



2021

Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource

Annabelle Tarnowski

Rylee Skyberg

Follow this and additional works at: <https://commons.und.edu/ot-grad>



Part of the [Occupational Therapy Commons](#)

Recommended Citation

Tarnowski, Annabelle and Skyberg, Rylee, "Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource" (2021). *Occupational Therapy Capstones*. 487.
<https://commons.und.edu/ot-grad/487>

This Scholarly Project is brought to you for free and open access by the Department of Occupational Therapy at UND Scholarly Commons. It has been accepted for inclusion in Occupational Therapy Capstones by an authorized administrator of UND Scholarly Commons. For more information, please contact und.common@library.und.edu.

Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource

By

Annabelle Tarnowski, MOTS, and Rylee Skyberg, MOTS

Advisor: Scinda Janssen, PhD, OTR/L, CLA

A Scholarly Project

Submitted to the Occupational Therapy Department of the

University of North Dakota

In partial fulfillment of the requirements

For the degree of

Master of Occupational Therapy

Grand Forks, North Dakota

April 2021

APPROVAL

This Scholarly Project Paper, submitted by Rylee Skyberg, MOTS and Annabelle Tarnowski, MOTS in partial fulfillment for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.



Faculty Advisor

April 15, 2021

Date

PERMISSION**Title:** Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource**Department:** Occupational Therapy**Degree:** Master's of Occupational Therapy

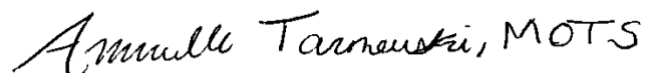
In presenting this Scholarly Project in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the Department of Occupational Therapy shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised our work or, in her absence, by the Chairperson of the Department. It is also understood that for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and the University of North Dakota in any scholarly use which may be made of any material in our Scholarly Project Report.



Signature

4/13/2021

Date



Signature

4/13/2021

Date

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	v
ABSTRACT.....	vi
CHAPTER	
I. INTRODUCTION.....	1
II. LITERATURE REVIEW.....	7
III. METHODOLOGY.....	28
IV. PRODUCT.....	34
V. SUMMARY.....	41
REFERENCES.....	46
APPENDICES	52
Appendix A: Product.....	52
Appendix B: Permission Request.....	110

ACKNOWLEDGEMENTS

The authors of this scholarly project want to thank their wonderful advisor for instilling confidence throughout this project, guiding their decision-making to align with the values of occupational therapy, and assisting in the creation of this product. The authors felt supported and encouraged throughout the process; the expertise and advice of the advisor made this project possible. The authors of this scholarly project also want to thank the individuals who sacrificed their time to help the authors better understand the unique needs, challenges, and experiences of this population. They were open, honest, and vulnerable as they shared their personal experiences and stories throughout their bariatric surgery journey. This project could not have done without them. Finally, the authors want to extend their gratitude to their friends and family for being supportive throughout the project development.

ABSTRACT

Title: Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource

APA Citation

Skyberg, R., Tarnowski, A., & Janssen, S. (2021). *Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource*. (Unpublished master's thesis). University of North Dakota Department of Occupational Therapy, Grand Forks, ND

Purpose

Despite the overall positive physical and mental health results patients obtain following bariatric surgery, some individuals still experience significant negative health challenges postoperatively. Researchers have asserted that the psychosocial concerns of patients that undergo bariatric surgery are not being properly addressed prior to surgery; therefore, patients are not appropriately equipped with strategies or follow-up care to promote continued weight loss and increase quality of life post-operatively (Kalarchian & Marcus, 2019). Patients who undergo bariatric surgery have experienced maladaptive eating, substance abuse, suicide and self-harm at an increased rate (Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020). Additionally, occupational therapy has been underutilized in current interprofessional bariatric care teams despite the profession's ability to address physical and psychosocial concerns prior to and following major life events. The purpose of this scholarly project (SP) is to inform current interprofessional bariatric care teams, occupational therapy practitioners, and occupational therapy students on the skills and services that occupational therapy can provide to people with bariatric needs to promote improved patient outcomes. Along with education, the authors created resources for individuals to utilize to advocate for the inclusion of occupational therapy on more bariatric care teams.

Methodology

A thorough literature review was completed through the following databases: American Journal of Occupational Therapy, CINHAL, University of North Dakota Scholarly Commons, and PubMed. To guide the creation of the product for this scholarly project, the Ecology of Human Performance (EHP) model established by Winnie Dunn, OTR/L, FAOTA and Malcom Knowles' theory of andragogy were used (Dunn, Brown, & McGuigan, 1994; Knowles, 1980).

Results

Students created an evidence-based, user-friendly free website, <https://batesannabelle.wixsite.com/otinbariatrics>, that supports the role of interprofessional bariatric care teams. The website includes literature on the current challenges patients experience pre and postoperatively with bariatric surgery, how occupational therapy can assist people with bariatric needs, personal stories from individuals who have undergone bariatric surgery, and downloadable resources for individuals to use to advocate for better inclusion of occupational therapy in bariatric care.

Conclusion

It is anticipated that this product will further promote the benefits that skilled occupational therapy services can provide to people with bariatric needs to improve overall patient care and quality of life prior to and after bariatric surgery.

CHAPTER I: Introduction

Individuals who undergo bariatric surgery continue to face occupational challenges following their surgery, resulting in high rates of suicide, substance use and addiction, eating disorders, mental health conditions, and self-injurious behaviors (Ellison, Keesing, & Harris, 2020; Faccio, Nardin, & Cipolletta 2016; Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020; Vallis, 2016). Despite the interprofessional care that these individuals receive prior to and following their surgery, holistic health challenges persist (Ellison, Keesing, & Harris, 2020; Faccio, Nardin, & Cipolletta 2016; Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020; Vallis, 2016). The authors of this SP have developed educational and advocative resources to advance the role of occupational therapy within interprofessional bariatric teams to enhance patient outcomes. Occupational therapy can provide a holistic, individualized approach to support changes in health behavior and promote quality of life through occupational engagement (Nielsen & Christensen, 2018). The purpose of this SP is to provide accessible resources and information to further inform and empower bariatric care teams, occupational therapists, and occupational therapy students to advocate for the inclusion of occupational therapy to interprofessional teams for improved patient well-being and quality of life.

Significance of Problem

There are concerns for both patients receiving bariatric surgery, as well as occupational therapy practitioners and students interested in working with this population.

Significance for patients of bariatric surgery.

While hallmark programs, such as Mayo Clinic, have included occupational therapy on their interprofessional bariatric care team, not all programs have adopted this strategy just yet (Mayo Clinic, 2019). The complex challenges faced by individuals prior to and following

bariatric surgery exhibit the need to adapt the current care model to provide greater comprehensive care (AOTA, 2015). Occupational deprivation, occupational injustice, and a limited performance range may be present for individuals with bariatric needs, as there are personal restrictions and contextual barriers for this population to participating in meaningful occupations (Vallis, 2016). Challenges that occupational therapists may experience while joining interprofessional bariatric care teams include limited funding allotments from administration and no current national associations or regulatory registrations that recognize the role of OT in this area of practice (Forhan & Gill, 2013). Despite this absence of support, occupational therapy can contribute effectively to bariatric care due to their holistic approach, individualized care, support of changes in health behavior, and promotion of engagement in life activities (Nielsen & Christensen, 2018).

Significance for practitioners.

Practitioners face many challenges for providing culturally sensitive and competent care to individuals seeking bariatric surgery (AOTA, 2015; Forhan & Law, 2009; Vroman & Cote, 2011). Unfortunately, researchers have found that both occupational therapy students and occupational therapy practitioners have negative biases, attitudes, and beliefs towards this population (Forhan & Law, 2009; Vroman & Cote, 2011). The stereotypes, stigma, and prejudice held by OT students and practitioners regarding this population will have a negative impact on the therapeutic relationship, therapeutic process, and patient outcomes unless addressed (AOTA, 2015; Vroman & Cote, 2011). Due to these negative beliefs and biases, the need to provide more comprehensive education regarding the needs of this population is evident for both practitioners and students.

Proposed Solution

The solution proposed for this SP is incorporating occupational therapy within the interprofessional bariatric care team to provide collaborative and holistic services to individuals prior to and following bariatric surgery. While the current standard of care for these individuals is through an interprofessional approach, occupational therapy is a discipline often not included. The occupational challenges, injustices, and deprivation faced by this population demonstrates the need to include occupational therapy on this care team. Advocacy and educational efforts have been developed to progress towards greater inclusion of occupational therapy on bariatric care teams.

Influential Factors

There are both internal and external factors that will influence the results of the proposed solution in this SP.

External factors.

Funding allotments are limited for occupational therapy services on an interprofessional bariatric care team due to a lack of evidence of the contribution of occupation-based interventions for this population (Forhan & Gill, 2013). In addition, there are no current strategies in place for occupational therapists to declare interest in bariatric care within national associations or regulatory registrations (Forhan & Gill, 2013). Furthermore, bariatric needs and weight management are not considered standard areas of OT practice or interest according to the American and Canadian occupational therapy associations (Forhan & Gill, 2013). These challenges may stem from current bariatric teams being unaware of the unique value that occupational therapy can provide to the patients they care for. These factors limit the

opportunities to include occupational therapy on bariatric teams, requiring greater advocacy efforts to reduce such barriers.

Internal factors.

There are current stereotypical beliefs and prejudicial biases that many occupational therapists and occupational therapy students hold towards this population (AOTA, 2015; Forhan & Law, 2009; Vroman & Cote, 2011). These personal views must be met with greater education and empathy on the needs and challenges of this population in order to provide quality, culturally competent care. Advocating for the inclusion of bariatric care education to occupational therapy programs can prepare students to address the needs of their future clients with authentic understanding and compassion.

Theory and Approach

Both the theoretical model, Ecology of Human Performance, and the learning theory, Andragogy, were incorporated throughout this SP to enhance interprofessional understanding and unity, as well as promote adult learning (Dunn, Brown, & McGuigan, Knowles, 1994).

Ecology of Human Performance

The Ecology of Human Performance (EHP) model was developed by Dunn, Brown, and McGuigan, (1994) and used to guide the theoretical foundation of this project. Dunn, Brown, and McGuigan's (1994) model emphasizes the contexts that surround all people while performing tasks; the main components of the model includes: person, task, context, and performance. The variety of intervention approaches found within this model can assist with decreasing the current imbalances found between individuals and their respective contexts and tasks. A beneficial aspect of the EHP model is that it focuses on the constructs that are important to occupational therapy but is not intended for use from the occupational therapy profession alone. It uses

terminology and components that all interprofessional disciplines understand and can collaborate on which made it the most appropriate model for the purpose of this project (Dunn et al., 1994).

For people with bariatric needs, their physical, social, cultural, and temporal contexts play a significant role in their quality of life; therefore, EHP is a logical model selection. Because the model uses terminology that is familiar to more disciplines than just occupational therapy, it can be more effectively used within an interprofessional team. For example, the model uses the term *tasks* instead of *occupation*, which is more familiar to other professionals within a bariatric team and the terminology would resonate better with clients who have bariatric needs (Dunn et al., 1994).

Andragogy

Malcom Knowles' theory of andragogy provides a general explanation of how adults learn (1980). Knowles emphasizes that adult learning is only effective if it is self-driven and autonomous in nature. To be self-driven, Knowles believes adults must be able to understand the underlying *why* of each condition so they can properly respond to it. Key concepts in his theory include: a maturing self-concept, increasing life-experience, an increase in readiness to learn, a more problem-centered shift in the application of learning, and an internal motivation to learn. Andragogy was a crucial factor in building the theoretical foundation for this SP as most people that are influenced through this product are adults. Although the needs of each adult population targeted in this SP are unique, the fundamental causes and motivation to learn are the same and should remain consistent throughout this SP and product.

Product

The product is a free and user-friendly website that is intended to further inform current interprofessional bariatric care teams, OT practitioners, and OT students on the skilled services

occupational therapy can provide to people who are undergoing bariatric surgery, as well as provide advocative resources for each targeted audience to increase the inclusion of occupational therapists on current interprofessional bariatric care teams. All information found on the website is supported through the completion of the literature review.

Introduction to Succeeding Chapters

In the next four chapters, the review of literature, methodology, product, and summary of the entire scholarly project will be discussed. Chapter Two describes the literature review findings, needs of patients with bariatric care teams, and evidence in regard to the role occupational therapy can serve within these bariatric care teams. Chapter Three describes the methodology for developing this product, describing how and why literature and theory were used. The authors describe in Chapter Four the actual website pages presented in Appendix A. Lastly, the Chapter Five summary includes a reflection of the product, its limitations, implications and recommendations for future collaboration and further research.

CHAPTER II: Literature Review

The state of an unhealthy weight contributes to psychosocial challenges and societal problems, such as job desertion, low education, reduced housing and work opportunities, limited health care access and societal stigma negatively impacting social participation, health management and maintenance, functional mobility, education, work, as well as home management (American Occupational Therapy Association [AOTA], 2013). Individuals with bariatric needs are currently cared for through an interprofessional team; however, the role and value of occupational therapy within this team is not well defined and utilized as evidenced by self-reports from occupational therapists, no current national association or regulatory registration identifying bariatric care as an area of practice in occupational therapy, and limited funding allotments for OT services due to little literature found to support specific occupation-based interventions for this population (Forhan & Gill, 2013; Lang et al., 2013). Occupational therapy practitioners are highly skilled in assisting individuals with complex needs through their thorough evaluation and treatment of occupational performance and its components such as psychosocial and functional challenges, contextual barriers, and activity demands (American Occupational Therapy Association [AOTA], 2015). The complex challenges faced by individuals seeking bariatric care prior to and following surgery represent the need for expanded interprofessional and comprehensive care, moving away from an area of practice that has historically focused solely on medical deficiencies (AOTA, 2015). By increasing awareness of the benefits that skilled occupational therapy services can provide to this population, future developments regarding bariatric care can overturn past cycles of failure and improve overall weight loss and quality of life for clients (Vallis, 2016).

Terms and Definitions

- Obesity: “Abnormal or excessive fat accumulation that may impair health” (World Health Organization [WHO], 2020, ¶ 1). For adults, WHO (2020) defined obesity as a BMI greater than or equal to 30.
 - Due to societal stigma around the word obesity, the more appropriate term used for this population will be “individuals with bariatric needs” or “individuals seeking bariatric surgery” (AOTA, 2015).
- Bariatric surgery: “An operation that helps [an individual] lose weight by making changes to their digestive system” (National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), 2020, ¶ 1).
 - Laparoscopic adjustable gastric band: A type of bariatric surgery where an adjustable band is placed around the upper stomach region (Johns Hopkins Medicine, 2021).
 - Gastric sleeve surgery/sleeve gastrectomy: A type of bariatric surgery where approximately 80% of the stomach is removed (Mayo Clinic, 2020c).
 - Gastric bypass: A type of bariatric surgery that connects a small portion of the stomach directly to the small intestine (Mayo Clinic, 2020a).
- Occupational therapy: “The therapeutic use of occupations, including everyday life activities with individuals, groups, populations, or organizations to support participation, performance, and function in roles and situations in home, school, workplace, community, and other settings” (American Journal of Occupational Therapy Association [AJOT], 1999, p. 608).

- Interprofessional Collaborative Practice (ICP): “When multiple health workers from different professional backgrounds work together with patients, families, carers, and communities to deliver the highest quality of care” (WHO, 2010, p. 7).
- Andragogy: A theory for adult learning that focuses less on content and more on the process of learning using strategies such as self-evaluation, case studies and simulated role playing (Knowles, 1980).
- Ecology of Human Performance (EHP) Model: A theoretical framework designed for interprofessional teams to collaborate and view their care through a lens of the person, task, and context (Dunn, Brown, & McGuigan, 1994).
 - Person: “An individual with a unique configuration of abilities, experiences, and sensorimotor, cognitive and psychosocial skills” (Dunn, 2017, p. 211). “Persons are unique and complex and therefore precise predictability about their performance is impossible and the meaning a person attaches to task and contextual variables strongly influences performance” (Dunn, 2017, p. 211).
 - Task: “An objective set of behaviors necessary to accomplish a goal” (Dunn, Gilbert, Parker, 1997, p. 30). “An infinite variety of tasks exists around every person and constellations of tasks form a person’s roles” (Dunn, 2017, p. 211).
 - Context: “A set of interrelated conditions that surrounds a person” (Dunn, 2017, p. 211).
 - Temporal contexts (become contextual because of the social and cultural meaning attached to the temporal features): (Dunn, 2017, p. 211).
 - Chronological (age)
 - Developmental (stage or phase of maturation)

- Life cycle (place in important life phases)
- Health status (place in continuum of disability).
- Environment: “The external physical and social conditions that surround the client and in which the client’s daily life occupations occur”
(Occupational Therapy Practice Framework [OTPF], 2014).
 - Physical: “Natural and built nonhuman surroundings and the objects in them” (OTPF, 2014).
 - Social: “Presence of, relationships with, and expectations of persons” (OTPF, 2014).
 - Cultural: “Customs, beliefs, activity patterns, behavioral standards, and expectations accepted by the society in which a client is a member” (OTPF, 2014).
- Performance: “Performance is both the process and the result of the person interacting with context to engage in tasks” (Dunn, 2017, p. 211).
 - Performance range: “Is determined by the interaction between the person and the context and performance in natural contexts is different from performance in contrived contexts” (Dunn, 2017. p . 211).

Theoretical Frameworks

The theoretical framework, Ecology of Human Performance, as well as Andragogical Learning Theory, have guided the literature review and development of this product (Dunn et al., 1980).

Ecology of Human Performance.

The Ecology of Human Performance (EHP) model was developed for interprofessional collaboration and focuses on the person, task, context, and performance (Dunn et al., 1994). The EHP model is an effective theoretical framework to guide this SP as it allows therapists to identify needs and design strategies to support more functional performance in daily life; it embraces both personal and contextual strengths as critical resources for addressing performance needs, and the focus is on what the person wants and needs to do instead of their diagnosis or condition determining the intervention process (Dunn et al., 1997). For individuals with bariatric needs, their physical, social, and cultural contexts greatly impact quality of life; therefore, the intervention approaches utilized within this model allows for multiple methods of change to occur within daily life. This model was selected as most appropriate for this SP as it uses terminology and concepts that are familiar to health disciplines other than occupational therapy which would allow for more success when used within an interprofessional team.

