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Understanding Perceptions of Social Eating During Lunch for Adolescents with Anorexia Nervosa: An Instrumental Case Study

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UNDERSTANDING PERCEPTIONS OF SOCIAL EATING DURING LUNCH FOR ADOLESCENTS WITH ANOREXIA NERVOSA: AN INSTRUMENTAL CASE STUDY

Presented in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Occupational Therapy

Eastern Kentucky University
College of Health Sciences
Department of Occupational Science and Occupational Therapy

Madelyn Duzyk OTR/L
2022

EASTERN KENTUCKY UNIVERSITY
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL THERAPY

This project, written by Madelyn Duzyk under direction of Dr. Christine Privott, Faculty Mentor, and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF OCCUPATIONAL THERAPY

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We hereby certify that this Capstone project, submitted by Madelyn Duzyk conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Occupational Therapy degree.

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Executive Summary

Background: Adolescents are susceptible to developing eating disorders (ED) such as the subtype anorexia nervosa (AN) and have poor outcome prognoses because of the illnesses' complexity and minimal evidence-based treatment options (Khalsa, 2017; Murray, 2020). Current literature on adolescents with AN show that social participation is a key factor of community reintegration and long-term recovery (Mekori et al., 2017; Preyde et al., 2017); however, there is little known about the impact of social eating for adolescents with AN.

Purpose: The purpose of this instrumental case study is to more fully understand the meaning of social eating during lunch for adolescents with AN and begin to illustrate social eating's impact on treatment, community re-integration, and long-term remission.

Theoretical Framework: The study encompassed the Canadian Model of Occupational Performance and Engagement (CMOP-E) as a theoretical framework to better understand the effects of social eating as an occupation based on participants' self-perceived occupational engagement and performance (Ikiugu et al., 2017).

Methods: A qualitative case-study methodology was developed to gain perceptions of social eating from adolescents with AN. Data collection included semi-structured interviews from adolescents with AN admitted into the Lindner Center of Hope's inpatient ED program. Data analysis consisted of coding interview transcripts and organizing recurrent beliefs among participants into patterns.

Results. Three patterns emerged from the three participants' interviews: Pressure Cooker, Bread Maker, and Hand Mixer. Each pattern illustrated limitations or barriers perceived by participants when taking part in social eating. Factors such as peer social pressures, environmental shortcomings, and extrinsic expectations negatively influenced participants' occupational engagement and performance.

Conclusions: Study results provided a better understanding to perceptions of social eating during lunch for adolescents with AN and further insight to the limitations of current AN treatment that may be impairing poor community re-integration and increasing likelihood of recurrent hospital admissions. This instrumental case study gives clear evidence that the field of occupational therapy can play a significant role in treating adolescents with AN and should be more utilized in treatment settings.

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CERTIFICATION OF AUTHORSHIP

Submitted to (Faculty Mentor's Name): Dr. Christine Privott Ph.D, OTR/L
Student's Name: Madelyn Duzyk OTR/L
Title of Submission: Understanding Perceptions of Social Eating during Lunch for Adolescents with Anorexia Nervosa: An Instrumental Case Study

Certification of Authorship: I hereby certify that I am the author of this document and that any assistance I received in its preparation is fully acknowledged and disclosed in the document. I have also cited all sources from which I obtained data, ideas, or words that are copied directly or paraphrased in the document. Sources are properly credited according to accepted standards for professional publications. I also certify that this paper was prepared by me for this purpose.

Student's Signature: Madelyn Duzyk OTR/L

Date of Submission: 2022, May 9

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Section One: Nature of Project and Problem Identification

Eating disorders (ED), which generate the highest mortality rate of any mental health disease, are known to be chronic diseases with a high occurrence of early onset between the ages of 12-16 (Murray, 2020; Silén et al., 2020). EDs have developed into a global concern as diagnoses continue to rise; in fact, a current systematic literature review found ED prevalence has doubled within the last twenty years from 3.5% to 7.8% worldwide, and the trend is predicted to persist upwards (Galmiche et al., 2019). Anorexia nervosa (AN) is not only the most common subtype but also the deadliest making up 3.6% of the global population, and an individual diagnosed with AN is five times more likely to experience premature mortality than an individual who does not have AN (van Eeden et al., 2021). AN is a lifelong diagnosis with only 33% of adolescents with AN meeting remission criteria by the end of an evidence based treatment program, and there is a high probability of relapse within the first two to three months post-treatment (Khalsa, 2017; Murray, 2020). Mekori et al (2017) found that poor participation in social interactions and occupation functioning post-treatment are predictors of acute relapse, including suicide and hospital readmission. This was followed a year later with a study by Mehler & Andersen (2017), who found that common community-based occupations of adolescents, including eating and social participation, can influence disordered eating behaviors and relapse. While there is a large quantity of research on adolescents and the occupation of social participation, there is minimal research specific to AN and adolescents' perceptions of social eating during lunch. Further understanding of adolescents diagnosed with AN and their self-perceived performance in social eating could reshape eating disorder treatment and prevention interventions.

Abbreviated Review of Literature

Eating disorders are mental illnesses that impair an individual's relationship to food, causing severe behaviors of food restriction, binge eating, purging, or compulsive exercise driven by emotional dysregulation (American Psychiatric Association, 2013; Lock, 2019). Adolescents are at high risk for developing EDs as significant changes during puberty intensify social development and drive adolescents to obtain peer acceptance. Social isolation and peer disapproval are known to cause mental health impairments such as anxiety, depression, and disordered eating (La Salle et al., 2021; Smink et al., 2012).

While EDs are prevalent in the adolescent population, there are several subtypes of eating disorders with the most frequently treated being AN, characterized by significant weight loss over a short period of time (American Psychiatric Association, 2013; van Eeden et al., 2021). Himanshu et al (2020) provide examples of AN behaviors such as skipping meals, only eating low-calorie foods, or experiencing body dysmorphia, which is defined as an obsessive distorted perception of body image that reinforces harmful eating disorder behaviors. Schorr et al (2016) found that adolescents participate in food restriction and develop rituals in fear of gaining weight or in efforts to maintain weight loss. In support of this, Sagiy & Gvion (2020) found that the severity of the thoughts and behaviors associated with AN yield to the highest occurrence of self-harm, including suicide, of all ED subtypes. The complexity of these disordered symptoms may present as barriers in evidence-based treatments, such as Family Based Therapy.

Family Based Therapy (FBT) is one evidence-based program for adolescent AN intervention and is considered the gold standard of treatment (Lock & Le Grange, 2013). FBT is a three-phase outpatient treatment program: 1) weight restoration and healthy eating, 2)

transition of control back to the adolescent, and 3) participation in healthy balanced living. In the first phase caregivers have complete control over the adolescent's food routine and habits to achieve weight restoration, and there is limited social participation in an attempt to create "an intense scene" for the adolescent to understand "she will not be able to return to anorexic behavior while a part of the parents' household" (Lock & Le Grange, 2013, p. 59 & p. 126). The goal of phase one is weight restoration, whereas the succeeding phases serve to slowly introduce food-based autonomy in the home and in the community. Phase two is a collaboration between adolescent and caregiver to select appropriate food-based choices during mealtime routine and meal preparation within controlled environments, and phase three encourages the adolescent to independently make food-based decisions supported by learned FBT strategies in natural, un-controlled environments. Practice of weight restoration has been identified as a significant outcome for adolescents who complete FBT; however, 40% of adolescents continue to suffer from psychological impairments post-intervention as the absence of adolescent identity and social skills during phase one may create challenges when the adolescent returns to his or her daily routine (Conti et al., 2017).

Evidence-based treatments for AN show positive outcome for adolescent weight restoration but remain insignificant for psychological well-being and social performance that are also important for long-term remission (Conti et al., 2017; Lock & Le Grange, 2013; Preyde et al, 2017). Social participation and social eating as practice domains in occupational therapy (OT) further support evidence on innovative treatments targeting occupational participation rather than weight restoration in efforts to improve emotional regulation, cognitive flexibility, and an adolescent's quality of life by increasing likelihood of long-term recovery (Meyer et al., 2021; Mitchison et al., 2016; Waller, 2016). More specifically, Biddiscombe et al (2018) found that

participants of a practical food treatment group found tasks such as meal preparation and eating at restaurants improved confidence and coping skills while eating in a social setting. There is clear evidence that participation in activities of daily living and social activities during AN treatment have favorable effects on psychosocial well-being, but there is little understanding of adolescents' occupational outcomes in social eating, specifically during lunch.

