SUNY New Paltz Journal of Psychology
2025: Vol. 1, Article No. 1

# Should Severe and Enduring Anorexia Be a Distinct Diagnosis?

**Ethan Eisenberg**[1]

[1] Department of Psychology, SUNY New Paltz, USA

**Corresponding Author:**
Ethan Eisenberg
Email: eisenbee1@newpaltz.edu

## Abstract

The current theoretical paper examines severe and enduring anorexia nervosa (SE-AN). Particularly, the paper looks at the main factors of SE-AN, treatment severity and duration along with treatment resistance, critically analyzing the extent to which they are valid and warrant a separate diagnostic category. Initially, the paper reviews typical AN, and then it reviews the purported differences—for example, in symptoms and treatments—between AN and SE-AN. Finally, a conclusion is made that there is more evidence to suggest that SE-AN is not a valid diagnostic label.

Keywords: anorexia nervosa, eating disorder, severe and enduring, terminal, classification

Anorexia Nervosa (AN) is an eating disorder defined by the restriction of food intake relative to any given individual's needs and an intense fear of gaining weight (Smith & Woodside, 2021). The disorder has cognitive, behavioral, and physical characteristics—e.g., rigidity surrounding food and meals, excessive exercise, and low body mass index (BMI). There are several alarming statistics regarding AN. For example, the illness has the highest mortality rate of any psychiatric condition besides opioid use disorder, and at a 22-year follow-up, 40% of patients continue to display symptoms indicative of the disorder (Eddy et al., 2017; van Hoeken & Hoek, 2020).

Some reviews estimate that 20-30% of people with AN will develop a "persistent and sometimes life-long form of the illness" (Wonderlich et al., 2020, p. 1304). Indeed, there is a subset of people who, over a long duration, continue to display severe symptoms of the disorder despite high levels of service-use (Ambwani et al., 2020). An increasingly large number of clinicians are referring to that subset of people as having Severe and Enduring AN (SE-AN)—with treatment guidelines for that group geared more toward quality of life and less toward weight restoration (Broomfield et al., 2016). There is debate, however, regarding the validity of this distinct diagnostic category (Wildes, 2020; Raykos et al., 2018; Marzola et al., 2021). That is, how severe must the illness be to warrant that label, and how is the severity measured? How long does someone need to have AN for it to be considered enduring? How many unsuccessful treatments must the person have had? Perhaps most importantly, are these factors that distinguish SE-AN from AN—duration/severity and treatment resistance—enough to warrant a change in treatment protocol away from weight restoration and toward palliation? The current entry will explore these questions.

## Anorexia Nervosa

Anorexia Nervosa (AN) is a severe eating disorder characterized by the restriction of food intake relative to any given individual's needs and an intense fear of gaining weight (Smith & Woodside, 2021). There are cognitive, behavioral, and physical symptoms. Cognitively, many people with AN might obsess about food, deny the extent of their thinness, and some might believe that they are overweight. Sufferers may alleviate the distress from the prior cognitions through a variety of disordered eating behaviors (e.g., restriction, over-exercise, purging, etc.). To further describe AN behaviors, the Diagnostic and Statistical Manual for Mental Disorders (DSM-V-TR) contains two main subtypes of AN: restrictive type and binge-purge

type. The former involves the intentional denial of nourishment; the latter involves restricting one's intake, eating a large amount of food at any given time, and compensating via vomiting, laxatives, or over-exercise. The binge-purge subtype of AN has a high degree of overlap with Bulimia Nervosa (BN), but is nevertheless distinct from BN due to the underweight BMI criterion for AN. The physical consequences of AN are extensive, ranging from dry skin, to brittle bones, to organ failure, and death. Symptomatology evidently varies in AN, yet there are consistent themes of food restriction, fear of weight gain, and low BMI that constitute the diagnosis (American Psychiatric Association, 2022).

There is no known cause of AN, yet the state of the literature constructs a bio-psycho-social model with several possible etiologies. Genetic studies (see Baker et al., 2017 for a review) suggest overlapping genes between AN and other psychiatric disorders—for example, schizophrenia. This overlap suggests a genetic component of the illness. AN's genetic links with insulin resistance and fasting insulin levels similarly illuminate a potential genetic-metabolic etiology (Roubalova et al., 2019). Individuals with AN exhibit reduced gut microbiota diversity, impacting neuroactive compound release, antigen levels, central nervous system function, and subsequent behavior. Regarding psychosocial factors, sociocultural pressures, including media influences and thin-ideal internalization, along with personality traits like perfectionism and neuroticism, as well as cognitive inflexibility all emerged in one systematic review as risk factors across eating disorders (Culburt et al., 2015). Additionally, Chen and Couturier (2019) found that adolescents with AN often over-internalized nutrition education (e.g., the advice to avoid carbohydrates) or desired to lose weight based on some athletic goal. These factors, together, outline the complex influences of biological and psychosocial variables on AN development.