Andragogy.

Andragogy is a theory for adult learning that focuses less on the content being taught and more on the process of learning (Knowles, 1980). The primary assumptions of this learning theory are that adults must know the *why* behind their learning, adults learn experientially, adults learn through problem-solving, and they learn best when the subject matter is of immediate value to them (Knowles, 1980). The *why* for the inclusion of occupational therapy to bariatric teams has structured the literature review and creation of this scholarly project. Patient outcomes following bariatric surgery is likely a topic of immediate value to bariatric care teams, OT practitioners and OT students. While the intended viewer of this product includes individuals at a variety of ages, adult ages make up the majority of these individuals; therefore, andragogy is the

most valuable learning theory to apply throughout this product to optimize learning interest and ability.

Population

People who undergo bariatric surgery may face multiple health challenges, both physical and psychosocial in nature (CDC, 2020). Bariatric surgeries are an option for individuals who are facing these health challenges (NIDDK, 2016). Three popular types of bariatric surgical operations include laparoscopic adjustable gastric band, gastric sleeve surgery/sleeve gastrectomy, and gastric bypass (NIDDK, 2016). The prevalence of individuals who undergo bariatric surgery has been rising for many years (American Society for Metabolic and Bariatric Surgery [ASMBS], 2018). It is common for individuals to choose bariatric surgery to aide in the weight loss process; however, these surgeries may also be recommended for other health challenges, such as gastroesophageal reflux disease (GERD), heart disease, high blood pressure, high cholesterol, severe sleep apnea, type two diabetes, and stroke (Mayo Clinic, 2020b).

Preoperative challenges.

Those who seek bariatric surgery face several contextual and socioeconomic challenges that make weight loss difficult (Sarwer & Heinberg, 2020). Personal roles and relationships may influence individuals to choose bariatric surgery, as well as impact them significantly after surgery (Faccio et al., 2016). Individuals prior to bariatric surgery subjectively experienced others around them as investigators, persecutors, or someone who did not recognize their own subjectivity regarding weight loss (Faccio et al., 2016). Self-isolation became something that patients would participate in frequently due to the negative attitudes they perceived from other people (Faccio et al., 2016).

Weight gain may be a result of traumatic experiences in early childhood or the product of negative coping strategies and decreased self-efficacy (Faccio et al., 2016; Mata, Mikkola, Loveland & Hallowell, 2015). The habits and routines of individuals' leisure and instrumental activities of daily living (IADL) engagement prior to surgery were reported as primarily sedentary (Mata et al., 2015). Individuals preoperatively reported thoughts of "I cannot do it", "I feel blocked", and "I'm afraid to fail" indicating low self-efficacy for participation in meaningful occupations (Faccio et al., 2016). All of these factors influence the occupational engagement, performance range, and physical activity of individuals preoperatively.

Postoperative challenges.

Individuals who undergo bariatric surgery strive for control, normality, and ambivalence postoperatively (Coulman, Mackichan, Blazeby, & Owem-Smith, 2017). Participants who received bariatric surgery described the procedure as an external control that could provide structure over their eating; however, for some individuals those feelings did not remain after one year post-operation (Coulman et al., 2017). Bariatric surgery benefits several physical aspects of participants' health such as improved mobility, pain reduction, and improved sleep participation, but negative changes to physical health were also present including nutritional deficiencies and unpleasant gastrointestinal symptoms (Coulman et al., 2017). Participants also rated continued challenges in satisfaction with life roles and performance in desired physical activities after surgery (Mata et al., 2015). Therefore, individuals who undergo bariatric surgery improve some aspects of health, yet continue to face nutritional, occupational, and role challenges postoperatively (Coulman et al., 2017; Mata et al., 2015).

Faccio, Nardin, and Cipolleta (2016) studied postoperative challenges among this population. Researchers discovered that most participants reported the statement "I am obese" as

an existing dominant I-position even after they had been operated on and lost weight (Faccio et al., 2016). These patients required awareness from an outside source to realize they were no longer physically identified as obese (Faccio et al., 2016). The researchers found that the participants objectively lost weight, but their identified personal roles were still tied to their weight and lifestyle before bariatric surgery (Faccio et al., 2016). Researchers reported that postoperative participants continued to limit their participation and engagement in occupations because they anticipated a dramatic, supernatural change after surgery that did not occur (Faccio et al., 2016). Researchers concluded that most patients felt the timing of change that occurs within the physical body transpires quicker than the shift in one's mental body image; therefore, the researchers asserted that each individual should be further assisted to master their new reality before physical weight is lost (Faccio et al., 2016).

Individuals who undergo bariatric surgery may shift their coping strategies towards unhealthy habits (Sarwer & Heinberg, 2020). Several psychosocial concerns presented themselves in a study conducted on this population by Kalarchian and Marcus (2019). Maladaptive eating, substance abuse, suicide and self-harm were found at an increased rate for this population following surgery due to individuals being unable to cope with strong emotions through their familiar coping strategy of eating (Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020). The strict guidelines required of individuals postoperatively is seen as a significant stressor to the individual and can limit the types of coping strategies that are permitted (Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020).

One's social support system, socioeconomic status, Adverse Childhood Experiences (ACEs) scores, mental health status, and veteran status all had potential to impair weight-loss results (Kalarchian & Marcus, 2019). Kalarchian and Marcus (2019) stated that these

psychosocial concerns took the greatest toll on participants' ability to engage in activities of daily living because of their inability to overcome the negative thoughts and feelings that persisted. Patients interviewed in focus groups reported a need for further psychological and social support in the first year following surgery to maintain success with weight loss and improve quality of life (Sharman et al., 2017).

Population Needs

Individuals seeking and receiving bariatric surgery have needs related to their daily task involvement and performance, as well as personal, mental, and physical health conditions.

Task needs.

There are numerous task performance difficulties and barriers faced by individuals seeking bariatric surgery, illustrated by the dynamic interactions between the individuals, their contexts, and tasks (Nossum, Johansen, & Kjekken, 2018). Researchers have recognized that those with bariatric needs do not have the same fortuity compared to individuals with a healthy BMI to participate in meaningful occupations due to a lack of services to support them and facilities available in the community that fit to their size (Ellison, Keesing, & Harris, 2020; Vallis, 2016). Individuals seeking bariatric surgery on average rated their satisfaction of their occupational participation as three out of five, and lower scores were associated with higher BMI (Forhan, Law, Taylor, & Vrkljan, 2012). The median Canadian occupational performance measure (COPM) performance and satisfaction scores were 3.2 and 2.3 respectively, demonstrating great room and need for improvement (Nossum et al., 2018). COPM scores averaged 4.65/10 for perceived performance and 3.76/10 for satisfaction with occupational performance (Barclay & Forwell, 2018). These scores from the COPM represent how individuals

seeking and receiving bariatric surgery need advocacy and services for occupational justice to enhance satisfaction and performance of tasks.

Individuals with bariatric needs have limited opportunities to participate in meaningful occupations; therefore, occupational disengagement and decreased quality of life is likely to occur (Vallis, 2016). Occupational engagement is significantly impacted by the lack of suitable resources and availability of daily living equipment found within public places (Vallis, 2016). Additionally, the health and quality of life of patients are affected by a disruption in consistent meaningful occupational engagement due to their size, and occupational roles are limited due to poor occupational identity and perceptions of not belonging within the community (Ellison et al., 2020; Vallis, 2016). This demonstrates the many areas necessary to address in order to enhance opportunities for meaningful engagement in desired occupations.

Personal needs.

Mental health conditions are prevalent within the population seeking or undergoing bariatric surgery (AOTA, 2015; Dawes, Maggard-Gibbons, Maher, Booth, Miake-Lye, Beroes, & Shekelle, 2016; Vallis, 2016). People who have undergone bariatric surgery have increased psychiatric vulnerability; mood disorders, eating disorders, anxiety disorders, and substance use disorders range from 36.8-72.6% of the total population (Sarwer & Heinberg, 2020). Depression and eating disorders are among the most common conditions found (Dawes et al., 2016). Rates of suicide are four times greater in patients undergoing bariatric surgery compared to the general population (Bhatti, Nathens, Thiruchelvam, Grantcharov, Goldstein, & Redelmeier, 2016). These findings highlight not only the importance of screenings, early intervention, and holistic care to influence the quality of life and occupational engagement for this population but also, that the current care approach for patients with bariatric needs requires additional discussion.

Bariatric surgery patients tend to have challenges similar to what they faced before surgery, but with some nuances and variations. Patients may also exhibit new physical symptoms, such as nutritional deficiencies and unpleasant gastrointestinal symptoms that were not present prior to surgery (Coulman, Mackichan, Blazeby, and Owen-Smith, 2017). Coulman, Mackichan, Blazeby, and Owen-Smith (2017) reported variations in participants' mental health status as well; some participants reported improved depression, confidence, and self-esteem after surgery while others reported their low self-esteem and confidence did not improve following surgery. Many needs still exist for patients with bariatric needs post-operatively, such as role satisfaction, occupational engagement, task participation, and psychosocial factors.

Current long-term, follow-up care consists of monitoring and treating physical symptoms, comorbidities, and nutritional deficiencies with little focus on psychological symptoms such as coping with weight regain and maintaining control overeating (Coulman, Mackichan, Blazeby & Owen-Smith, 2017). Kalarchian and Marcus (2019) explained through their findings that participants' psychosocial concerns are not being properly addressed prior to surgery; therefore, patients are not appropriately equipped with strategies or follow-up care after surgery to promote and maintain a healthy weight loss.

Patients who undergo bariatric surgery also have struggled with role fulfillment and satisfaction with occupational engagement in daily activities (Mata et al., 2015; Vallis, 2016). This low level of satisfaction has been emotionally challenging for these individuals; individuals have faced social ridicule for choosing to undergo bariatric surgery rather than losing weight by dietary and physical activity (Coulman, Mackichan, Blazeby & Owen-Smith, 2017). Challenging emotions participants faced prior to surgery have remained following surgery, leaving

individuals disappointed and feeling hopeless (Coulman, Mackichan, Blazeby & Owen-Smith, 2017).

Barriers

The tasks that individuals seek to engage in are often limited prior to and after surgery due to personal restrictions and contextual barriers (Vallis, 2016). Personal factors can include varying mental health status and physical ability conditions. Contextual barriers may include stage of life, physical environments, or societal structure. These barriers limit tasks that individuals can engage in, ultimately leading to limited performance range, occupational deprivation, and occupational injustice.

Personal barriers.

Personal factors, including lived experiences and psychosocial skills, influence the ability to engage in meaningful occupations in regard to health promotion. Anxiety, depression, self-esteem, and eating behaviors all were found to correlate with decreased occupational performance through an interprofessional evaluation of this population (Barclay & Forwell, 2018). The most common task barriers related to the physical aspect of a person included dyspnea and pace/exhaustion during physical exertion and musculoskeletal disorders (Nossum et al., 2018). In addition, rates of self-harm behaviors are higher after surgery (3%) than before surgery (2%); therefore 50% higher risk post-surgery (Bhatti et al., 2016). These findings highlight the importance of establishing more holistic care considering contextual, personal, and occupational factors of each unique bariatric surgery candidate.

Contextual barriers.

Contextual barriers, including temporal, social, institutional and cultural, strongly influence task performance for this population (Forhan et al., 2012). The most frequently

reported contextual barriers for this population included narrow chairs and seats in public areas, fear of looks or comments from others, and general social anxiety (Nossum et al., 2018). Other contextual factors reported included decreased doorway width, public toilet accessibility, public transport, and stairs (Ellison et al., 2020; Forhan et al., 2012). Many of these barriers demonstrate the relationship between the personal and contextual factors that prevent individuals with bariatric needs from participating in the community. These issues result in termination of planned outings, people being restricted to their homes, and impaired health and well-being due to lack of social participation and leisure engagement (Ellison et al., 2020).

Institutional barriers are also present for individuals with bariatric needs which limit their access to resources and equipment, funding for services, and access to community facilities (AOTA, 2015; Ellison et al., 2020). Unfortunately, legislative systems, politicians, and community members do not view bariatric needs as a disability; therefore, these individuals may have to pay out of pocket for their own equipment because they are not always eligible for funding (Ellison et al., 2020). Individuals with bariatric needs may also be limited in self-care, leisure, and productivity activities because of the limited equipment choices and weight requirements for equipment (Ellison et al., 2020; Forhan et al., 2012). These limitations greatly influence how individuals can engage in meaningful tasks.

Occupational Therapy Role

Occupational therapy (OT) has many opportunities to assist within this scope of practice as OT practitioners are skilled in creating, modifying, and adapting institutional, contextual, and attitudinal barriers to enhance opportunities for meaningful engagement (Ellison et al., 2020). Within the profession, there are increasing opportunities to develop strong evidence-based strategies to implement with individuals and communities that are seeking bariatric surgery

through a perspective of prevention and health promotion (AOTA, 2015; Pizzi, 2013). OT assessment and intervention can identify strengths, areas for growth, and provide a just-right challenge to implement necessary strategies to enhance quality of life and fulfillment in occupational engagement and roles (AOTA, 2015; Mata et al., 2015). Unfortunately, OT's role lacks proper identification and clarification of their fit within an interprofessional team (Lang et al., 2013; Lee, van der Zalm, Van Stralen, Voigt, Wou, & DePaul, 2015; Leemhuis & Cozzolino, 2010). The field of OT also lacks appropriate education pertaining to nutrition and physical activity for weight loss, as well as intervention strategy training for this population (Lang et al., 2013; Lee, van der Zalm, Van Stralen, Voigt, Wou, & DePaul, 2015; Leemhuis & Cozzolino, 2010). There is a growing opportunity for the OT profession to develop strategies strongly supported by evidence to implement with individuals and communities that are seeking bariatric surgery through a perspective of prevention and health promotion rather than only providing intervention postoperatively (Pizzi, 2013).

Practitioner attitudes.

OT practitioners rate themselves as willing to treat client's seeking bariatric surgery, yet believe they are not trained well enough (Lang et al., 2013). Nearly half of the practitioners surveyed stated they were motivated to treat clients who were at an unhealthy weight (Lang et al., 2013); however, Forhan and Law (2009) found that less than 50% of OT practitioners believed that OTs know the needs of clients who are at an unhealthy weight. The desire to meet the needs of this population are present, but the gap of knowledge, training, and interprofessional fit inhibits the opportunities for OTs to do so.

Sociocultural context.

The sociocultural context of OT practitioners is often negative and biased towards clients who are seeking bariatric surgery (Forhan & Law, 2009; Vroman & Cote, 2011). The majority of OT students surveyed by Vroman and Cote (2011) held stereotypical and strong prejudicial beliefs towards these individuals. Many OT practitioners viewed bariatric needs as a circumstance that individuals allow to happen to them (Forhan & Law, 2009). This misconception can have detrimental effects to the service OT practitioners provide to individuals with bariatric needs because of the negative biases, attitudes, and beliefs that may be present. Researchers suggest the beliefs of students are congruent with practitioners' in the same field (Vroman & Cote, 2011). The stigma and prejudice held within OT students and future practitioners' beliefs about this population are likely to negatively impact the therapeutic relationship, therapeutic process, and therapeutic outcomes they have with their clients (AOTA, 2015; Vroman & Cote, 2011). This is fundamental to address with OTs working with this population to enhance client outcomes, occupational performance, and overall quality of life.

Practitioner barriers.

Barriers in practice limit the quality of care occupational therapists can provide to this population. Community-based OTs working with individuals who are overweight report barriers to providing effective and comprehensive practice with confidence (Lee et al., 2015). OT practitioners frequently treat clients who are overweight, yet very few of these practitioners have received formal education for the diagnosis (Leemhuis & Cozzolino, 2010). In a study conducted by Leemuis and Cozzolino (2010), 52% of respondents reported treating clients who are overweight as a secondary condition and 21% reported treating clients who are overweight as

their primary diagnosis; yet, only 12.5% have received formal education on this condition.

Occupational therapists were more likely to report confidence in addressing home modifications and ADL functions than health promotion, weight management and mental health needs associated with this population (Lee, et al., 2015). Increased advocacy and training are necessary to address these clients' needs and improve quality of life overall (Lee et al., 2015).

Lang et al. (2013) investigated OT attitudes and OT's role with weight management, identifying what interventions are provided for weight management, and determining if OTs have received education at entry level or professional training in weight management. Over 50% of the OT respondents thought weight management advice was not within OT's scope of practice (Lang et al., 2013). Forty-four percent of the participants' clients are at an unhealthy weight and the most popular form of intervention was a referral to dietitian services (Lang et al., 2013). In 90% of OT workplaces, OT's reported no guidelines to work within or provide to their clients with bariatric needs for management of weight (Lang et al., 2013). Only 8% of participants stated their entry-level OT education included weight management education (Lang et al., 2013). This data represents the barriers from practitioner attitudes and experience in their workplace.

Evaluation

Evaluations are essential to determine the occupational challenges and needs experienced by the client that are impairing their quality of life, occupational engagement, and overall health.

Interprofessional.

Interprofessional evaluation can incorporate diverse skill sets from multiple perspectives to holistically assess client needs. The interprofessional bariatric pre-operative team may include a registered dietitian, social worker, psychologist, an internist, and endocrinologist or surgeon

(Sherf-Dagan et al., 2018). One reliable and valid evaluation tool used in primary care and specialty clinics is the Obesity Adjustment Survey (OAS) which is used to evaluate client distress in regard to their weight (Vallis, 2016). Another reliable and valid tool is the Impact of Weight on Quality of Life (IWQOL) which is used to assess the client's distress in terms of physical function, self-esteem, sexual life, public distress, and work in regard to their weight (Vallis, 2016). Both assessments consider the client's perspective to address mental health quality in many domains of life and function.

Occupational therapy.