Problem Statement

Adolescents are at high risk for developing eating disorders, and those with AN are susceptible to relapse, even with current treatment (Conti et al., 2017; La Salle et al., 2021; Smink et al., 2012; Taflå et al., 2017). One common indicator of relapse is difficulty reintegrating back into the community (Preyde et al., 2017). Currently, there is a lack of literature specifically addressing adolescents' occupation of social eating during lunch as a community social occupation. There is a need to further understand adolescents' social eating that may impact ED intervention and post-treatment options.

Purpose of the Project

The purpose of this instrumental case study is to more fully understand the meaning of social eating during lunch for adolescents with anorexia nervosa.

Project Objectives

The objectives of the research study are to 1) describe perceptions of social eating during lunch for adolescents with anorexia nervosa, 2) more fully understand the meaning of the occupation of social eating for adolescents with anorexia nervosa, 3) generate a case study that begins to illustrate the occupation of social eating during lunch for adolescents with anorexia

nervosa and its impact on treatment, community re-integration, and long-term remission, and 4) describe implications for occupational therapy practice for adolescents with anorexia nervosa.

Theoretical Framework

The Canadian Model of Occupational Performance and Engagement (CMOP-E) examines participation and satisfaction of meaningful occupations in a natural environment with the person at the center of the model (Townsend & Polatajko, 2007). Doidge et al (2019) further explain that engagement is the autonomy to participate in an occupation and is measured by an individual's "strengths, resources, and limitations" (p.398). The CMOP-E focuses on human occupation, and the concept of engagement allows an individual to self-perceive participation and satisfaction to determine the value of an occupation (Townsend & Polatajko, 2007). The ability for individuals to self-perceive "experienced occupational performance" (Ikiugu et al., 2017, p. 3) makes the CMOP-E a relevant framework to explore adolescents' participation in a meaningful occupation. The Canadian Occupational Performance Measure (COPM) is the assessment tool derived from the CMOP-E, and this self-report measure asks individuals to identify meaningful occupations and assess perceived participation and satisfaction (Ohno et al., 2021). Semi-structured interview questions for this instrumental case study will mirror core values of the CMOP-E and structure of the COPM. Evidence shows peer socialization and eating participation are essential to long-term remission for adolescents with AN (Biddiscome et al., 2018; Preyde et al., 2017); however, little is known about the involvement of social participation while eating. Obtaining self-reflections from adolescents with AN participating in social eating during lunch will promote better understanding of the effects of social eating as an occupation for the targeted population.

Significance of the Study to Practice

OT promotes well-being and quality of life through occupational performance and engagement; personal and environmental factors can disrupt this occupational performance and engagement. Adolescents diagnosed with AN can be expected to participate in social eating at home, school, and in the community, and this can cause functional impairments in social participation and social eating. A greater understanding of adolescents with AN and their perceptions of social eating during lunch may expand OTs' and other clinical providers' roles to better support the personal and environmental participation factors that impact this population.

Summary

Current literature on adolescent mental health, adolescents with AN, and OT intervention for this population demonstrate that social participation is a key factor of community reintegration for adolescents with AN to achieve long-term recovery (Mekori et al., 2017; Preyde et al., 2017); however, little is known specifically about the impact of social eating for adolescents with AN. This study will explore adolescents' perceptions of social eating during lunch to better understand the impact on health and well-being as an evidence-based approach in OT.

Section Two: Review of the Literature

This literature review is organized by ED evidence first, then by a review of AN literature as a subtype of ED, followed by content on FBT, and finally OT literature is presented focusing on the adolescent population and social eating as a social occupation within the OT Practice Framework (American Occupational Therapy Association, 2020).

Eating Disorders

The diagnosis of an eating disorder (ED) is an expansive term to define "behavioral conditions characterized by severe and persistent disturbance in eating behaviors and associated distressing thoughts and emotions" (Guarda, 2021). EDs are known to be chronic mental health impairments because of a considerable lifetime prevalence and reoccurrence of relapse that elevates the risk for suicide and holds the highest mortality rate of any mental illness (Berends et al., 2018; Sagiv & Gvion, 2020; Udo et al., 2019).

The first leading predictor of EDs is gender at an estimated 19% of females and 14% of males are affected worldwide; however, more recent evidence shows males are critically underdiagnosed (Galmiche et al., 2019; Mehler & Anderson, 2017). The lesbian, gay, bisexual, and transgender (LGBT) community also has an increased risk of developing eating disorders due to co-occuring mental health impairments and poor body image (Mensinger et al., 2020; Watson et al., 2017). Genetics is another predictor with an estimated 50-70% increased risk of ED diagnoses in families with history of obesity or depression (Mehler & Anderson, 2017; Michael et al., 2020). Assimilation of Western culture is also a recurrent predictor as its cultural standards equate beauty to thinness and place high value in body image, and the influence of social media and infiltration of Western beliefs has increased disordered eating behaviors in various cultures (Mehler & Anderson, 2017; Padín et al., 2021; Thompson et al., 2020). The most notable predictor is early onset of disordered eating behaviors with the highest risk of developing an ED occurring between the ages of 12—16 years old and impacting an estimated 6.9% of the adolescent population (Murray, 2020; Silén et al., 2020; Smink et al., 2017). In

support of ED populations predictors, this literature review will focus its attention on the adolescent population.

Adolescents and Eating Disorders

Mehler & Anderson (2017) found disordered body perceptions can start as early as six-years-old, and that 60% of fourteen-year-old females have already participated in some type of dieting in efforts to lose weight. Adolescents are vulnerable to developing eating disorders because puberty progresses social, cognitive, and physical development at a rapid pace heightening interpersonal relationships and disrupting emotional regulation (Smink et al., 2012; Tafa et al., 2017). Biologically, a decrease in grey brain matter during puberty can negatively affect important brain structures, such as the amygdala and the frontal cortex, that regulate emotions and executive functioning skills (Olivio et al., 2019). In support of these findings, Schaumberg et al (2020) sampled adolescents from a longitudinal study to determine if social skills influence eating disorder behaviors. Results concluded poor social skills such as emotional dysregulation and distorted interpersonal perceptions are risk indicators of eating disorder development. The pressure of peer acceptance and impairment of social skills during puberty can influence disordered eating behaviors in adolescents and result in early onset of ED (Mehler & Anderson, 2017; Olivio et al., 2019; Schaumberg et al., 2021).

Evidence-based Treatment and Outcomes for Eating Disorders

High standard, evidence-based treatments for EDs are cognitive-behavioral therapy (CBT) and family-based therapy (FBT) (Lock, 2019; Murray, 2020; Waller, 2016). The American Psychological Association (2017) defines CBT as a therapeutic strategy that aims to reform disordered thoughts by utilizing coping skills and to challenge distorted thinking patterns. FBT is a food-centered treatment approach that restores body weight and autonomy around food

routines (Cincinnati Children's Hospital and Medical Center, 2019; Lock & Le Grange, 2013). Remission, post-treatment, is projected at 33% with adolescents having a higher rate of success with early intervention and weight gain within the first four weeks of treatment (Lock & Le Grange, 2013; Murray, 2019). Adults or individuals with long-term EDs are less likely to gain positive results post-treatment or seek treatment altogether (Micali et al., 2017; Murray, 2019). Low rates of remission and outcome discrepancies may be the result of ED programs modifying treatment protocol based on setting, staff competency, funding, and/or time sensitivity causing "treatment gaps" amongst the ED population (Kazdin et al., 2016, p. 170; Micali et al., 2017; Waller, 2016).

Anorexia Nervosa

ED is a broad umbrella term with nine subtypes; one subtype is anorexia nervosa (AN). The criteria for AN consist of significant weight loss in a short time span, irrational fear of weight gain, and distorted perception of body image for at least three months (American Psychiatric Association, 2013). Individuals who suffer from AN are divided into two subgroups 1) restricting type presents as extreme weight loss through dieting, illogical food routines, or over-exercising, and 2) binge-eating/purging type presents as weight loss through purging or abusing laxatives (American Psychiatric Association, 2013). Prevalence of AN subgroups is an estimated range between 1.7- 3.6% of the population with consideration that a vast majority are left un-diagnosed due to inconsistent diagnostic criteria, deferral of a medical diagnosis, and those who are in denial of mental impairment (Udo et al., 2018; van Eeden et al., 2021). The complexity and high mortality rate of AN drive the focal point of this study toward further understanding aspects of AN as an ED subtype.

