

Review

OLFACTORY REFERENCE SYNDROME: ISSUES FOR DSM-V

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The published literature on olfactory reference syndrome (ORS) spans more than a century and provides consistent descriptions of its clinical features. The core symptom is preoccupation with the belief that one emits a foul or offensive body odor, which is not perceived by others. This syndrome is associated with substantial distress and disability. DSM-IV and ICD-10 do not explicitly mention ORS, but note convictions about emitting a foul body odor in their description of delusional disorder, somatic type. However, the fact that such symptoms can be nondelusional poses a diagnostic conundrum. Indeed, DSM-IV also mentions fears about the offensiveness of one's body odor in the social phobia text (as a symptom of taijin kyofusho). There also seems to be phenomenological overlap with body dysmorphic disorder, obsessive-compulsive disorder, and hypochondriasis. This article provides a focused review of the literature to address issues for DSM-V, including whether ORS should continue to be mentioned as an example of another disorder or should be included as a separate diagnosis. We present a number of options and preliminary recommendations for consideration for DSM-V. Because research is still very limited, it is unclear how ORS should best be classified. Nonetheless, classifying ORS as a type of delusional disorder seems problematic. Given this syndrome's consistent clinical description across cultures for more than a century, substantial morbidity and a small but growing research literature, we make the preliminary recommendation that ORS be included in DSM-V's Appendix of Criteria Sets Provided for Further Study, and we suggest diagnostic criteria. Depression and Anxiety 27:592–599, 2010. © 2010 Wiley-Liss, Inc.

Key words: odor; smell; delusional disorder; hallucinations; olfactory; DSM-V

INTRODUCTION

This article focuses on some key issues pertaining to the classification of olfactory reference syndrome (ORS), a condition in which individuals erroneously believe that they emit an unpleasant, foul, or offensive body odor. Odors include almost anything foul smelling and are often believed to originate from the mouth, genitals, rectum, or skin.^[1] Common specific concerns include halitosis, genital odor, flatulence or anal odor, or sweat.^[2] Occasional patients report emitting non-bodily odors, such as ammonia,^[3] detergent,^[4] or rotten onions.^[5] This belief is often accompanied by ideas or delusions of reference; i.e., the belief that other people take special notice of the odor in a negative way (for example, rub their nose in reference to the odor or turn away in disgust). In addition, many patients perform repetitive behaviors,

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such as smelling themselves, showering excessively, and attempting to mask the odor.^[6]

In this article, we first summarize the history of ORSs classification to provide a context for the issues discussed. We then address several key issues that are specifically relevant to DSM-V. This article was commissioned by the DSM-V Anxiety, Obsessive-Compulsive Spectrum, Posttraumatic, and Dissociative Disorders Work Group. It represents the work of the authors for consideration by the work group. *Recommendations provided in this article should be considered preliminary at this time; they do not necessarily reflect the final recommendations or decisions that will be made for DSM-V, as the DSM-V development process is still ongoing.* It is possible that this article's recommendations will be revised as additional data and input from experts and the fields are obtained.

HISTORY OF THE CLASSIFICATION OF ORS

Published descriptions of ORS date back to the late 1800s.^[2,3,7-11] Several hundred cases from around the world have been reported, including Europe, the United States, Asia, the Middle East, and Africa. Between 1891 and 1966, multiple cases consistent with this syndrome appeared in the literature.^[3,7,10-14] Many of these were described as schizophrenia, although the clinical descriptions did not contain signs and symptoms sufficient to meet criteria. In 1971, Pryse-Phillips noticed this, and after characterizing a large case series and carefully considering the differential diagnosis, coined the term ORS for a separate group with consistent phenomenology.^[6] Other terms that have appeared in the literature include delusions of bromosis, hallucinations of smell, chronic olfactory paranoid syndrome, and olfactory delusional syndrome, among others.^[2] It has also been referred to as a type of monosymptomatic hypochondriacal psychosis based on the observation that it involves a single delusional belief.^[15-19]

ORS has never been classified as a separate disorder in DSM or the International Classification of Disease (ICD). DSM-III-R mentioned ORS in the text, stating that "convictions that the person emits a foul odor... are one of the most common types of delusional disorder, somatic type."^[20] Similarly, DSM-IV considers ORS a type of delusional disorder, somatic type, although the term "olfactory reference syndrome" is not mentioned. The DSM-IV text states: "Somatic delusions can occur in several forms. Most common are the person's conviction that he or she emits a foul odor from the skin, mouth, rectum, or vagina..."^[1] Similarly, in its section on persistent delusional disorders, ICD-10 does not use the term "olfactory reference syndrome," but the text notes that delusions may "express a conviction that...others think that he or she smells..."^[21]