There are currently no evaluations or assessments available that are made specifically to examine a client with bariatric needs from an OT perspective; however, some researchers have used the COPM to assess patients with bariatric needs and the authors were able to obtain significant results from it (Barclay & Forwell, 2018; Nossum et al., 2018). This instrument can provide quality data on the client's perceived abilities and performance, and can be used to set client-centered, occupation-based goals. Other occupational therapy evaluations could apply to this population but have not yet been researched. Using assessment tools that indicate changes in lifestyle and health behavior are relevant for occupational therapy as they would open the door for more comprehensive descriptions of occupational therapy and its impact in future interventions for individuals seeking bariatric care (Nielsen & Christensen, 2018).

Intervention

There are evidence-based, interprofessional interventions to address the needs of individuals prior to and following bariatric surgery. OT can contribute effectively to interventions due to their holistic approach for therapy, individualized care, knowledge on the roles and tasks necessary and desired by humans, support of changes in health behavior, and

promotion of being active and engaged in life activities (Nielsen & Christensen, 2018). Current OT interventions that are present, but not yet supported by research for this population specifically, include: home modifications to promote activity participation, implementation of adaptive equipment and techniques to support meal prepping, strategies for supporting healthier choices during grocery shopping and eating, grading functional tasks to increase physical activity endurance and tolerance, establishing healthy daytime and sleep routines, and teaching coping strategies (AOTA, 2015; Forhan et al., 2012; Nielsen & Christensen, 2018). Interprofessional interventions are currently the standard for individuals seeking bariatric care including behavioral therapy, lifestyle redesign, nutritional counseling, psychiatric care, and weight-loss strategies.

Interprofessional.

Success for individuals before and after surgery occurs through an interprofessional health team in conjunction with primary health providers (Karmali et al., 2010). Interprofessional intervention may include physicians, advanced practice nurses, dietitians, social workers, case managers, pharmacists, psychologists, physical therapists, and occupational therapists (AOTA, 2015). Postoperative behavioral interventions can be effective at treating depressive symptoms, anxiety, and binge-eating disorders in bariatric surgery participants (Dawes et al., 2016). These behavioral interventions can include influence from multiple professions and be applied across each discipline.

Virtual intervention.

Virtual intervention methods were found to have positive results for participants following bariatric surgery (Sherf-Dagan et al., 2018). A digital communication method of online education programs is used to increase patient engagement and minimize barriers (Sherf-

Dagan et al., 2018). Smartphone apps with encouraging messages were also found to have positive behavior changes and increased weight loss for participants following bariatric surgery (Sherf-Dagan et al., 2018). Additionally, educational videos had a greater impact than educational booklets on patients' decisional conflicts and outcome expectancies (Sherf-Dagan et al., 2018). The utilization of technology and virtual contexts can be applied through OT and an interprofessional healthcare team to best meet the needs of each client.

Occupational therapy.

Occupational therapy interventions can utilize prevention, health promotion, modify, adapt, or restore approaches when serving this population (AOTA, 2015; Pizzi, 2013). Adapting lifestyle modification strategies such as caloric restriction, increased physical activity, and behavioral modification hold great potential to impact long-term care of patients postoperatively (Forhan et al., 2012; Sarwer & Heinberg, 2020). Occupational therapists can utilize health promotion and disease prevention programs with this population that focuses on creating new and healthier lifestyle choices for people at risk for weight gain or help clients that have undergone bariatric surgery restore skills that were severely impaired from their prior lifestyle (Pizzi, 2013). Nielsen and Christensen (2018) described OT in lifestyle approaches as the mediator between new, wanted, and needed healthy behaviors of an individual's current habits.

Research by Forhan and Gill (2013) supported the contribution of occupational therapists to an interprofessional approach to prevention, treatment, and management for people seeking bariatric surgery, but found no literature to support specific occupation-based interventions in this niche. It is evident that OTs have contributed to bariatric care by identifying the implications of an unhealthy weight on task performance and personal factors, such as mental health (Forhan & Gill, 2013; Forhan et al., 2012). Due to the little evidence supporting specific occupation-

based interventions, there are limited funding allotments that occupational therapists can utilize for their services creating yet another factor that prevents OT from making their mark in interprofessional bariatric healthcare teams (Forhan & Gill, 2013). Furthermore, there are currently no strategies in place for occupational therapists to declare their interest related to bariatric care in any national association or regulatory registration as weight and bariatric needs are not considered an area of practice or interest in OT (Forhan & Gill, 2013).

Programs.

There are few well-defined occupational therapy programs that are a part of bariatric teams in the US. Benchmark programs, such as Mayo Clinic, have included occupational therapy in their bariatric team (Mayo Clinic, 2019); however, the program that is utilized at Mayo Clinic is not easily accessible to the public to replicate at other facilities; therefore, structure to support inclusion of occupational therapy by other programs is needed (Mayo Clinic, 2019).

Occupational therapists in Canada participated in a workshop that was created to increase understanding of bariatric care and highlight the potential for OT interventions for clients seeking bariatric care (Forhan & Law, 2009). The researchers found that this workshop formed positive changes in practitioners' beliefs about this population, such as viewing weight gain as a multifactorial challenge instead of it being a circumstance that an individual allows to happen to them (Forhan & Law, 2009). Due to the positive results from this study, Forhan and Law (2009) suggested the creation of a collaborative network to raise the profile of OT contributions to this population and better define the role of OT. This collaborative network would also include an international network between Canada and the U.S. so that knowledge of assessment and intervention for individuals with bariatric needs can be disseminated between one another efficiently (Forhan & Gill, 2013; Forhan & Law, 2009). Effective knowledge exchange and

translation activities are appropriate for the development and evaluation of continuing professional education and advancing evidence-based practice (Forhan & Gill, 2013; Forhan & Law, 2009).

Summary

Many occupational challenges are present for individuals seeking or undergoing bariatric surgery, such as socialization, self-care, eating, meal preparation, leisure engagement, education, and work (Ellison et al., 2020; Faccio et al., 2016; Forhan et al., 2012; Vallis, 2016). The current standard of care for this population is addressed through an interprofessional team to provide care prior to and following surgery; however, this team does not consistently involve occupational therapy or clearly define the role of occupational therapy. It is essential to provide comprehensive treatment that addresses the functional impacts of surgery and focuses on reintegration into daily life in addition to the surgical complications and nutritional restrictions patients may experience (Mata et al., 2015). With the influence of psychosocial, physical, environmental, cultural, and spiritual factors on functional performance, occupational therapy is a profession qualified to assist people in creating and implementing unique and orderly approaches to major lifestyle changes. Greater clarity, structured programs, and advocacy are necessary to effectively integrate occupational therapy into the interprofessional team to improve outcomes of bariatric surgery care.

CHAPTER III: Methodology

This chapter reviews the pertinent literature influencing the creation of this product, the model that influenced the structure of this product, and how the website was designed. The authors of this product wanted to create a resource for practitioners and students to positively impact patient outcomes of bariatric surgery. This chapter will outline how the students created the *Occupational Therapy Joining Bariatric Care Teams* website and made decisions throughout the process.

Research Gathering

Prior to the development of the *Occupational Therapy Joining Bariatric Care Teams* website, a thorough literature review was conducted to better understand the current challenges and needs of this topic. The authors utilized the following databases to gather information: American Journal of Occupational Therapy, CINHALL, University of North Dakota Scholarly Commons, and PubMed. The following key terms were used in each search: ("occupational therapy" OR "social participation" OR "lifestyle redesign" OR "role transition") AND ("bariatric surgery" OR "lap band" OR "gastric bypass" OR "sleeve gastrectomy" OR "Biliopancreatic Diversion with Duodenal Switch (BPD/DS) Gastric Bypass") and ("obesity"). The literature findings guided the development of this product.

The authors interviewed three participants who have completed bariatric surgery for weight-loss purposes to gain insight and understanding of their lived-experience and challenges. The individuals' shared what went well, what was challenging, the interprofessional care team, and their occupational challenges as well as successes. The participants reviewed the creation of this product to ensure accuracy and assisted in the development of this product.

Establishing a need.

The authors identified an immense need to improve outcomes for individuals who seek bariatric surgery, improve training for occupational therapists to address the needs of this population, and enhance advocacy to include occupational therapy on an interprofessional care team (Barclay & Forwell, 2018; Coulman et al., 2017; Ellison et al., 2020; Faccio et al., 2016; Forhan et al., 2012; Kalarchian & Marcus, 2019; Lang et al., 2013; Lee et al., 2015; Leemhuis & Cozzolino, 2010; Mata et al., 2015; Nossun et al., 2018; Sarwer & Heinberg, 2020; Sharman et al., 2017; Vallis, 2016). Primary patient needs preoperatively included overcoming contextual and socioeconomic challenges, personal role and relationship challenges, feeling judged by others, low self-esteem, and low self-efficacy (Faccio et al., 2016; Mata et al., 2015; Sarwer & Heinberg, 2020). Primary patient challenges postoperatively included nutritional and gastrointestinal challenges, a strive for control, low role and performance satisfaction, challenges coping with their new reality, and need for social support (Coulman et al., 2017; Faccio et al., 2016; Kalarchian & Marcus, 2019; Mata et al., 2015; Sarwer & Heinberg, 2020; Sharman et al., 2017). These challenges represent the need for change within interprofessional bariatric care teams.

Task performance difficulties faced by individual seeking bariatric surgery include participation in meaningful occupations, satisfaction in occupational performance, perceived performance, and occupational justice (Barclay & Forwell, 2018; Ellison et al., 2020; Forhan et al., 2012; Nossun et al., 2018; Vallis, 2016). Specific occupations that may be challenging for this population include, but are not limited to, social participation, meal preparation, sleep, leisure, community mobility, bathing, and toileting (Ellison et al., 2020; Faccio et al., 2016;

Vallis, 2016). These needs represent many areas that occupational therapists can work alongside patients with as a member of the interprofessional team.

Product development.

While Mayo Clinic is a benchmark program that includes OT in bariatric care teams, the structure of the bariatric team program is not presented on their website; therefore, it may be difficult for OT's to access the program to replicate (Mayo Clinic, 2019). In order to increase awareness of the potential for including OT on bariatric care teams and meet the many needs of individuals who undergo bariatric surgery, a free internet resource has been created. This resource is created to be highly accessible and is categorized by pertinent information according to literature findings. Additional categorization is provided to target the unique needs of each viewer. These include current bariatric care teams, occupational therapy practitioners, and occupational therapy students.

Model Foundation

The Ecology of Human Performance (EHP) model is utilized throughout the planning and implementation of this scholarly project (Dunn et al., 1994). This model addresses three major components, the person, task, and context, to evaluate and determine the influence of each on performance (Dunn et al., 1994). The terms of EHP are inclusive to all healthcare professionals and intended for interprofessional care teams to enhance clarity of communication, understanding, and application (Dunn et al., 1994).

Person.

The intended audience of this website includes interprofessional bariatric care teams who currently lack the inclusion of occupational therapy within their team, occupational therapists who desire to work as a part of an interprofessional bariatric team to enhance client outcomes

and collaborate with skilled professionals, as well as occupational therapy students who desire formal education on this topic. The perspectives and needs of these individuals were carefully considered to effectively advocate for the inclusion of occupational therapists on bariatric care teams. The individuals' beliefs, values, abilities, experiences and skills were carefully considered in this process as well (Dunn et al., 1994). Each website viewer can implement the EHP model to view and structure care through to enhance collaborative efforts.

Task.

The website viewer is encouraged to participate in tasks that ultimately encourage the inclusion of occupational therapy on bariatric care teams. Bariatric care teams are encouraged to hire an occupational therapist to their team to collaborate and improve care available to their patients. Occupational therapists are encouraged to advocate for their role on a bariatric interprofessional team and provide structure to these programs. Occupational therapy students are encouraged to advocate for the inclusion of bariatric care education in their respective OT program. Customizable advocative materials are provided on the website to promote these tasks. These tasks work towards the ultimate goal of enhancing patient outcomes through the inclusion of occupational therapy to interprofessional care teams.

Context.

The product considered temporal context, as well as cultural, physical and social environments. The temporal context considered age, development, life cycle, health status, and specific time periods; therefore, the product was thoughtfully marketed towards diverse temporal contexts (Dunn et al., 1994). The cultural, physical, and social environment was also carefully considered when developing this product. The virtual environment of this product allows for universal access and personalization of each environmental factor. The product was created to

promote culturally appropriate terminology, an appealing and accessible physical context to peak interest, and opportunities for social engagement to enhance the social environment. The context is essential to address in order to connect with website viewers by utilizing contexts that are familiar, comfortable, and accessible (Dunn et al., 1994).

Website Design

This product was created to be aesthetically pleasing to the eye in order to represent information in a professional, appealing, and interesting manner. The product uses soft pastel colors to limit distractions from the content. The text is written in high-contrast colors, black or white, as appropriate to promote legibility for readers. Some key literature findings and observations are written in the color red to catch the readers' attention. This design includes personal photos to be utilized for visual learning, to increase understanding of the website content, and for aesthetic design.

Contributors.

The contributors of this product include two master of occupational therapy students in their final year of the program and an academic advisor overseeing the project. The abilities, experiences and skills of the contributors were intentionally utilized to produce an effective product (Dunn et al., 1994). The knowledge gained from the multiple interviews of three individuals who underwent bariatric surgery assisted in providing real and honest information about the success and challenges that come with bariatric surgery. The guidance of the highly experienced and skilled advisor was essential to discovering occupational needs that can be met by the skills of occupational therapists. The work of the students, in collaboration with the expertise of the advisor, allowed for this product to be possible.

Summary

This product was strategically created to be a useful resource for interprofessional bariatric care teams, occupational therapy practitioners, and occupational therapy students through the lens of EHP. The authors utilized literature to guide the development of this product, as well as the target audience to prepare the content for. The EHP model guided the structure of this product to promote interprofessional theoretical guidance for care team collaboration and structure. The Andragogy learning theory guided the style of educational materials to promote adult learning. The website design was carefully crafted to promote readability, spark interest, and deliver a clear message. The development of this product was intentionally created to improve patient outcomes of bariatric surgery.

CHAPTER IV: Product

This product, titled *Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource*, was created to market and promote the inclusion of occupational therapy within an interprofessional bariatric care team to enhance outcomes for individuals seeking bariatric surgery. The product was developed to target existing bariatric teams who lack an occupational therapist as part of their team, as well as to occupational therapists and occupational therapy students who intend to advocate for their role on a bariatric team. The product is intended to inform bariatric surgery departments of the unique value of occupational therapy for their program, empower occupational therapists to advocate for their role on a bariatric team, empower occupational therapy students to advocate for bariatric care education, and to encourage overall implementation of occupational therapy within interprofessional bariatric care teams.

Product Description

The product of this scholarly project is a website that was developed for the utilization of bariatric surgery teams, occupational therapists, and occupational therapy students as an advocative and educational tool. The website provides evidence-based research to advocate for more occupational therapists to be included on bariatric surgery teams, as well as empower and inform OT practitioners and OT students on their ability to positively support people undergoing bariatric surgery. The authors determined through literature review that a user-friendly and easily accessible online resource for members of current bariatric teams, OT practitioners and OT students to learn more about the potential OT has for supporting patients undergoing bariatric surgery would be most beneficial. The entire website was structured using the Ecology model of

Human Performance (EHP) as its theoretical guide and Andragogy to promote adult learning (Dunn et al., 1994; Knowles, 1980).

The PDF version of the website is available (see Appendix A) and the website itself can be accessed at <https://batesannabelle.wixsite.com/otinbariatrics>. The website is organized into the following pages: *Home; Terms and Definitions: EHP Model; Purpose: Current Teams, Current Challenges, OT Fit, Future Goals; Research; Advocate: OT Students, OT Practitioners, Bariatric Teams; About the Authors.*

Website.

The title of this website is *Occupational Therapy Joining Bariatric Care Teams*. This online resource is free and easily accessible for the target audience to utilize and is designed to be aesthetically pleasing to peak interest in viewing. The website includes education on current bariatric teams, existing challenges for bariatric surgery patients, bariatric teams, occupational therapists, and occupational therapy students, as well as how occupational therapy can assist bariatric interprofessional teams, and the future goals for inclusion of occupational therapy on this team. This product also provides viewers with customizable resources to advocate for the inclusion of occupational therapy in a clinical and educational setting. Information about the creators of this website is provided, along with contact information to promote social accessibility to the target audience.

Home page.

The home page welcomes the website viewer with a professional and clean design. This page has an overview of the website's purpose, challenges found within the bariatric patient population and in the OT profession, occupational therapy's approach to care, occupations impacted for individuals seeking bariatric surgery, information about the authors, a slideshow

with compelling evidence to support this website's purpose, and special considerations. Occupational therapy's unique approach to providing care is described with a clear distinction amongst other discipline's roles. The primary areas of occupation that are impacted for individuals seeking bariatric care are listed, along with supporting literature to advocate for addressing these occupational needs in addition to surgical implications and nutritional restrictions (Mata et al., 2015). This home page introduces the viewer to topics addressed throughout the website, as well as compelling information to entice the viewer to read further.

Terms and definitions.

The terminology and definitions that are commonly utilized and addressed throughout the website are listed on this page to familiarize the viewer. These terms include obesity, bariatric surgery, types of bariatric surgeries, occupational therapy, and interprofessional team. The viewer is informed that due to societal stigma around the word obesity, the more appropriate term used throughout the product for this population will be "individuals with bariatric needs" or "individuals seeking bariatric surgery" (AOTA, 2015). This is important to be culturally sensitive to this population through the choice of language.

EHP model.

The EHP model is defined, broken down by key concepts, and connected to its use in this product (Dunn et al., 1994) The therapeutic framework is important to inform the viewer of, as there are numerous models of care that other disciplines may follow. This model can unite interprofessional teams to provide an overarching framework and lens to care for bariatric needs through. The model's key concepts are defined: person, task, context, and performance, followed by examples to enhance viewer understanding. Finally, a breakdown is provided for how the

model benefits bariatric surgery care to establish understanding of this model's selection to be utilized for this product.

Andragogy.

Andragogy learning theory is defined and broken down by key concepts and connected to its use in this product (Knowles, 1980). The learning theory is important to inform the viewer of so they can understand the intentional foundation of how information is provided. The Andragogy learning theory was selected to guide the development of this product due to the intended audience being current bariatric care teams, occupational therapy practitioners, and occupational therapy students. These age groups may vary; however, adult learning principles are most appropriate.

