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# PromOTing Healthcare Diversity: a diversity initiative for occupational therapy

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*Boston University*

BOSTON UNIVERSITY  
SARGENT COLLEGE OF HEALTH AND REHABILITATION SCIENCES

Doctoral Project

**PROMOTING HEALTHCARE DIVERSITY:  
A DIVERSITY INITIATIVE FOR OCCUPATIONAL THERAPY**

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***“Equality of opportunity is the essence of social justice.”- Tony Honore***

## **DEDICATION**

I would like to dedicate this work to my mother Patricia Walker for always being my role model and mentor. Without your support and encouragement I would not have achieved my many accomplishments. Thank you for being a wonderful mother and friend.

Love you always.

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**ABSTRACT**

Occupational therapy (OT) is an allied health profession that works with a diverse population, but the ethnic and racial make-up of OT practitioners does not reflect this diversity. The lack of diversity among healthcare providers has been found to exacerbate healthcare disparities in minority communities. Increasing the number of minority OT practitioners helps decrease bias and improve trust and comfort of minority clients improving health outcomes. Minority students have poor awareness of OT as a viable career option and are limited by social, academic, and financial barriers. PromOTing Health Diversity is an evidence-based pipeline and mentorship program designed to help increase minority student enrollment in OT programs by addressing these barriers. PromOTing Healthcare Diversity utilizes a one-day seminar to educate students on OT, the process of becoming an OT, and resources available, and provides students with hands on community-based OT experiences. Students with increased interest in OT can participate in a mentorship program where they will work with minority OT practitioners to grow personally and professionally as they progress towards admission requirements. Participants of PromOTing Healthcare Diversity will share their knowledge of OT with



their social network, which will help to increase awareness of OT as a healthcare resource in the minority community. PromOTing Healthcare Diversity helps to increase minority student enrollment into OT programs and increased minority communities' awareness of the profession.

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## **CHAPTER ONE: INTRODUCTION**

### **Occupational Therapy**

Occupational therapy (OT) is a healthcare profession that addresses the needs of the general population throughout the lifespan. OT practitioners enable people from all backgrounds to participate in activities (occupations) they need to complete, are expected to complete, or want to complete. This can be working with premature babies to ensure they meet developmental milestones, helping high schoolers with attention deficit hyperactivity disorder manage the complex schedule of a high school student, empowering a young adult with depression to use coping strategies so they can go to work, teaching techniques for gardening with arthritis, or demonstrating proper position of a hospice patient to facilitate increased comfort. This broad scope of practice that requires OT practitioners to build rapport with clients in order to develop intimate relationships with clients allowing the practitioner to impact a person's life in a meaningful way (Kielhofner, 2009). Rapport building is an integral part of the profession. Kielhofner (2009) stated that at times OT practitioners will have to draw on their own personal experiences to help develop the relationship with a client as well as provide the client with helpful information that will enable them to engage in a meaningful occupation.

### **Occupational Therapy and Diversity**

OT practitioners work in various settings with diverse populations, however, the profession's level of diversity is not representative of the diverse populations it serves. Eighteen percent of the profession identifies as non-white while in the general US



population 24% identify as non-white (AOTA, 2018a; US Census Bureau, 2018). This may not seem like an important issue, but studies have reported that health outcomes in communities are related to healthcare providers having similar backgrounds to communities they serve (Mattingly, 2018). In the United States (US), minority communities have poorer health care outcomes compared to their white counterparts (CDC, 2013). This is a complex issue that stems from a multitude of limitations. One limitation that has been identified is the lack of diversity among healthcare professionals. Many times, underrepresented minorities (URM) who engage in the healthcare system do not see anyone who looks like them or understands cultural nuances. This has resulted in patients reporting gaps in care due to perceived racial or cultural bias, leading to inherent distrust with healthcare professions of different cultures (Mattingly, 2018). On average black Americans are negatively impacted by their poor health care outcomes resulting in a loss of 7 years of illness free living when compared to white Americans (CDC, 2013). Trends in healthcare show a progression towards under-representation of minority professionals especially with specialization in practice (AOTA, 2018a; Lett, Orji & Sebro, 2018). Despite serving a diverse population that benefits from healthcare professionals that reflect their values and customs, the OT profession is not very diverse. Occupational therapy practitioners need to increase the diversity in the profession to help ensure everyone in the US is able to maintain a life of health and wellness in order to participate in meaningful activities throughout their lifespan.