Adolescents and Anorexia Nervosa

Adolescents are at high risk for developing ED, and the subtype AN is no exception. The interrelation between biological, environmental, and social factors plays a significant role in an adolescent's mental well-being (Olivio et al., 2019; Schaumberg et al., 2021; Táfa et al., 2017). The brain undergoes extensive changes throughout puberty, heightening an adolescent's impulsivity and emotional recklessness impairing social participation, school participation, and other meaningful occupations (Olivio et al., 2019; Táfa et al., 2017). Olivio et al (2019) found executive functioning inhibitions, such as poor cognitive flexibility, were more notable in adolescents with AN when comparing functional magnetic resonance images (fMRIs) between adolescents with AN and typically developing adolescents. Cognitive flexibility facilitates an adolescent's ability to adapt to various environments and situations in order to successfully perform an occupation, and impairments can create vulnerability to external stressors and mental health deficits. For example, Táfa et al (2017) followed hundreds of families with adolescent daughters affected by EDs in a longitudinal study and found that adolescents with AN are more impacted by family dysfunctions, including caregivers' depressive behaviors and families' rigid or non-confrontational dynamics, than other ED subtypes (p. 36). Not only does stress between family members enhance disordered eating behaviors, but also school and other social environments can also exacerbate the risk of AN as well (Conti et al., 2017; Schaumberg et al., 2021). The critical desire to be accepted by peers in the age of adolescence and the demands of social environments may lead to self-criticism and disordered eating patterns causing AN to be one of the most difficult chronic mental illnesses to treat (Murray, 2020; Waller, 2016).

Family Based Therapy and Anorexia Nervosa

Family-based therapy (FBT), also known as the Maudsley Approach, is considered the gold-standard of treatment for adolescents with AN (Conti et al., 2017; Lock & Le Grange, 2013; Murray 2020). FBT was designed as a twelve-month outpatient intervention where each family member, including the adolescent, has a significant role within the family dynamic and 3-step treatment plan. Lock & Le Grange (2013) outline the 3 treatment phases as 1) weight restoration, 2) returning control of eating to the adolescent, and 3) establishing healthy adolescent identity where the goal of each phase is to transition autonomy of food-based decisions back to the adolescent as weight is properly restored.

Different setting types, such as inpatient and partial hospitalization programs, have adapted FBTs principles to be used in more intensive treatment programs (Murray, 2020; Waller, 2016). For example, the Lindner Center of HOPE (LC) incorporates elements of FBT within the inpatient adolescent ED program and then coaches family members to carry over strategies in the home environment post-discharge (CCHMC, 2019). The LC is an acute care setting; therefore, adolescents only participate in phase one of FBT during their stay, and many continue phase one post-discharge. Companion meals or meals supervised by a medical professional or family member who has completed specified training are scheduled for breakfast, lunch, dinner, and snack times. These meals replicate a meal as designed by phase one of FBT in which the adult chooses the meal based on caloric intake or refeeding plan, and the adult monitors or redirects disordered behaviors throughout the meal (CCHMC, 2019; Lock & Le Grange, 2013). Disordered behaviors may include talking about food or exercise, tapping their leg in an effort to

burn calories, or picking at food in effort to decrease caloric intake. Companion meals set clear expectations for adolescents upon discharge when they return home in hopes of continuing to phase two of FBT and ultimately achieving remission.

Treatment Outcomes and Anorexia Nervosa

The American Psychiatric Association (2013) differentiates partial AN remission and full AN remission based on the Diagnostic and Statistical Manual of Mental Disorders (fifth edition) diagnostic criteria and longevity of remission. To achieve partial remission an individual must maintain a healthy body weight for a prolonged duration of time (Black & Grant, 2014, p.224), but the individual continues to demonstrate an irrational fear of weight gain or a distorted perception of body image; full remission is when an individual no longer meets any diagnostic criteria.

Although FBT can help individuals with AN achieve weight restoration and remission, poor prognosis of AN continues to be a global concern with high rates of treatment dropout and relapse. Scholars have found that evidence-based treatments like FBT have greater positive effects on weight restoration than emotional restoration. (Andrade et al., 2017; Olivio et al., 2019). For those who achieve remission only one of three remain in remission after four years post-treatment (Olivo et al., 2019). Andrade et al (2017) found that in regard to remission, a significant percentage of individuals who participated in evidence-based programs, like FBT, demonstrated poor outcomes as defined by re-emerging or stagnant AN symptoms. The ED literature introduced the term “the revolving door” to represent the poor outcomes associated with remission and high likelihood of relapse after participating in evidence-based programs (Marzola et al., 2021). Although there are beneficial outcomes to current evidence-based

practices, there appears to be limitations resulting in treatment dropout, hospital readmission, and relapse for adolescents with AN.

Treatment Limitations and Anorexia Nervosa

It has been suggested that decreased autonomy and lack of social opportunities during the first phase of FBT impedes full remission by risk of dropout, social disengagement, and relapse for adolescents with AN (Conti et al., 2017; Preyde et al., 2017). The early phase of FBT concentrates on weight gain and treating the illness while passing by emotional regulation and other psychosocial supports until later in the treatment process creating, "failure to engage therapeutically with the experience of AN as a personal, familiar, and sociocultural crisis" (Conti et al., 2017, p. 407). The authority given to the family, especially in phase one of FBT, hinders the adolescent's accountability during treatment and provides few chances to explore effective coping skills in a controlled environment (Conti et al., 2021). Therefore, when an adolescent progresses to phases two and three, the adolescent may lack confidence and appropriate emotional regulation to handle disordered thoughts or behaviors in the natural environment.

An adolescent's absence of control during the first phases of FBT can also cause loss of self-identity and provide limited opportunities to explore meaningful roles outside of AN, which can result in significant stressors and challenges reintegrating back into the community post-treatment. (Cockell et al., 2004; Conti et al., 2021; Murray, 2020). This is supported by Preyde et al (2017) who found adolescents receiving treatment for mental health impairments felt most stressed and unprepared to return to school or engage in social interactions post-treatment with concrete concerns such as make-up schoolwork, bullies, and explaining school absence to peers and teachers. Forty-two percent of participants suggested resources such as "coping skills training" and "social skills training" (p. 522) would have been beneficial during treatment and

the community reintegration process to increase self-assurance and decrease stress behaviors (Preyde et al., 2017).

Evidence-based treatments for AN, such as FBT, show positive outcomes in weight restoration, but there appears to be gaps in psychosocial restoration impeding long-term recovery for adolescents with AN. A significant piece to recovery is the ability for an adolescent to create an identity outside of an eating disorder. Without social support or effective coping skills adolescents are unable to recognize that the values and beliefs of AN are different than the values and beliefs of the person (Berrett, 2018; Cockell et al., 2004). OT evidence-based interventions can guide development of social and coping skills by building adolescents' confidence through meaningful occupations during school and social interactions (AOTA, 2020).

Occupational Therapy, Social Participation, Social Eating, and Anorexia Nervosa

Giles (1985) first introduced the value of OT's role in AN remission and recommended that gaps in ED treatment could be improved using a client-centered, occupation-based approach. In the 1980s, the primary goal of treatment was to restore weight; however, Giles (1985) argued that in order for an individual to maintain weight gain, he or she must actively participate in the occupation of eating as an activity of daily living and to take accountability in self-care (AOTA, 2020). Giles (1985) believed engagement or the choice to participate in eating is the most fundamental, but also the most challenging concept of AN remission and can be achieved through occupation-based activities, "linking the practical, emotional, and cognitive aspects of the treatment" (p. 517). A much later study by Biddiscombe et al (2018) studied an outpatient eating disorder program and found that food groups not only promoted participation in challenging food related activities while OTs provided the "necessary support and adaptations" through occupation-based activity, but also supported positive long-term outcomes (p. 100).

Food-based occupations are not the only support OTs can provide for the ED population. Social participation is meaningful to an adolescent's quality of life and can increase participation in other occupations (Fox et al., 2020; Preyde et al., 2017). Building confidence in social skills can positively benefit participation in school and leisure (Fox et al., 2020; Preyde et al., 2017), but the occupation of eating is rarely thought of when thinking about school and leisure participation. Social eating is a co-occupation where an individual is expected to eat while participating in a social situation (AOTA, 2022). Dunbar (2017) argues the importance of social eating goes beyond the performance of eating but also social engagement to promote, "feeling happier and more satisfied with life…[being] more engaged with local communities, and having more friends [to] depend on for support" (p. 198). Herman (2017) also defines social eating as a social experience and opportunity to enjoy the presence of others, and as a result, eating behaviors may change. For example, people are more likely to overeat during a social meal because there is more food presented at the table for a longer duration of time in effort to extend social interactions. Herman (2017) and Dunbar (2017) ideas of behavior change and empowerment during social eating are supported by Meyer et al (2021) who followed adolescents with a long-term diagnosis of celiac disease and found food choices were made based on social influence more than health. OT has been used as a tool to improve social eating performance in a variety of populations, including autism spectrum disorder (Harpster et al., 2015; American Journal of Occupational Therapy, 2017). For example, Harpster et al (2015) found that a snack-time intervention for autistic children, led by OTs, encouraged social eating through modeling, food exploration by way of play, and social support; as a result, participants improved in both social engagement and food exploration.