Though enigmatic, AN is treatable. Treatments are most efficacious when the disorder is caught early, when the treatment is focused on weight gain/ restoration, and when treatment is age-appropriate (Brockmeyer et al., 2018; Herpertz-Dahlmann et al., 2021; Jagielska & Kacperska, 2017). The earlier treatment is initiated, the more likely it is that an individual will be able to achieve a healthy weight and maintain it at follow-ups (i.e., make a full recovery; Eddy et al., 2018). Initial weight gain must be a treatment priority because distorted cognitions around food and weight cannot properly be addressed if a person's cognition is compromised by starvation. Indeed, starvation facilitates and maintains much of the rigid thinking associated with AN (Riddle et al., 2022). In-patient, hospital-facilitated refeeding is accordingly indicated for people with AN who have BMIs of less than or equal to 15 or 16, as normal BMI ranges roughly from 18-24 (Herpertz-Dahlmann et al., 2021).

After stabilization in an in-patient setting, the gold-standard outpatient options for continued weight-gain and behavioral recovery vary depending on age. For children and adolescents, Family Based Therapy (FBT), formerly the Maudsley method, involves the family, generally the parents or caregivers, taking charge of refeeding (e.g., focusing on family meals and childhood favorite foods), a therapist aiding family dynamics, and an overall emphasis on returning the child or adolescent to a state of normalcy (Zipfel et al., 2015). It creates an environment where weight restoration—and restoration in all facets of childhood life—are of primary concern. For adults, while including family and friends is beneficial, outpatient treatments are generally focused on the individual. Cognitive Behavioral Therapy for Eating Disorders (CBT-E), for example, focuses on acknowledging and changing distorted AN thoughts and beliefs (e.g., surrounding perfectionism and body image) (Brockmeyer et al., 2018). Despite notorious challenges in treating AN and aiding patients in achieving a long-lasting recovery (Murray et al., 2018; Solmi et al., 2021; van den Berg et al., 2019), several efficacious, weight-gain-focused treatments evidently exist, and for a broad age-range.

Nevertheless, there is a subset of people with AN who remain severely ill despite years of service-use (Wonderlich et al., 2020). This subset of patients is characterized by some researchers and clinicians as having severe and enduring AN (lesser-used terms include longstanding, chronic, or terminal AN). Proponents of this subset—that is, those researchers and clinicians who think a label of SE-AN provides clinical utility—propound that people with SE-AN have marked differences from those with typical AN in terms of intensity and chronicity of symptoms. People who emerge in an SE-AN category are generally higher in mental distress, for example, and are more likely to experience the binge-purge subtype of AN. Advocates for this separate diagnostic category also emphasize bio-psycho-social risk factors that potentially differ among the two populations (Ambwani et al., 2020; Abbate-Daga et al., 2007). Accordingly, research supporting the SE-AN category as clinically useful argues that there should be an array of distinct treatment options for that category (Wonderlich et al., 2020). Before turning to the alternative view, i.e., why SE-AN might not be a useful diagnostic category, the current work will review more deeply the differences in symptoms, risk-factors, and treatments in those with SE-AN versus typical AN.

## Severe and Enduring Anorexia Nervosa

There are cognitive, behavioral, physical, and psychosocial symptoms that apparently distinguish SE-AN from AN; however, it is important to note that SE-AN is not in the DSM-V-TR or ICD-11 (American Psychiatric Association, 2022; World Health Organization, 2019). Rather, the SE-AN label provides clinical utility to some researchers and practitioners given their detection, either empirically or anecdotally, of a subset of AN patients with a severe enough version of the disorder to

