

It's the Feeling Inside My Head: A Qualitative Analysis of Mental Contamination in Obsessive-Compulsive Disorder

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Background: It was recently proposed that feelings of dirtiness and pollution can arise in the absence of physical contact with a contaminant. At present, there is limited data regarding the qualitative features of this construct of “mental contamination”, although it is hypothesized to be particularly relevant to Obsessive Compulsive Disorder (OCD), where compulsive washing in response to contamination fear is a common symptom presentation (Rachman, 2006).

Aims and method: The aim of this research was to explore the qualitative features of mental contamination in 20 people with contamination-based OCD, using a semi-structured interview.

Results: All participants reported times when they had felt dirty or contaminated in the absence of physical contact with a dirty or dangerous object. Mental contamination generated diffuse feelings of internal dirtiness not localized to the hands, which evoked urges to wash (100% participants), neutralize (80% participants) and avoid (85% participants). **Conclusions:** In support of the theory outlined by Rachman (2006), mental contamination was found to take a number of forms, be primarily associated with a human source, generate internal dirtiness and cause emotional distress and urge to wash. The clinical implications of these findings are discussed and ideas for future research are proposed.

Keywords: Contamination fear, OCD, compulsive washing, mental pollution.

Introduction

The fear of contamination has traditionally been conceptualized as physical or contact contamination, i.e. feelings of dirtiness and pollution following direct physical contact with a dirty, dangerous or harmful item, person or place. However, a recent cognitive-behavioural theory of contamination goes beyond the traditional fear of contact contamination to include “mental contamination”, an innovative concept of significant clinical relevance (Rachman, 2004, 2006). This newly identified phenomenon is the feeling of being polluted, dirtied, infected or endangered in the absence of actual physical contact with a contaminant and is accompanied by negative emotions such as shame, guilt, disgust and impurity. The features of

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mental contamination are described in detail by Rachman (2006) and have particular relevance to OCD where compulsive cleaning, driven by a fear of contamination, is a common symptom presentation, reported by 38% of participants (Foa et al., 1995).

The theory of mental contamination: sources and qualitative features

While contact contamination typically includes contamination from disease, dirt and harmful substances, mental contamination is postulated to take a number of overlapping forms. Mental contamination is thought to most commonly co-occur with a perceived association with impurity or immorality; for example, it may arise following a physical violation such as a physical or sexual assault, which can leave a person with a persisting sense of internal dirtiness that persists even after washing. It is also thought to arise after a mental violation or following perceived ill-treatment, which leaves the sufferer feeling personally betrayed, wrongfully accused, humiliated, ashamed, degraded or manipulated. Mental contamination is also hypothesized to trigger “morphing”; the fear of becoming contaminated or tainted by close proximity to a person perceived to be undesirable or being somehow altered by their characteristics. In extreme cases of morphing, a person may fear that they may acquire these unpleasant characteristics and be changed into the undesirable person themselves. The type of person classed as undesirable is proposed to be both personally and culturally defined, but usually includes people who are considered “weird or mentally unstable and dirty, and of low status” (Rachman, 2006, p. 46) and is occasionally associated with personal enemies.

Morphing is closely linked with the concept of “mind germs”; the idea that undesirable characteristics are airborne and can be transmitted in a similar way to infectious illness, and thus a fear of morphing can be evoked simply by looking at the feared person. Finally, Rachman’s (2006) theory suggests that mental contamination can also be self-generated. In these cases, the feelings of contamination are a direct product of a person’s own mind, arising from unwanted, unacceptable thoughts, images or memories and occasionally repugnant acts, such as watching pornography.

Rachman’s (2006) theory hypothesizes that a sense of internal dirtiness and human source are two key features that differentiate mental from contact contamination. In contact contamination, the source of fear is usually a dirty or dangerous item or place, associated with disease, dirt or harmful substances. The contaminant, e.g. bodily waste, decaying material, or pesticides, is tangible, physical and perceptible and thus evokes a localized external feeling of contamination and dirtiness. By contrast, it has been suggested that in mental contamination the source is usually a dirty, dangerous, harmful or unpleasant *person* (and in cases of self-generated contamination the sufferer themselves), and thus the subsequent feelings of contamination will often appear internal, diffusive, obscure and intangible.