E-HOW.

The E-HOW model focuses on promoting health, well-being, and quality of life through occupational therapy (Pizzi & Richards, 2017). The E-HOW model, created by Pizzi and Richards (2017), is defined and introduced because it was considered for this project due to the supporting literature under the work of Dr. Pizzi for further development of health promotion and prevention for this population. This theory was not chosen as a theoretical foundation due to the occupational therapy lens that it utilizes, rather than interprofessional inclusive language.

Purpose.

This tab provides four key elements to the website's purpose: current teams, current challenges, OT fit, and future goals. Each page addresses the process in which the website creators determined the missing element to bariatric care and the need for occupational therapy to be included, along with future goals that the creators have for this area of practice. These four elements break down what current bariatric care teams are doing, what current challenges exist

for individuals with bariatric needs, occupational therapists, and occupational therapy students, how occupational therapy would fit into an interprofessional team to promote patient quality of life and health, as well as the outlook on bariatric care and goals with greater advocacy efforts.

Advocate.

All resources that were created to support our advocative portion of this scholarly project is found on this page of the website. For each targeted audience, current bariatric care team members, OT practitioners, and OT students, there are customizable, advocative resources to use to promote the inclusion of OT in current bariatric surgery teams.

For OT students, a sample advocacy letter as well as a generic lesson plan with evidence supporting OT's ability to assist in the care of individuals with bariatric needs and who are planning to undergo bariatric surgery is provided. The intention of this advocacy letter and lesson plan is for the student to submit to their OT department to bring awareness to the lack of confidence and competency surrounding OT practitioners assisting the bariatric population. Current evidence reports only 8% of OT practitioners believe they received the proper level of education on the topic of weight management and bariatric needs during their educational program (Lang et al., 2013). The lesson plan provides professors a guide for structuring important information as they may prepare to teach this content to their students. The lesson plan may also be utilized by the student in preparation for an assignment on areas of emerging practice.

For OT practitioners, a sample advocacy letter is provided with the intention of submitting it to current bariatric teams advocating for a position of an occupational therapist on their team. The letter includes key statistics, compelling facts, and background information supporting the need for OTs on bariatric surgery teams and how OT can assist in the prevention

of some of the physical and emotional challenges arising for patients post-operatively. The letter is designed for the OT practitioner who is submitting the letter to be accepted into the OT position if the bariatric surgery team is willing to create one.

For current bariatric team members, an OT-specific job posting template was created that includes a description of the OT's role and responsibilities within the interprofessional bariatric surgery team. The roles and responsibilities are based on the skills and abilities that entry-level OT practitioners are able to perform once certified along with key statistics, compelling facts, and/or background information supporting the need for an OT to further support the needs of patients with bariatric needs. All other sections within a typical job description posting was left blank due to the very diverse and company-specific requirements found in job postings.

About the authors.

A description of the two students and the faculty advisor are provided, with direct links to their LinkedIn profiles to have greater accessibility to their professional information. The authors identified that the growing field of bariatric surgery is a health care niche that utilizes interprofessional approaches to care for individuals who undergo this surgery. When researching the outcomes of the surgery and the needs of patients, a distinct gap in quality outcomes were evident. Unmet needs of patients and below-optimal outcomes of surgery were motivating to identify if occupational therapy would benefit these challenges within the current interprofessional team. Researchers informed the students that this is possible and must be advocated for. The opportunity for occupational therapy's involvement on an interprofessional bariatric surgery team is evident and compelling.

References.

This tab lists every reference that is cited throughout the website to clearly demonstrate that research was utilized in the creation of this product, as well as give readers an opportunity to explore the references utilized for self-learning purposes. This access is supported by the Andragogy learning model to promote independent learning opportunities for the target audience (Knowles, 1980).

Additional components.

The website provides clear opportunities to contact the website creators. The footer provides contact information, including mailing address, phone numbers, hours of operation, and a simple form for website viewers to complete. This form allows viewers to contact the website creators by providing their name, email, subject and message. This feature allows viewers to provide feedback, ask questions, and get in touch with the website creators efficiently.

Summary

This product is an online educational and advocative resource to be utilized by bariatric care teams, occupational therapy practitioners, and occupational therapy students. The website has an informational home page along with accessible, detailed pages for further information and resources. The website is categorized and created through the lens of the EHP model to promote interprofessional collaboration and structure for bariatric care teams. Specific, customizable, advocative resources per target audience member are provided to be efficient tools to further the inclusion of occupational therapy on bariatric care teams. This product is accessible, simple to navigate, and allows for clear communication between the viewers and website creators to support advocacy efforts of the inclusion of occupational therapy to bariatric care teams.

CHAPTER V: Summary

This chapter consists of an overview of *Occupational Therapy Joining Bariatric Care Teams: A Web-Based Resource* and a proposal for future use of this scholarly project. In addition, existing limitations of this product and potential outcome measurements to track the effectiveness of this product are discussed. Lastly, the authors provide recommendations for future implementation, development, and collaboration regarding this topic. The authors anticipate the literature promoted within this scholarly project will further advance the opportunities of OT services within bariatric care teams and increase the quality of care patients with bariatric needs receive. This summary concludes the entire scholarly project.

Purpose of Project

The purpose of this project is to further inform current interprofessional bariatric care teams, occupational therapy practitioners, and occupational therapy students of the value occupational therapy can bring to bariatric teams to enhance patient outcomes and quality of life. Current individuals with bariatric needs experience a variety of occupational challenges prior to and after surgery, demonstrating the need to modify current standards of bariatric care to address these needs (Coulman, Mackichan, Blazebly, & Owen-Smith, 2017). There is an underutilization of occupational therapy services in interprofessional bariatric care as not all interprofessional bariatric surgery teams include an occupational therapist and the ones that do are not easily accessible to the public to replicate (Mayo Clinic, 2019). It is difficult for occupational therapists to declare their interest related to bariatric care in either national associations or regulatory registrations because weight and bariatric needs are not considered an area of practice or interest for the occupational therapy profession (Leemuis & Cozzolino, 2010). Furthermore, in 90% of OT workplaces, OT's have reported no guidelines to work within or provide to for their clients

with bariatric needs, and only 12.5% of OTs' in one study felt they received adequate formal education on overweight/obesity as a primary diagnosis (Forhan & Gill, 2013; Lang et al., 2013). This project is designed to empower individuals to advocate for the inclusion of occupational therapy services on these care teams.

Project Summary

A free and user-friendly website, titled *Occupational Therapy: Bariatric Surgery - Joining Interprofessional Teams*, was created as the product for this project. The product was guided by the theoretical foundations of the Ecology of Human Performance (EHP) model (Dunn et al., 1994) and Malcom Knowles' theory of Andragogy (Knowles, 1980). The website begins with a home page that gives an overview of all the information provided within the website. A section of terms and definitions most commonly used throughout the website is found that explains aspects of occupational therapy, bariatric surgery, interprofessional care, and the theoretical models included. A purpose page includes sections of alarming literature explaining the current challenges to bariatric surgery patient care prior to and after surgery and current barriers to occupational therapy's role in assisting individuals with bariatric needs from a practitioner and student perspective. Lastly, the website includes a section that provides customizable resources for current bariatric surgery teams, OT practitioners, and OT students to advocate for the inclusion of occupational therapy to improve bariatric patient care.

Limitations

While this scholarly project was carefully and purposefully created, limitations within this project exist. Limitations are due to the contributors' limited experience with bariatric surgery, limited experience in developing a website, and the hallmark bariatric care program that is utilized at Mayo Clinic is not easily accessible to replicate at other facilities; therefore,

structure to support inclusion of occupational therapy by other programs is needed (Mayo Clinic, 2019). Additional limitations to the quality of this product include limited financial resources to invest in the creation and marketing of this website. These limitations required creativity, independent learning, and problem-solving to take place throughout the product planning and development. These limitations may impact the quality and quantity of information, as well as website professionalism.

Implementing Change

To implement change, the creators of this SP provided resources for bariatric care teams, OT practitioners, and OT students to begin their advocacy and educational efforts. These resources include sample letters, a lesson plan, and a job description summary to hire an OT. These resources offer practical solutions to begin advocating for inclusion of occupational therapy to bariatric care teams to enhance patient outcomes. Additional resources are encouraged to be created to continue supporting change in order to enhance patient outcomes and quality of care.

The free web-based resource can be utilized to reference and learn more about the current challenges faced by patients of bariatric care, practitioners and students. It can also be utilized to learn more about occupational therapy and the ways OT can benefit the bariatric care team and individuals who undergo bariatric surgery. This website informs viewers that while the hallmark program at Mayo Clinic has included occupational therapy on their bariatric interprofessional care team, the accessibility of this program and clarity of structure for occupational therapy still has room to grow (Mayo Clinic, 2019). This knowledge can encourage and spark change to be implemented to enhance the structure for including occupational therapy to this interprofessional team.

Future Recommendations

The creators of this SP recommend continued updating of this web-based resource, utilizing feedback from website viewers, practitioners, and students. It is recommended that this information be utilized and expanded on, by developing further advocacy and educational resources for bariatric teams, occupational therapists, and occupational therapy students. The website authors intend to maintain these updates and changes as they can. It is recommended that a program plan be made to market this web-based resource and increase awareness to programs and practitioners across the globe. Finally, it is recommended that the American Occupational Therapy Association (AOTA) be informed of this resource to promote increased accessibility and awareness of this area of practice.

The authors of this SP encourage future developments of this product through scholarly project works by students or expansion by practitioners. Obtaining an official uniform resource locator (URL) would be advantageous to promote the website's accessibility, memorability and appeal. Expanding the website and resources available, enhancing promotion efforts, and gaining further data on this topic would benefit the profession of occupational therapy, the quality of care for bariatric care teams, and the patient outcomes for individuals who undergo bariatric surgery.

Future research should continue to explore the unique value that occupational therapy brings to bariatric interprofessional teams, specifically addressing patient outcomes following OT care. This research can support and advocate for the inclusion of OT to this interprofessional team, as well as identify optimal methods to improve patient outcomes. Research to identify how many interprofessional teams currently include occupational therapy on their care team and how this number changes over time can benefit the foundational understanding of the need for advocacy efforts.

Measuring Product Effectiveness

The students of this project intend to measure the effectiveness of this website through a variety of strategies available to them. Regularly tracking website traffic and visits will provide the students an idea of how frequently and for how long viewers access this product. This can inform the students of the level of marketing required to provide the website information to the intended viewers. Gaining feedback from website viewers through the communication feature at the bottom of the website will allow the students to better understand the perspective of their viewers. Finally, researching the number of bariatric programs who include OT along with the number of OT schools that include education on bariatric care over time can provide an indirect measurement to the effectiveness of this product.

Conclusion

While other disciplines of bariatric care teams focus on patients' physical and mental health, the emphasis on the patients' daily occupations, roles, habits, routines, quality of life, and environment is yet to be targeted. This scholarly project aids in the commitment of decreasing preoperative and postoperative challenges patients experience in bariatric surgery through the holistic and client-centered approach of occupational therapy. The product of this project is a user-friendly website that promotes the benefits of skilled occupational therapy services for those with bariatric needs to improve overall patient care and satisfaction prior to and after bariatric surgery. It is anticipated that this evidence-based and model-based resource will further inform interprofessional bariatric surgery teams, OT practitioners, and OT students on occupational therapy's roles in bariatric care as well as encourage advocating for OT in bariatric care.

References

- American Journal Occupational Therapy Association, (1999). Definition of OT practice for the AOTA model practice ACT. *American Journal of Occupational Therapy*, 53, pp. 608. doi:10.5014/ajot.53.6.608
- American Occupational Therapy Association. (n.d.). Occupational therapy's distinct value: Mental health promotion, prevention, and intervention. Retrieved from <https://www.aota.org/-/media/Corporate/Files/Practice/MentalHealth/Distinct-Value-Mental-Health.pdf>
- American Occupational Therapy Association. (2013). Obesity and occupational therapy position paper. *American Journal of Occupational Therapy*, 67, S39–S46. doi:10.5014/ajot.2013.67S39
- American Occupational Therapy Association. (2015). *Occupational therapy's role in bariatric care*. Retrieved from <https://www.aota.org/~media/Corporate/Files/AboutOT/Professionals/WhatIsOT/HW/Facts/Bariatric%20fact%20sheet.pdf>
- American Society for Metabolic and Bariatric Surgery. (2018). *Estimate of bariatric surgery numbers, 2011-2018*. Retrieved from <https://asmbs.org/resources/estimate-of-bariatric-surgery-numbers>
- Barclay, K. S., & Forwell, S. J. (2018). Occupational performance issues of adults seeking bariatric surgery for obesity. *American Journal of Occupational Therapy*, 72(5), 1–10. doi:10.5014/ajot.2018.025924
- Bhatti, J. A., Nathens, A. B., Thiruchelvam, D., Grantcharov, T., Goldstein, B. I., & Redelmeier, D. A. (2016). Self-harm emergencies after bariatric surgery: A population-based cohort study. *JAMA Surgery*, 151(3), 226–232. doi:10.1001/jamasurg.2015.3414

- Center for Disease Control [CDC]. (2020). *Adult obesity facts*. Retrieved from <https://www.cdc.gov/obesity/data/adult.html>
- Coulman, K. D., Mackichan, F., Blazebly, J. M., & Owen-Smith, A. (2017). Patient experiences of outcomes of bariatric surgery: A systematic review and qualitative synthesis. *Obesity Reviews*, 18(5), 547-559. doi:10.1111/obr.12518
- Dahlke, S., Hunter, K. F., Reshef Kalogirou, M., Negrin, K., Fox, M., & Wagg, A. (2020). Perspectives about interprofessional collaboration and patient-centred care. *Canadian Journal on Aging*, 39(3), 443–455. doi:10.1017/S0714980819000539
- Dawes, A. J., Maggard-Gibbons, M., Maher, A. R., Booth, M. J., Miake-Lye, I., Beroes, J. M., & Shekelle, P. G. (2016). Mental health conditions among patients seeking and undergoing bariatric surgery: A meta-analysis. *JAMA: Journal of the American Medical Association*, 315(2), 150–163. doi:10.1001/jama.2015.1811
- Department of Health & Human Services. (2015). Interdisciplinary approach to caring for older people in hospital fact sheets. Retrieved from <https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/older-people/resources/improving-access/ia-interdisciplinary>
- Dunn, W. (2017). The ecological model of occupation. In J. Hinojosa, P. Kramer, & C. Brasic Royeen (Eds.), *Perspectives on human occupation* (pp. 207-235). Philadelphia: FA Davis
- Dunn, W., Brown, C., & McGuigan, A. (1994). The ecology of human performance: A framework for considering the effect of context. *American Journal of Occupational Therapy*, 48, 595-607. Retrieved from <https://ajot.aota.org/>

- Ellison, N., Keesing, S., & Harris, C. (2020). Understanding occupational engagement for individuals with bariatric needs: The perspectives of Australian occupational therapists. *Australian Occupational Therapy Journal*. doi:10.1111/1440-1630.12657
- Faccio, E., Nardin, A., & Cipolletta, S. (2016). Becoming ex-obese: Narrations about identity changes before and after the experience of the bariatric surgery. *Journal of Clinical Nursing*, 25(11-12), 1713-1720. doi:10.1111/jocn.13222
- Forhan, M., & Gill, S. (2013). Cross-border contributions to obesity research and interventions: A review of Canadian and American occupational therapy contributions. *Occupational Therapy in Health Care*, 27(2), 129–141. doi:10.3109/07380577.2013.785642
- Forhan, M., & Law, M. (2009). An evaluation of a workshop about obesity designed for occupational therapists. *Canadian Journal of Occupational Therapy*, 76(5), 351-358. doi:10.1177/000841740907600506
- Forhan, M. A., Law, M. C., Taylor, V. H., & Vrkljan, B. H. (2012). Factors associated with the satisfaction of participation in daily activities for adults with class III obesity. *OTJR: Occupation, Participation & Health*, 32(3), 70–78. doi:10.3928/15394492-20111028-01
- Johns Hopkins Medicine. (2021). Laparoscopic adjustable gastric banding. Retrieved from <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/laparoscopic-adjustable-gastric-banding>
- Kalarchian, M. A., & Marcus, M. D. (2019). Psychosocial concerns following bariatric surgery: Current status. *Current Obesity Reports*, 8(1), 1-9. doi:10.1007/s13679-019-0325-3
- Kaldenberg, J., Newman, R., & Emmert, C. (2020). *Self-management interventions for social and leisure participation among community-dwelling adults with chronic conditions:*

Systematic review of related literature from 1995–2018 [Critically Appraised Topic].

Bethesda, MD: American Occupational Therapy Association.

Karmali, S., Johnson Stoklossa, C., Sharma, A., Stadnyk, J., Christiansen, S., Cottreau, D., &

Birch, D. W. (2010). Bariatric surgery: a primer. *Canadian family physician Medecin de famille canadien*, 56(9), 873–879. Retrieved from <https://www.cfp.ca/>

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy.*

Englewood Cliffs, NJ: Cambridge Adult Education

Lang, J., James, C., Ashby, S., Plotnikoff, R., Guest, M., Kable, A., Collins, C., & Snodgrass, S.

(2013). The provision of weight management advice: An investigation into occupational therapy practice. *Australian Occupational Therapy Journal*, 60(6), 387–394.

doi:10.1111/1440-1630.12073

Lee, J. Y., van der Zalm, J., Van Stralen, S., Voigt, P., Wou, L., & DePaul, V. G. (2015).