warrant further attention. As such, the symptoms that distinguish SE-AN from AN are generally more exaggerated forms of AN symptoms rather than different symptoms altogether. The most foundational SE-AN criteria is chronicity—the sheer amount of time for which one's AN has persisted—because the other distinguishable, exaggerated symptoms arise from the long illness-span (Smith & Woodside, 2021). Generally, whereas more acute bouts of AN can last for a few months to a few years (particularly in adolescence; Jagielska & Kacperska, 2017), an illness-span of around 5-7 years marks enough chronicity to warrant the label of SE-AN (Broomfield et al., 2016). Over that time frame, the traditional symptoms of AN become exacerbated; that is, the rigid thoughts and beliefs about food and one's body become more entrenched, making it harder to adhere to engage with traditional treatment and recovery efforts. It is unsurprising, then, that treatment resistance is a hallmark symptom described in the SE-AN literature (Wildes, 2020). As time progresses, the behavioral components might also shift—for example, someone who had restrictive-type AN might begin to binge and purge (Ambwani et al., 2020). Of course, along with changing or worsening behaviors comes compounded physical symptoms In addition to weight loss and fluctuations, by the time someone has had AN for 5-7 years, there is a chance of significant strain on several organ systems, cachexia, and diminished bone density to the point of osteoporosis (Meczekalski et al., 2013). Psychosocially, the negative impact of AN on patients' quality of life and degree of their isolation are markedly greater by the time someone has reached a severe and enduring status (Ambwani et al., 2020). In essence, SE-AN is the chronic version of AN—the cognitive, behavioral, physical, and psychosocial symptoms of SE-AN are more jarring and protracted.

The defining features of SE-AN generally arise from its persistent nature, and there are certain risk factors that might predispose someone to developing this persistent version of the disorder. For example, Smith & Woodside (2021) examined the differences in clinical and demographic characteristics between patients with AN who were successful after one hospital admission and patients with AN who had multiple or incomplete admissions. They found that those who ended up becoming treatment resistant had more severe eating disorder symptoms and depressive symptoms at initial admission. In addition to greater eating disorder symptoms, people classified as having SE-AN have poorer social functioning at baseline than those patients without the classification (Ambwani et al., 2020). Moreover, the age of onset for AN is a risk factor for developing SE-AN. When AN arises in childhood, it may be more persistent than when the disorder arises in adulthood: In one study, early-onset patients had more disturbed personality symptoms and higher body dissatisfaction than late-onset patients, who were more motivated by pursuing thinness through dieting (Abbate-Daga et al., 2007). While the listed factors cannot guarantee that someone's AN will be treatment resistant, a model supporting SE-AN might say that these factors indicate the need for careful monitoring of such cases.

The risks associated with developing SE-AN, including greater psychosocial difficulties at baseline and earlier age of onset, as well as the overall intensity of its symptoms, lead some researchers to argue that different treatments may be indicated for SE-AN, rather than continuously retrying traditional methods (Marcolini et al., 2024; Treem et al., 2023; Wonderlich et al., 2020). Recall from the prior section that traditional treatment methods, for children and adults, are weight-gain/restoration focused. Contrary to those traditional methods (e.g., CBT-E), proposed treatments for those with SE-AN are generally less weight-gain focused and more focused on improving patients' quality of life (Marcolini et al., 2024; Treem et al., 2023; Wonderlich et al., 2020).

For example, one behavioral treatment that has been administered to patients with longstanding and treatment resistant AN is cognitive remediation therapy (CRT), targeting sufferers' cognitive inflexibility and excessive detail focus (Dingemans et al., 2014, as cited in Wonderlich et al., 2020). In Dingemans et al. (2014) randomized clinical trial, CRT positively impacted patients' quality of life, but the treatment did not promote weight gain. In a similar vein, a meta-analysis examining a variety of SE-AN treatment outcomes found that brain stimulation therapies (e.g., Repetitive Transcranial Magnetic Stimulation and Deep Brain Stimulation) were effective for improving AN-related psychological symptoms, such as anxiety, affective regulation, and quality of life (Marcolini et al., 2024). Unfortunately, despite those positive outcomes, such brain stimulation therapies were actually associated with weight loss. Given the de-emphasis on weight restoration in SE-AN treatments and the emphasis on quality of life, it is unsurprising that some professionals support a palliative care (PC) model for SE-AN (Treem et al., 2023). The PC model of SE-AN from Treem et al. (2023) focuses on goal-concordant care, coordination of an interdisciplinary team, suffering mitigation, and for a select few, preparation for dying. The described treatments and model see people with SE-AN as being able to make autonomous choices about their values regarding living and recovery, helping patients to manage AN without forcing what has proved to be too painful—weight gain.

If a decision so major as to move toward palliative care can be made based on a classification of SE-AN, then SE-AN must be a valid diagnostic category. But SE-AN is not in the DSM, and criteria for the label are sometimes flexibly defined. Next, the current piece will turn to a critical review of the criteria that apparently distinguish SE-AN from typical AN: 1) severity and duration of illness, and 2) treatment resistance.