The evidence-based literature on social eating as an occupation demonstrates the impact on performance for both social interaction and eating; however, there is no evidence on the perception or effects of social eating for adolescents with AN. Further understanding of social eating could help address current AN treatment gaps and limitations.

Section Three: Methods

Project Design and Rationale

The original methodology for this study was a grounded theory approach because of the limited knowledge and current literature on adolescents with AN and their perceptions of social eating during lunch. By conducting semi-structured interviews with adolescents with AN, the primary investigator (PI) was hopeful of gaining further understanding of perceptions of social eating during lunch and illustrating findings in an innovative theory. However, the methodology design shifted to an instrumental case study as it was challenging for the PI to recruit enough participants to support a grounded theory approach. The instrumental case study methodology was selected to maintain the integrity of the study's purpose while also acknowledging the reliability of the design based on the number of participants. Here, the instrumental case study focuses on the event of social eating in efforts to build a grounded theory in future research.

Setting

The Linder Center (LC) is a recovery facility for mental health and addiction and offers an inpatient program for adolescents with ED. The program is managed by Cincinnati Children's Hospital Medical Center (CCHMC) and hosts up to sixteen patients between the ages of 12-17 years old (Lindner Center of HOPE, 2022). The purpose of the inpatient program is to provide

stability for adolescents with eating disorders prior to transitioning to a long-term recovery program. The average length of stay is two weeks, and the inpatient unit is facilitated by an interdisciplinary team which includes psychiatry, psychology, nutrition, behavioral services, social work, and occupational therapy. During an inpatient stay, adolescents participate in group therapy, individual therapy, and FBT (i.e., companion meals) while vitals and medication are monitored by medical providers. Companion meals are supervised meals that replicate the first phase of FBT where the adult has full control of the adolescent's eating habits in effort to restore nutrition or re-feeding (Lock & Le Grange, 2013).

The PI, employed through CCHMC, received direct access to the LC for this study after completing required program competencies, and accessibility of facility was available Monday thru Saturday during traditional workday hours. Provided advanced permission from the LC staff, the PI scheduled participant interviews during a participant's free time which typically occurred after each meal. Interviews were conducted in a private space such as the library or a reserved treatment area.

Participant Recruitment and Selection

For this study, three adolescent participants admitted to LC's inpatient program were purposefully selected. The participants had been diagnosed with an ED, subtype AN, by a medical professional. All participants were medically stable as determined by the LC's medical team.

Inclusion Criteria

Participants met the following criteria: 1) adolescents admitted into the LC's inpatient ED program during time period of this study, 2) adolescents with an AN diagnosis by a medical professional, 3) adolescents eligible for participation in the study as determined by the LC's

medical team, 4) adolescents currently enrolled in a private or public secondary school, and 5) adolescents willing to participate in the study and provide informed consent.

Exclusion Criteria

Participants were excluded from the study based on the following criteria: 1) adolescents not admitted into the LC's inpatient ED program during the time period of this study, 2) adolescents less than 12-years-old or greater than 16-years-old, 3) adolescents not diagnosed with AN by a medical professional, and 4) adolescents home schooled or not enrolled in a public or private secondary school.

Participant Recruitment Process

Participants were purposefully selected in consultation and collaboration with the LC administration and staff. Leadership teams from CCHMC and the LC were provided copies of the Institutional Review Board (IRB) approval through CCHMC and supported by Eastern Kentucky University prior to participant recruitment (See Appendix A, B & C). Participants were recruited using a verbal script rehearsed by the PI or on-site OT employed by CCHMC who works at the LC full time (See Appendix D). Participants were appointed after consultation with the LC administration and staff based on medical and behavioral well-being. Both participants and caregivers of participants were instructed to complete a consent form (See Appendix E). Due to various and distributed locations, caregivers were given an electronic consent form, and the participants were provided a hard copy of the Informed Consent Form.

Data Collection

The PI conducted semi-structured interviews on-site with the study participants. One-to-one interviews were scheduled with each participant during their program free time and within a two to three week period as to not interfere with the program's treatment interventions or

routines. Each interview lasted between 20-30 minutes in length. All interviews were conducted face-to-face and held in one of several private rooms available and located on the inpatient unit. All interviews were recorded digitally on the PI's personal, password protected smartphone using the real-time translation app called Otter.

The semi-structured interview questions aligned with the Canadian Model of Occupational Performance and Engagement (CMOP-E) theoretical framework to provide perspective on social eating context and choice of engagement (See Appendix F). Interviews were individualized as questions were asked in an order that flowed most naturally with each participant's interview. Interview questions promoted open-ended responses, and probing statements were implemented to deter one-word responses from participants. Examples of interview questions include: 1) What does "social eating" mean to you? and 2) In your opinion, what skills are needed to successfully participate in social eating during lunch?

Data Analysis

The purpose of the data analysis was to discover emergent patterns from the participants' interviews to gain an understanding of adolescents diagnosed with AN and their perceptions of social eating. The PI transcribed the audio recordings verbatim using the Otter app. The PI first completed an initial read-through by reviewing each participant's transcript at least three times in preparation for open coding. During open coding, the PI looked for frequent phrases or comments within each transcript, and frequency tables were constructed to organize repetitions. Qualitative software for coding was not used, rather, the PI coded meticulously by hand. The PI then produced categories based on frequent phrases or comments overlapping between all participant transcripts; categories are objective and organized based on recurrence. Based on the categories, the PI formed patterns that depict comprehensive meaning to participants'

perceptions on social eating during lunch. By designing an instrumental case study, patterns were analyzed using a systematic approach to advance the understanding of the event of social eating during lunch in regards to treatment, community re-integration, and long-term remission (Creswell & Creswell, 2018). Results generated an introductory representation of participants' experiences of social eating during lunch which can then be related back to the CMOP-E, FBT, and OT implications.

Trustworthiness

Qualitative validity is the researcher's efforts to provide accurate findings. The PI acknowledged researcher bias and conducted content expert interview(s) to ensure qualitative validity was achieved (Creswell & Creswell, 2018). The PI aimed to recruit two or three medical providers who work with adolescents with AN and represent different fields of practice to provide well-rounded, expert content. Medical providers from the Lindner Center were contacted via email and provided with a brief summary of the study's results. The PI then requested providers' feedback based on professional knowledge and experiences.

Ethical Considerations

Ethical considerations were accounted for throughout the research study as measures were taken from the beginning to the end of the study's methodology. Prior to participant recruitment, the PI completed required Collaborative Institutional Training (CITI Program) and competencies assigned by CCHMC and the LC. The PI also submitted an IRB study proposal through CCHMC and Eastern Kentucky University. Once approved, participants were recruited based on inclusion criteria and required to sign a combined consent form before the PI conducted semi-structured interviews, and interview questions were adapted from the CMOP-E theoretical framework to avoid leading questions. The data analysis sequence used was open coding,

creating categories, and forming patterns to report reliable findings, and the PI also conducted an interview with an expert to increase the data's validity. Data is presented objectively, and limitations are identified in the study's discussion section. These factors were implemented to best support the study's findings and the PI's ethical values as a researcher.

Section Four: Results

Participant Characteristics

Three adolescents fit the inclusion criteria and agreed to participate in the study within the timeline of the PI's data collection. Participants included one 16-year-old female (P1) and two males, ages 16 and 12 (P2; P3). The PI conducted a semi-structured interview with each participant during participant's free time after lunch. Interviews were held in private spaces such as a private treatment room or the library, and interviews lasted anywhere from 15—25 minutes in length. The PI reviewed participants' informed consent forms and obtained verbal consent prior to recording interviews using the PI's personal smartphone and Otter transcription app. Transcriptions were then reviewed several times, coded, and analyzed following guidelines for meticulous qualitative research.

Data Analysis

Open Coding

The PI reviewed audio recordings of each participant's interview several times before transcribing them verbatim on to a password-protective computer program. Open coding was then conducted for each interview; two to three word phrases that were repeated throughout an interview were highlighted and then organized on a password-protected spreadsheet based on frequency of occurrences. The PI did not have access to qualitative coding software; therefore,

open coding was completed attentively by hand. Please refer to Table 1, Table 2, and Table 3 below for a list of repetitive phrases and their frequency of occurrences for each participant.