Experiences and perceptions of community-based occupational therapists' regarding their work with adults with morbid obesity. *Canadian Journal of Diabetes*, 39, S49.

doi:10.1016/j.jcjd.2015.01.184

Leemhuis, K., & Cozzolino, M. (2010). Obesity, stigma and occupational therapy. *Physical*

Disabilities Special Interest Section Quarterly, 33(4), 1-3. Retrieved from

<https://www.aota.org/Publications-News/SISQuarterly.aspx>

Mata, H., Mikkola, A., Loveland, J., & Hallowell, P. T. (2015). Occupational therapy and

bariatric surgery: Discovering occupation after weight-loss surgery. *OT Practice*, 20(1),

11–15. Retrieved from [https://www.aota.org/Publications-News/otp/Archive/2015/01-](https://www.aota.org/Publications-News/otp/Archive/2015/01-19-15/Bariatric-Surgery.aspx)

[19-15/Bariatric-Surgery.aspx](https://www.aota.org/Publications-News/otp/Archive/2015/01-19-15/Bariatric-Surgery.aspx)

- Mayo Clinic. (2019). *Overview - Bariatric Center in Florida - Mayo Clinic*. Retrieved from <https://www.mayoclinic.org/departments-centers/general-surgery/florida/bariatric-center/overview>
- Mayo Clinic. (2020a). *Gastric bypass (Roux-en-Y)*. Retrieved from <https://www.mayoclinic.org/tests-procedures/gastric-bypass-surgery/about/pac-20385189>
- Mayo Clinic. (2020b). *Conditions treated*. Retrieved from <https://www.mayoclinic.org/departments-centers/general-surgery/florida/bariatric-center/conditions>
- Mayo Clinic. (2020c). *Sleeve Gastrectomy*. Retrieved from <https://www.mayoclinic.org/tests-procedures/sleeve-gastrectomy/about/pac-20385183>
- Mehaffey, J. H., Charles, E. J., Kron, I. L., Schirmer, B., & Hallowell, P. T. (2018). Loss of Medicaid insurance after successful bariatric surgery: An unintended outcome. *Surgical Endoscopy*, *32*(1), 212–216. doi:10.1007/s00464-017-5661-3
- National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK]. (2016). *Types of bariatric surgery*. Retrieved from <https://www.niddk.nih.gov/health-information/weight-management/bariatric-surgery/types>
- Nielsen, S. S., & Christensen, J. R. (2018). Occupational therapy for adults with overweight and obesity: Mapping interventions involving occupational therapists. *Occupational Therapy International*, *2018*, 1–17. doi:10.1155/2018/741268
- Nossum, R., Johansen, A.-E., & Kjekken, I. (2018). Occupational problems and barriers reported by individuals with obesity. *Scandinavian Journal of Occupational Therapy*, *25*(2), 136–144. doi:10.1080/11038128.2017.127921

- Pizzi, M. A. (2013). Obesity, health and quality of life: A conversation to further the vision in occupational therapy. *Occupational Therapy in Health Care*, 27(2), 78–83.
doi:10.3109/07380577.2013.778442
- Sarwer, D. B., & Heinberg, L. J. (2020). A review of the psychosocial aspects of clinically severe obesity and bariatric surgery. *American Psychologist*, 75(2), 252–264.
doi:10.1037/amp0000550
- Sharman, M., Hensher, M., Wilkinson, S., Williams, D., Palmer, A., Venn, A., & Ezzy, D. (2017). What are the support experiences and needs of patients who have received bariatric surgery? *Health Expectations*, 20(1), 35–46. doi:10.1111/hex.12423
- Sherf-Dagan, S., Hod, K., Mardy-Tilbor, L., Gliksman, S., Ben-Porat, T., Sakran, N., . . . Raziell, (2018). The effect of pre-surgery information online lecture on nutrition knowledge and anxiety among bariatric surgery candidates. *Obesity Surgery*, 28(7), 1876-1885.
doi:10.1007/s11695-018-3134-y
- Vallis, M. (2016). Quality of life and psychological well-being in obesity management: Improving the odds of success by managing distress. *Int J Clin Pract*, 70, 196-205.
doi:10.1111/ijcp.12765
- Vroman K, & Cote S. (2011). Prejudicial attitudes toward clients who are obese: Measuring implicit attitudes of occupational therapy students. *Occupational Therapy in Health Care*, 25(1), 77–90. doi:10.3109/07380577.2010.533252
- World Health Organization. (2010). *Framework for action on interprofessional education and collaborative practice*. Retrieved from
https://www.who.int/hrh/resources/framework_action/en/

Appendix A

This Appendix includes a written and visual description of the website created for this project, including website screenshots. The authors created visual representations of each website page below while maintaining familiar formatting to previous chapters. To access the website itself please visit <https://batesannabelle.wixsite.com/otinbariatrics>. Each website page is represented by a separate title page in this Appendix.

Home Page

Occupational Therapy in Bariatric Care:

Joining Interprofessional Teams

*An advocative and educative tool for bariatric teams,
occupational therapy practitioners & occupational therapy students*

This website was developed for current bariatric teams, occupational therapists, and occupational therapy students to be informed of the unique value and need to include occupational therapy (OT) to current interprofessional bariatric care teams and to encourage advocacy for inclusion of this role.

Website Goals

- Further inform current bariatric teams, occupational therapists, and occupational therapy students of the value that OT can bring to current bariatric interprofessional care teams.
- Provide easy-to-use resources to encourage advocacy efforts for the inclusion of OT to bariatric teams.
- Overall enhance bariatric patient outcomes through the interprofessional care team with the inclusion of OT to promote greater quality of life pre- and post-surgery.

<p>Patient Experiences</p> <p>People who have undergone bariatric surgery have increased psychiatric vulnerability; mood disorders, eating disorders, anxiety disorders, and substance use disorders ranging from 36.8-72.6% of this population (Sarwer & Heinberg, 2020).</p>	<p>Imbalances Within Tasks</p> <p>Individuals with bariatric needs have limited opportunities to participate in meaningful occupations; therefore, occupational disengagement and decreased quality of life is likely to occur (Vallis, 2016).</p>	<p>Context: Barrier or Support?</p> <p>The most frequently reported contextual barriers for this population included narrow chairs and seats, fear of looks or comments from others and social anxiety (Nossum et al., 2018).</p>	<p>Pre and Post-Surgery Performance</p> <p>Patients' psychosocial concerns are not properly addressed prior to surgery; therefore, are not appropriately equipped with strategies or follow-up care after surgery to promote weight loss (Kalarchian and Marcus, 2019).</p>
<p>Scope of Practice</p> <p>Occupational therapy has many opportunities to assist within this scope of practice as OT practitioners are skilled in creating, modifying, and adapting institutional, contextual, and attitudinal barriers to enhance opportunities for meaningful engagement (Ellison et al., 2020).</p>	<p>Emerging Areas & Abilities</p> <p>Within the profession, there are increasing opportunities to develop strong evidence-based strategies to implement with individuals and communities that are seeking bariatric surgery through a perspective of prevention and health promotion (AOTA, 2015; Pizzi, 2013).</p>	<p>Contextual Challenges</p> <p>The sociocultural context of OT practitioners is often negative and biased towards clients who are seeking bariatric surgery (Forhan & Law, 2009; Vroman & Cote, 2011). The majority of OT students surveyed by Vroman and Cote (2011) held stereotypical and strong prejudicial beliefs towards these individuals.</p>	<p>Lost Utilization & Growth</p> <p>Over 50% of the OT respondents thought weight management advice was not within OT's scope of practice (Lang et al., 2013). Forty-four percent of the participants' clients are at an unhealthy weight and the most popular form of intervention was a referral to dietitian services (Lang et al., 2013).</p>

Current bariatric teams utilize an interprofessional collaborative approach in hopes to meet the complex challenges and needs of individuals who seek bariatric surgery. Many challenges exist for individuals seeking bariatric surgery, occupational therapists interested in working with this population, as well as occupational therapy students to learn about this population. OT can bring value to interprofessional bariatric care teams through the profession's holistic lens and top-down approach considering the functional impact of bariatric surgery. Future goals of this product include greater involvement of OT in this role to enhance quality of life and health outcomes for individuals post-surgery.

OT Approach

Occupational therapy addresses both *physical* and *psychosocial* health concerns as new habits and lifestyles are being adopted following bariatric surgery.

Other professions may focus on the client's:

- thoughts & emotions (psychiatry)
- nutritional intake (dietetics)
- functional mobility (physical therapy).

The attention to daily life occupations, roles, habits, routines, quality of life, and environmental impact is yet to be a focus.

Areas of Occupation Impacted



(Ellison et al., 2020; Faccio et al., 2016; Vallis, 2016)

The primary areas of occupation that are impacted for individuals seeking bariatric care are listed, along with supporting literature to advocate for addressing these occupational needs in addition to surgical implications and nutritional restrictions (Mata, Mikkola, Loveland, & Hallowell, 2015).

Primary Areas of Occupation Impacted

- **Sleep:** due to anxiety, hunger, stress, or additional symptoms.
- **Social:** due to changes in routines (i.e. going out to eat with friends).
- **Self-Care:** due to low self-esteem, low energy, or decreased motivation.
- **Work:** due to inability to concentrate, low energy, anxiety, stress, etc.
- **Meal-Prep:** due to change in habits/routines with types of foods to prep.
- **Leisure:** due to change in habit/routine of types of leisure activities.

It is essential to provide comprehensive treatment that addresses functional impacts of surgery and reintegration into daily life in addition to the surgical complications and nutritional restrictions (Mata, Mikkola, Loveland, & Hallowell, 2015).



All photos used with permission.

Supporting Literature Slideshow

Key literature findings to support the inclusion of occupational therapy to bariatric teams are provided at the bottom of the home page to support the purpose of this product.

There is a growing opportunity for the OT profession to develop strategies strongly supported by evidence to implement with individuals and communities that are seeking bariatric surgery through a perspective of prevention and health promotion rather than only providing intervention postoperatively (Pizzi, 2013).

By increasing awareness of the benefits that skilled occupational therapy services can provide to this population, future developments regarding bariatric care can overturn past cycles of failure and improve overall weight loss and quality of life for clients (Vallis, 2016).



Current long-term, follow-up care consists of monitoring and treating physical symptoms, comorbidities, and nutritional deficiencies with little focus on the psychological symptoms such as coping with weight regain and maintaining control over eating (Coulman, Mackichan, Blazeby & Owen-Smith, 2017).

With the influence of psychosocial, physical, environmental, cultural, and spiritual factors on functional performance, occupational therapy is a profession qualified to assist people in creating and implementing unique and orderly approaches to major lifestyle changes.

• • • •

About the Authors



Rylee Skyberg, OTS



Annabelle Tarnowski, OTS



**Dr. Scinda Janssen,
PhD, OTR/L, CLA**

The authors discovered a gap in current literature demonstrating a need for improved care for individuals seeking bariatric surgery and an opportunity for occupational therapy to fill this void. The needs of individuals seeking bariatric surgery demonstrate occupational and role challenges prior to and after surgery, along with complex needs addressing the whole person (mind, body, and spirit) that can be appropriately incorporated through occupational therapy. Through greater research, few programs have well defined inclusion of occupational therapy. Benchmark programs, such as Mayo Clinic, have included occupational therapy in their bariatric team, and the reason for doing so was clear to these two students (Mayo Clinic, 2019). Through the guidance of the scholarly project advisor, Dr. Scinda Janssen, PhD, OTR/L, the students developed this product to inform practitioners and students about the need for OT to be included within interprofessional bariatric care teams.

Special Considerations

Student Project: This website was developed by Rylee Skyberg, Annabelle Tarnowski, and Sclinda Janssen (advisor) in partial fulfillment of graduation requirements for a master's degree by the Department of Occupational Therapy, School of Medicine and Health Sciences, University of North Dakota. Although they were continuously under the academic and professional advisement of a licensed occupational therapist, at the time this website was created, the students had limited clinical experience. We acknowledge that the information on this website could be expanded upon and enriched by clinical experience. This should be considered when consuming the content of the website. All photos were used with permission.

Accreditation: The UND Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). For information regarding accreditation, contact the ACOTE at (301) 652-2682, or ACOTE, c/o Accreditation Department, 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852- 4929. The website is www.acoteonline.org. All basic professional programs must comply with the Standards for an Accredited Educational Program for the Occupational Therapist, 2011.

Terms and Definitions

Terms and Definitions



The terminology and definitions that are commonly utilized and addressed throughout the website are listed on this page to familiarize the viewer. These terms include obesity, bariatric surgery, types of bariatric surgeries, occupational therapy, and interprofessional collaborative practice. The viewer is informed that due to societal stigma around the term obesity, the more sensitive term used throughout the product for this population will be “individuals with bariatric needs” (AOTA, 2015). This is important to be culturally sensitive through the choice of language and to utilize person-first language.

Obesity: “Abnormal or excessive fat accumulation that may impair health” (World Health Organization [WHO], 2020).

- For adults, WHO (2020) defined obesity as a BMI greater than or equal to 30.
 - Due to societal stigma around the word obesity, the more sensitive term used for this population will be “individuals with bariatric needs” (AOTA, 2015).
-

Bariatric surgery: “An operation that helps [an individual] lose weight by making changes to their digestive system” (National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), 2020).

- Laparoscopic adjustable gastric band: A type of bariatric surgery where an adjustable band is placed around the upper stomach region (Johns Hopkins Medicine, 2021).
 - Gastric sleeve surgery/sleeve gastrectomy: A type of bariatric surgery where approximately 80% of the stomach is removed (Mayo Clinic, 2020c).
 - Gastric bypass: A type of bariatric surgery that connects a small portion of the stomach directly to the small intestine (Mayo Clinic, 2020a).
-

Occupational therapy: “The therapeutic use of occupations, including everyday life activities with individuals, groups, populations, or organizations to support participation, performance, and function in roles and situations in home, school, workplace, community, and other settings” (American Journal of Occupational Therapy Association [AJOT], 1999, p.608).

Interprofessional Collaborative Practice (ICP): “When multiple health workers from different professional backgrounds work together with patients, families, carers, and communities to deliver the highest quality of care” (WHO, 2010, p. 7).

Ecology of Human Performance Model

The Ecology of Human Performance (EHP) model was selected to align with our goal of integrating occupational therapy services into current interprofessional care teams.

The EHP model was developed by Winnie Dunn, Ph.D., OTR, FAOTA for interprofessional collaboration and focuses on the person, task, context, and performance (Dunn, Brown, & McGuigan, 1994). The EHP model embraces both personal and contextual strengths as resources for addressing patients' wants and needs, rather than their diagnosis or condition determining the intervention process. EHP allows practitioners to identify patient needs and design strategies to support functional performance in daily life (Dunn, Gilbert, & Kathy, 1997).

How EHP can Benefit Bariatric Surgery Care

- For individuals with bariatric needs, their physical, social, and cultural contexts impact their quality of life greatly; therefore, the intervention approaches utilized within this model allows for multiple methods of change to occur within daily life regarding these contexts.
- Bariatric patients are currently cared for through an interprofessional care team; therefore, the use of this model is an optimal fit, as it was designed for application to interprofessional care teams.
- Each bariatric patient has unique abilities, experiences, and skills; therefore, this model can address these strengths and challenges accordingly through EHP.
- Bariatric treatment is centered around patient goals, which is accomplished through tasks to meet objectives in order to enhance performance; these concepts are fluid with EHP.

Main Concepts

Person: “an individual with a unique configuration of abilities, experiences, and sensorimotor, cognitive, and psychosocial skills” (Dunn, 2017, p. 211).

- negative body image, low cognitive functioning, prior bariatric surgeries, childhood experiences, etc.



Task: “an objective set of behaviors necessary to accomplish a goal” (Dunn, 2017, p. 211).

- intervention, follow-through with treatment, etc.

Context: “a set of interrelated conditions that surrounds a person” (Dunn, 2017, p. 211).

- physical, social, cultural, & temporal



Performance: “both the process and the result of the person interacting with context to engage in tasks” (Dunn, 2017, p. 211).

- weight loss, quality of life, health management

Malcom Knowles' Andragogy Learning Theory

A theory for adult learning that focuses less on content and more on processes using strategies such as self-evaluation, case studies and simulated role playing (Knowles, 1980).

Primary Assumptions

- 1. Adults must know the “why” behind their learning**
- 2. Adults learn experientially**
- 3. Adults learn through problem-solving**
- 4. Adults learn best when the subject matter is of immediate value**

(Knowles, 1980)

How Andragogy is Applied Here

The *why* for inclusion of occupational therapy to bariatric teams is clearly defined utilizing recent evidence. Resources for further self-driven learning are also available. The content regards a topic of immediate value to practitioners and students, with advocating resources available that can be utilized immediately. Learners can problem-solve utilizing the template format on the advocative resources provided and edit them as seen fit for the individuals' unique needs.

E-HOW Model

The E-HOW model focuses on promoting health, well-being, and quality of life through occupational therapy (Pizzi & Richards, 2017).

The E-HOW Model was considered for this project due to the supporting literature under the work of Dr. Pizzi for further development of health promotion and prevention for this population.

While this theory was considered for this project, it was chosen to not be the primary theoretical foundation due to the occupational therapy lens that it utilizes.

Purpose of This Website

Purpose of this Website

It is essential to first understand what interprofessional bariatric care teams are currently doing, what challenges individuals are experiencing (including patients, practitioners and students), and how occupational therapy can help.



The future of bariatric care is laid out to promote clarity and understanding of how we can improve patient outcomes collaboratively.

Current Bariatric Teams

Current interprofessional bariatric teams include dietetics, psychiatry, nursing, physical therapy, & other disciplines.

Existing Challenges

Many challenges exist for OT practitioners and students, as well as patients prior to and after surgery.

How can OT help

Occupational therapy provides a holistic lens to view complex bariatric patient care to enhance patient outcomes.

Bariatric Care Future Goals

Future goals include greater involvement of OT on bariatric teams to enhance the quality of life for individuals post-surgery.

Current Bariatric Teams



Photo used with permission.

Interprofessional pre-bariatric surgery evaluation teams usually include a registered dietitian, social worker, psychologist, and an internist, endocrinologist, or surgeon (Sherf-Dagan et al., 2018). Interprofessional post-bariatric surgery teams may include advanced practice nurses, dietitians, social workers, case managers, pharmacists, psychologists, physical therapists and physicians (AOTA, 2015). Postoperative behavioral interventions can be effective at treating depressive symptoms, anxiety, and binge-eating disorders in bariatric surgery participants (Dawes et al., 2016). However, individuals who undergo bariatric surgery have continued to face nutritional, occupational, and role challenges postoperatively.

There are few well-defined occupational therapy programs that are a part of bariatric teams in the US; the potential for occupational therapy within well-defined teams is immense (Forhan & Gill, 2013).

