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BRIEF REPORT

Views of health professionals on the clinical recognition of orthorexia nervosa: a pilot study

Rebecca Reynolds[1] · Sarah McMahon[2]

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Abstract

Purpose We present pilot, cross-sectional online survey data of health professionals in Australia and New Zealand about their attitudes towards orthorexia nervosa (ON), the proposed health food eating disorder. Our primary outcome was whether the professionals believed that ON should be a distinct, clinically recognised eating disorder.
Methods Fifty-two health professionals, predominantly psychologists and dietitians, completed the survey.
Results Nearly, three-quarters of respondents (71%) believed that ON should be a distinct, clinically recognised eating disorder.
Conclusions This finding should be extended in a full study to inform future iterations of diagnostic manuals and the recognition and treatment of obsessively healthy eating.
Level of evidence Level V, descriptive study of opinions of health professionals.

Keywords Feeding and eating disorders · Diagnosis · Orthorexia nervosa · Professional practice

Introduction

Orthorexia nervosa (ON) is not yet a clinically recognised eating disorder; i.e. it is not listed in the two main diagnostic manuals for mental health disorders, the International Classification of Diseases-10 [1], the Diagnostic and Statistical Manual of Mental Disorders-5 [2]. This is partly because we do not yet know enough about the aetiology of proposed condition [3, 4]. However, four research groups have proposed clinical diagnostic criteria for ON [3]. One of these groups, Dunn and Bratman [4] specify that ON should be a condition separate to avoidant restrictive food intake disorder (AFRID). This is primarily because the drive behind AFRID is not about eating healthily—like it is in ON—but involves worry about the negative consequences of eating (usually as a result of previous traumatic experiences with food) [4]. Additionally, on the websites of many national eating disorder organisations, ON is discussed as an independent eating disorder, distinct from other diagnoses such as AFRID and anorexia nervosa (AN), e.g. the National Eating Disorder Association in the US [5]. Koven and Abry [6] discuss the diagnostic boundaries of ON and clinically recognised mental disorders; specifically the overlap of ON with AN, obsessive compulsive disorder (OCD), obsessive–compulsive personality disorder (OCPD), the health anxiety classifications in somatic symptom disorder and illness anxiety disorder, and psychotic spectrum disorder. The main distinguishing feature of ON when compared to AN is the motivating factor to be healthy, rather than to lose weight [6]. Additionally, in ON an individual's obsessions are perceived as ego-syntonic (consistent with someone's ideal self), as opposed to ego-dystonic (in conflict with someone's ideal self) as in OCD [6].

Vandereycken [7] importantly discusses the pros and cons of including a new diagnosis in a classification system such as the DSM-5 [2], such as better detection of a treatable disorder vs. stigmatisation. He also analysed the opinions of 111 professionals about night-eating syndrome, ON, muscle dysmorphia, and emetophobia [7]. At the time of

This article is part of topical collection on Orthorexia Nervosa.

✉ Rebecca Reynolds
rebecca.reynolds@unsw.edu.au

Sarah McMahon
sarah@bodymatters.com.au

[1] School of Public Health and Community Medicine, UNSW Sydney, Sydney, NSW 2052, Australia

[2] BodyMatters Australasia, Cremorne, Sydney, NSW 2090, Australia

survey, there were no published, proposed diagnostic criteria for ON; so, the author combined descriptions of ON from three publications [8–10]. Over two-thirds of professionals answered 'Yes' to the question, 'ON deserves more attention from researchers and clinicians' [7].

Due to the debate if ON should be a clinically recognised eating disorder, or not, plus the lack of one clear proposed set of diagnostic criteria, when prevalence surveys are undertaken, a very large range of figures result [3]. If ON were to be clinically recognised, official diagnostic criteria would mean that reliable prevalence figures could be obtained.