DSM-IV also implicitly refers to ORS in the text for social phobia, in the section on "specific culture, age,

and gender features." Here the text states: "In certain cultures (e.g., Japan and Korea), individuals with Social Phobia may develop persistent and excessive fears of giving offense to others in social situations.... These fears may take the form of extreme anxiety that blushing, eye-to-eye contact, or one's body odor will be offensive to others (*taijin kyofusho* in Japan)." Similarly, the DSM-IV section on culture-bound syndromes implicitly refers to ORS, again under the rubric of *taijin kyofusho*, which is included in the official Japanese diagnostic system for mental disorders.^[1]

STATEMENT OF THE ISSUES

1. Should ORS continue to be mentioned as an example of another disorder, such as delusional disorder or social phobia, or another disorder? Or should it instead be included as a separate diagnosis in DSM-V?
2. If ORS is included as a separate disorder, what should its diagnostic criteria consist of?

SIGNIFICANCE OF THE ISSUES

ORS has been described as a discrete syndrome across many cultures for more than a century. However, its clinical features are confusingly mentioned in three different sections of DSM-IV, and they are not adequately described. Furthermore, the term ORS (currently the most widely used term for this syndrome) is not explicitly mentioned. Given the suffering and impairment associated with ORS, it is important to examine its classification in DSM-V.

SEARCH METHODS

To identify published articles on ORS, we used PubMed, WebofScience, and PsychInfo databases with the keywords "olfactory reference syndrome," "olfactory paranoid syndrome," "monosymptomatic hypochondriasis" and "olfactory," "taijin kyofu" and "olfactory," "taijin kyofusho" and "olfactory," "jiko-shu-kyofu," "delusional halitosis," "psychosomatic halitosis," "olfactory hallucination," "hallucinations of smell," "olfactory delusional syndrome," "olfactory delusional disorder," "olfactory paranoia," "olfactory hypochondriasis," "monosymptomatic hypochondriacal psychosis" and "olfactory," "delusion" and "smell," "delusions of bromosis," and "bromidrosiphobia." Additional relevant articles identified from reference lists were also included.^[2-4,7,11-13,17,19,22-28] Only peer-reviewed manuscripts published in the English language were included. Articles that appeared in these searches but did not provide any data or clinical description of ORS were excluded ($n = 7$). Two recently published reviews on ORS, one from a book^[2] and one from a professional journal,^[8] were also

included. The DSM-IV Sourcebook and DSM-IV Options Book were also reviewed.

Sixty journal articles^[2-8,11-16,19-69] and four book chapters^[12,12,25,26] fit the inclusion criteria. Fifty-nine journal articles were case reports or case series, some in combination with reviews of the literature, and one was a literature review without a case report.^[29] The four largest published reports contain systematically described patients from Japan ($N=38$), Canada ($N=36$), Nigeria ($N=32$), and Saudi Arabia ($N=15$).^[6,18,28,30] Recently analyzed data from a series of 20 cases of ORS (primarily outpatients) in the United States are also included [Phillips KA, unpublished data], because cases were systematically assessed with the Structured Clinical Interview for DSM and certain other standard measures that were not used in earlier published studies.

RESULTS

SHOULD ORS CONTINUE TO BE MENTIONED AS AN EXAMPLE OF ANOTHER DISORDER, SUCH AS DELUSIONAL DISORDER, SOCIAL PHOBIA, OR ANOTHER DISORDER, OR SHOULD IT INSTEAD BE INCLUDED AS A SEPARATE DIAGNOSIS IN DSM-V?

To examine whether or not a syndrome is distinct from other disorders, the DSM-V process has focused on validators such as symptom profile; familial aggregation; environmental risk factors; cognitive, emotional, temperament, and personality correlates; biological markers; patterns of comorbidity; course of illness; and response to treatment. Unfortunately for ORS, there is a lack of empirical data for most of these validators. However, there are some early data to suggest that ORS does seem to differ in important ways from other disorders in terms of its symptom profile, comorbidity, and response to treatment.