Current Challenges: Bariatric Patients

Most patients who have undergone bariatric surgery have positive physical and/or emotional results post-operatively; however, many people are still experiencing challenging symptoms that require our attention.

Bariatric Patient Pre-Operative Challenges

Person

- Participant A reported low functional endurance which hindered their ability to complete leisure activities and socialize with others. They were in a great amount of pain each day which caused increased irritability and conflict with others. Participant A then chose to self-isolate during their days before deciding to undergo bariatric surgery because of their significant low self-esteem.
- Participant B reported the number of health issues and medications they had to take prior to surgery was extremely alarming and scary for them. They reported feelings of guilt and hopelessness because of their failures that led them to get to this point in their life. They reported having a constant fear of missing out on future life events with family and not living out their purpose on earth by dying early.
- Participant C reported decreased confidence and decreased energy prior to surgery.

Task

- Participant A reported missing the outdoors; even going on a walk was difficult for them and they were less able to enjoy activities that brought them great joy. They also reported difficulties in completing daily self-cares independently because of their size; they could not wash or wipe their backside thoroughly.
- Participant B stated that the most difficult pre-operative tasks were basic ones they had to complete every day. The amount of pain they experienced with getting out of bed each morning and walking throughout their home was enough to make them feel upset and frustrated. Participant B enjoys cleaning and could not clean their home without taking many rest breaks and being exhausted for the rest of the day once they finished.
- Participant C reported embarrassment when traveling on a plane if offered an extension seatbelt. They also spoke of low physical endurance and their physical work being particularly challenging.

Context

- Participants A and B reported social and public physical environments as uncomfortable due to the fear of judgment from others, their low self-esteem, the additional time they required to rest between ambulation, use of electric scooters to get around, and not feeling comfortable or fitting properly with furniture found in public areas.
- The most frequently reported contextual barriers for this population included narrow chairs and seats, fear of looks or comments from others, and social anxiety (Nossum, Johansen, & Kjekken, 2018). Other contextual factors reported included doorway width, public toilet accessibility, public transport, and stairs (Ellison, Keesing, & Harris, 2020).

Performance

- Habits and routines of an individual's leisure and instrumental activities of daily living (IADL) engagement prior to surgery were reported as primarily sedentary (Mata, Mikkola, Loveland & Hallowell, 2015).



All photos used with permission.

Bariatric Patient Post-Operative Challenges

Person

- Participants who received bariatric surgery described the procedure as an external control that could provide structure over their eating; however, those feelings did not remain after one-year post-operation (Coulman, Mackichan, Blazeby & Owen-Smith, 2017).
- Individuals often face social ridicule for taking the easy way out by undergoing surgery rather than losing weight the natural way (Coulman et al., 2017).
- Participant A reported excess skin as a challenge in their recovery process and something they wish they were informed about more prior to surgery. They found the excess skin unappealing, making it more challenging to like the way they looked. Participant A also experienced constant problems with constipation and diarrhea post-operatively.

Task

- Participants objectively lost weight, but their identified personal roles were still tied to their weight and lifestyle before bariatric surgery (Faccio, Nardin, & Cipolletta, 2016).
- All three participants reported the strict diet guidelines they had to adhere to (specific to the type of bariatric surgery they had) as a challenge due to the large time spent planning their meals. They had to make sure they were eating the types of foods in the right portion size in the correct time frame.

Context

- Participant B's insurance dictated what kind of care they received after bariatric surgery. This caused unwanted challenges in their ability to maintain a positive mindset during their very intense physical and mental recovery as they could not pay out of pocket for the follow-up appointments they desired.

Performance

- Postoperative participants continued to limit their participation and engagement in occupations because they anticipated a dramatic, supernatural change after surgery that did not often occur (Faccio et al., 2016).

Although OT has shown large potential in assisting this population pre and post-operatively, there are educational, societal, and legislative limitations impacting OT's role in bariatric surgery teams.

Current Challenges: OT Practitioners

Person

- OT practitioners rate themselves as willing to treat clients seeking bariatric surgery, yet believe they are not trained well enough (Lang et al., 2013).
- Nearly half of the practitioners surveyed stated they were motivated to treat clients who were at an unhealthy weight (Lang et al., 2013); however, Forhan and Law (2009) found that less than 50% of OT practitioners believed that OTs know the needs of clients who are at an unhealthy weight.
- Many OT practitioners viewed bariatric needs as a circumstance that occurs under the control or lack thereof of individuals and their eating habits. It is something that individuals allow to happen to them (Forhan & Law, 2009).

Task

- OT's role lacks proper identification and clarification of their fit within an interprofessional team (Lang et al., 2013; Lee, van der Zalm, Van Stralen, Voigt, Wou, & DePaul, 2015; Leemhuis & Cozzolino, 2010).

Context

- In 90% of OT workplaces, OTs reported no guidelines to work within or provide to their clients with bariatric needs for management of weight (Lang et al., 2013).
- There are additional challenges for occupational therapists to make their mark in interprofessional bariatric healthcare teams due to limited funding allotments for OT services (Forhan & Gill, 2013).

Performance

- There are currently no strategies in place for occupational therapists to declare their interest related to bariatric care in either national associations or regulatory registrations because weight and bariatric needs are not considered an area of practice or interest (Forhan & Gill, 2013).
- There is current evidence supporting the contribution of occupational therapists to an interprofessional approach to prevention, treatment, and management for people seeking bariatric surgery, but no literature to support specific occupation-based interventions (Forhan & Gill, 2013).

Research suggests the beliefs of students are congruent with practitioners' in the same field (Vroman & Cote, 2011).

Current Challenges: OT Students

Person

- The majority of OT students surveyed by Vroman and Cote (2011) held stereotypical and strong prejudicial beliefs towards these individuals.

Task

- The field of OT lacks education pertaining to nutrition and physical activity for weight loss, as well as intervention strategy training for this population (Lang et al., 2013; Lee et al., 2015; Leemhuis & Cozzolino, 2010).

Context

- Only eight percent of participants stated their entry-level OT education included weight management education (Lang et al., 2013).

Performance

- The stigma and prejudice held within OT students and future practitioners' beliefs about this population are likely to negatively impact the therapeutic relationship, therapeutic process, and therapeutic outcomes they have with their clients (AOTA, 2015; Vroman & Cote, 2011).

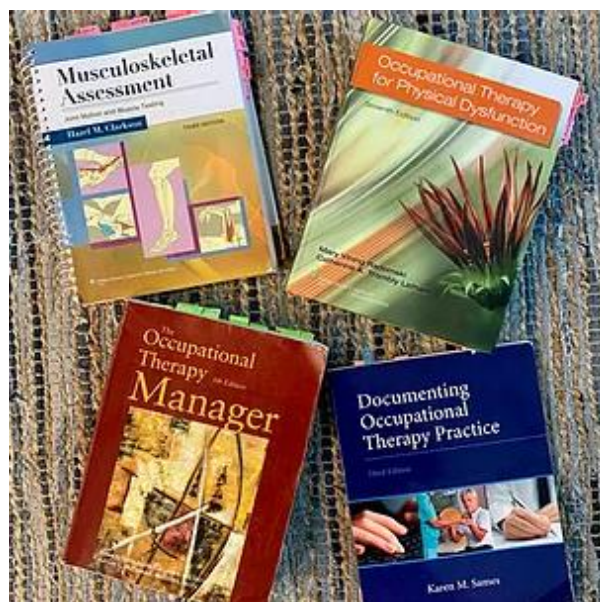
How Does OT Fit?

Benchmark programs, such as Mayo Clinic, have included occupational therapy in their bariatric team (Mayo Clinic, 2019).

Occupational therapy (OT) has many opportunities to assist within this scope of practice as OT practitioners are skilled in creating, modifying, and adapting institutional, contextual, and attitudinal barriers to enhance opportunities for meaningful engagement (Ellison, Keesing, & Harris, 2020). Within the profession, there are increasing opportunities to develop strong evidence-based strategies to implement with individuals and communities that are seeking bariatric surgery through a perspective of prevention and health promotion (AOTA, 2015; Pizzi, 2013). OT assessment and intervention can identify strengths, areas for growth, and provide a just-right challenge to implement necessary strategies to enhance quality of life and fulfillment in occupational engagement and roles (AOTA, 2015; Mata, Mikkola, Loveland, & Hallowell, 2015).

Evaluation

There are currently no evaluations or assessments available that are made specifically to examine a client with bariatric needs from an OT perspective; however, some researchers have used the COPM to assess patients with bariatric needs and the authors were able to obtain significant results from it (Barclay & Forwell, 2018; Nossum et al., 2018).



Evaluation Tools Per Need

ADLs

Barthel Index

(Mahoney & Barthel, 1965)

FIM

(Granger, Hamilton, Zielezny, & Sherwin, 1986)

Kels

(Kohlman, 1992)

Katz Index of ADL

(Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963)

Stigmatization

The Weight Self- Stigma Questionnaire

(Lillis, Luoma, Levin, & Hayes, 2018)

Motivation

Interest Checklist

(Rogers, Weinstein, & Figone, 1978)

Volitional Questionnaire

(de las Heras, 1990)

Mental Health

Beck Anxiety &

Depression Inventory

(Beck & Steer, 1993; Beck, Steer, & Brown, 1996)

Body Esteem Scale

(Franzoi & Shields, 1984)

Occupational Performance

COPM

(Law, Baptiste, McColl, Opzoomer, Polatajko & Pollock, 1990)

Occupational Questionnaire

(Smith, Kielhofner, Watts, Model of Human Occupation Clearinghouse, & University of Illinois at Chicago, 1998)

MOHOST

(Parkinson, Forsyth, Kielhofner, Model of Human Occupation Clearinghouse, & University of Illinois at Chicago, 2006)

Pain

Psychosocial Pain

Inventory

(Otis-Green, 2006)

Role Identity

Revised Role Checklist

(Scott, McKinney, Perron, Ruff, & Smiley, 2019)

Worker Role Interview

(Veloza, Kielhofner, & Fisher, 1990)

IADLs

Instrumental Activities

of Daily Living Scale

(Graf, 2008)

Intervention

OT can contribute effectively to interventions due to their holistic approach for therapy, individualized care for each client, knowledge on the roles and tasks necessary and desired by humans, supporting changes in health behavior with technology, and promoting the enjoyment of being active and engaged (Nielsen & Christensen, 2018). Current OT interventions that are present for individuals undergoing bariatric surgery include home modifications to promote activity participation, implementing adaptive equipment and techniques to support meal prepping, grocery shopping and eating, grading functional tasks to increase physical activity endurance and tolerance, establishing healthy daytime and sleep routines, and teaching coping strategies (AOTA, 2015; Forhan & Gill, 2013; Nielsen & Christensen, 2018).



Photo used with permission.



Photo used with permission.

Occupational therapists have two primary methods of intervention when working with this population: implement health promotion and disease prevention care that emphasizes creating new and healthier lifestyle choices for people at risk for weight gain or help clients that have undergone bariatric surgery restore skills that were severely impaired from their prior lifestyle (Pizzi, 2013).

Future Goals

The program that is utilized at Mayo Clinic is not easily accessible to replicate at other facilities; therefore, structure to support inclusion of occupational therapy by other programs is needed (Mayo Clinic, 2019).

It is essential to provide comprehensive treatment that addresses functional impacts of surgery and reintegration into daily life in addition to the surgical complications and nutritional restrictions (Mata, Mikkola, Loveland, & Hallowell, 2015). With the influence of psychosocial, physical, environmental, cultural, and spiritual factors on functional performance, occupational therapy is a profession qualified to assist people in creating and implementing unique and orderly approaches to major lifestyle changes.

Greater clarity, structured programs, and advocacy are necessary to effectively integrate occupational therapy into the interprofessional care team to improve outcomes of bariatric surgery care.

By increasing awareness of the benefits that skilled occupational therapy services can provide to this population, future developments regarding bariatric care can overturn past cycles of failure and improve overall weight loss and quality of life for clients (Vallis, 2016).

Future Goals

Evaluation

Using assessment tools that indicate changes in lifestyle and health behavior are relevant for occupational therapy as they would open the door for more comprehensive descriptions of occupational therapy and its impact in future interventions for individuals seeking bariatric care (Nielsen & Christensen, 2018).

Intervention

OT can contribute effectively to interventions due to their holistic approach for therapy, individualized care for each client, knowledge on the roles and tasks necessary and desired by humans, supporting changes in health behavior with technology, and promoting the enjoyment of being active and engaged (Nielsen & Christensen, 2018).

Leading the Way

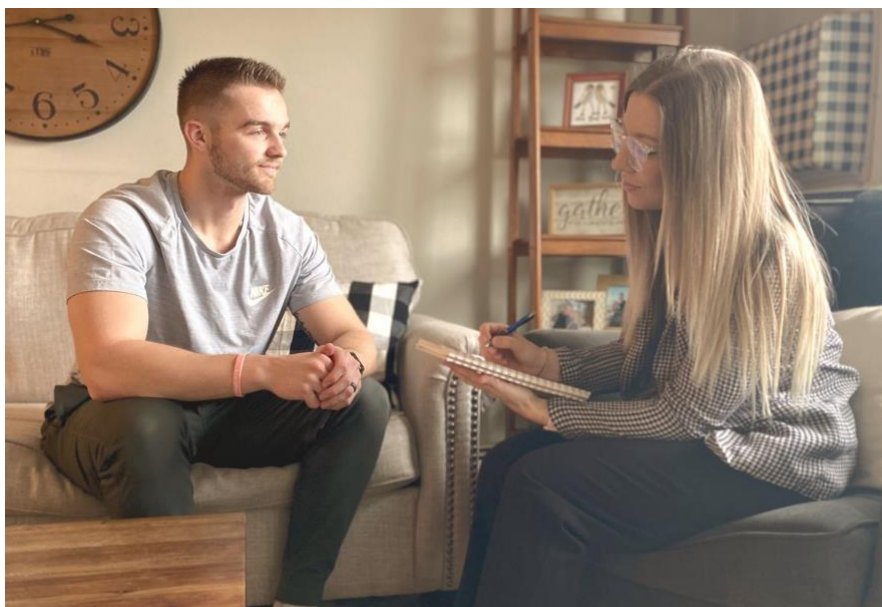


Photo used with permission.

Occupational therapists in Canada participated in a workshop that was created to increase understanding of bariatric care and highlight the potential for OT interventions for clients seeking bariatric care (Forhan & Law, 2009). The authors found that this workshop formed positive changes in practitioners' beliefs about this population, such as viewing weight gain as a multifactorial challenge (Forhan & Law, 2009). Forhan and Law (2009) also stated that creating a collaborative network can raise the profile of OT contributions to this population and better define the role of OT. This collaborative network may include an international network between Canada and the U.S. so that knowledge of assessment and intervention for people with bariatric needs can be disseminated between one another efficiently (Forhan & Gill, 2012; Forhan & Law, 2009). Effective knowledge exchange and translation activities are appropriate for the development and evaluation of continuing professional education and advancing evidence-based practice (Forhan & Law, 2009).

Virtual Care



Utilizing virtual intervention methods were found to have positive results for participants following bariatric surgery (Sherf-Dagan et al., 2018). Digital communication methods, such as online education programs, is a method used to increase patient engagement and minimize barriers (Sherf-Dagan et al., 2018). Smartphone apps with encouraging messages were also found to have positive behavior changes and increased weight loss for participants following bariatric surgery (Sherf-Dagan et al., 2018). Educational video-based aids had a greater impact than educational booklets on patients' decisional conflicts and outcome expectancies (Sherf-Dagan et al., 2018). The utilization of technology and virtual contexts can be applied through OT and an interprofessional care team to best meet the needs of each client.

Advocate

Advocating Resources

Resources created for bariatric care teams, OT practitioners,
and OT students can be found here.

OT Student

Advocacy Letter and Lesson Plan/Presentation Template

OT Practitioner

Advocacy Letter to Join Bariatric Team

Bariatric Teams

OT Job Posting Description Template



OT Students

It is important that students advocate for the inclusion of bariatric care in their education to their academic programs.

- OT practitioners rate themselves as willing to treat client's seeking bariatric surgery, yet believe they are not trained well enough (Lang et al., 2013).
- Only **eight percent** of OT practitioners stated their entry-level OT education included weight management education (Lang et al., 2013).
- This training and education can begin during the academic period; however, students must advocate for this in order to increase awareness of the desire and need.
- The **majority** of OT students surveyed by Vroman and Cote (2011) held stereotypical and strong prejudicial beliefs towards individuals seeking bariatric surgery.

Greater education is necessary to prepare students for future work with this population and to reduce bias and prejudice.

Student Sample Letter

Your Name
Full Address
All contact information

Date

Recipient's Name/Title
Full Address

To whom it may concern,

First Paragraph: State your reason for writing — what you want and why. (If the letter pertains to a specific bill or piece of legislation, identify it in the letter.)
Introduce yourself and tell who you are.

I am writing to promote the inclusion of occupational therapy's role in bariatric surgery care in the curriculum. This population is growing in numbers and has occupational needs that may be addressed through occupational therapy along with an interdisciplinary team. Occupational therapy students were studied to have prejudicial and stereotypical beliefs about this population (Vroman & Cote, 2011); therefore, education for greater cultural competence is necessary to prepare students to work with individuals with bariatric needs.

Second Paragraph: Support the issue you are addressing with key statistics, compelling facts, and/or background information.**

The desire to meet the needs of this population are present, but the gap of knowledge, and training inhibits the opportunities for OTs to do so. OT practitioners rate themselves as willing to treat client's seeking bariatric surgery, yet believe they are not trained well enough (Lang et al., 2013). OT practitioners frequently treat clients who are overweight, yet very few of these practitioners have received formal education for the diagnosis (Leemhuis & Cozzolino, 2010). The sociocultural context of OT practitioners is often negative and biased towards clients who are seeking bariatric surgery (Forhan & Law, 2009; Vroman & Cote, 2011). The majority of OT students surveyed by Vroman and Cote (2011) held stereotypical and strong prejudicial beliefs towards these individuals. The stigma and prejudice held within OT students and future practitioners' beliefs about this population are likely to negatively impact the therapeutic relationship,

therapeutic process, and therapeutic outcomes they have with their clients (AOTA, 2015; Vroman & Cote, 2011).