Many sources of contact contamination (e.g. bodily fluids or harmful chemicals) are universally feared and the sufferer acknowledges that others are considered vulnerable to the same sources of contamination. Contact contamination is easily transmissible to other people and objects and thus spreads widely unless prevented. On the contrary, it is thought that in mental contamination the sufferer considers themselves to be uniquely vulnerable and although the contamination can spread it is rarely transmissible to others. For example, a patient with a fear of morphing into a drug addict will recognize that other people are unable to become drug addicts just by looking at them. In addition, the theory suggests that a discerning feature of mental contamination is that the level and range of contamination fluctuates in

response to changes in attitude to the contaminator, whilst the level of contamination in contact contamination usually remains constant (Rachman, 2006).

Theory of mental contamination: associated emotions and behavioural consequences

While both contact and mental contamination are unpleasant and emotionally provocative, the pattern of emotion is proposed to differ for the two types. With contact contamination, the sufferer may experience discomfort, dread, and feelings of dirtiness and infection, whereas with mental contamination the sufferer is thought to experience discomfort, uneasiness, dread and predominately internal dirtiness and pollution. Both forms lead to revulsion, disgust, nausea and fear, but in mental contamination anxiety, shame, and guilt are also hypothesized to be common, and there is often a moral element to the emotions experienced.

According to theory, both contact and mental contamination generate urges to wash or clean away the feelings of dirtiness. However, feelings of contact contamination are focused mainly on the skin, especially the hands which have usually touched the source; thus the site is identifiable and washing is likely to be effective, at least in the short term. In mental contamination, the feelings of dirtiness and pollution are not localized, have no typical focus, and are often internal and inaccessible; consequently attempts to physically clean or wash are likely to be ineffective. People with mental contamination will therefore often engage in a variety of alternative behaviours, in addition to washing, to reduce the unpleasant emotions that they are experiencing, such as complex mental rituals and checking.

Empirical evidence to date

A number of case examples of patients with OCD have indicated that feelings of mental contamination can arise in a number of forms, as described above (e.g. de Silva and Marks, 1999; Gershuny, Baer, Radomsky, Wilson and Jenike, 2003; Rachman, 2006; Volz and Heyman, 2007). Furthermore, experimental work has indicated that it is possible to evoke feelings of contamination and washing behaviours in healthy students in the absence of physical contact with a contaminant by asking them to imagine receiving a non-consensual kiss (Fairbrother, Newth and Rachman, 2005; Herba, 2005), to imagine wearing the clothing of an undesirable person (Coughtrey, Shafran and Rachman, unpublished observations), to copy out an immoral story, recall an immoral memory (Zhong and Liljenquist, 2006) and by recalling memories associated with moral violation and betrayal (Coughtrey et al., unpublished observations), indicating that mental contamination can be evoked in a number of ways. However, to date, there is limited empirical evidence regarding the nature of mental contamination in OCD, and there has been no qualitative research examining the sources of mental contamination. To the authors' knowledge, much of the existing knowledge is based on theoretical descriptions and clinical anecdote. Therefore the aim of this study was to use a semi-structured interview to qualitatively explore the sources and nature of mental contamination in a sample of people with contamination-based OCD.

Aims and hypotheses

The aim of this study was to explore the nature of mental contamination in OCD, using a qualitative interview approach. Specifically, this study aimed to: 1) identify the sources and

qualitative features of mental contamination; 2) to examine the emotional and behavioural consequences of mental contamination.

Based on Rachman's (2006) theory of mental contamination it was hypothesized that the majority of participants with contamination fears would report:

- 1) Feelings of contamination in the absence of physical contact with a contaminant;
- 2) Feelings of contamination associated with perceived immorality;
- 3) Feelings of dirtiness triggered by human sources of contamination;
- 4) Self-contamination triggered by intrusive thoughts, images and memories;
- 5) Diffuse feelings of internal dirtiness and pollution not localized to the hands;
- 6) The experience of mental contamination would have a negative emotional impact and result in urges to engage in compulsive washing.