We will first consider whether ORS should be classified as a type of delusional disorder, as in DSM-IV. This requires consideration of whether ORS beliefs are delusional in nature. Data on this issue are limited. Most published case reports include patients with delusional beliefs (i.e., complete conviction of emitting a foul or offensive body odor). However, the literature contains reports of patients whose beliefs were not delusional; that is, the person recognized that he/she might not actually be emitting a noticeable odor. Osman^[18] noted that overvalued ideation may occur rather than delusions, and Suzuki et al. reported that three of seven patients in their series had good insight.^[31] Other authors have also commented on the existence of nondelusional forms of ORS.^[16,18,32] In a recently analyzed data set, which used the reliable and valid Brown Assessment of Beliefs Scale^[33] to assess delusionality/insight of ORS beliefs, 84.6% patients with current ORS currently had delusional ORS beliefs

and 15.4% had nondelusional ORS beliefs (good to poor insight) [Phillips, unpublished data]. Thus, ORS beliefs may not always be delusional and in such cases would not meet criteria for delusional disorder.

An additional consideration is that the DSM-IV definition of delusional disorder requires the total duration of any concurrent mood episodes to be brief relative to the duration of the delusional periods.^[2] Depression is the most commonly reported comorbid disorder or symptom [Phillips, unpublished data], often considered secondary to ORS.^[6,32] Data are lacking on the duration of delusional ORS symptoms versus duration of concurrent mood episodes. However, clinical experience suggests that patients with ORS often have prolonged depressive episodes. In the majority of cases, these episodes appear after the development of odor concerns^[6] [Phillips, unpublished data] and may be secondary to the distress and suffering that ORS causes. Thus, this delusional disorder criterion may not be suitable for ORS.

Although controlled studies are lacking, patterns of response to pharmacotherapy reported in the literature also suggest that ORS is probably not simply a type of delusional disorder. Several case reports and series describe response to antipsychotic monotherapy, particularly pimozide,^[18,34] but multiple case reports and series describe improvement with serotonin reuptake inhibitor (SRI) monotherapy.^[35-38] Some individuals did not respond to an antipsychotic but did respond to an SRI.^[35] Other reports describe response to non-SRI antidepressants, such as tricyclic antidepressants.^[39,40] And, yet others describe improvement with a combination of an antipsychotic and antidepressant medication.^[18,32,41]

Might ORS be a form of a disorder other than delusional disorder? Available data on this issue are also very limited. Some published reports included individuals with comorbid Axis I conditions, with the authors providing evidence as to how the ORS symptoms were phenomenologically and/or temporally distinct from the other conditions.^[41-45]

ORS seems to have some features in common with social phobia, and is considered a form of taijin kyofusho in Japan and Korea. Taijin kyofusho is considered a culturally bound syndrome in which individuals fear that their body or bodily functions may displease, embarrass, or be offensive to others in terms of appearance, odor, facial expressions, or movements.^[1] An estimated 17% of individuals with taijin kyofusho have fears of emitting body odor,^[46] although this is one of only several fears in this syndrome (see also the review for DSM-V of culture and anxiety disorders, [Lewis-Fernández et al., under review]). The literature suggests that most individuals with ORS are concerned about the social implications of emitting a foul odor, with patients commonly experiencing shame, embarrassment, and anxiety in social situations, as well as avoidance of social situations.^[36] Some fear offending others with their odor.^[47] One small study that directly compared

individuals with ORS symptoms to those with social phobia found similarities in demographics, comorbidity with depression, and symptom scores on social phobia ratings scales (although the study was underpowered to detect differences between groups). However, the key characteristic of social phobia is the fear that one will *act* in a way that will be embarrassing or humiliating; thus, patients are typically primarily concerned about how they speak (or eat, write, etc.) rather than how they smell. Another apparent difference between ORS and social phobia is the often delusional nature of the core belief in ORS. In addition, it seems that most individuals with ORS perform excessive, repetitive behaviors that are compulsive in nature. The intent of these behaviors is usually to check or eliminate the perceived odor, obtain reassurance about it, or prevent others from smelling it. Examples include checking their body for odor, excessive showering or other washing, or repetitive use of deodorant, mouthwash, or perfume.^[6,16,32,48] In the sample noted above, 95% of subjects performed at least one such behavior [Phillips, unpublished data].