The present study is the first of its kind to analyse the opinions of health professionals involved in eating disorder diagnosis and treatment on whether ON should be a clinically recognised eating disorder, based on the most recent proposed diagnostic criteria [4]. Clinical experience with psychiatric abnormalities is essential in psychopathology assessment, diagnosis and treatment [1, 2]. This is vital to further our understanding of the clinical relevance of ON and best practice treatment of obsessive healthy eating.

Methods

Data for this descriptive, cross-sectional pilot study were collected between 2016 and 2018. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation, and with the Helsinki Declaration of 1975, as revised in 2008. All the procedures were approved by the UNSW Sydney Human Research Ethics Committee (approval number HC15714).

Participant inclusion criteria were as follows: (1) a psychiatrist registered as a fellow with The Royal Australian and New Zealand College of Psychiatrists; or a psychologist registered with the Psychology Board of Australia or with the New Zealand Psychologists Board; or an Accredited Practising Dietitian registered with the Dietitians Association of Australia; or a Registered Dietitian with the Dietitians Board of New Zealand; or a Registered Nutritionist with the Nutrition Society of Australia or the Nutrition Society of New Zealand; or a Fellow of Royal Australian College of General Practitioners or of the Royal New Zealand College of General Practitioners; or a relevant health professional approved by RR (e.g. a mental health nurse); (2) previous and/or current experience working with clients with feeding and eating disorders; (3) currently live and practice in Australia or New Zealand; and (4) fluent in English.

A recruitment email was sent from a generic Gmail address (orthorexianervosasurvey) to health professionals. Email addresses of health professionals were sourced from RR's professional contacts and publicly available lists online, e.g. Accredited Practising Dietitians who specialised in eating disorders via https://daa.asn.au/find-an-apd. A recruitment notice was also placed in some online media (e.g. website) of certain regulatory or representative bodies of health professionals, e.g. Australia and New Zealand Academy for Eating Disorders. There was a possibility for participants to be reimbursed for their time via a prize draw, where three Coles Myer e-gift cards of AUD$50 were randomly allocated to participants who completed the survey.

The survey was hosted at www.surveys.unsw.edu.au. Online implied, informed consent was obtained from all individual participants included in the study. The survey assessed participants regarding the following: demographics; profession and qualifications; experience with clients with clinically diagnosed feeding and eating disorders; experience and opinions of ON, including diagnostic criteria proposed by Dunn and Bratman [4].

Sample size was based on the primary outcome of a participant answering 'Yes' or 'No' to the question in the survey that asked, 'Q. Do you feel that there is value in a separate clinical diagnosis of orthorexia, or do you feel that ON is only a variation of other feeding/eating disorders, such as anorexia nervosa? A. There should be a separate clinical diagnosis for ON: Yes/No'. Based on the finding that 68.5% of professionals involved in the research, prevention, or treatment of ON believed that the disorder was deserving of more scientific attention in a previous study [7], we assumed that all of these professionals would go further to say that ON should be a clinically recognised eating disorder. With a confidence interval of 95%, we reached a required sample size of 332 participants for a full study and 10% of this for a pilot [11]. Quantitative results were descriptively analysed using SPSS statistical software (Table 1). Any qualitative text comments made by some health professionals on some of the survey questions were manually grouped into common topics (Table 2).

Results

365 participants clicked on the link to the survey, with 52 completing it, 37 people leaving it unfinished, and 7 responses being removed due to incomplete answers (a response rate of 14.2%). Descriptive quantitative statistics of the 52 health professionals who completed the survey are shown in Table 1. Ninety-six percentage of the professionals were female, 48% psychologists and 48% dietitians, and 90% practising in Australia. Seventy-one percentage of the professionals believed that there should be a separate clinical diagnosis for ON, while 21% disagreed, and 8% were unsure.