Method

Participants

Participants with contamination fears were recruited through advertisements at local mental health services and support groups. Twenty people with contamination-based OCD completed the study (7 males and 13 females), with a mean age of 36.15 years ($SD = 11.01$). Participants were required to have received a diagnosis of OCD either from a General Practitioner or mental health professional and to report contamination concerns. All participants then received a formal diagnosis of OCD using the Anxiety Disorders Inventory Schedule for DSM-IV (ADIS-IV; Brown, DiNardo and Barlow, 1994), administered by AC. All participants reported experiencing symptoms of OCD and fears of contamination for a minimum of one year, and the majority of the sample (80%) were currently receiving treatment, of which 70% were receiving Cognitive-Behavioural Therapy and/or medication.

Procedure

Participants completed the Mental Contamination Interview (Rachman, 2006; see below for details), administered by AC. Interviews were transcribed verbatim and data were explored using thematic analysis with descriptive statistics (Smith, 2003) following the approach of Speckens, Hackmann, Ehlers and Cuthbert (2007), Lee, Roberts-Collins, Coughtrey, Phillips and Shafran (2011) and Philips (2011). Individual sections of material were coded, from which broader themes were derived. Themes were initially identified by AC and subsequently verified by RS. The proportion of participants endorsing different items on the interview were examined. This study received ethical approval from the local NHS ethics committee.

Measures

The Mental Contamination Interview (Rachman, 2006) is a semi-structured interview to assess the fear of contamination. The interview assesses aspects of the sources of contamination (e.g. physical sources, human sources, self-contamination and morphing), the spread and duration of contamination, associated emotional affect and the consequences of contamination and was developed based on clinical work with people with mental contamination concerns. The interview takes around 60 minutes to complete and consists of 38 questions that are designed

to be used flexibly to assess symptoms of mental contamination e.g. “Are the feelings of contamination associated with any particular person?”

Results

The data analysis revealed seven key themes: contamination without physical contact; multiple sources of mental contamination; human sources including self-generated mental contamination; internal dirtiness; emotional response; and urge to wash, neutralize and avoid. Each of these will be addressed in turn.

Contamination without physical contact

The first theme that emerged was that physical contact with a contaminant was not necessary to evoke feelings of contamination and dirtiness. Sixteen participants (80%) could identify objects, places or substances (e.g. bodily fluids, public washrooms and rubbish bins) that upset or scared them if touched by them, i.e. contact contamination. However, 100% of participants also reported that they could feel contaminated without physical contact with a contaminant, suggestive of mental contamination, e.g. “I can feel contaminated by bad numbers”; “I feel dirty if I do something wrong, or make a mistake”; “Sometimes I feel infected by bad thoughts”; and “By memories, being around unpleasant people, just even standing in the ‘dirty’ areas of the house”. Furthermore, 17 participants (85%) reported feeling contaminated and dirty, even when they knew they were physically clean e.g. “I can be thinking something awful and then I’ll feel dirty, even if I’m in the shower right at that moment.” Mental contamination was reported to have considerable longevity, and for 9 participants (45%) the source of mental contamination had remained contaminated for a very long period (for more than a year at least). One participant described a chair in their home that someone unpleasant had sat on 10 years previously that they were still unable to use.

Multiple sources of mental contamination

Figure 1 shows the various sources of contamination endorsed by participants. The main sources of contamination identified were physical contact with a contaminant (80%), memories (85%), unwanted/repugnant thoughts (70%), dreams (40%), upsetting remarks/criticism (55%) and certain types of people (85%). As shown in Figure 1, there was overlap between these sources e.g. memories of criticism. Many participants saw themselves as uniquely vulnerable to these sources of mental contamination, and 11 (55%) reported that they felt contaminated by things that did not affect other people. In addition to these identified sources of mental contamination, it is noteworthy that for 9 (45%) participants the source of contamination was often obscure, and on occasion they felt contaminated without knowing why, e.g. “It’s just a feeling, a sensation, I can’t explain it.”