These behaviors raise the question of whether ORS may be related to OCD. Another similarity with OCD is that individuals with ORS usually report troubling, repetitive, and intrusive thoughts about their “odor,” which some describe as obsessive.^[12,18,49] Indeed, sufferers may spend many hours per day preoccupied with these thoughts^[49] [Phillips, unpublished data]. These symptoms, in addition to case reports of ORS symptoms responding to SRIs,^[35,38,50] has led some to posit a relationship between ORS and OCD.^[2] However, ORS seems to differ from OCD in that OCD beliefs are delusional in fewer than 5% of cases, and ideas/delusions of reference seem less common in OCD than in ORS.^[51–53] In addition, available data, although very preliminary, suggest that comorbidity patterns may differ, with comorbid major depressive disorder and social phobia more common in ORS [Phillips, unpublished data].^[54]

More than 20 years ago, Isaac Marks noted that ORSs clinical features have many similarities to body dysmorphic disorder (BDD); the primary symptoms of both disorders involve a belief of a bodily defect which leads to anxious avoidance of relevant (often social) situations.^[36] Other similarities include preoccupation and repetitive behaviors to check or remediate the perceived problem.^[2,15,16,40,42,48,55] In addition, both disorders are characterized by frequent seeking of nonmental health medical treatment in an attempt to alleviate the symptoms. Examples include surgery and dermatologic treatment in BDD, and treatment from dentists and gastroenterologists in ORS.^[16,18,30,32,42] However, BDD and ORS have some apparent differences. The content of the core beliefs, many of the repetitive behaviors, and treatment response may all differ.^[2] In addition, available preliminary data (although very limited) suggest that ORS is more often characterized by current delusional beliefs (about odor

in ORS [85%] and appearance in BDD [36–60%]), current ideas or delusions of reference (77% in ORS versus 38% in BDD), and more frequent lifetime comorbidity with DSM-IV social phobia (65% in ORS versus 37–39% in BDD)^[56–58] [Phillips KA, unpublished data].

Finally, there are apparent similarities with other somatoform disorders, primarily hypochondriasis. Both disorders involve preoccupation with the body, are often marked by obsessional thinking, and include repetitive behaviors, such as checking and seeking medical diagnoses and treatments.^[1] However, unlike ORS, in hypochondriasis the core fear is about having a serious disease. Moreover, unlike hypochondriasis, ORS is typically characterized by prominent ideas/delusions of reference and social avoidance.

We will now address issue #1 from a different perspective, which is whether ORS should be included as a diagnosis in DSM-V, separate from delusional disorder or another mental disorder. First, we draw in part on recent considerations for what constitutes a mental disorder while also considering ongoing discussion in the literature on this topic [e.g.,^[59,60]]. We then address several additional considerations for adding a disorder to the nomenclature.^[61]

The condition is a behavioral or psychological syndrome or pattern that occurs in an individual: As detailed above, ORS has long been recognized in the psychiatric literature as a syndrome that occurs in individuals, and it has been described in multiple regions of the world.

The consequences of which are clinically significant distress or disability: The literature consistently indicates that ORS causes clinically significant limitations in functioning or distress. A number of authors have noted significant social disability associated with ORS. In Pryse-Phillips’ case series, only 3% of patients were “socially active.”^[6] Prominent social avoidance and isolation seems common, which is usually attributed to shame, embarrassment, and/or concern about offending others with the odor.^[6,16,32,42] Impairment of work or school functioning is also common.^[6,16,32,42] This, too, is often noted to be owing to avoidance of other people because of shame, embarrassment, or concern about offending others with the perceived odor, or it may result from time spent preoccupied with thoughts about the odor and engaging in behaviors to check or minimize it.^[2] In a small recently analyzed data set, ORS symptoms had caused 74% of subjects to avoid social situations and 47% to avoid occupational, academic, or other important role activities [Phillips, unpublished data]. Forty percent reported that they had been completely housebound for at least 1 week because of ORS symptoms. The mean score on the Global Assessment of Functioning Scale among those with current ORS was 47.5 ($SD = 13.2$). A majority of subjects (52.6%) reported a history of psychiatric hospitalization, with 31.6% of the sample reporting that they had been psychiatrically hospitalized primarily because of ORS symptoms. Furthermore,

68% of subjects had a history of suicidal ideation, 47% reported lifetime suicidal ideation that they attributed primarily to the distress caused by ORS symptoms, 32% had attempted suicide, and 16% had made at least one suicide attempt that they attributed primarily to ORS [Phillips, unpublished data]. Of Pryse-Phillips' 36 subjects, 43% experienced "suicidal ideas or action" and 5.6% committed suicide over the follow-up period (the duration of the follow-up period is unclear but seems to have been 1–2 years), with the author implying that the suicides were attributable to ORS.^[6]

The proposed syndrome is not merely an expectable response to common stressors or losses or a culturally sanctioned response to a particular event: The literature provides no evidence or suggestion that ORS is merely an expectable response to common stressors or losses, or a culturally sanctioned response to a particular event.