The American Occupational Therapy Association (AOTA) OT Practice Framework (OTPF) (2017), identifies cultural humility, inclusion, and social justice as

important aspects of occupational therapy practice. These ideas demonstrate the profession's innate inclination to support increasing the diversity within the profession. Similar to Kielhofner's emphasis on the therapeutic use of self, the OTPF highlights therapeutic use of self as an integral part of the OT process as to establish a "therapeutic relationship with each client, as well as, designing a treatment plan based on knowledge about the client's environment, values, goals, and desires or culture" (AOTA, 2017, p. S9). Occupational justice is also included in the OTPF and defined as "a justice that recognizes occupational rights to inclusive participation in everyday occupations for all persons in society, regardless of age, ability, gender, social class, or other differences" (AOTA, 2017, p. S43). Occupational injustice occurs when access to participation in occupations is impeded based on personal qualities. This could be interpreted, for example, as a population's or community's right regardless of race to receive health care in a safe and judgement free setting that reflects their cultural ideals. This is best provided when the practitioner is of the same culture as the client.

During Clark's presidential term, AOTA recognized a pressing need for diversity in the workforce. In her 2013 Presidential Address, Clark stated that a diverse workforce was an integral part of the AOTA's Centennial Vision in order to grow the number of practitioners, increase access to services in underrepresented areas, foster trust between the healthcare system and the communities it serves, improve access to leadership and advocacy opportunities for practitioners from underrepresented groups, and increased access to healthcare for non-English speaking clients (Clark, 2013). AOTA developed programs, such as The Coalition of Occupational Therapy Advocates for Diversity, to

specifically address this limitation (COTAD, 2018). Unfortunately, AOTA's Vision 2025 did not originally include diversity in its statement (AOTA, 2018b). Members of AOTA alerted leadership during the 2018 AOTA business meeting to the importance of addressing professional diversity. With this advocacy by members, leadership revised Vision 2025 to include; an equity, inclusion, and diversity pillar stating "we are intentionally inclusive and equitable and embrace diversity in all its forms" (AOTA, 2018b; AOTA, 2018c, para. 6). This demonstrates that some, but not all OT practitioners see how imperative increasing diversity is for minority communities. This example underscores the importance of that grassroots advocacy to help facilitate critical larger organizational changes. From the guiding principles of OT based on the OTPF, all OT practitioners should be addressing the occupational injustice of poor minority representation within the profession in order to better the health care outcomes of URM.

### **Causes**

Some general causes for the lack of minority participation in the OT profession have been identified. There are limited studies specific to OT, but Bass-Haugen (2009) reported that there is a significant lack of knowledge about occupational therapy in minority communities and Lett et al. (2018) supported this finding noting knowledge of many health professions was also limited in minority communities. Both studies found that knowledge regarding resources for health profession education in the general population was limited and exacerbated in minority communities, which may be why OT is not considered a viable option for a career choice among minorities. Minority high school students were unfamiliar with the qualities of the profession or how OT could

benefit minority communities, this limited the students' ability to identify how OT might align with their career goals and values (Murray et al., 2016). As a result of this lack of interest, students are also unaware of how to become OT practitioners as they do not pursue this information.

Lucus (2018) identified that part of the problem of not having many minority OT practitioners may be the lack of visibility of minority practitioners. This study of URM OT practitioners found the lack of minority leadership in educational programs contributed to these practitioners feeling unwelcome and culturally isolated during their education. This led to issues of poor retention and matriculation through OT programs. The practitioners also felt they did not have role models to emulate and help guide their career paths. Lack of minority visibility was not only found in direct practice, but also on the admissions boards for OT programs. Lucas (2018) found that limited diversity on admission boards also contributed to poor diversity in the selection of new OT student cohorts.