Human sources of mental contamination

As show in Figure 1, participants reported that their feelings of mental contamination were primarily triggered by a person, including themselves. For example, 12 participants (60%) reported that coming near to, but not physically touching, a weird or shabby person left them

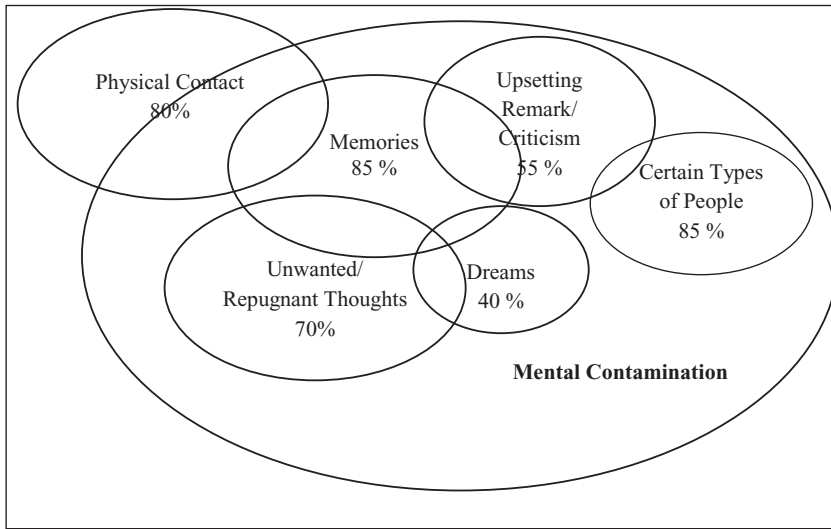


Figure 1. The sources of mental contamination, based on Rachman (2006)

feeling dirty, e.g. “I avoid contact with fat people, stupid people, people who’ve lost all their hair, people who’ve done something bad or wrong”. For 9 participants (45%), the source of contamination was a specific person, e.g. “I wouldn’t go near him, wouldn’t want to eat my lunch near him for example. I’d have to hold my breath whenever I walked past his office; I was scared I might breathe part of him in. . . I eventually had to leave my job. . . I avoid driving past the offices even now”; and 10 participants (50%) felt contaminated if they touched the clothing of someone they disliked e.g. “My housemates last year who I thought were very immoral. . . I wouldn’t want to have any association with them, because it would make me feel dirty. I’d avoid touching their clothing completely”. For 3 participants (15%), this person was a source of contamination because they believed that if they stood close to them they might start to resemble them or take on their bad characteristics.

Mental contamination could also be generated by perceived ill-treatment from another person. Five participants (25%) reported being seriously harmed in some way, citing examples of both physical and emotional abuse. Of these participants, 3 (60%) now avoided the person concerned because of contamination fear. Additionally, 11 participants (55%) reported that upsetting remarks or criticism could evoke feelings of contamination, e.g. “Criticism is the biggest trigger. I want to be perfect, I feel like I’ve been tainted.”

There was also evidence that contamination could be generated internally by the person themselves i.e. through intrusive thoughts, memories and dreams. Fourteen participants (70%) had unwanted or repugnant thoughts that made them feel dirty or contaminated, which were reported to be extremely powerful in triggering feelings of dirtiness, contamination and urge to wash e.g. “Unwanted thoughts, repugnant thoughts usually about harming people or doing bad things that make me want to wash.” In addition, 17 participants (85%) reported that memories were a common trigger, both of previous times when they had felt contaminated (highlighting a possible overlap with contact contamination) and general negative memories e.g. “Negative

memories from my childhood, being screamed at, told I was worthless” and “Memories of events and times that I’m ashamed of.” Interestingly, 8 participants (40%) reported bad dreams that triggered feelings of contamination. Dreams were reported to be a particularly powerful trigger of contamination because they almost felt like reality, e.g. “I feel very upset and dirty if I dream about cheating on my partner or emotionally harming someone; they make me shower immediately when I wake up.” Common across these human sources of mental contamination was a component of perceived immorality. For example, 12 participants (60%) reported a strong urge to wash after doing something they felt was bad or sinful e.g. “I’d want to take a really hot shower, wash my hair and pick at the blemishes on my skin.”

Internal dirtiness

Participants predominantly reported feelings of internal dirtiness and pollution, with no typical focus on one area of the body. Eight participants (40%) felt dirty under their skin and 10 (50%) participants felt contaminated inside their bodies e.g. “It’s like I need to scrub through my whole body. It’s a feeling of dirtiness from within.” All participants reported feelings of contamination that extended beyond the surface of their skin e.g. “My mind is contaminated, my whole sense of self.”