### *Severity and Duration of Illness*

How severe must AN be to warrant a SE-AN label, and how is the severity measured? How long does someone need to have AN for it to be considered enduring? Generally, severity is measured in terms of duration—that is, an illness span of 5-7 years indicates that the condition has become severe enough to indicate a classification of SE-AN (Broomfield et al., 2016). The enduringness term also tends to ring truer for patients than the severity term, because patients acknowledge that physical severity can vary and cannot even always be defined by BMI (Voswinkel et al., 2024). The time frame varies. In the systematic review by Broomfield et al. (2016) on the classification of SE-AN, the time that one needed to have AN for it to be considered SE-AN ranged from greater than 3 years, to greater than 10 years, to no specified time frame (though most definitions seem to fall within the 5-10 year range). Moreover, discrepancies exist regarding whether duration is sufficient to measure the severity of SE-AN. In the same review, there were authors who defined SE-AN solely in terms of time—for instance, "a history of AN for 10 or more years" (Noordenbros et al., 1998, as cited by Broomfield et al., 2016). On the other hand, a few authors in the review defined SE-AN with specifics in addition to time. Consider this definition from Hay & Touyz (2015): "AN with an undetermined length of duration (debated between 6–7 years or 10–20 years), with very poor adaptive function, persistent high levels of symptoms, physical and psychological comorbid illness, poor engagement in treatment and adverse psychological effects, and demoralisation following repeated treatment failures" (Hay & Touyz, 2015, as cited in Broomfield et al., 2016, p. 616). Indeed, the definitions that did include specifics outside of time tended to focus on patients having experienced intense lapses in psychosocial functioning and BMI. Despite the expanded definition from Hay & Touyz (2015), demoralization following a number of unsuccessful treatments is a problematic criterion for SE-AN. Patients demoralization could be caused by another component of SE-AN—the physical ramifications of starvation (Riddle et al., 2022). Further, the very label of SE-AN might itself be demoralizing for some sufferers (Elwyn, 2023). Research indeed supports starvation as a causal mechanism for demoralization (and other symptoms of AN) and SE-AN as a demoralizing term for some people (Crow, 2023; Elwyn, 2023; Guarda, 2022; Herpertz-Dahlmann et al., 2021; Riddle et al., 2022).

The flexible definitions for severity and duration of illness have clear negative implications when it comes to the validity of an SE-AN category. That is, depending on who is assessing any given person with AN, the outcome for whether the person has SE-AN or just AN may vary. For example, in terms of the amount of time, consider a person who has had AN for 6 years. According to some definitions, this person may have SE-AN and be subsequently recommended for non-traditional treatments or palliative care. Again, these treatments would effectively de-emphasize the need for weight gain, or perhaps even increase the risk of weight loss (Marcolini et al., 2024). Of course, any given clinician may use their judgment to determine whether their symptoms also rise to an extreme level. But again, that would be a largely subjective judgment. Now imagine that this person is 29 years old, turning 30 in a few months, and has had the disorder since the age of 22. While it has been posited that in order to receive a diagnosis of SE-AN one has to be at least 30 years of age (Gaudiani et al., 2022), only one of the 32 definitions of SE-AN in the Broomfield et al. (2016) review mentioned a minimum age requirement (i.e., at least 18 years old), meaning that the age distinction for SE-AN is unvalidated and largely arbitrary. There is no evidence to suggest that people who have AN cannot recover after 18 or 30 years old (Mack and Stanton, 2022).

### *Treatment Resistance*

Treatment resistance is the other hallmark criterion for SE-AN. However, there is haziness surrounding how many failed treatments may warrant a classification of SE-AN and the point at which one should pivot away from traditional treatments. For example, Bamford and Mountford (2012) suggest that if a person has been ill with AN for 10 or more years, it is only important that they have failed one standard treatment before receiving the classification of SE-AN (as cited in Broomfield et al., 2016). Bartholody et al. (2015) similarly suggest that only one course of adequate treatment is necessary before an SE-AN diagnosis, and interestingly, these authors believe that greater than or equal to 3 years is sufficient for the duration criterion. But both of these suggestions from both teams of authors go directly in contrast with the literature suggesting that sometimes, several recovery attempts are needed for a person with AN to achieve enough nutritional rehabilitation to clear up thought patterns exacerbated by starvation. In other words, if the criterion of treatment resistance is satisfied by only one course of traditional treatment, there is not enough time for the biologically based sustaining mechanisms of AN to heal. If a person has not had an adequate amount of refeeding, they will not be motivated to recover (Riddle et al., 2022; Marzola et al., 2022; Raykos et al., 2018).