The proposed syndrome reflects an underlying psychobiological dysfunction: To our knowledge, disturbances in biological and psychological processes in ORS have not been studied, although preliminary (uncontrolled) reports of improvement in ORS with pharmacotherapy or psychosocial treatment (behavioral therapy,^[15,48] cognitive-behavioral therapy,^[62] and paradoxical intention^[63]) indirectly support the presence of such underlying mechanisms. In addition, excessive grooming behaviors in animals offer a possible ethological model for human ORS.^[64] One purpose of grooming across species is to clean in order to maintain health; for example, by improving predation or avoiding predators via removal of odors.^[65] Although the relationship between evolutionary function/dysfunction and disorders remains controversial,^[66,67] conceivably such processes can go awry and result in disorders.

The syndrome is not primarily a result of social deviance or conflicts with society: There is no evidence or suggestion in the literature that ORS is solely a result of social deviance, other conflicts with society, or "eccentricity." ORS has many features of an "internalizing" disorder rather than reflecting social deviance or conflict. Responsiveness (in many cases) to psychotropic agents or behavioral therapy (as noted above) is consistent with such a view.

The syndrome has diagnostic validity on the basis of various diagnostic validators: For ORS, there is a lack of empirical data for most of these validators (mentioned above) and only minimal data for others. As noted above, however, ORS does seem to differ in important ways from other disorders in terms of its symptom profile and possibly comorbidity. Furthermore, it seems to differ from delusional disorder on the basis of preliminary observations that some patients seem to respond to antidepressant monotherapy.^[6,18,32,34–40] However, the fact that some patients seem to respond to antipsychotics alone^[6,32,43] suggests that ORS also differs from social phobia, BDD,^[68] and OCD.^[69]

The syndrome has clinical utility: In our clinical experience, many patients with ORS receive no diagnosis or an inaccurate diagnosis, such as schizophrenia, OCD, or major depressive disorder. This, in turn, may lead to treatment for another disorder. Such misidentification may occur because DSM-IV only very briefly mentions ORS symptoms in the text, does not include the specific term "olfactory reference syndrome," and lacks diagnostic criteria. Alternatively, patients present to nonmental health professionals, such as dentists, gastroenterologists, dermatologists, and gynecologists, who may not be aware that ORS is a known form of mental illness. Many patients do not seek treatment at all, which may in part be owing to lack of public awareness that the symptoms represent a treatable entity.

Taken together, then, the potential benefits of creating a new diagnosis (e.g., identifying individuals who require appropriate clinical attention) seem to outweigh any potential harm. However, research data on this syndrome are still limited. Therefore, we propose that ORS be included in an Appendix of Criteria Sets Provided for Further Study rather than in the main part of the manual. The following are additional considerations that may arise when proposing a new disorder for the nomenclature (including research diagnostic criteria):

Is there a need for the category; for example, is the syndrome sufficiently common in clinical or population samples that it merits an independent category as opposed to being one example in an NOS category? Prevalence studies using the proposed diagnostic criteria below have not been done. However, in a tertiary referral unit for the behavioral treatment of psychiatric disorders (the Psychological Treatment Unit at the Maudsley Hospital in London), 9 of 2,000 patients (0.5%) spontaneously reported ORS symptoms.^[48] This figure is likely an underestimate, given the shame and secrecy that often characterizes ORS. A self-report survey of 2,481 university students in Japan found that 2.1% had been concerned with emitting a strange bodily odor during the previous year.^[70] Although this symptom is not necessarily equivalent to a clinical diagnosis of ORS, the authors nonetheless imply that ORS is relatively common in Japan and conclude that in Japan "fears of bodily odor are...encountered almost every day." Several authors have suggested that ORS is more common than usually recognized.^[13] Iwu noted that delusional halitosis (one form of ORS) "may be frequently encountered by the dental surgeon."^[30] Osman concluded that the monosymptomatic hypochondriacal psychoses are likely to be underreported and "form an important and not uncommon cause of psychiatric morbidity in [developing countries]."^[18]

What is the relationship of the proposed disorder with other DSM-IV diagnoses; for example, is the diagnosis sufficiently distinct from other diagnoses? As noted, ORS seems to differ from diagnostic near neighbors in several ways, although further research is needed.

Are there proposed diagnostic criteria with clinical face validity, reliability, and adequate sensitivity and specificity for the proposed construct? As discussed below, available criteria exist. Nevertheless, further work is needed to test their reliability.