Lastly, educational supports were identified as an important factor for URM to enroll in OT programs. Minority students are disproportionately from lower socioeconomic strata resulting in a need for more cost-effective pursuits in higher education (Kena et al., 2016). Lett et al. (2018) and Johanson (2007) suggest this may pigeonhole some students to certain educational degrees when pursuing a profession education such as OT. There are limited financial resources for minority students and for the supports that are available, students are not knowledgeable about how to access them. Additionally, URM students may have external responsibilities (e.g. jobs, families, etc.)

and they sometimes have trouble balancing with school. Lett et al. (2018) and Johanson (2007) found a lack of understanding of these resources resulted in poor health profession enrollment. Knowledge gaps in understanding OT and resources available to students as well as the lack of minority mentors has negatively impacted URM students from enrolling in OT programs.

### **Possible Solutions**

Considering the identified problems, this doctoral project attempts to address three areas: 1. increased knowledge of occupational therapy, 2. increased knowledge of resources and supports available to students who enroll in OT programs, and 3. increased visibility of minority OT practitioners. Community outreach needs to be completed to help minority communities understand that OT exists as a profession, but also exists as a healthcare resource they can utilize for health and wellness management. Students are engaged in the education system in part to explore different career options. For this reason, targeting students, instead of adults already in careers, will be the most effective way to increase minority enrollment in OT programs. Reaching out to current minority OT practitioners and encouraging them to be more visible to prospective students as well as to minority communities will help URM communities see OT as a healthcare resource and possible career choice for minorities. Lastly, addressing the knowledge gap among prospective students in regards to the resources and supports available to help diverse student populations, will help to encourage minority students to consider enrollment in OT programs.

## **Conclusion**

Through the development of this doctoral project, an evidence based one-day minority OT recruitment seminar PromOTing Healthcare Diversity, will be created that could be utilized by universities or OT community groups desiring to increase diversity in OT student enrollment. This protocol will educate undergraduates about OT and the steps to become an OT practitioner. Students will also have opportunities to interact with minority OT practitioners to encourage role modeling. The education provided by the program will also help to address possible personal limitations the student may identify as a barrier for attending OT school. The impetus for the development of this project is to increase the number of minority occupational therapy practitioners; this will develop an OT workforce that matches the communities it serves enhancing the relationships with the community and OT practitioners. Although increasing workforce diversity is the main measure of this doctoral project, the larger overarching goal is to address the occupational injustice of healthcare disparities in minority communities.

## **CHAPTER TWO: THEORY AND EVIDENCE**

In order to create an effective program to increase diversity in the occupational therapy (OT) profession, research needed to be conducted to determine why minority students are not enrolling in occupational therapy programs. Influential factors on a personal, interpersonal, and community level were assessed. Research identified barriers to minority student enrollment in OT programs. These identified barriers lead to the creation of an explanatory model for the lack of diversity in OT. Through the use of the explanatory model, the most appropriate conditions for intervention were determined, allowing for a new program to intercede in the process and increase diversity. Theoretical evidence was used to explain how to facilitate these changes. Research and analysis of existing intervention components was completed to determine the merits and limitations to facilitate URM enrollment in academic programs. This information can be used in the development of an effective evidence-based minority recruitment program.

### **Explanatory Model**

There is a lack of diversity within the occupational therapy (OT) profession which is a multifactorial issue. Appendix A is the explanatory model illustrating the causes for poor diversity within OT. In this model, it is assumed that lack of diversity originates in childhood, as children begin to consider professions for adulthood. Children in general do not know about occupational therapy as a profession and it can be surmised that similar to other science, technology, engineering, and mathematics (STEM) professions when the general population has limited knowledge of a profession, minority communities have even less knowledge (Mu et al., 2002; Levine, 2007). As a part of this lack of knowledge

about OT, students are not aware of the educational process or the makeup of the professional life of an OT practitioner (Mu et al., 2002). Similar to other STEM professions, many schools lack the resources to educate students beyond the required STEM subjects, so students don't encounter OT specific preparatory classes during primary and secondary school. This lack of exposure, limits students' knowledge and preparedness to participate in advanced classes at a university level (Levine et al., 2007).