Most definitions of the treatment resistance criterion for SE-AN comprise more than one failed treatment attempt. For example, Mander et al. (2013) say treatment resistance in SE-AN involves recurrent treatment attempts and dropouts, rehospitalizations, and high rates of relapse, and Bauwens et al. (2014) say that treatment failures must be repeated (in Broomfield et al., 2016). Still, it is difficult to say how much treatment resistance is enough to warrant a turn away from

traditional, weight-gain-based treatment and toward non-traditional treatments focusing on quality of life. There is no quantitative aspect to these definitions, again leaving clinical decision making for SE-AN to be largely subjective.

Out of the 32 definitions in Broomfield et al. (2016), Lipsman et al. (2013) arguably have the most adequate definition of treatment resistance. Lipsman et al. (2013) provide quantitative components in their definition, so it leaves less room for subjectivity. These authors suggest that treatment resistance should be defined by three components, and people who have SE-AN must match with at least one of the components: 1) "A pattern of 3 years' duration of relentless unresponsiveness to repeated voluntary hospital admissions, characterised by failure to complete treatment or immediate weight relapse after treatment," 2) "A pattern of increasing medical instability, accompanied by refusal to participate in or a pattern of poor response to intensive expert treatment and increasing medical acuity, lasting at least 2 years and including at least two episodes of involuntary feeding," and 3) "A pattern of chronic stable anorexia nervosa that has lasted at least 10 years" (Lipsman et al., 2013, p. 1362). This definition leaves less room for interpretation, but a sufficient definition of treatment resistance is likely not enough to imply that the people who meet the facets of the definition should be put on a radically alternative course of treatment (Crow, 2023; Guarda et al., 2022).

## Discussion

This paper has explored the following key questions: How severe must AN be to warrant an SE-AN label, and how is the severity measured? How long does someone need to have AN for it to be considered enduring? How many unsuccessful treatments must the person have had? Perhaps most importantly, are these factors that distinguish SE-AN from AN—duration/severity and treatment resistance—enough to warrant a change in treatment protocol away from weight restoration and toward palliation? Up to this point, the present entry has addressed the first few questions, and now I will turn to discussing the final question. Given the critical examination of the two main factors that apparently differentiate SE-AN from regular AN, severity/duration and treatment resistance, there is little face validity for a separate category of SE-AN. The definitions are variable, the term severity is only really defined in terms of duration, and even solid definitions of treatment resistance are not necessarily predictive of relevant outcomes. Unsurprisingly to that end, SE-AN and the associated terminal/palliative outlook is hotly contested (e.g., Guarda et al., 2022). While proponents of the SE-AN model advocate for an autonomy-based progression in which patients might decide that treatment is futile and accept death, a raft of literature suggests that people with AN might not have the cognitive capacity to make that decision, and there is not enough evidence to suggest that first-line treatments are actually futile for this purported subgroup (Crow, 2023).

Indeed, one of the largest concerns is that the treatments for SE-AN (e.g., brain stimulation), have no efficacy for weight gain, and if patients do not gain weight, mortality rate significantly rises, leading to the final, allegedly terminal state. The problem is, a de-emphasis on nutritional rehabilitation in and of itself might be the driving force behind people's decisions to cease treatment, as their brains are not getting the proper nutrition to make cognitively fluid decisions (Riddle et al., 2022). Riddle et al. (2022), for example, argue that if standard treatments are continued, some with the disorder may simply take a longer course, but continuous exposure to nutritional rehabilitation is key. This is supported by empirical research. Raykos et al. (2018), for example, questioned the clinical utility of SE-AN because patients with longstanding AN and newly diagnosed AN were equally successful after partaking in a standard cognitive-behavioral intervention. This evidence challenges the argument that people who have long-standing AN need separate treatments to improve symptomatology and well-being. Similarly, in a sample of people who had a wide range of illness durations, Marzola et al. (2021) found that in-patient hospitalization was beneficial regardless of illness duration. Again, these findings are in direct contrast with the notion that treatment becomes unbeneficial for those who have had AN for a long time.

There have also been arguments from authors with lived AN experience that SE-AN and terminal labels pose ethical issues and are demoralizing (e.g., Elwyn, 2023). For example, Voswinkle et al. (2024) discuss how the very words associated with the diagnosis can change the way that both patients and doctors view the illness, which can negatively impact attitudes toward recovery. That is, once patients receive the label of SE-AN (which often leads to a label of terminal AN), those people may feel as though the illness is out of their control and consequently lose any motivation to achieve nutritional rehabilitation. Elwyn (2023) also discusses a personal loss of hope and ambivalence that is associated with such categorization. It is unsurprising, then, that a community of doctors are adamant that chronic categorizations of AN are "dangerous" and "cannot and should not be defined" (Guarda et al., 2022, title), despite the potential for recovery being uncertain in some patients.