Third Paragraph: Share your story to clarify your position.

Fourth Paragraph: Summarize and reiterate your position/request. Identify other ways your recipient can help with the issue (e.g., attending school board meetings; hosting town hall meetings.)**

I believe that individuals who are considered bariatric patients or who are seeking bariatric surgery will continue to be future clients of occupational therapists, and the research demonstrates a gap in knowledge and cultural competency for this population; therefore, I believe that it is important to provide this education in the occupational therapy curriculum to better prepare students for their future work with this population. Engaging in research, continuing education and speaking with those who work with this population are opportunities to inform you of this population's needs. Other ways to help with this issue is to also advocate for the needs of this population and collaborate with colleagues on ways to meet these needs.

Fifth Paragraph: Thank the recipient for reading the letter and ask for a reply with his/her position on the issue and/or how he/she will address the issue.**

Thank you for your time and for reading this letter. I would appreciate a response with your position on the issue or how you may intend to address this issue.

Sincerely,

Your name

Professor Lesson Plan - Student Presentation Template

Title of Lesson: OT's Role in Bariatric Surgery Care

****Disclaimer:** this lesson plan has not been verified or accepted by AOTA's ACOTE Accreditation Standards. This lesson plan includes content that is aligned with mental health and physical disabilities topics; therefore, can be discussed in either OT graduate course. The implementation of this lesson plan is completely within the discretion of the OT department that is reviewing this. This lesson should take 60-120 minutes to complete*

Purpose: The purpose of this lesson plan is to inform students of the role of occupational therapy when working with clients pre and post bariatric surgery. This lesson ties into various areas of practice that occupational therapists can work in and types of diagnoses with associated treatment. This lesson also educates and prepares students to be culturally sensitive and competent towards individuals with bariatric needs. This is a current need as evidenced by current literature identifying students to have stereotypical and prejudiced beliefs towards this population (Vroman & Cote, 2011). Increased advocacy and training are necessary to address these clients' needs and improve quality of life overall (Lee et al., 2015).

Learning Outcomes:

- OT students will understand the effect obesity has on quality of life and occupational performance
- OT students will understand the importance of learning about obesity and bariatric care through an unbiased perspective
- OT students will understand the need for occupational therapy in bariatric surgery care
- OT students will demonstrate novel clinical reasoning and therapeutic use of self to address pertinent client factors for people with bariatric needs pre and post operatively

Bridge In:

The Obesity Epidemic Youtube Video

<https://www.youtube.com/watch?v=vCORDI4bqDE>

OR

Psychological Aspects of Bariatric Surgery as a Treatment for Obesity (read before class and discuss findings)

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5359375/pdf/13679_2017_Article_242.pdf

Input from you:

- Experiences that the professor has from their years of practicing (patients that

had bariatric needs or patients that underwent bariatric surgery)

- Experiences that professor has from their personal life (family members or friends that underwent bariatric surgery that they are willing to share about)
- Personal experience of what the professor has witnessed in society and/or the healthcare field regarding people with bariatric needs

Guided Practice:

(this can be presented through PowerPoint, discussion, video or any other method deemed appropriate by faculty/professor)

Articles that are free to the public from AOTA

- <https://www.aota.org/-/media/Corporate/Files/AboutOT/Professionals/WhatsOT/HW/Facts/Bariatric%20fact%20sheet.pdf>
- <https://www.aota.org/-/media/Corporate/Files/Publications/CE-Articles/CE-Article-November-2018.pdf>

Obesity on occupational participation:

- Researchers have recognized that people with bariatric needs do not have the same fortuity compared to individuals with a healthy BMI to participate in meaningful occupations due to the lack of services and facilities available in the community (Ellison, Keesing, & Harris, 2020; Vallis, 2016).
- People with bariatric needs are limited in self-care, leisure, or productivity activities because of the limited equipment choices and weight requirements for equipment (Ellison et al., 2020).

Post-op Challenges

- [people with bariatric needs] rated continued challenges in satisfaction with roles and performance of desired physical activities after surgery (Mata et al., 2015). Individuals who undergo bariatric surgery improve some aspects of health, yet continue to face nutritional, occupational, and role challenges postoperatively (Coulman et al., 2017; Mata et al., 2015).
- Researchers found that the participants objectively lost weight, but their identified personal roles were still tied to their weight and lifestyle before bariatric surgery (Faccio, Nardin, & Cipolleta, 2016).
- Individuals who undergo bariatric surgery may shift their coping strategies towards unhealthy habits. Maladaptive eating, substance abuse, suicide and self-harm were found at an increased rate for this population following surgery (Sarwer & Heinberg, 2020).
- Kalarchian and Marcus (2019) stated that these psychosocial concerns took the most toll on the participants' ability to engage in activities of daily living because of their inability to overcome the negative thoughts and feelings that persisted.
- Kalarchian and Marcus (2019) explained through their findings that participants' psychosocial concerns were not properly addressed prior to surgery; therefore,

they were not appropriately equipped with strategies or follow-up care after surgery to promote weight loss.

OT and bariatric care through an unbiased lens

- OT's role in bariatric surgery lacks proper identification and clarification of their fit within an interprofessional team (Lang et al., 2013; Lee, van der Zalm, Van Stralen, Voigt, Wou, & DePaul, 2015; Leemhuis & Cozzolino, 2010). The field of OT also lacks education pertaining to nutrition and physical activity for weight loss, as well as intervention strategy training for this population (Lang et al., 2013; Lee, van der Zalm, Van Stralen, Voigt, Wou, & DePaul, 2015; Leemhuis & Cozzolino, 2010).
- OT practitioners rate themselves as willing to treat client's seeking bariatric surgery, yet believe they are not trained well enough (Lang et al., 2013). Nearly half of the practitioners surveyed stated they were motivated to treat clients who were at an unhealthy weight (Lang et al., 2013); however, Forhan and Law (2009) found that less than 50% of OT practitioners believed that OTs know the needs of clients who are at an unhealthy weight.
- The majority of OT students surveyed by Vroman and Cote (2011) held stereotypical and strong prejudicial beliefs towards these individuals. Many OT practitioners viewed bariatric needs as a circumstance that is something that individuals allow to happen to them (Forhan & Law, 2009).

The Need of OT in bariatric surgery

- Occupational therapy (OT) has many opportunities to assist within this scope of practice as OT practitioners are skilled in creating, modifying, and adapting institutional, contextual, and attitudinal barriers to enhance opportunities for meaningful engagement (Ellison et al., 2020).
- The field of OT also lacks education pertaining to nutrition and physical activity for weight loss, as well as intervention strategy training for this population (Lang et al., 2013; Lee, van der Zalm, Van Stralen, Voigt, Wou, & DePaul, 2015; Leemhuis & Cozzolino, 2010).
- There is a growing opportunity for the OT profession to develop strategies strongly supported by evidence to implement with individuals and communities that are seeking bariatric surgery through a perspective of prevention and health promotion rather than only providing intervention postoperatively (Pizzi, 2013).
- In 90% of OT workplaces, OT's reported no guidelines to work within or provide to their clients with bariatric needs for management of weight (Lang et al., 2013). Only eight percent of participants stated their entry-level OT education included weight management education (Lang et al., 2013). This data represents the barriers from practitioner attitudes and experience in their workplace.
- There are currently no evaluations or assessments available that are made specifically to examine a client with bariatric needs from an OT perspective; however, some researchers have used the COPM to assess patients with

bariatric needs and the authors were able to obtain significant results from it (Barclay & Forwell, 2018; Nossum et al., 2018).

- Current OT interventions that are present for individuals undergoing bariatric surgery include home modifications to promote activity participation, implementing adaptive equipment and techniques to support meal prepping, grocery shopping and eating, grading functional tasks to increase physical activity endurance and tolerance, establishing healthy daytime and sleep routines, and teaching coping strategies (AOTA, 2015; Forhan & Gill, 2013; Nielsen & Christensen, 2018).
- There is current evidence supporting the contribution of occupational therapists to an interprofessional approach to prevention, treatment, and management for people seeking bariatric surgery, but no literature to support specific occupation-based interventions (Forhan & Gill, 2013).
- Benchmark programs, such as Mayo Clinic, have included occupational therapy in their bariatric team (Mayo Clinic, 2019). The program that is utilized at Mayo Clinic is not easily accessible to replicate at other facilities; therefore, structure to support inclusion of occupational therapy by other programs is needed (Mayo Clinic, 2019).
- With the influence of psychosocial, physical, environmental, cultural, and spiritual factors on functional performance, occupational therapy is a profession qualified to assist people in creating and implementing unique and orderly approaches to major lifestyle changes. Greater clarity, structured programs, and advocacy are necessary to effectively integrate occupational therapy into the interprofessional team to improve outcomes of bariatric surgery care.

Closure:

- Reiterate the special client factors of people with bariatric needs and how obesity affects daily life and occupational performance
- Discuss the current challenges the OT profession is enduring that inhibits our potential with assisting this population

Check for Understanding:

Questions:

- How can we (OT profession) advocate more for this population moving forward?

OT Practitioners

It is important that OT practitioners advocate for inclusion of their expertise on interdisciplinary bariatric surgery teams to increase awareness of the need and desire for this collaboration.

- There are challenges for occupational therapists to make their mark in interprofessional bariatric healthcare teams due to **limited funding** allotments for OT services (Forhan & Gill, 2013).
- There are currently **no strategies in place** for occupational therapists to declare their interest related to bariatric care in either national associations or regulatory registrations because weight and bariatric needs are not considered an area of practice or interest (Forhan & Gill, 2013).

Due to these challenges, it is critical that OT practitioners advocate for their inclusion in the interdisciplinary team to increase funding, national associations, and regulatory registrations.

Practitioner Sample Letter

Your Name
Full Address
All contact information

Date

Recipient's Name/Title
Full Address

Dear [Recipient's name]:

First Paragraph: Introduce yourself and tell who you are. State your reason for writing — what you want and why. (If the letter pertains to a specific bill or piece of legislation, identify it in the letter.)

My name is _____ and I am a licensed occupational therapist in the state of _____. I have been practicing for ___ years and have worked at the following locations: _____. I have found that there is not a current occupational therapist position in the _(hospital/clinic name)___ bariatric surgery department and I am reaching out to encourage consideration for an occupational therapy position on your bariatric interdisciplinary team. This is a position I would be interested in having the opportunity to apply for and believe is very important to include on a bariatric surgery care team.

Second Paragraph: Support the issue you are addressing with key statistics, compelling facts, and/or background information.

Greater success for individuals before and after surgery occurs through a multidisciplinary health team in conjunction with primary health providers (Karmali et al., 2010). There is current evidence supporting the contribution of occupational therapists to an interprofessional approach to prevention, treatment, and management for people seeking bariatric surgery (Forhan & Gill, 2013). OT can effectively contribute to bariatric care due to their holistic approach for therapy, individualized care for each client, knowledge on the roles and tasks necessary and desired by humans, supporting changes in health behavior, and promoting the enjoyment of being active and engaged (Nielsen & Christensen, 2018). Many occupational challenges are present for individuals seeking or undergoing bariatric surgery, such as socialization, self care, eating, meal preparation, leisure engagement, education, and work (Ellison et al., 2020; Faccio et al., 2016; Vallis, 2016). It is essential to provide comprehensive treatment that

addresses functional impacts of surgery and reintegration into daily life in addition to the surgical complications and nutritional restrictions (Mata, Mikkola, Loveland, & Hallowell, 2015). With the influence of psychosocial, physical, environmental, cultural, and spiritual factors on functional performance, occupational therapy is a profession qualified to assist people in creating and implementing unique and orderly approaches to major lifestyle changes.

Third Paragraph: Share your story to clarify your position.

Benchmark programs, such as Mayo Clinic, have included occupational therapy in their bariatric team (Mayo Clinic, 2019). I believe that there is a definite need for inclusion of occupational therapy to join current interdisciplinary teams to improve patient outcomes. Individuals who undergo bariatric surgery improve some aspects of health, yet continue to face nutritional, occupational, and role challenges postoperatively (Coulman et al., 2017; Mata et al., 2015). Participants rated continued challenges in satisfaction with roles and performance of desired physical activities after surgery (Mata et al., 2015). Maladaptive eating, substance abuse, suicide and self-harm were found at an increased rate for this population following surgery (Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020). These challenges represent required areas to further address as an interdisciplinary team, and patient needs that occupational therapy can address.

Fourth Paragraph: Summarize and reiterate your position/request. Identify other ways your recipient can help with the issue (e.g., attending school board meetings; hosting town hall meetings.)

Fifth Paragraph: Thank the recipient for reading the letter and ask for a reply with his/her position on the issue and/or how he/she will address the issue.

Sincerely,

Your name

Bariatric Care Teams

It is important that Bariatric teams advocate for inclusion of occupational therapy expertise on their teams to increase awareness of the need and desire for this collaboration.

- Benchmark programs, such as Mayo Clinic, include occupational therapy in their bariatric team (Mayo Clinic, 2019).
- Individuals who undergo bariatric surgery improve some aspects of health, yet continue to face **nutritional, occupational, and role challenges** postoperatively (Coulman et al., 2017; Mata et al., 2015).
- Maladaptive eating, substance abuse, suicide and self-harm were found at an increased rate for this population following surgery (Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020).
- These challenges represent required areas to further address as an interdisciplinary team, and patient needs **that occupational therapy can address**.

Due to these challenges, it is critical that bariatric teams advocate for OT's inclusion in the interdisciplinary team to put patient needs first and enhance patient outcomes.

Licensed Occupational Therapist Job Posting Template

****Disclaimer:** this is merely a template of information to include in a job description for any current or future bariatric surgery teams that are seeking an occupational therapist for employment. Information provided is rooted from evidence-based research on current and potential future benefits occupational therapists have for serving on bariatric surgery teams. Please understand that information listed below may not be applicable to some healthcare organizations.**

(Location of Employment)

City:

State:

Department:

Why (X Department)?

(Give brief overview of mission/purpose of organization; achievements of department; and any other pertinent information)

Job Description *General Summary of Position*

This position is for a licensed Occupational Therapist who will be working on our interdisciplinary bariatric surgery team. Other general OT outpatient practice needs may also be included. The Occupational Therapist Registered (OTR) functions as an essential member of the healthcare team and is responsible for the evaluation, planning, directing and administering occupational therapy treatment as prescribed by a licensed physician.

Other Responsibilities:

- Assist in the preoperative process of identifying current challenges to daily occupational participation by creating an in-depth occupational profile through the use of occupational therapy-based assessments.
- Complete admission, discharge evaluations, daily assessments and identify individual goals for each patient - An involved member of the interdisciplinary rehab team.
- Collaborate with patients to identify/create coping strategies to adhere to strict guidelines and protocols required post-operatively (Kalarchian & Marcus, 2019; Sarwer & Heinberg, 2020)
- Create occupation-based and client-centered interventions such as completing home modifications, introducing adaptive equipment, implementing new strategies for healthy IADL preparation and completion, grading of functional

tasks to increase physical endurance and tolerance, and establishing health roles and routines that promote sustainability of weight loss and increase health satisfaction and well-being (AOTA, 2015; Forhan & Gill, 2013; Nielsen & Christensen, 2018).

- Advocate for patients by creating, modifying, and adapting institutional, contextual, and attitudinal barriers to enhance opportunities for meaningful engagement in everyday life (Ellison et al., 2020).
- Collaborate with other team members and/or community resources to identify services for patients regarding psychological and social support post-operatively (Sharman et al., 2017).
- Participate in consistent and long-term follow up appointments for patients addressing any concerns/challenges that arise postoperatively that impact occupational health and quality of life (Coulman, Mackichan, Blazeby & Owen-Smith, 2017)

Qualifications (Up to Department/Health Organization)

Examples:

- 1+ year(s) of OT experience post-graduation
- Master's Degree or higher in Occupational Therapy
- Certification with the National Board for Certification in Occupational Therapy
- Occupational Therapy Licensure in State of X
- Current BLS certification required upon hire

Benefits

(Up to Department/Health Organization)

Schedule

(Up to Department/Health Organization)

Category

(Up to Department/Health Organization)

Career Profile

(Up to Department/Health Organization)

Job Posting Number

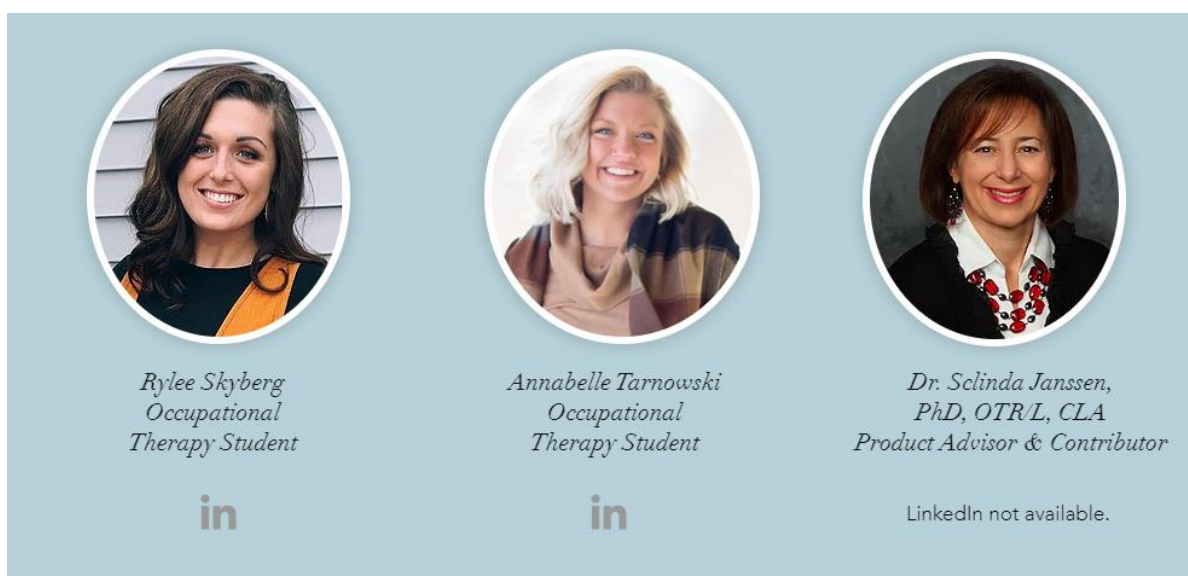
(Up to Department/Health Organization)

Ending statement - Not required: Applicants must demonstrate the potential ability to perform the essential functions of the job as outlined in the position description.