Table 1: Open Coding, Participant 1

Repetitive phrases	Frequency
"Makes me feel really bad"	12
"Eat with"	8
"Other people eating"	5
"Go home"	5
"Wow you"	5
"Not eating"	5
"Get this over with"	5
"Do not have a choice"	4
"My friends"	4
"Will be watching me"	4
"Distract"	3
"My parents"	3
"She still chose to"	2
"Back here"	2
"I have to eat"	2
"Rather eat by myself"	2

Table 2: Open Coding, Participant 2

Repetitive phrases	Frequency
"Able to eat"	11
"Thinking about eating"	6
"Get me to eat"	5
"Joking around"	4
"Eat with"	3
"Makes me feel"	3
"Staff member"	3
"Someone like me"	3
"More of us"	3
"Talking more"	3
"Distraction"	2
"My parents"	2
"Not fun"	2
"I do not like it"	2
"Do not talk"	2

Table 3: Open Coding, Participant 3

Repetitive phrases	Frequency
"I feel like"	11
"More comfortable"	10
"Just eat it"	10
"Hard to eat"	10
"Say stuff"	9
"It was nice"	6
"Eating certain thing"	6
"Make fun of me"	6
"With my parents"	5
"Not knowing"	5
"Experience situation"	4
"Own terms"	3
"Makes me mad"	3
"Center of attention"	3
"During COVID"	2
"One other person"	2
"More understanding"	2
"Are forceful"	2

Categories

The PI selected the ten repetitive phrases with the highest frequency of occurrences from each participant interview and compared phrases to identify similarities or overlaps among participants. Recurrent phrases, or codes, were transformed into objective categories. Please refer to Table 4 below for the list of categories that represent recurrent phrases among participants' interviews and are organized based on frequency of occurrences.

Table 4: Categories

Category	Codes	Total
Emotional perception	Makes me feel, I feel, makes me feel really bad	26
Ability to eat	Able to eat, eat with, eating certain things	25
Passive eating	Get me to eat, get this over with, just eat it	20
Renounce eating	Hard to eat, not eating	15
Hurtful words	Say stuff, wow you	14
Peer influence	Make fun of me, other people eating	11
Uncontrollable experiences	Do not have a choice, not knowing	9

Patterns

Three patterns emerged after the PI identified parallels between two or more categories and reviewed the original transcripts to get a fuller understanding about what participants were conveying in repetitive phrases. Names of patterns were chosen to create metaphors comparing participants' perceptions of social eating during lunch to kitchen appliances and their functions. Please refer to Table 5 below for the name and meaning of each pattern which is further supported by direct quotes from the participants' interviews.

Table 5: Patterns

Pattern	Categories	Meaning	Quotations
Pressure Cooker	Emotional perception, Hurtful words, and Peer influence	Participants feel hurt by the words and scrutiny of peers which effects their confidence while participating in social eating.	"I know some people do [skip lunch] and it makes me feel really bad...like guilty for eating" "We just do not talk as much and I just think more…what I am eating or if I should eat or not" "Kids would kind of make fun of me and stuff and then it kind of made me mad"
Bread Maker	Ability to eat, and Uncontrollable experiences	Participants feel more capable of participating in the occupation of social eating in a self-controlled and nonjudgmental environment.	"I also like eating with certain people because I can distract myself while I am eating" "[Immediate family] make something we want to eat and then it is like a best situation because it is on your own terms and we talk and stuff; it's more relaxed" "If I know somebody is going through the same thing as me and if they can eat then I can eat"
Hand Mixer	Passive eating, and Renounce eating	Participants feel disassociated from the occupation of social eating when external expectations are placed on them.	"I am not going to feel guilty here because I am not like voluntarily choosing [to eat]" "They make me eat every single crumb…so I am thinking more" "People are kind of like, 'just eat something different…deal with it' but it's like I do not think they really understand"

Pressure Cooker.

The pattern Pressure Cooker was developed based on the participants' feelings of being pressurized under the scrutiny of peers during social eating. A pressure cooker is a kitchen appliance that accelerates the cooking process by creating tension using steamed pressure. Social eating can accelerate disordered thoughts and eating behaviors by creating tension between an adolescent with AN and peers. For example, P1 recalled "feeling guilty" after eating with a peer who commented on the quantity of food she ate during lunch, and the next day P1 stopped eating lunch altogether. The perception of hurtful words and internalizing the opinions of peers built pressure and decreased the participants' confidence during social eating by making the

participants feel bad, guilty, and overthink. This lack of confidence generated disordered thoughts and disordered eating patterns when participating in social eating during lunch. Participants seemed aware of their peers' influence in relation to social eating; however, participants were unaware that their perceived thoughts and behaviors were unhealthy or manipulated by AN.

Bread Maker.

The pattern Bread Maker was designed to represent participants' perceived ability to eat based on whether they felt in control of their social eating environment. Bread making requires specific conditions for the bread to rise, and participants feel more inclined to participate in social eating during lunch as long as specific conditions are met. Per reports, participants felt more in control of their social eating environments if they had a choice in who they were eating with during lunch. P3 commented on how he preferred to eat with immediate family members because "they seem more understanding and more patient whereas a lot of people it seems like they are just forceful…and a lot more pressure." As a collective, participants preferred eating with individuals who had more comprehension of AN and were less judgmental of the quantity or kind of foods the participants were eating.

Hand Mixer.

The pattern of Hand Mixer was developed based on participants' feelings of dissociation from social eating during lunch when external expectations from other individuals were placed. A hand mixer requires an active participant to operate the kitchen appliance in order to achieve the best product, and for these participants, they felt they were playing a passive role during lunch while others were expecting certain behaviors from them. The most common example of external expectations was others setting demands on food variety and quantity for participants

during lunch, and if expectations were not met there were consequences such as meal supplements, leisure activities revoked, or being teased by peers. P2 explained, “I either eat the meal or boost…so it’s fine by me if they [medical providers and parents] pick my meals.” Participants expressed feelings of learned detachment to strategically meet eating expectations and avoid consequences.

Content Expert

Drew Lonneman, the on-site OT at LC, was the only medical provider to respond to the PI’s request to review the study’s results and respond based on professional knowledge and experience. Drew acknowledged and compared the participants’ reported perceptions to observations he has made during clinical evaluations and treatment interventions throughout his career. Drew shared that one of the three participants had been recently readmitted to the inpatient program after becoming aggressive toward a peer during school lunch following a comment the peer made regarding the participant’s eating habits and recent inpatient admission. Therefore, Drew supported the participants’ perceptions that social pressures can have a negative influence on social eating participation. Drew was also in agreement with participants’ feeling uninvolved in eating when external expectations are placed, thus he often implements mindfulness interventions with the majority of his ED patients. No comment was made in reference to the Bread Making pattern.

Section Five: Discussion

Connections to the CMOP-E

Pressure Cooker

Participants expressed feelings of guilt and hurt when eating during lunch due to social pressures from their peers, and these feelings convey notions of spirituality that are at the center

of importance in an individual's occupational performance, as illustrated in the CMOP-E. Defined by the CMOP-E, spirituality is the values and beliefs one possesses in relation to self and occupational performance (Polatajko et al., 2007). Persistent feelings of hurt and guilt while eating lunch with peers can lead to beliefs of self-doubt and loss of confidence in social eating participation. These feelings are something participants have learned to believe and thus meet the meaning of spirituality. Recurrent social stressors from peers have created a pressure cooker of disordered thoughts and beliefs on social eating during lunch for participants.

Bread Maker

Participants acknowledged feelings of assurance and the ability to participate in social eating when they had control over who they were eating with during lunch. This pattern aligns with the CMOP-E and the interconnected relationship between person, occupation, and environment because participants' feelings about personal control over their lunch environment appear to have significant influence on the participants' occupational performance. The CMOP-E is designed with the person at the center of the theoretical framework because the person should have influence on occupational performance factors, such as the social environment; this idea is also known as person-centered. Occupational dysfunction is the result of dissonance between performance factors and occurs when factors do not align with person-centered values (Townsend & Polatajko, 2007). Participants valued control over their social environment based on who they ate lunch with because it affected their perceived ability to participate in social eating. Participants identified eating with individuals who demonstrated understanding, patience, and kindness as valued environmental factors when participating in social eating during lunch.