Emotional response

Feelings of mental contamination were reported to have a severe emotional impact by all participants, and discomfort, uneasiness, dread, anxiety, revulsion, anger, shame, guilt and disgust were all common. In addition, 6 participants (30%) felt that they might become crazy when they felt very contaminated. For 10 participants (50%), the emotional consequences were often triggered by the associated washing and cleaning they would feel compelled to do e.g. “There’s too much of a trail to go back to, I haven’t got time to do all that, all that washing, the cleaning. I feel like I might scream because I don’t know how I can manage.”

Mental contamination generates urges to wash, neutralize and avoid

All participants reported washing their hands between 20–50 times per day in response to mental contamination, and 14 participants (70%) reported spending a lot of time washing and/or cleaning each day, with regards to themselves, their belongings and other family members e.g. “My hands are red raw and my hair is falling out from showering too much.” For 15 participants (75%), compulsive washing and cleaning was moderately effective in removing feelings of internal dirtiness and contamination, but for 5 participants (25%), washing themselves was not sufficient e.g. “Sometimes I feel the need to remove the surface of my skin when [the contamination] is really bad, like to scrape bits of skin off the surface.”

In addition to washing and cleaning, 16 participants (80%) employed various other tactics to remove their feelings of mental contamination e.g. “I repeat neutral phrases to try and soak up the contamination” and “I have to re-do whatever I’m doing without the contaminating thought in my mind, and preferably with a positive thought instead.” Trying to push away contaminating thoughts was a common coping strategy reported by 14 (70%) participants, although 13 (90%) of these felt it had limited success and often increased the frequency and intensity of future contamination related thoughts.

Mental contamination also triggered strong avoidance, and 17 participants (85%) reported avoiding contact with items, people, places and situations that triggered mental contamination. Furthermore, 10 participants (50%) reported having separate safe and clean areas and dirty areas that they would avoid in order to prevent the further spread of mental contamination e.g. "There are some things that I can't even talk about in the bedroom, because that's the safest, cleanest area of the house."

Generalization and spreading

Seventeen participants (85%) reported mental contamination spreading, mainly via connections between objects, people and places and all participants reported going to great effort to prevent spreading mental contamination to others e.g. "Contamination has an endless energy and it's very hard to break its momentum and stop it from spreading". For 9 participants (45%) the thought of passing contamination onto someone else was more frightening than themselves being contaminated. For these people, the spread of contagion centred around two themes: 1) responsibility for preventing harm to others; 2) reducing the impact of contamination in terms of the subsequent washing and cleaning it would trigger e.g. "Because when it starts to spread it creates a trail and that's when I have to scrub like mad".

Discussion

In support of Rachman's (2006) theory and the hypotheses, this study found that feelings of contamination can arise in the absence of physical contact with a contaminant. Mental contamination was found to take a number of forms, including following violation, association with immorality, morphing fear, and self-generated contamination, and the results supported the view that mental contamination often has a human source.

Mental contamination is postulated to be related to both physical and moral violation. A quarter of participants in this study had been seriously emotionally harmed and felt that this had subsequently left them feeling contaminated. In addition, over half of the participants reported being left feeling polluted after someone had made an upsetting remark or criticism of them. This clinical evidence supports the findings from studies utilizing the non-consensual kiss paradigm (Fairbrother et al., 2005; Herba, 2005); however, the differing effects of physical and emotional violation on subsequent mental and contact contamination requires further investigation. Interestingly, 60% of the participants also reported feeling contaminated when they had violated one of their own moral standards by doing something they felt was bad or sinful. This so-called perpetrator effect has been demonstrated in healthy students using a variant of the non-consensual kiss paradigm (Rachman, Radomsky, Elliot and Zysk, unpublished observations) and is worthy of further research in clinical and forensic samples.

Over half of the sample reported that coming near to someone weird or shabby left them feeling polluted. Not only does this highlight the human source of contamination, it also is indicative of beliefs relating to morphing, the idea that it is possible to take on or catch undesirable characteristics from someone. A small yet noteworthy minority of participants endorsed strong beliefs about their vulnerability to taking on such characteristics that were not related to concerns about germs, and turning into someone they strongly disliked. This had particular consequences for one person when it began to interfere with treatment for their OCD: "I found it really hard to go for CBT because it felt like I couldn't breathe the

air in the hospital because all the people around me were weird and odd". This area of mental contamination is worthy of further investigation. Furthermore, this provided insight into the individual vulnerability demonstrated by people with mental contamination; all participants recognized that other people were not susceptible to taking on these undesirable characteristics, but felt that they were uniquely vulnerable. This is in support of the theory of mental contamination and is in contrast to people with contact contamination concerns who recognize that other people are also at risk.