Table 2 shows text comments made by some health professionals on some of the survey questions. Common

Table 1 Characteristics of the 52 health practitioners

	n (%[a]) of 52 health practitioners	Mean ± SD
Sex	50 (96%) female, 2 (4%) male	
Age		41.2 ± 11.9 years
Health profession	25 (48%) psychologist, 25 (48%) dietitian, 1 (2%) other (psychiatry registrar), 1 (2%) nutritionist	
Length working as a fully qualified professional		14.2 ± 10.6 years
Residence	47 (90%) Australia, 5 (10%) New Zealand	
Should there be a separate clinical diagnosis for ON?	37 (71%) yes, 11 (21%) no, 4 (8%) unsure	
Validity of Dunn and Bratman [4] diagnostic criteria	41 (79%) sufficient, 5 (10%) not sure/not applicable, 4 (8%) too narrow (would not capture enough clients), 2 (4%) too broad (would capture too many clients)	
Seen clients who would fulfil Dunn and Bratman [4] criteria?	44 (85%) yes, 8 (15%) no	
What percentage of clients with possible ON that you have seen are female?		82% ± 27%
Major difficulties that someone with possible ON faces (more than one option could be selected, or the question could be skipped)	48 (92%) anxiety, 41 (79%) obsessive compulsive disorder-like behaviour, 34 (66%) problems with health literacy/misinformation, 26 (50%) worry about body weight	
Excessive exercise[b] likely seen in someone with possible ON		Yes, excessive exercise[b] likely seen in 47 ± 34% of people with possible ON
Dietary theory likely followed in someone with possible ON (more than one option could be selected, or the question could be skipped)		Yes, the following dietary theory is likely followed by someone with possible ON: 60 ± 33% no sugar, 56 ± 32% clean eating, 34 ± 27% vegan, 25 ± 30% raw food, 22 ± 24% paleo
Likely personality traits of someone with possible ON (more than one option could be selected, or the question could be skipped)	41 (79%) perfectionism, 41 (79%) anxiety, 40 (77%) obsessiveness, 26 (50%) high socioeconomic status, 25 (48%) high intellect, 17 (33%) family issues, 16 (31%) depression	
Possible contributing factors to ON (more than one option could be selected, or the question could be skipped)	43 (83%) dietary trends/'fad' diets, 41 (79%) health misinformation/confusion, 38 (73%) fitspiration, i.e. fitness-promoting individuals or companies (that commonly post on social media and in blogs), 36 (69%) social media, e.g. Facebook, Instagram (the influence of posts from friends, family, or others—such as celebrities), 33 (64%) lack of control in other aspects of life, 31 (60%) thin ideal, 26 (50%) popular bloggers via their blogs directly, 22 (38%) general societal pressures, 10 (19%) fear of ageing and death	
Treatment to someone with possible ON different to other feeding and eating disorders?	Similar treatment 39 (75%), different treatment 5 (10%), no answer 8 (15%)	

ON orthorexia nervosa

[a]Numbers may not add up to 100% due to rounding

[b]Excessive exercise defined as: 'Exercise may be considered excessive when it significantly interferes with important activities, when it occurs at inappropriate times or in inappropriate settings, or when the individual continues to exercise despite injury or other medical complications' [2]