Hand Mixer

The Hand Mixer illustrates participants' apathy towards eating when external demands were placed, and while this may not necessarily be new information for AN intervention, participants were straightforward in that they felt it was easier to just eat the meal and give up control to avoid negative consequences such as loss of privileges and supplement intake. Participants felt that such apathetic habits and callous attitudes made it difficult for them to participate or build social confidence during lunch. The pattern correlates with the CMOP-E in that the theoretical framework gives priority to occupational engagement as it enables or promotes empowerment to a person as he or she participates in a meaningful occupation, and study participants expressed difficulty recognizing the importance of engagement in social eating when external expectations were placed (Doidge et al, 2019). The context of CMOP-E suggests that adolescents with AN may not achieve optimal occupational performance in social eating during lunch without finding personal meaning within the occupation.

Connections to FBT

FBT is an evidence-based program known as the gold-standard of AN treatment; therefore, FBT is utilized in the discussion section to implicate participants' perceptions to potential intervention approaches using an OT scope of practice.

Pressure Cooker

In early stages of FBT, emotional supports are not strongly implemented as the primary goal is to refeed and restore an adolescent's weight (Lock & Le Grange, 2013). The eating environment in early stages of FBT is atypical in the sense that the adolescent will eat with an adult, generally a caregiver or behavioral specialist, whose role is to supervise the duration of the meal; whereas participants described their eating environment during lunch as typically in a

school cafeteria surrounded by peers. Meals during early stages of FBT, also known as companion meals, have strict rules and structure such as all individuals must finish what is on their plates, and individuals may not initiate conversation topics about food, body image, or exercise (CCHMC, 2019). Significant differences in environment and structure while eating lunch during treatment and discharge may intensify social pressures and feelings of guilt or hurt post-treatment. This researcher suggests that adolescents with AN should be exposed to more ordinary social eating environments during treatment to practice emotional regulation in the presence of professionals and increase self-confidence. Treatment programs could easily integrate opportunities where adolescents eat with same-aged peers or adults have less control over conversation topics to mirror a more natural eating environment. Introducing social eating during AN treatment can shift an adolescent's spirituality toward a healthier relationship with food and may allow adolescents with AN to feel less guilty or hurt while social eating with peers during lunch.

Bread Maker

It is known that weight restoration is the principal focus in early phases of FBT and, therefore, influences the eating environment for adolescents receiving treatment for AN. Meal planning, meal preparation, and meal routine are to be structured entirely by a qualified adult to create a sense of control over the ED and ensure weight restoration (Locke, 2019). However, study participants reported feeling more adept to eat when they were able to choose the people they ate with during lunch; thus, undesirable environmental factors could impair adolescents' social and eating behaviors during lunch. This researcher proposes adolescents with AN who are receiving treatment are provided with more autonomic opportunities in the first phases of FBT to increase eating performance. Participants felt more capable of eating when other individuals

were non-judgmental and appeared to understand the challenges of their ED; therefore, allowing adolescents to choose to eat lunch with a particular staff or family member during treatment could accelerate weight restoration and reinforce healthy eating behaviors.

Hand Mixer

Throughout FBT, external expectations are placed by caregivers and medical professionals in efforts to ensure adolescents achieve weight restoration and long-term recovery. For example, if an adolescent does not eat the full meal provided, he or she must supplement calories through tube feeding or may lose privileges such as wearing jewelry or screen time. Participants reported they complied with treatment expectations not because it was best for their health and well-being but to prevent adverse consequences and to "just get through it." A short-term solution, this passive approach made the participants feel disconnected when eating and could easily impair adolescents with AN likelihood of long-term recovery by conditioning adolescents to associate eating with the fear of external consequences. This researcher believes FBT should incorporate more person-centered treatment opportunities for adolescents to explore personal volition and link eating participation to intrinsic motivators rather than fear ridden influences.

Implications for OT

Pressure Cooker

The Occupational Therapy Practice Framework (OTPF) defines context as environmental or personal constructs that either enhance or inhibit an individual's participation in meaningful occupations, and personal factors are components that make an individual unique in comparison to a group or population (AOTA, 2020). Study participants reported feelings of hurt from social pressures when eating with peers during lunch, and these personal constructs may inhibit

occupational performance by building disordered beliefs and eating habits (Mehler & Anderson, 2017; Olivia et al., 2019; Schaumberg et al., 2020). Disordered beliefs and feelings because of social pressures during lunch are not typically addressed in early stages of AN because the adolescent is eating lunch with an adult rather than a group of peers. There is an opportunity for AN treatment to introduce natural contexts early on so that adolescents with AN can challenge disordered beliefs and may adapt healthy emotional regulation skills in a safe, accessible environment. This type of intervention is known as an occupation-based approach because the adolescents are engaging in an occupation they encounter from day to day (Cahill et al., 2020). Treatment that allows adolescents with AN to eat lunch with peers could create an opportunity for adolescents to address feelings associated with social pressures and practice skills to adapt to those social pressures in an effort to transform long-term self-confidence.

Bread Maker

The most notable outcome of FBT for adolescents with AN is weight restoration, and treatment strategies administered to achieve weight restoration include "the removal of food-based choices from the adolescent alongside intensive meal supervision" (Murray et al., 2015, p. 311). However, study participants felt more capable of eating when they had control over their environment, particularly if participants were able to choose who they were eating with during lunch. Participants were more likely to choose to eat with people who were less judgmental and more likely to share words of encouragement rather than make participants feel bad about eating. Providing environmental choices to adolescents with AN during treatment is known as taking a client-centered approach where the client is an active member of the treatment process in effort to gain understanding and empowerment throughout the eating experience (AOTA, 2020). Taking a more client-centered approach to treating adolescents with AN and allowing

adolescents to choose who they eat with could not only enhance weight restoration but may also address outcomes that are necessary for long-term remission, such as social eating participation and role competence.

Hand Mixer

Participants shared they were more likely to take a passive role in eating during lunch when external expectations were placed on the occupation of eating. In relation to the CMOP-E, passive involvement and lack of engagement in an occupation can lead to impaired performance and satisfaction. This is supported by a cross-sectional study conducted by Shi & Hu (2020) who found that individuals who held beliefs of helplessness over their illnesses were less likely to engage in occupations, whereas individuals who held beliefs of personal control and awareness over their illnesses had better occupational engagement and participation. The OTPF describes engagement with the utmost significance as "engagement in occupation promotes, facilitates, supports, and maintains health and participation" (p. 5); thus, occupational therapy interventions are designed to promote engagement as a wholistic interaction between the individual and occupation to improve quality of life (AOTA, 2020). Administering the COPM at the beginning of treatment could encourage adolescents with AN to explore meaning and engagement through social eating. The COPM is a self-report assessment derived from the CMOP-E that allows individuals to identify meaningful occupations and then self-rate occupations based on performance and satisfaction. Tools, such as the COPM, can potentially guide client-centered interventions and facilitate occupational engagement. For example, rather than setting external expectations to get an adolescent with AN to eat and participate in social eating, perhaps the COPM reveals the adolescent finds meaning playing a sport for his or her school's team. The enjoyment of athletic competition and happiness in building friendships between teammates may

be transformed into engagement in social eating during lunch. Client-centered treatment approaches such as eating lunch with a coach or working with a dietician to construct a meal plan sustainable for an athlete could create self-engagement and positive beliefs in social eating during lunch.

Limitations and Future Research

The methodology was originally designed to be a qualitative study with a grounded theory approach in hopes of introducing a phenomenon illustrating adolescents with AN and their perspectives on social eating during lunch. However, during the participant recruitment process there were limited candidates that met the study's inclusion criteria. The on-site OT at the LC reported a decrease in patient census because the recruitment period fell on local schools' spring holidays, and the OT has observed a correlation between school holidays and reduced number of admissions in the LC's adolescent inpatient program. Time constraints yielded the PI's decision to shift from a grounded theory to an instrumental case study methodology. The emergence of patterns from the case study's results and connections to occupational therapy show promise in a future qualitative study using a grounded theory methodology. The sample size of a grounded theory study would be four – 10 participants to guarantee ample amount of data in support of the grounded theory and its trustworthiness with efforts to reach saturation.

Saturation is a concept derived from the grounded theory approach and gives strength to the study's data and sample size; saturation is achieved when data collection is no longer innovative or novel (Creswell & Creswell, 2018). This study did not reach saturation because time restraints limited the number of participants recruited; therefore, all data was original and knowledgeable. In future research, the PI plans to implement triangulation, or multiple methods of data collection, to increase the validity of study and attain saturation. Field observations

during a companion meal or school lunch with same-aged peers, in addition to participant interviews, would strengthen perceptions of social eating during lunch for adolescents with AN. Administration of the COPM at intake and reassessed at discharge could also present insight into self-identified meaningful occupations for adolescents with AN or provide an outcome measure comparing self-perceived performance and satisfaction of social eating before and after AN treatment.