The findings reported here provide evidence for the role of self-contamination in OCD (Rachman, 2006). Some of the most endorsed triggers of contamination were unwanted, repugnant thoughts and autobiographical memories. When describing intrusive thoughts that left participants feeling contaminated, some participants indicated that if they experience an intrusive thought about being contaminated this would make them feel dirty. This finding has implications for treating contamination, as it suggests that targeting appraisals of contaminating thoughts may be key in treatment success. In addition to the role of specific negative autobiographical memories in self-contamination, participants also reported feeling contaminated when they remembered previous times when they had physically come into contact with a dirty, dangerous or harmful item. This finding suggests that the role of memories in generating feelings of contamination may contribute to the overlap between contact and mental contamination.

A further source of self-contamination came from dreams, with 40% of the sample indicating that a bad dream would leave them feeling dirty from the moment they woke up. These participants reported that dreams were a particularly powerful trigger of mental contamination, as it made them feel as if the dreamt event had actually happened. This may be because of the mental imagery component of dreams, as images are known to evoke a more powerful emotional reaction than verbal processing of the same material (Holmes and Mathews, 2005; Holmes, Lang and Shah, 2009).

In support of Rachman's (2006) theory of mental contamination this interview study revealed that contamination could be triggered by a number of human sources, in contrast to dirty, dangerous or harmful substances in contact contamination. These human sources of contamination included undesirable people, specific people who had harmed the participant or were considered immoral, and the person themselves, in terms of their own thoughts, memories and dreams. These human sources of contamination were reported to trigger feelings of internal dirtiness, with the majority of participants reporting feelings of contamination under their skin or inside their bodies. This is in contrast to contact contamination, where the feelings of dirtiness are usually external and localized.

The contamination fears reported by participants had considerable longevity, with some participants reporting things that had remained contaminated for at least 10 years. In addition, the spread of mental contamination was very common. Interestingly, participants reported that mental contamination spread due to non-physical connections between items, for example, if items were aligned in certain ways. Furthermore, many participants reported going to extreme lengths to prevent contamination spreading to safe or clean objects and places. This was due both to a feeling of inflated responsibility to protect others and also to reduce the impact of the contamination in terms of the washing and/or cleaning that they would feel compelled to engage in if these safe areas became contaminated. The spread of mental contagion is worthy of future research, as preventing its spread is likely to have considerable treatment

implications. It would also be of interest to investigate whether participants avoid mental contaminants due to inflated responsibility appraisals (Salkovskis, 1985).

The reported feelings of mental contamination had a severe emotional impact on sufferers, and resulted in strong urges to remove the feelings of contamination with excessive and compulsive washing and cleaning, with regard to themselves, their belongings, and their family members. Interestingly, for 50% of participants, this washing and cleaning actually caused participants further distress, perhaps because mental contamination is less responsive to cleaning than contact contamination, where the site of pollution is clearly defined. Further research is needed to explore the distress caused by compulsive washing in both contact and mental contamination. Avoidance was also common, as well other neutralizing tactics such as praying, counting and repeating. These findings highlight the severe impact that mental contamination has on the quality of life of sufferers.

Limitations and conclusions

This study has provided some useful preliminary information regarding mental contamination. However, the sample size was small and these findings require replication with a large sample of people with mental contamination compared with a health control group. Comparison of the qualitative features of mental and contact contamination would also be of interest. An additional limitation is that the analytic approach was subject to experimenter bias in the interpretation of participants' responses. This study could have been improved by using an additional rater who was blind to the nature and purpose of the research to code participants' answers.

The qualitative data reported here demonstrate that mental contamination can take a number of forms, arising from physical and moral violation, association with immorality and can be self-generated by intrusive thoughts, memories and dreams. Mental contamination was shown to be primarily associated with a human source, to generate diffuse feelings of internal dirtiness, have considerable longevity, and cause emotional distress and urge to wash, supporting the characteristics outlined by Rachman (2006). Furthermore, the present findings are closely similar to a recent case series of 20 patients with mental contamination compiled by Rachman (personal communication, 2010). However, further research as outlined above is needed to experimentally demonstrate these characteristics.

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