Table 2 The opinions of the 52 health practitioners about orthorexia nervosa

Survey question (number of health professionals/52 who left an optional text comment)	Topics	Number of comments	Examples of comments (comments from different professionals separated by //)
Should there be a separate clinical diagnosis for ON? (20)	Yes general	9	It is extremely similar, due to using the food as a coping mechanism but useful to have diagnosis // Seems to have a different development // I think body dysmorphia separates the diagnoses // Perhaps we need to include a cognitive element to all the diagnoses and the elements of aiming to be 'good' and seek approval from others // I do not think they respond well to conventional treatment for eating disorders // It validates the distress of this group
	AN	4	The thin ideal (AN) is being overtaken by the "righteous eating" ideal, as thinness becomes less fashionable and faddy food diets become more so // I think it is a nicer diagnosis than AN and is a precursor to AN // I am still learning more about it but from my experience so far it has been a variation of AN or BN for example // In one case, the client had features of AN, however, did not meet the full criteria
	No general	3	I have not seen it so I feel it is possibly a variation // I do not really think these diagnoses are helpful
	Weight	2	It is not associated (necessarily) with achieving/maintaining abnormally low weight // May be acceptable for clients who do not identify with drive for thinness
	Elements	1	Possibly or elements of ON be added to already existing disorders
	N/A	1	I do not see enough to comment on this
Validity of Dunn and Bratman [4] diagnostic criteria (11)	N/A	4	I do not find this level of diagnosis helpful. I work in a transdiagnostic way, helping people manage their thoughts and feelings better, whatever the distress looks like
	AN	3	Lots of people with AN present this way—what would the differential diagnosis be? Does the diagnostic criteria capture elements of superiority or approval from others?? // I feel many AN clients would fit this also
	Vegetarian	1	Note the inclusion of 'vegetarians' as a population likely to be caught in this diagnosis
	Exercise	1	Exercise is often another component, but it would not be a necessary criteria, maybe a specifier
	Weight	1	It may be difficult to establish if weight loss is or is not the primary goal in some cases
	Criteria	1	I disagree with criterion A.1. I think it is more about identity/worth/moral strength, rather than impurity or disease
Seen clients who would fulfil Dunn and Bratman [4] criteria? (12)	AN	3	Lots of overlap with AN // Yes and frequently they quickly decline and develop AN // Often body dissatisfaction has developed even if it was not the initial concern, and they, therefore, meet criteria for AN even though they might not have earlier in the development of the disorder
	Weight	2	Yes but always in the context of low body weight/underweight // It is difficult to establish if weight loss is a result or a goal
	Rarely	2	Rarely, most also have a desire to lose weight in a "clean" way
	Increasing	2	Not as common as AN or BN, but increasing // Increasing significantly
	1–2 cases	2	I have seen one client who I feel would meet this criteria
	General	1	They may not see it as a problem
What percentage of clients with possible ON that you have seen are female? (9)	N/A	2	Could not say accurately enough to comment
	No males	1	I have not seen any males as yet present with this problem
	Population	1	I am sure these numbers are not reflective of population numbers
	Help seeking	1	More females attend therapy
	All female	1	Two female clients. One mid 20 s physiotherapist, successfully treated. One 19 year old with extensive history of OCD and GAD
	Bodybuilders	1	Many male 'bodybuilders'
	Even division	1	Fairly even divided between the genders
	More female	1	More females than males

Table 2 (continued)

Survey question (number of health professionals/52 who left an optional text comment)	Topics	Number of comments	Examples of comments (comments from different professionals separated by //)
Major difficulties that someone with possible ON faces (16)	Various	6	Anger issues, oppositional behaviours, narcissistic traits // Rigidity, lack of variety // Guilt, shame, time taken around choosing, obtaining and preparing food, compulsive exercise // Low self-worth; vulnerability to medical/health quackery // Religious zeal to impose their beliefs on others. Ostracize friends who do not follow their dietary practices. Limited variety of food intake due to restrictions // Worry about body fat as opposed to weight, worry about health problems developing, can be confused with ethics for some
	N/A	2	Hard for me to answer as I have not seen this kind of preoccupation
	Weight	1	I am really not convinced body weight is not an issue. They work hard to keep the weight steady in therapy
	Self-esteem only	1	Low self-esteem
	Doctors	1	Misunderstanding that their behaviours are fine due to doctors often labelling them as "the healthy client" and there is no warning from doctors that this is actually a disordered eating that needs to be treated
	Thoughts	1	Problems making space for their thoughts and feelings
	Perfectionism	1	
	Ego-syntonic	1	Likely to be an ego-syntonic condition, similar to AN—hence low readiness for change
	Health	1	They really seem to struggle with the dichotomy that they believe their behaviour is healthy, and yet on some level can acknowledge that prolonged amenorrhea for example is not healthy
	Body fat	1	Preoccupation with body composition and health
Excessive exercise[a] likely seen in someone with possible ON (7)	Common	2	Very common presentation along with the food concerns
	Various	3	Particularly in males, but not the problem in 'vegetarians' or 'vegans' // Most usually exercise but some do not exercise at a high level—they may walk daily but not a high level, e.g. it may be 1/2 h per day the Australian recommendations // Due to my specialist clinic settings most of our clients have joint issues which prevent them from many exercise and hence not many of them would "exercise despite injury or other medical complications"
	Likely	1	Highly likely to overexercise
	N/A	1	
Dietary theory likely followed in someone with possible ON (9)	Variation	2	It varies widely depending on their concept of "healthy" // Often there is a combination, or they move from one to another over time
	Clean	2	Most common = no sugar, clean eating, low/no carbs/grains // They are all very 'clean eating', anti sugar, anti carbs, anti red meat, some vegetarian
	Personal/eclectic theory	2	Some have unique rules on what to eliminate-not following a set dietary theory // People seem to pick a range of eclectic ideas that all contribute to eliminating entire food groups
	Vegetarian	1	
	Paleo	1	Popularity of paleo is on the decrease
	Preservatives	1	Often avoidant of preservatives