Summary

The objectives of the instrumental case study were to understand the meaning and perceptions of adolescents with AN in regard to the occupation of social eating. Results were illustrated by three patterns: Pressure Cooker, Bread Maker, and Hand Mixer, and while each pattern was unique in context collectively, they indicated limitations in social eating participation for adolescents with AN. Identified barriers to social eating performance included peer social pressures, environmental shortcomings, and extrinsic expectations which decreased participants' willingness and empowerment to socially eat during lunch. Such limitations may contribute to recurrent hospital admissions and the likelihood of relapse for adolescents with AN, giving purpose to the field of occupational therapy when treating AN by increasing occupational engagement through occupation-based and client-centered interventions.

Conclusion

Study results provided a better understanding to perceptions of social eating during lunch for adolescents with AN and further insight to possible limitations of current AN treatment resulting in poor community re-integration and recurrent hospital admissions. This instrumental case study gives clear evidence that the field of occupational therapy can play a significant role in treating adolescents with AN and should be more utilized in treatment settings and earlier on

in treatment. Greater opportunities for client-centered and occupation-based interventions throughout ED treatment could establish holistic principles through occupational engagement and long-term recovery for adolescents with AN.

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Appendices

Appendix A

IRB Approval CCHMC

Cincinnati Children's Hospital Institutional Review Board
Federalwide Assurance #00002988
Phone: (513) 636-8039
3333 Burnet Avenue | MLC 7040 | Cincinnati, OH 45229

APPROVAL

February 23, 2022

Madelyn Duzyk
Mason OT/PT

Dear Madelyn Duzyk:

The Cincinnati Children's Hospital Institutional Review Board (IRB) reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	A Grounded Theory Approach to Understanding Perceptions of Social Eating during Lunch for Adolescents with Anorexia Nervosa
Investigator:	Madelyn Duzyk
IRB ID:	2021-0797
Review Level:	Expedited
Special Requirements:	The IRB has determined that at least 1 parent (or guardian) must give permission for the inclusion of a child in this research and that permission must be documented by signature on the IRB approved parental permission form. The IRB has determined that documented assent must also be obtained from all participants unless the PI determines and documents that the child is cognitively unable to provide meaningful assent via signature line on the IRB approved parental permission form. The IRB has determined that all adult participants and/or the legally authorized representative of child participants must provide authorization for the use and/or disclosure of the protected health information in the conduct of this research.
Risk Level:	No greater than minimal risk

The above submission and all associated documents, including the protocol and consents (if applicable), are approved by the IRB from 2/18/2022 to 2/17/2025.

Please see the documents tab for all approved documents by clicking on the submission ID link above.

Cincinnati Children's Hospital Institutional Review Board
Federalwide Assurance #00002988
Phone: (513) 636-8039
3333 Burnet Avenue | MLC 7040 | Cincinnati, OH 45229

Thirty days before 2/17/2025 you are to submit a completed continuing review and required attachments to request continuing approval or closure. You can submit a continuing review by navigating to the active study and clicking "Create Modification / CR".

If continuing review approval is not granted before the expiration date of 2/17/2025, approval of this study expires on that date.

If this study meets the definition of a clinical trial, [it involves the assignment of one or more human subjects to one or more interventions (procedure, device, or drug, including use of placebo or control) to evaluate the effects of the interventions on biomedical or behavioral health outcomes], then the approved IRB consent form template must be posted by the awardee to a federal website to be disclosed. This document must be posted after the research has been closed and no later than 60 days after the last study visit of any subject. In conducting this protocol, you are required to follow all applicable regulations, institutional policies and requirements of the reviewing IRB, which can be found by navigating to the IRB Library within the ePAS-IRB system.

In conducting this research, you are required to follow all applicable regulations, policies, procedures and award terms. This includes obtaining IRB approval for any changes in the research prior to their implementation, except when such changes are being made to alleviate immediate risk of harm to research participants. You should contact the IRB office for additional information regarding these requirements.

Sincerely,
Cincinnati Children's Hospital IRB
Federalwide Assurance #00002988

The Office of Research Compliance and Regulatory Affairs (ORCRA) would like your feedback on your interactions with the Cincinnati Children's Hospital Human Research Protection Program and IRB. Click the following link to complete our anonymous feedback survey: https://survey.sogosurvey.com/r/chkrne

Statement regarding International Conference on Harmonization and Good clinical Practices. The Cincinnati Children's Hospital Institutional Review Board is duly constituted (fulfilling FDA requirements for diversity), has written procedures for initial and continuing review of clinical trials, prepares written minutes of convened meetings, and retains records pertaining to the review and approval process; all in compliance with requirements defined in 21 CFR Parts 50, 56 and 312 Code of Federal Regulations. This institution is in compliance with the ICH GCP as adopted by FDA/DHHS.

Appendix B

IRB Approval EKU

Institutional Review Board (IRB) Authorization Agreement

Name of Institution or Organization Providing IRB Review (Institution/Organization A):
The Cincinnati Children's Hospital

IRB Registration #: 00000231 Federalwide Assurance (FWA) #, if any: 00002988

Name of Institution Relying on the Designated IRB (Institution B):
Eastern Kentucky University

IRB Registration #: IRB00002836 Federalwide Assurance (FWA) #, if any: FWA00003332

The Officials signing below agree that Eastern Kentucky University may rely on the designated IRB for review and continuing oversight of its human subjects research described below: (*check one*)

(___) This agreement applies to all human subjects research covered by Institution B's FWA.

(x) This agreement is limited to the following specific protocol(s):

Name of Research Project: *A Grounded Theory Approach to Understanding Perceptions of Social Eating during Lunch for Adolescents with Anorexia Nervosa*

Name of Principal Investigator: Madelyn Duzyk
Protocol Number: 2021-0797

(___) Other (*describe*):_____

The review performed by the designated IRB will meet the human subject protection requirements of Institution B's OHRP-approved FWA. The IRB at Institution/Organization A will follow written procedures for reporting its findings and actions to appropriate officials at Institution B. Relevant minutes of IRB meetings will be made available to Institution B upon request. Institution B remains responsible for ensuring compliance with the IRB's determinations and with the Terms of its OHRP-approved FWA. This document must be kept on file by both parties and provided to OHRP upon request.

Signature of Signatory Official (Institution/Organization A):

Renee Doughman Date: 03/10/2022

Print Full Name: Renee Doughman Institutional Title: Director - IRB

Signature of Signatory Official (Institution B):

Gustav Benson Date: 3/8/2022

Print Full Name: Gustav A. Benson Institutional Title: Institutional Official

Appendix C

IRB Approval of Methodology Modifications

Cincinnati Children's Hospital Institutional Review Board
Federalwide Assurance #00002988
Phone: (513) 636-8039
3333 Burnet Avenue | MLC 7040 | Cincinnati, OH 45229

APPROVAL

March 23, 2022

Madelyn Duzyk
Mason OT/PT

Dear Madelyn Duzyk:

The Cincinnati Children's Hospital Institutional Review Board (IRB) reviewed the following submission:

Type of Review:	Modification / Update
Title of Study:	A Grounded Theory Approach to Understanding Perceptions of Social Eating during Lunch for Adolescents with Anorexia Nervosa
Investigator:	Madelyn Duzyk
IRB ID:	2021-0797
Review Level:	Expedited
Special Requirements:	There is no special language recorded.
Risk Level:	No greater than minimal risk

The above submission and all associated documents, including the protocol and consents (if applicable), are approved by the IRB from 3/23/2022 to 2/17/2025.

Please see the documents tab for all approved documents by clicking on the submission ID link above.

Thirty days before 2/17/2025 you are to submit a completed continuing review and required attachments to request continuing approval or closure. You can submit a continuing review by navigating to the active study and clicking "Create Modification / CR".

If continuing review approval is not granted before the expiration date of 2/17/2025, approval of this study expires on that date.

If this study meets the definition of a clinical trial, [it involves the assignment of one or more human subjects to one or more interventions (procedure, device, or drug, including use of placebo or control) to evaluate the effects of the interventions on biomedical or behavioral health outcomes], then the approved IRB consent form template must be posted by the awardee to a federal website to be disclosed. This document must be posted after the research has been closed and no later than 60 days after the last study visit of any subject. In conducting this protocol, you are required to follow all applicable regulations, institutional policies and requirements of the reviewing IRB, which can be found by navigating to the IRB Library within the ePAS-IRB system.

Cincinnati Children's Hospital Institutional Review Board
Federalwide Assurance #00002988
Phone: (513) 636-8039
3333 Burnet Avenue | MLC 7040 | Cincinnati, OH 45229

In conducting this research, you are required to follow all applicable regulations, policies, procedures and award terms. This includes obtaining IRB approval for any changes in the research prior to their implementation, except when such changes are being made to alleviate immediate risk of harm to research participants. You should contact the IRB office for additional information regarding these requirements.