## Conclusion

The current review concludes that there is far more compelling evidence to suggest that SE-AN and other chronic labels of AN have little face validity and can be potentially harmful than there is evidence to suggest that the categorization process provides clinical utility. There are no decisive answers as to how to define severity outside of duration, and chronicity is riddled

with issues surrounding subjectivity in determination of how long is long enough. Moreover, there is little evidence for treatments that work for the subgroup of SE-AN patients, further impacting the validity of the label. Any treatment that de-emphasizes weight gain sets participants on track for ambivalence. And at that point of ambivalence, mechanized by low nutrition, there is great concern that patients will not be able to autonomously choose a palliative course of action. Lastly, the growing body of lived experiences indicating that the severity/ duration criteria do not necessarily align with the patients' realities, and that SE-AN categorizations negatively impact those people's hope and motivation, perhaps provides the best argument for why those factors are not sufficient to warrant a separate diagnostic category.

## References


Abbate-Daga, G., Pierò, A., Rigardetto, R., Gandione, M., Gramaglia, C., & Fassino, S. (2007). Clinical, psychological and personality features related to age of onset of anorexia nervosa. *Psychopathology, 40*(4), 261–268. https://doi.org/10.1159/000101731

Ambwani, S., Cardi, V., Albano, G., Cao, L., Crosby, R. D., Macdonald, P., Schmidt, U., & Treasure, J. (2020). A multicenter audit of outpatient care for adult anorexia nervosa: Symptom trajectory, service use, and evidence in support of "early stage" versus "severe and enduring" classification. *The International Journal of Eating Disorders, 53*(8), 1337–1348. https://doi.org/10.1002/eat.23246

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). https://doi.org/10.1176/appi.books.9780890425787

Baker, J. H., Schaumberg, K., & Munn-Chernoff, M. A. (2017). Genetics of Anorexia Nervosa. Current psychiatry reports, 19(11), 84. https://doi.org/10.1007/s11920-017-0842-2

Bamford, B. H., & Mountford, V. A. (2012). Cognitive behavioural therapy for individuals with longstanding anorexia nervosa: adaptations, clinician survival and system issues. *European eating disorders review : the journal of the Eating Disorders Association, 2*0(1), 49–59. https://doi.org/10.1002/erv.1080

Bartholdy, Savani & Dove Nee McClelland, Jessica & Kekic, Maria & O'Daly, Owen & Campbell, Iain & Werthmann, Jessica & Rennalls, Samantha & Rubia, Katya & David, Anthony & Glennon, Danielle & Kern, Nikola & Schmidt, Ulrike. (2015). Clinical outcomes and neural correlates of 20 sessions of repetitive transcranial magnetic stimulation in severe and enduring anorexia nervosa (the TIARA study): Study protocol for a randomised controlled feasibility trial. *Trials. 16.* 10.1186/s13063-015-1069-3.

Brockmeyer, T., Friederich, H.-C., & Schmidt, U. (2018). Advances in the treatment of anorexia nervosa: A review of established and emerging interventions. *Psychological Medicine, 48*(8), 1228-1256. https://doi.org/10.1017/S0033291717002604

Broomfield, C., Stedal, K., Touyz, S., & Rhodes, P. (2017). Labeling and defining severe and enduring anorexia nervosa: A systematic review and critical analysis. *The International Journal of Eating Disorders, 50*(6), 611–623. https://doi.org/10.1002/eat.22715

Chen, A., & Couturier, J. (2019). Triggers for Children and Adolescents with Anorexia Nervosa: A Retrospective Chart Review. *Journal of the Canadian Academy of Child and Adolescent Psychiatry = Journal de l'Academie canadienne de psychiatrie de l'enfant et de l'adolescent, 28*(3), 134–140.

Culbert, K. M., Racine, S. E., & Klump, K. L. (2015). Research Review: What we have learned about the causes of eating disorders - a synthesis of sociocultural, psychological, and biological research. *Journal of Child Psychology & Psychiatry, 56*(11), 1141–1164. https://doi.org/10.1111/jcpp.12441

Crow S. J. (2023). Terminal anorexia nervosa cannot currently be identified. *The International journal of eating disorders, 56*(7), 1329–1334. https://doi.org/10.1002/eat.23957

Dingemans, A. E., Danner, U. N., Donker, J. M., Aardoom, J. J., van Meer, F., Tobias, K., van Elburg, A. A., & van Furth, E. F. (2014). The effectiveness of cognitive remediation therapy in patients with a severe or enduring eating disorder: a randomized controlled trial. *Psychotherapy and psychosomatics, 83*(1), 29–36. https://doi.org/10.1159/000355240