Table 2 (continued)

Survey question (number of health professionals/52 who left an optional text comment)	Topics	Number of comments	Examples of comments (comments from different professionals separated by //)
Likely personality traits of someone with possible ON (9)	N/A	5	
	Narcissistic	1	
	Anxious and perfectionistic	1	
	Detail focussed	1	
	Vocal	1	
Possible contributing factors to ON (4)	Wanting to be seen as 'good'	1	It is taking "goody two shoes" to the extreme
	Quest for body perfection	1	I think this is the latest manifestation of an age-old quest for body 'perfection', whatever that might look like in each generation
	Internalised weight stigma	1	Thin ideal probably better expressed as internalised weight stigma these days
	Avoiding disease	1	Often wanting to avoid diabetes and heart disease, etc. Seems to sometimes occur after health information around lifestyle diseases is studied at school
Treatment to someone with possible ON different to other feeding and eating disorders? (11)	N/A	3	
	Food groups/education	2	ALL food groups fit a healthy eating pattern // More dietary education is required
	AN	1	Treated as AN—assumed in denial
	Various	1	Adults who present with an 'ethical' or 'moral' basis for their eating need to address this also, together with education re their food choices
	Collaboration	1	Always work with a dietitian/GP as well
	Health	1	I help client check in whether their 'healthy' choices are leading to a 'healthy' outcome
	Rigidity	1	Obsessiveness/rigidity targeted
	Food exposure	1	A bit more food exposure work

AN, anorexia nervosa; BN, bulimia nervosa; GAD, generalised anxiety disorder; N/A, comment not applicable to the question; OCD, obsessive compulsive disorder; ON, orthorexia nervosa

[a]Excessive exercise defined as: 'exercise may be considered excessive when it significantly interferes with important activities, when it occurs at inappropriate times or in inappropriate settings, or when the individual continues to exercise despite injury or other medical complications' [2]

comments were regarding the belief that there was no body weight component in ON; and that ON is a variation of current eating disorder categories [1, 2], especially AN.

The data generated and analysed during the current study are available in the Figshare repository at this link: https://figshare.com/articles/Reynolds_orthorexia_health_professional_pilot_survey_Oct18/8093702.

Discussion

In our sample of 52 mostly Australian psychologists and dietitians involved in eating disorder diagnosis and treatment, nearly 3/4 (71%) stated that they believe that there should be a separate clinical diagnosis for ON (Table 1). This figure builds on the similar statistic of 68.5% in the study by Vandereycken [7], where 68.5% of health professionals (mainly psychologists) stated that they thought that ON 'deserved more attention from researchers and clinicians'. Text comments to the primary outcome question (Table 2) showed that some professionals agreed that there was no body weight component in ON, but others believed that ON is variation of current eating disorder categories [1, 2], especially AN.

