome (Pryse-Phillips, 1971) – embarrassed hiding away, and excessive washing and changing of clothes.

The beliefs of bodily defect on admission were held with tenacity against all evidence. This 'fixity' qualified the beliefs as delusions, although during subsequent treatment they weakened to become overvalued ideas or even to disappear. Intriguingly, case 1 had obvious facial and neck eczema that did not bother her; what she worried about was invisible hair on her face, body and legs.

In our four dysmorphophobic patients who also had ther pathology, it seems rather Procrustean to force a diagnosis of what was 'primary', or to say that the dysmorphophobic features were 'merely' symptoms rather than a syndrome. The same inconclusive debate could be held about the status of the additional pathology found so commonly in phobic and obsessive–compulsive disorders (and depression). Whatever label is preferred, all our five cases had been markedly disabled by their long-standing dysmorphophobic delusion, anxiety, and avoidance, and these features seemed to improve with exposure therapy. Such phenomena seem worth considering for exposure therapy, whether they are regarded as 'primary' or 'secondary'.

Exposure treatment seemed helpful

The dysmorphophobic avoidance and anxiety appeared responsive to live exposure therapy in these five uncontrolled pilot cases. Some also had fantasy exposure and paradox. Measures of particular anxieties and avoidances showed that they reduced as relevant exposure tasks were executed, untreated situations tending to remain unchanged. Before therapy began, patients were asked which anxiety-evoking situations they avoided because of their dysmorphophobic belief. After construction of this avoidance profile, patients were encouraged to re-enter avoided situations, to stay there for long periods until their ensuing discomfort slowly subsided, and to record exposure homework in a daily diary. The exposure was therapist-aided as well as self-administered (the good results of self-exposure alone in phobias and compulsive rituals (Marks, 1987) were not known when these cases were treated). Many exposure sessions were given – sometimes several dozen. Two cases also had exposure and

https://doi.org/10.1192/bjp.152.5.674 Published online by Cambridge University Press

response-prevention for compulsive rituals, one of these with social skills training.

Some dysmorphophobics refuse to carry out exposure therapy. It is not known what proportion of all dysmorphophobics they represent. The issue remains to be studied systematically in plastic surgery and psychiatric clinics.

Drug therapy was also used in three of our five cases. Two had antidepressants for intercurrent depression and one a phenothiazine for florid psychosis; the drugs seemed to help the depression and the psychosis. Most of the improvement in dysmorphophobic beliefs, avoidance, and anxiety seemed to follow the start of exposure therapy, but only a controlled study could decide this definitively.

The dysmorphophobic delusion improved as phobic avoidance and anxiety reduced

As patients lost their fear of hitherto-avoided troubling situations during exposure therapy, so their dysmorphophobic delusion weakened or even disappeared. This occurred despite (a) those beliefs having first been 'fixed' delusions unamenable to rational argument and (b) no cognitive therapy having been used to dispute the beliefs. When the avoidance behaviour and anxiety diminished, so did the delusions. We only measured these every few weeks; daily measures may conceivably have revealed one or other dimension changing first.

This sequence of cognitive accompanying behavioural improvement echoes events in behavioural psychotherapy for other conditions. In a controlled study of social dysfunction, irrational beliefs reduced at the same speed during social skills training whether or not cognitive therapy had been added (Stravinsky *et al*, 1982). In an obsessive-compulsive patient with extensive checking rituals linked to a psychotic delusion and auditory hallucination, exposure without cognitive therapy improved not only the rituals but also the delusion and hallucination (Lelliott & Marks, 1987). In two cases, delusions of smelling reduced as social avoidance ceased in the course of exposure therapy, perhaps "due to lack of behavioural nourishment" (Beary & Cobbs, 1981). In 40 ritualisers, the degree of fixity of obsessive-compulsive beliefs weakened in parallel with improvement in rituals during exposure therapy (Lelliott *et al*, 1988). Clearly, irrational beliefs can resolve without cognitive therapy when a behavioural treatment improves associated abnormal behaviour.

Conclusion

Our encouraging results of exposure therapy in dysmorphophobics from this small uncontrolled series suggest that a controlled trial is worthwhile to test whether the approach has wider value, especially in patients who ask for plastic surgery. Surprising improvement can occur in the dysmorphophobic delusion as well as in the phobic avoidance and anxiety. Varied pathology additional to the dysmorphophobia and disturbed bodily perception is common and needs extra treatment in its own right.

Acknowledgements

Many thanks are due to Drs Harry Andrews, John Cobb and Stephen Stansfeld and to Mr Bob McDonald for their valuable comments on the manuscript.

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https://doi.org/10.1192/bjp.152.5.674 Published online by Cambridge University Press