Can the criteria be easily implemented in a typical clinical interview and reliably operationalized/assessed for research purposes? Suggested criteria are provided below, but have not yet been rigorously studied.

IF ORS IS INCLUDED AS A SEPARATE DISORDER, WHAT SHOULD ITS DIAGNOSTIC CRITERIA CONSIST OF?

Two different sets of criteria have been proposed for ORS.^[8,36] The research diagnostic criteria proposed below reflect features of each criteria set, with further minor modifications; in addition, we propose the addition of insight specifiers:

- (A) Preoccupation with the belief that one emits a foul or offensive body odor, which is not perceived by others.
- (B) The preoccupation causes clinically significant distress (for example, depressed mood, anxiety, shame) or impairment in social, occupational, or other important areas of functioning.
- (C) The symptoms are not a symptom of schizophrenia or another psychotic disorder, and are not owing to the direct physiological effects of a substance (e.g., a drug of abuse or medication) or a general medical condition.

Specify whether ORS beliefs are currently characterized by:

1. Good or fair insight: Recognizes that ORS beliefs are definitely or probably not true, or that they may or may not be true.
2. Poor insight: Thinks ORS beliefs are probably true.
3. Delusional beliefs about body odor: Completely convinced ORS beliefs are true.

We suggest the phrase “which is not perceived by others” in criterion A rather than a phrase, such as “false belief,” because it may be more patient friendly and thus perhaps less likely to deter patients with ORS, whose insight is usually absent or poor, from seeking treatment. Criterion B is based on the DSM-IV clinical significance criterion and will ultimately need to be consistent with language used throughout DSM-V. We considered adding a phrase about “associated avoidance” to this criterion; although possibly open to somewhat different interpretations by clinicians, it seems clear that avoidance contributes to the clinical distress and impairment associated with ORS. However, in the absence of adequate data on the prevalence of avoidant behavior in ORS, and whether it is characteristic of all patients with ORS, avoidance may be better in the text than in the

criteria. Furthermore, impairment in functioning should cover clinically significant avoidance. The diagnostic hierarchy criterion (criterion C) specifically emphasizes psychotic disorders. We considered including social phobia in the exclusion criterion, given the relationship between taijin kyofusho and concerns about body odor, but concluded that insufficient data are available to support this. We suggest a dimensional approach to insight, consistent with the emphasis in DSM-V on dimensional constructs, and given that there seems to be a range of insight in ORS. We considered whether these criteria are appropriate for both genders, for patients throughout the course of development, and for all cultures, and are not aware of a compelling reason for modifying the proposed criteria for any of these reasons.

SUMMARY AND PRELIMINARY RECOMMENDATIONS

Considering ORS a type of delusional disorder poses a number of diagnostic problems, as discussed above. In addition, available data suggest that ORS differs from other “near neighbor” disorders. One possibility is that ORS might represent variable presentations of several different disorders, such as BDD, social phobia, or others, rather than being a distinct syndrome. Although this possibility requires investigation, studies and case descriptions of ORS over the past century provide a consistent description of its clinical features, suggesting that ORS is likely a distinct entity, although one that shares some features with other disorders. In addition, ORS seems to meet many of the above considerations for what constitutes a mental disorder and for adding a disorder to the nomenclature. In particular, ORS seems to characterize a distinct and suffering group of people who need clinical attention; in our experience, its near absence in DSM has led to underdiagnosis and undertreatment of a severe mental illness. Also of clinical importance is that there is limited but emerging literature on its treatment, which seems to differ in some ways from that of other disorders^[2,8]—in particular, delusional disorder, under which ORS is currently classified.

Nevertheless, data on ORS are still limited, and research on the above criteria is needed. For example, reliability data are not available on the proposed diagnostic criteria, many of the above-noted validators have not been examined, and ORSs prevalence and the nature of its relationship to other disorders have been only minimally examined. Thus, it is probably premature to include ORS in the main body of DSM as a separate diagnostic category.

Taken together, we recommend including a criteria set for ORS in an Appendix of Criteria Sets Provided for Further Study. ORS has been clinically observed and reported for more than a century around the world, with the literature consistently

underscoring the suffering of these individuals. ORS current classification is problematic, causing it to be confused with other disorders, missed in clinical settings, or unsuccessfully treated. Including ORS in an Appendix would also have the advantage of stimulating further systematic research on ORS, using specified diagnostic criteria.

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