The current study is the first of its kind to investigate the views of health professionals on the diagnostic relevance of ON, i.e. in the context of proposed diagnostic criteria [4], and of the two main diagnostic manuals for mental health disorders that are used in clinical practice [1, 2]. Most health professionals believed that the diagnostic criteria proposed by Dunn and Bratman [4] were sufficient for any future diagnosis of ON, although some disagreed that these criteria were accurate—or indeed necessary. Again, concerns about overlap with AN diagnostic criteria [2] were mentioned, as were problems ascertaining whether weight loss is a result of—or a goal in—ON (a central point in the ON vs AN debate); and the relevance of excessive exercise [2] to the proposed condition.

Most professionals had seen clients who would fulfil the Dunn and Bratman [4] criteria, with some stating that numbers were increasing, and that the majority—or all of—possible ON cases were female. This corroborates data from eating disorder research that shows that eating disorder behaviours are on the rise and disproportionately affect females [12].

Risk factors or characteristics that were listed by professionals to be associated with ON were similar to those often linked to eating disorders [6, 13] and/or OCD [6, 14], including excessive exercise [2], anxiety, obsessiveness, low self-esteem, problems making space for feelings, perfectionism, detail-focus, ego-syntonicity, high socioeconomic status, use of social media, thin ideal internalisation, and harm avoidance and low self-directedness [14]. However, risk factors that may be particularly relevant to ON could include: problems with health literacy [6], including strict adherence to dietary theories, such as 'no sugar', 'clean eating' and vegetarianism or veganism; worry about health problems developing, especially related to the amount of body fat, e.g. after learning about lifestyle-related diseases at secondary school, and higher spiritual transcendence [14].

Three-quarters of surveyed professionals believed that a similar treatment approach to that taken for clinically diagnosable eating disorders was appropriate for someone with ON. Text comments highlighted the importance of dietary education, possible treatment as per AN, discussion of spiritual and ethical reasons behind dietary choices, collaboration with other health professionals such as a dietitian, targeting obsessiveness, food exposure and helping the client to "check in whether their 'healthy' choices are leading to a 'healthy' outcome".

Limitations of our study include our small sample size, low response rate (possibly due to lack of time and increasing pressure to take part in research activities), and a lack of diversity of health professionals who completed the survey. However, this is a pilot study and was intended to provide an indication of the views of health professionals on the clinical validity of ON to ascertain whether further research was warranted. It is indeed important that this study is built upon in future with a larger, more diverse sample size. Topics to focus on in future research when surveying health professionals include the overlap of ON with AN and OCD; and the relevance of weight loss, body fat, excessive exercise and spirituality to ON. Results from a future survey would help to determine if official diagnostic criteria are needed for ON, and if yes, what should they be? Official criteria would not only help the work of professionals in practice, but also further research—partly because more reliable prevalence estimates could be obtained.

In conclusion, nearly two-thirds of the Australian health professionals (psychologists, dietitians, psychiatrist and nutritionist) who participated in this pilot survey believe that ON should be a distinct, clinically recognised eating disorder separate to the current clinically diagnosable feeding and eating disorders [2]. However, the surveyed health professionals expressed concern around the potential overlap of ON with AN, with a body weight-focus thought to be important in half of potential ON patients. Further research is needed, with a larger sample size in a more diverse range of health professionals, to more fully inform how obsessively healthy eating may be incorporated into diagnostic criteria. However, this would only be one of the steps that would be necessary—alongside the proposed diagnostic criteria [3]—to the creation of suggested assessment instructions to appropriately identify orthorexic individuals [6] to then trial in clinical practice.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflicts of interest.

Ethical approval The authors assert that all the procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation, and with the Helsinki Declaration of 1975, as revised in 2008. All the procedures were approved by the UNSW Sydney Human Research Ethics Committee (approval number HC15714).

Informed consent Informed consent was obtained from all individual participants included in the study.

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