Eddy, K. T., Tabri, N., Thomas, J. J., Murray, H. B., Keshaviah, A., Hastings, E., … Franko, D. L. (2017). Recovery from anorexia nervosa and bulimia nervosa at 22-year follow-up. *The Journal of Clinical Psychiatry, 78*(02), 184–189. https://doi.org/10.4088/JCP.15m10393

Elwyn, R. (2023). A lived experience response to the proposed diagnosis of terminal anorexia nervosa: Learning from iatrogenic harm, ambivalence and enduring hope. *Journal of Eating Disorders, 11*(2). https://doi.org/10.1186/s40337-022-00729-0

Gaudiani, J. L., Bogetz, A., & Yager, J. (2022). Terminal anorexia nervosa: three cases and proposed clinical characteristics. *Journal of eating disorders, 10*(1), 23. https://doi.org/10.1186/s40337-022-00548-3

Guarda, A. S., Hanson, A., Mehler, P., & Westmoreland, P. (2022). Terminal anorexia nervosa is a dangerous term: it cannot, and should not, be defined. *Journal of eating disorders, 10*(1), 79. https://doi.org/10.1186/s40337-022-00599-6

Hay, P., & Touyz, S. (2015). Treatment of patients with severe and enduring eating disorders. *Current opinion in psychiatry, 28*(6), 473–477. https://doi.org/10.1097/YCO.0000000000000191

Herpertz-Dahlmann, B., Bonin, E., & Dahmen, B. (2021). Can you find the right support for children, adolescents and young adults with anorexia nervosa: Access to age-appropriate care systems in various healthcare systems. *European eating disorders review : the journal of the Eating Disorders Association, 29*(3), 316–328. https://doi.org/10.1002/erv.2825

Jagielska, G., Kacperska, I. (2017). Outcome, comorbidity and prognosis in anorexia nervosa. Psychiatria Polska, 51(2), 205-218. https://doi.org/10.12740/PP/64580

Keel, P. K., & Forney, K. J. (2013). Psychosocial risk factors for eating disorders. *International Journal of Eating Disorders, 46*(5), 433–439. https://doi.org/10.1002/eat.22094

Keys, A., Brozek, J., Henschel, A., Mickelson, O., & Taylor, H. L. (1950). The biology of human starvation (Vols. 1 & 2). University of Minnesota Press.

Lipsman, N., Woodside, D. B., Giacobbe, P., Hamani, C., Carter, J. C., Norwood, S. J., Sutandar, K., Staab, R., Elias, G., Lyman, C. H., Smith, G. S., & Lozano, A. M. (2013). Subcallosal cingulate deep brain stimulation for treatment-refractory anorexia nervosa: a phase 1 pilot trial. *Lancet (London, England), 381*(9875), 1361–1370. https://doi.org/10.1016/S0140-6736(12)62188-6

Mack, R. A., & Stanton, C. E. (2022). Responding to "Terminal anorexia nervosa: three cases and proposed clinical characteristics". *Journal of eating disorders, 10*(1), 87. https://doi.org/10.1186/s40337-022-00612-y

Marzola, E., Martini, M., Brustolin, A., & Abbate-Daga, G. (2021). Inpatients with severe-enduring anorexia nervosa: Understanding the "enduringness" specifier. *European Psychiatry, 64*(1), e44-.https://doi.org/10.1192/j.eurpsy.2021.2218

Marcolini, F., Ravaglia, A., Tempia Valenta, S. et al. Severe enduring anorexia nervosa (SE-AN) treatment options and their effectiveness: a review of literature. *J Eat Disord 12*, 48 (2024). https://doi.org/10.1186/s40337-024-01006-y

Mander, J., Teufel, M., Keifenheim, K., Zipfel, S., & Giel, K. E. (2013). Stages of change, treatment outcome and therapeutic alliance in adult inpatients with chronic anorexia nervosa. *BMC psychiatry, 13,* 111. https://doi.org/10.1186/1471-244X-13-111

Meczekalski, B., Podfigurna-Stopa, A., & Katulski, K. (2013). Long-term consequences of anorexia nervosa. *Maturitas, 75*(3), 215-220. https://doi.org/10.1016/j.maturitas.2013.04.014

Murray, S. B., Quintana, D. S., Loeb, K. L., Griffiths, S., & Le Grange, D. (2019). Treatment outcomes for anorexia nervosa: a systematic review and meta-analysis of randomized controlled trials. *Psychological medicine, 49*(4), 535–544. https://doi.org/10.1017/S0033291718002088