About the Authors

Why We Chose This Project

Rylee and Annabelle attend the University of North Dakota in the Occupational Therapy Program. They are completing their Master of Science in Occupational Therapy in May of 2021.



Rylee and Annabelle identified that the growing field of bariatric surgery is a health care niche that utilizes multidisciplinary approaches to care for individuals who undergo this surgery. When researching the outcomes of the surgery and the needs of patients, a distinct gap in quality outcomes were evident. Unmet needs of patients and below-optimal outcomes of surgery were motivating to identify if occupational therapy would benefit these challenges within the current interdisciplinary team. Research informed the students that this is possible and must be advocated for.

Contact Us

<https://batesannabelle.wixsite.com/otinbariatrics>

GET IN TOUCH

We'd love to hear from you

E-mail



*rylee.skyberg@und.edu
annabelle.tarnowski@und.edu*

Phone



*Rylee: 218-230-0508
Annabelle: 630-338-6191*

Department of Occupational Therapy

University of North Dakota School of Medicine & Health Sciences

Grand Forks, ND 58202-9037

Please contact us if you have any comments or questions.

We will respond during the times stated below:

Mon-Fri: 8am-5pm

Sat-Sun: Closed

SPECIAL THANK YOU

Dr. Scilinda Janssen, PhD, OTR/L, CLA: The authors of this scholarly project want to thank their wonderful advisor for instilling confidence in them throughout this project, guiding their decision making to align with the values of occupational therapy, and assisting in the creation of this product. The authors felt supported and encouraged throughout the process; the expertise and advice of the advisor made this project possible.

Interviewees: The authors of this scholarly project also want to thank the individuals who sacrificed their time to help them better understand the unique needs, challenges, and experiences of this population. They were open, honest, and vulnerable as they shared their personal experiences and stories throughout their bariatric surgery journey. This project could not have done without them.

Friends and Family: Finally, the authors want to extend their gratitude to their friends and family for being supportive throughout the project development.

References

References

- American Journal Occupational Therapy Association. (1999). Definition of OT practice for the AOTA model practice ACT. *American Journal of Occupational Therapy*, 53, pp. 608. doi:10.5014/ajot.53.6.608
- American Occupational Therapy Association. (n.d.). Occupational therapy's distinct value: Mental health promotion, prevention, and intervention. Retrieved from <https://www.aota.org/-/media/Corporate/Files/Practice/MentalHealth/Distinct-Value-Mental-Health.pdf>
- American Occupational Therapy Association. (2013). Obesity and occupational therapy position paper. *American Journal of Occupational Therapy*, 67, S39–S46. doi:10.5014/ajot.2013.67S39
- American Occupational Therapy Association. (2015). Occupational therapy's role in bariatric care. Retrieved from <https://www.aota.org/~media/Corporate/Files/AboutOT/Professionals/WhatIsOT/HW/Facts/Bariatric%20fact%20sheet.pdf>
- American Society for Metabolic and Bariatric Surgery. (2018). Estimate of bariatric surgery numbers, 2011-2018. Retrieved from <https://asmbs.org/resources/estimate-of-bariatric-surgery-numbers>
- Barclay, K. S., & Forwell, S. J. (2018). Occupational performance issues of adults seeking bariatric surgery for obesity. *American Journal of Occupational Therapy*, 72(5), 1–10. doi:10.5014/ajot.2018.025924
- Beck, A.T., & Steer, R.A. (1993). Beck Anxiety Inventory Manual. San Antonio, TX: Psychological Corporation.
- Beck, A. T., Steer, R. A., & Brown, G. (1996). Beck Depression Inventory–II [Database record]. APA PsycTests. doi:10.1037/t00742-000
- Bhatti, J. A., Nathens, A. B., Thiruchelvam, D., Grantcharov, T., Goldstein, B. I., & Redelmeier, D. A. (2016). Self-harm emergencies after bariatric surgery: A population-based cohort study. *JAMA Surgery*, 151(3), 226–232. doi:10.1001/jamasurg.2015.3414
- Center for Disease Control [CDC]. (2020). Adult obesity facts. Retrieved from <https://www.cdc.gov/obesity/data/adult.html>
- Coulman, K. D., Mackichan, F., Blazeby, J. M., & Owen-Smith, A. (2017). Patient experiences of outcomes of bariatric surgery: A systematic review and qualitative synthesis. *Obesity Reviews*, 18(5), 547-559. doi:10.1111/obr.12518
- Dahlke, S., Hunter, K. F., Reshef Kalogirou, M., Negrin, K., Fox, M., & Wagg, A. (2020). Perspectives about interprofessional collaboration and patient-centred care. *Canadian Journal on Aging*, 39(3), 443–455. doi:10.1017/S0714980819000539
- Dawes, A. J., Maggard-Gibbons, M., Maher, A. R., Booth, M. J., Miake-Lye, I., Beroes, J. M., & Shekelle, P. G. (2016). Mental health conditions among patients seeking and undergoing bariatric surgery: A meta-analysis. *JAMA: Journal of the American Medical Association*, 315(2), 150–163. doi:10.1001/jama.2015.1811
- de las Heras, C. G. (1990). The volitional questionnaire: A user's guide. Unpublished manual.
- Department of Health & Human Services. (2015). Interdisciplinary approach to caring for older people in hospital fact sheets. Retrieved from <https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/older-people/resources/improving-access/ia-interdisciplinary>
- Dunn, W. (2017). The ecological model of occupation. In J. Hinojosa, P. Kramer, & C. Brasic Royeen (Eds.), *Perspectives on human occupation* (pp. 207-235). Philadelphia: FA Davis.

- Dunn, W., Brown, C., & McGuigan, A. (1994). The ecology of human performance: A framework for considering the effect of context. *American Journal of Occupational Therapy*, 48, 595-607.
- Ellison, N., Keesing, S., & Harris, C. (2020). Understanding occupational engagement for individuals with bariatric needs: The perspectives of Australian occupational therapists. *Australian Occupational Therapy Journal*. doi:10.1111/1440-1630.12657
- Faccio, E., Nardin, A., & Cipolletta, S. (2016). Becoming ex-obese: Narrations about identity changes before and after the experience of the bariatric surgery. *Journal of Clinical Nursing*, 25(11-12), 1713-1720. doi:10.1111/jocn.13222
- Forhan, M., & Gill, S. (2013). Cross-border contributions to obesity research and interventions: A review of Canadian and American occupational therapy contributions. *Occupational Therapy in Health Care*, 27(2), 129–141. doi:10.3109/07380577.2013.785642
- Forhan, M., & Law, M. (2009). An evaluation of a workshop about obesity designed for occupational therapists. *Canadian Journal of Occupational Therapy*, 76(5), 351-358. doi:10.1177/000841740907600506
- Forhan, M. A., Law, M. C., Taylor, V. H., & Vrkljan, B. H. (2012). Factors associated with the satisfaction of participation in daily activities for adults with class III obesity. *OTJR: Occupation, Participation & Health*, 32(3), 70–78. doi:10.3928/15394492-201111028-01
- Franzoi, S. L. & Shields, S. A. (1984). The Body-Esteem Scale: Multidimensional structure and sex differences in a college population. *Journal of Personality Assessment*, 48, 173-178.
- Graf C. (2008). The Lawton Instrumental Activities of Daily Living Scale. *AJN American Journal of Nursing*, 108(4), 52–63. doi:10.1097/01.naj.0000314810.46029.74
- Granger C.V., Hamilton B.B., Zielesny M., & Sherwin F.S. (1986). Advances in functional assessment in medical rehabilitation. *Topics in Geriatric Rehabilitation*, 1(3), 59–74.
- Johns Hopkins Medicine. (2021). *Laparoscopic adjustable gastric banding*. Retrieved from <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/laparoscopic-adjustable-gastric-banding>
- Kalarchian, M. A., & Marcus, M. D. (2019). Psychosocial concerns following bariatric surgery: Current status. *Current Obesity Reports*, 8(1), 1-9. doi:10.1007/s13679-019-0325-3
- Kaldenberg, J., Newman, R., & Emmert, C. (2020). Self-management interventions for social and leisure participation among community-dwelling adults with chronic conditions: Systematic review of related literature from 1995–2018 [Critically Appraised Topic]. Bethesda, MD: American Occupational Therapy Association.
- Karmali, S., Johnson Stoklossa, C., Sharma, A., Stadnyk, J., Christiansen, S., Cottreau, D., & Birch, D. W. (2010). Bariatric surgery: A primer. *Canadian family physician Medecin de famille canadien*, 56(9), 873–879. Retrieved from <https://www.cfp.ca/>
- Katz, S., Ford, A.B., Moskowitz, R.W., Jackson, B.A., Jaffe, M.W. (1963). Studies of illness in the aged: The Index of ADL: A Standardized Measure of Biological and Psychosocial Function. *JAMA*, 185(12), 914–919.
- Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*. Englewood Cliffs, NJ: Cambridge Adult Education
- Kohlman, L.K. (1992). *Kohlman Evaluation of Living Skills*. Maryland: The American Occupational Therapy Association, Inc.

- Lang, J., James, C., Ashby, S., Plotnikoff, R., Guest, M., Kable, A., Collins, C., & Snodgrass, S. (2013). The provision of weight management advice: An investigation into occupational therapy practice. *Australian Occupational Therapy Journal*, 60(6), 387–394. doi:10.1111/1440-1630.12073
- Law, M., Baptiste, S., McColl, M., Opzoomer, A., Polatajko, H., & Pollock, N. (1990). The Canadian Occupational Performance Measure: An outcome measure for occupational therapy. *Canadian Journal of Occupational Therapy*, 57(2), 82–87.
- Lee, J. Y., van der Zalm, J., Van Stralen, S., Voigt, P., Wou, L., & DePaul, V. G. (2015). Experiences and perceptions of community-based occupational therapists' regarding their work with adults with morbid obesity. *Canadian Journal of Diabetes*, 39, S49. doi:10.1016/j.cjcd.2015.01.184
- Leemhuis, K., & Cozzolino, M. (2010). Obesity, stigma and occupational therapy. *Physical Disabilities Special Interest Section Quarterly*, 33(4), 1-3.
- Lillis J., Luoma J. B., Levin M. E., & Hayes S. C. (2018) Measuring weight self-stigma: The Weight Self-stigma Questionnaire. *Obesity (Silver Spring)*, 18(5), 971–976. doi:10.1038/oby.2009.353
- Mahoney, F. I., Barthel, D. (1965). Functional evaluation: the Barthel Index. *Maryland State Med Journal*, 14, 56-61.
- Mata, H., Mikkola, A., Loveland, J., & Hallowell, P. T. (2015). Occupational therapy and bariatric surgery: Discovering occupation after weight-loss surgery. *OT Practice*, 20(1), 11–15. Retrieved from <https://www.aota.org/Publications-News/otp/Archive/2015/01-19-15/Bariatric-Surgery.aspx>
- Mayo Clinic. (2019). *Overview - Bariatric Center in Florida - Mayo Clinic*. Retrieved from <https://www.mayoclinic.org/departments-centers/general-surgery/florida/bariatric-center/overview>
- Mayo Clinic. (2020a). *Gastric bypass (Roux-en-Y)*. Retrieved from <https://www.mayoclinic.org/tests-procedures/gastric-bypass-surgery/about/pac-20385189>
- Mayo Clinic. (2020b). *Conditions treated*. Retrieved from <https://www.mayoclinic.org/departments-centers/general-surgery/florida/bariatric-center/conditions>
- Mayo Clinic. (2020c). *Sleeve Gastrectomy*. Retrieved from <https://www.mayoclinic.org/tests-procedures/sleeve-gastrectomy/about/pac-20385183>
- Mehaffey, J. H., Charles, E. J., Kron, I. L., Schirmer, B., & Hallowell, P. T. (2018). Loss of Medicaid insurance after successful bariatric surgery: An unintended outcome. *Surgical Endoscopy*, 32(1), 212–216. doi:10.1007/s00464-017-5661-3
- National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK]. (2016). *Types of bariatric surgery*. Retrieved from <https://www.niddk.nih.gov/health-information/weight-management/bariatric-surgery/types>
- Nielsen, S. S., & Christensen, J. R. (2018). Occupational therapy for adults with overweight and obesity: Mapping interventions involving occupational therapists. *Occupational Therapy International*, 2018, 1–17. doi:10.1155/2018/741268
- Nossum, R., Johansen, A.-E., & Kjekken, I. (2018). Occupational problems and barriers reported by individuals with obesity. *Scandinavian Journal of Occupational Therapy*, 25(2), 136–144. doi:10.1080/11038128.2017.127921
- Otis-Green, S. (2006). Psychosocial Pain Assessment Form. In Dow (Ed.), *Nursing Care of Women with Cancer*. St. Louis, MO: Elsevier Mosby, 556-561.
- Parkinson, S., Forsyth, K., Kielhofner, G., Model of Human Occupation Clearinghouse., & University of Illinois at Chicago. (2006). *A user's manual for Model of Human Occupation Screening Tool (MOHOST)*. Chicago, Ill: Model of Human

Occupation Clearinghouse, Dept. of Occupational Therapy, College of Applied Health Sciences, University of Illinois at Chicago.

Pizzi, M. A. (2013). Obesity, health and quality of life: A conversation to further the vision in occupational therapy. *Occupational Therapy in Health Care*, 27(2), 78–83. doi:10.3109/07380577.2013.778442

Pizzi, M. A., & Richards, L. G. (2017). Promoting health, well-being, and quality of life in occupational therapy: A commitment to a paradigm shift for the next 100 years. *American Journal of Occupational Therapy*, 71(4), 1–5. doi:10.5014/ajot.2017.028456

Rogers, J. C, Weinstein, J. M., & Figone, J. J. (1978). The Interest Checklist: An empirical assessment. *American Journal of Occupational Therapy*, 32, 628-630.

Sarwer, D. B., & Heinberg, L. J. (2020). A review of the psychosocial aspects of clinically severe obesity and bariatric surgery. *American Psychologist*, 75(2), 252–264. doi:10.1037/amp0000550

Scott, P. J., McKinney, K. G., Perron, J. M., Ruff, E. G., & Smiley, J. L. (2019). The Revised Role Checklist: Improved utility, feasibility, and reliability. *OTJR: Occupation, Participation & Health*, 39(1), 56–63. doi:10.1177/1539449218780618

Sharman, M., Hensher, M., Wilkinson, S., Williams, D., Palmer, A., Venn, A., & Ezzy, D. (2017). What are the support experiences and needs of patients who have received bariatric surgery? *Health Expectations*, 20(1), 35–46. doi:10.1111/hex.12423

Sherf-Dagan, S., Hod, K., Mardy-Tilbor, L., Gliksman, S., Ben-Porat, T., Sakran, N., . . . Raziell, (2018). The effect of pre-surgery information online lecture on nutrition knowledge and anxiety among bariatric surgery candidates. *Obesity Surgery*, 28(7), 1876-1885. doi:10.1007/s11695-018-3134-y

Smith, N. R., Kielhofner, G., Watts, J. H., Model of Human Occupation Clearinghouse., & University of Illinois at Chicago. (1998). Occupational questionnaire. Chicago, Ill.: Distributed by Model of Human Occupation Clearinghouse, University of Illinois at Chicago.

Vallis, M. (2016). Quality of life and psychological well-being in obesity management: improving the odds of success by managing distress. *Int J Clin Pract*, 70, 196-205. doi:10.1111/ijcp.12765

Veloze, C., Kielhofner, G., & Fisher, G. (1990). A user's guide to the Worker Role Interview. University of Illinois at Chicago, College of Associated Health Professions, Department of Occupational Therapy.

Vroman K, & Cote S. (2011). Prejudicial attitudes toward clients who are obese: measuring implicit attitudes of occupational therapy students. *Occupational Therapy in Health Care*, 25(1), 77–90. doi: 10.3109/07380577.2010.533252

World Health Organization. (2010). Framework for action on interprofessional education and collaborative practice. Retrieved from https://www.who.int/hrh/resources/framework_action/en/

Appendix B

This Appendix includes written, signed, and dated permission from each individual whose photos and/or information were included in the development of this product. Each permission form is included in Appendix B with the approval from the respected individual.

Information and Picture Release Form

I, Barbara Skyberg grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

Signature: Barbara Skyberg

Date: Feb 16, 2021

Information and Picture Release Form

I, Jerry D Skyberg, grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

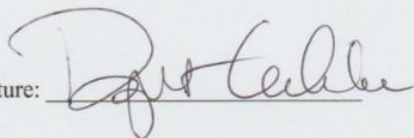
Signature: Jerry D Skyberg

Date: Feb 16, 2021

Information and Picture Release Form

I, Dwight Gehrke, grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

Signature:

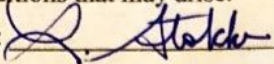


Date:

3/3/21

Information and Picture Release Form

I, LYNNE STOKKE, grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

Signature:  Date: 2.4.21

Information and Picture Release Form

I, DAVIS BATES, grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

Signature: 

Date: 4-2-21

Information and Picture Release Form

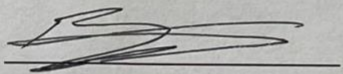
I, Kelly Lickteig, grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

Signature: Kelly Lickteig

Date: 4-6-21

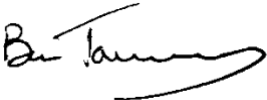
Information and Picture Release Form

I, BEN CLICKEIG, grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

Signature: Date: 4/6/21

Information and Picture Release Form

I, Ben Tarnowski _____, grant permission to Rylee Skyberg, Annabelle Tarnowski, and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use my information and pictures for educational, promotional, operational purposes, or other conditions that may arise.

Signature: 

Date: 4/13/21