Sincerely,
Cincinnati Children's Hospital IRB
Federalwide Assurance #00002988

The Office of Research Compliance and Regulatory Affairs (ORCRA) would like your feedback on your interactions with the Cincinnati Children's Hospital Human Research Protection Program and IRB. Click the following link to complete our anonymous feedback survey: https://survey.sogosurvey.com/r/chkrne

Statement regarding International Conference on Harmonization and Good clinical Practices. The Cincinnati Children's Hospital Institutional Review Board is duly constituted (fulfilling FDA requirements for diversity), has written procedures for initial and continuing review of clinical trials, prepares written minutes of convened meetings, and retains records pertaining to the review and approval process; all in compliance with requirements defined in 21 CFR Parts 50, 56 and 312 Code of Federal Regulations. This institution is in compliance with the ICH GCP as adopted by FDA/DHHS.

Appendix D

Verbal Recruitment Script

Hello, my name is Maddie Duzyk. I am an occupational therapist and a graduate student at EKU in the post-professional doctorate program. I am conducting research on perceptions of social eating during lunch for adolescents and I am inviting you to participate while you are here at the Lindner Center of HOPE.

Participation in this research includes a one-time, face-to-face interview that will take up to 45 minutes. Questions will be asked regarding social eating and your views on social eating. If you agree to participate in a follow-up interview based on the study's results that will take an additional 10 minutes of your time.

If you have any questions or would like to participate in the research, you can ask your care team members at the Lindner Center of HOPE.

Appendix E

Informed Consent Form

Title of research study***:*** Understandings of Adolescents with Anorexia Nervosa and Social Eating During Lunch: A Grounded Theory Approach

Key Information:

The following is a short summary of this study to help you decide whether to be a participant in it. More detailed information about the study is listed later in this form. This document does not replace the discussion you should have with the research team about this study including having any questions or concerns answered.

Investigator:

Maddie Duzyk OTR/L

Contact Info:

Parents/Guardians: You have the option of having your child or teen join this research study. This is a parental permission form. It explains this research study. If you decide that your child can be in this study, you will sign this form to show that you agree. If you sign this form, you will receive a signed copy for your records.

COMBINED Parental Permission/Assent: If you are a parent or legal guardian of a child who may take part in this study, permission from you is required. The assent (agreement) of your child may also be required. When we say "you" in this form, we mean you or your child; "we" means the study doctor and other staff.

Reason for the study: The main reason for this research study is to better understand social eating during lunch as perceived by adolescents diagnosed with anorexia nervosa.

Procedures:

Many of the tests and procedures are standard, but those specific to the study include an in-person, one-time semi-structured interview with three – six questions that address participation and satisfaction during lunch. We expect that you will be in this research study for 60 minutes or less.

More detailed information about the study procedures can be found under ***"(Detailed Procedures)"***

Risks to Participate:

The semi-structured interview used in this study may generate minimal social and/or psychological risks if the topic of social eating yields memories or emotions. We do not know all of the side effects that may occur.

More detailed information about the risks of this study can be found under ***"(Detailed Risks)"***

Benefits to Participate:

There are no benefits to you from your taking part in this research. However, possible benefits to others include further understanding of perceptions of social eating during lunch which may lead to future eating disorder knowledge, treatment and remission opportunities.

Other Options:

Participation in this research is completely voluntary. Your decision to participate or not to participate will not affect the care you receive.

Your alternative to participating in this research study is to not participate.

Cost to Participate:

Taking part in this research study will lead to no added costs to you.

Payment:

You will not receive payment for taking part in this study**.**

Additional Study Information:

The following is more detailed information about this study in addition to the Key Information.

If I have Questions or would like to know about:

Who to talk to…	**You can call …**	**At …**
Emergencies General study questions Research-related injuries Any research concerns or complaints	**Maddie Duzyk OTR/L**	Phone: 513-636-5712 Email: Madelyn.duzyk@cchmc.org
Your child's rights as a research participant	**Institutional Review Board** This is a group of scientists and community members who make sure research meets legal and ethical standards.	Phone: (513) 636-8039

Detailed Procedures:

With whom the participant will interact	**PI (Maddie Duzyk, OTR/L)**
Study design	**Grounded Theory using Semi-structured Interview Protocol**
Procedures performed as standard care that will be done even if the	**No identifiable, private information of any of the participants' will be recorded at any time during data collection. All data will be locked and stored on the PI's password-protected laptop and phone. Data devices**

adolescent does not take part in study	**will be stored in PI's locked home office. All research investigators have been trained and are knowledgeable of legal and ethical data collection and analysis procedures.**
Genome sequencing	**n/a**
Contacted for future research	**Yes**

Change of Mind/Study Withdrawal:

You can leave the research at any time; it will not be held against you.

If you stop participating in the research, data already collected may not be removed from the study database. Data will be destroyed 3 years after the conclusion of the study. All data will be unidentifiable and password-protected when stored. We cannot promise complete privacy. Organizations that may inspect and copy your information include the IRB and other representatives of this organization.

Any researchers planning to do research with information that may identify you will need to have extra review and approval by the Cincinnati Children's Institutional Review Board (IRB). An IRB is a group of scientists and non-scientists who look at research projects like these and make sure research participants' rights and welfare are protected.

Confidentiality may be breeched based on possible legal issues. For example, if the research team uncovers abuse, neglect, or threat of harm to self or others, this information may be disclosed to appropriate authorities.

Samples and/or data collected for or generated from this study could be shared and used for future research. Samples and /or data may be shared with other collaborators at Cincinnati Children's and possibly with outside collaborators, who may be at another institution or for-profit company.

If information that could identify you is removed from your information or samples collected during this research, that information or those samples could be stored and used for future research studies or

distributed to another investigator for future research studies without your additional informed consent.

Return of results:

Most tests done on samples or images obtained in research studies are only for research and have no clear meaning for healthcare. If the research with your information or samples gives results that do have meaning for your health, the researchers will contact you and ask you if you would like to know what they have found. You can say No to hearing about the results at that time if you desire.

SIGNATURES

The research team has discussed this study with you and answered all of your questions. Like any research, the researchers cannot predict exactly what will happen. Once you have had enough time to consider whether you/your child should participate in this research, you will document your permission by signature below.

You will receive a copy of this signed document for your records.

_____

Printed Name of Research Participant

_____ _____

Signature of Research Participant Date

Indicating Consent or Assent

_____ _____

Signature of Parent or Legally Authorized Representative* Date

_____

* If signed by a legally authorized representative, a description of such representative's authority must be provided

_____ _____

Signature of Individual Obtaining Consent Date

Appendix F

Semi-structured Interview Questions and Probing Statements

Questions –

1. What does “social eating” mean to you?
2. What is your experience with social eating during lunch time?
3. Is social eating an important occupation or activity to you? Why or why not?
4. In your opinion, what skills are needed to successfully participate in social eating during lunch?

Probing statements –

1. Tell me more
2. Can you elaborate
3. Can you further explain your answer

Appendix G

Member Checking

Good afternoon,

Thank you for your hospitality during my time recruiting participants and collecting data for my OTD capstone at the Lindner Center. I have included a brief summary of my study's findings below:

Pattern	Categories	Meaning	Quotations
Pressure Cooker	Emotional perception, Hurtful words, and Peer influence	Participants feel hurt by the words and scrutiny of peers which effects their confidence while participating in social eating.	"I know some people do [skip lunch] and it makes me feel really bad...like guilty for eating" "We just do not talk as much and I just think more…what I am eating or if I should eat or not" "Kids would kind of make fun of me and stuff and then it kind of made me mad"
Bread Maker	Ability to eat, and Uncontrollable experiences	Participants feel more capable of participating in the occupation of social eating in a self-controlled and nonjudgmental environment.	"I also like eating with certain people because I can distract myself while I am eating" "[Immediate family] make something we want to eat and then it is like a best situation because it is on your own terms and we talk and stuff; it's more relaxed" "If I know somebody is going through the same thing as me and if they can eat then I can eat"
Hand Mixer	Passive eating, and Renounce eating	Participants feel disassociated from the occupation of social eating when external expectations are placed on them.	"I am not going to feel guilty here because I am not like voluntarily choosing [to eat]" "They make me eat every single crumb…so I am thinking more" "People are kind of like, 'just eat something different…deal with it' but it's like I do not think they really understand"

Based on your clinical knowledge and experience, I would appreciate any feedback or follow-up you could provide me in regard to my findings in order to build the study's accuracy and credibility.