Noordenbos, G., Oldenhave, A., Muschter, J., & Terpstra, N. (2002). Characteristics and treatment of patients with chronic eating disorders. *Eating disorders, 10*(1), 15–29. https://doi.org/10.1080/10640260275357353 1

Raykos, B. C., Erceg-Hurn, D. M., McEvoy, P. M., Fursland, A., & Waller, G. (2018). Severe and enduring anorexia nervosa? Illness severity and duration are unrelated to outcomes from cognitive behaviour therapy. *Journal of Consulting and Clinical Psychology, 86*(8), 702–709. https://doi.org/10.1037/ccp0000319

Riddle, Megan & O'Melia, Anne & Bauschka, Maryrose. (2022). First, do no harm: the proposed definition of "terminal anorexia" is fraught with danger for vulnerable individuals. *Journal of Eating Disorders, (10)*81. 10.1186/s40337-022-00605-x.

Roubalová, R., Procházková, P., Papežová, H., Smitka, K., Bilej, M., & Tlaskalová-Hogenová, H. (2020). Anorexia nervosa: Gut microbiota-immune-brain interactions. *Clinical nutrition (Edinburgh, Scotland), 39*(3), 676–684. https://doi.org/10.1016/j.clnu.2019.03.023

Smith, S., & Woodside, D. B. (2021). Characterizing Treatment-Resistant Anorexia Nervosa. *Frontiers in Psychiatry, 11*, 542206–542206. https://doi.org/10.3389/fpsyt.2020.542206

Solmi, M., Wade, T. D., Collantoni, E., & et al. (2021). Comparative efficacy and acceptability of psychological interventions for the treatment of adult outpatients with anorexia nervosa: A systematic review and network meta-analysis. *The Lancet Psychiatry, 8*(3), 215-224. https://doi.org/10.1016/S2215-0366(20)30473-5

Treem, J., Yager, J., & Gaudiani, J. L. (2023). A Life-Affirming Palliative Care Model for Severe and Enduring Anorexia Nervosa. *AMA journal of ethics, 25*(9), E703–E709. https://doi.org/10.1001/amajethics.2023.703

van den Berg, E., Houtzager, L., de Vos, J., Daemen, I., Katsaragaki, G., Karyotaki, E., Cuijpers, P., & Dekker, J. (2019). Meta-analysis on the efficacy of psychological treatments for anorexia nervosa. *European eating disorders review : the journal of the Eating Disorders Association, 27*(4), 331–351. https://doi.org/10.1002/erv.2683

van Hoeken, D., & Hoek, H. W. (2020). Review of the burden of eating disorders: Mortality, disability, costs, quality of life, and family burden. *Current Opinion in Psychiatry, 33*(6), 521-527. https://doi.org/10.1097/YCO.0000000000000641

Voswinkel, M. M., Hanegraaff, S. M., Mares, S. H. W., Wezenberg, E., van Delden, J. J. M., & van Elburg, A. A. (2024). Ethical implications of defining longstanding anorexia nervosa. *Journal of eating disorders, 12*(1), 77. https://doi.org/10.1186/s40337-024-01040-w

Wildes, J. E. (2020). Moving from "I know it when I see it" to an empirical classification of severe and enduring anorexia nervosa: Commentary on Wonderlich et al. (2020). *The International Journal of Eating Disorders, 53*(8), 1315–1317. https://doi.org/10.1002/eat.23321

Wildes, J. E., Forbush, K. T., Hagan, K. E., Marcus, M. D., Attia, E., Gianini, L. M., & Wu, W. (2017). Characterizing severe and enduring anorexia nervosa: An empirical approach. *The International Journal of Eating Disorders*, *50*(4), 389–397. https://doi.org/10.1002/eat.22651

Wonderlich, S. A., Bulik, C. M., Schmidt, U., Steiger, H., & Hoek, H. W. (2020). Severe and enduring anorexia nervosa: *Update and observations about the current clinical reality. The International Journal of Eating Disorders, 53*(8), 1303–1312. https://doi.org/10.1002/eat.23283

World Health Organization. (2019*). International statistical classification of diseases and related health problems* (11th ed.). https://icd.who.int/

Zipfel, S., Giel, K. E., Bulik, C. M., Hay, P., & Schmidt, U. (2015). Anorexia nervosa: aetiology, assessment, and treatment. *The Lancet Psychiatry, 2*(12), 1099-1111. https://doi.org/10.1016/S2215-0366(15)00356-9