Poor recruitment of minority students has also plagued OT programs. Appendix A demonstrates the lineage and effects of these poor recruitment practices. Firstly, limited inclusion, high costs of school, poor recruitment methods, and lack of trust in administrators have been found to limit minority student recruitment in OT programs (Taff & Blash, 2017). These poor recruitment practices then contribute to poor minority admission levels for OT programs, a problem common to other STEM fields (Taff & Blash, 2017). Some causes of this limitation are reliance on standardized tests, lack of minority faculty on admission committees, and cultural differences due to socioeconomic variances (Levine et al., 2007; Taff & Blash, 2017; Lucas 2018). Lastly, poor retention rates for students who are admitted into OT programs is another prohibitive factor in the process. Similarly to admission rates, retention rates are impacted by cultural differences due to socioeconomic status, lack of peer and social supports, and poor training of fieldwork supervisors with regards to cultural humility (Taff & Blash, 2017; Lucas 2018). This all leads to limited minority representation within the OT profession.

However, as illustrated by the explanatory model, mentorship acts as a moderator, interceding at two points in the process (Appendix A). A lack of minority mentors limits



the number of minority students who know OT is a viable profession for them. This is then compounded with the low recruitment and resulting decreased knowledge acquisition to and of the OT profession. Additionally, once students are enrolled into OT programs, poor mentorship negatively affects the minority student retention; students then don't have someone of a similar background available to help them navigate the schooling process (Lucas, 2018). All of these limitations build upon the prior, ultimately leading to a dearth of diversity in the OT profession.

To substantiate this explanatory model, a literature review was completed using CINAHL, Education Full Text (H.W. Wilson), PsycINFO to address six research questions: 1. Is there evidence that there is a lack of knowledge about occupational therapy especially in minority communities? 2. Is there evidence that minority students feel there are barriers to becoming occupational therapy practitioners? 3. Is there evidence that OT programs are trying to increase diversity recruitment? 4. Is there evidence that the pipeline model helps to increase diversity recruitment? 5. Is there evidence that mentorship helps to increase diversity recruitment? 6. Is there evidence that self-efficacy impacts career recruitment? Unfortunately, there is limited research specific to OT professionals and diversity and/or the experience of minority students, so searches that did not return results using occupational therapy were completed using healthcare professionals. Twenty-three articles that pertained to research questions resulted from the search. Seven were selected as the most relevant to the explanatory model.

A study of high school students was completed by Carr & Collins (2018) to determine if students were aware of physical therapy (PT) and occupational therapy. The

authors looked specifically at if students knew about OT, were exposed to OT, and wanted to become OTs. Students attended a career fair and self-identified as 69% minority and 31% non minorities. This study identified Asians as non-minorities as the percentage of Asians in PT and OT exceeded their percentage in the general population. Many students, 49% of minorities and 41% of non minorities, did not know what OT was and 80% and 83% of knowledgeable minority and non minority students respectively did not have exposure to OT. Unfortunately, of those that did have knowledge and/or exposure to OT, none wanted to pursue a career in OT. This directly supports the initial supposition of the explanatory model that there is a lack of knowledge among minority students about the OT profession. Ultimately the Carr & Collins (2018) recommend educating students about OT and PT similarly to the premise of the solution suggested by paper. Basic education about what occupational therapy is and why it would be a viable professional career for minority students is paramount to increasing diversity in the profession.

A pipeline model has been utilized to increase overall knowledge of healthcare professions. This model utilizes hands-on community experiences for children throughout the educational process to encourage knowledge in a desired area. Pizur-Barnekow, Rhyner, & Lund (2010) utilized the pipeline model with ethnic and social minority undergraduate students to increase enrollment in speech therapy and occupational therapy graduate professional programs. Their program utilized interdisciplinary learning using real families in the community focusing on maternal and child health and wellness when a disability was present. The program not only facilitated knowledge acquisition, but also

encouraged students to take on community leadership opportunities. Aspects of the program were also designed to limit financial barriers and provide social support. The program was successful with 15/16 students enrolling in a graduate professional program. This program demonstrates that a pipeline model can be beneficial for increasing diversity with recruitment. Within the program specific for occupational therapy that is proposed in this paper, partnership with other groups completing similar service activities will be important to help build a sense of community. Leadership and resource support are also important aspects of the program that should be duplicated. Availability of resources was also identified in the explanatory model.

The explanatory model hypothesizes that a lack of resources also contributes to the inequality seen in the ethnic makeup of the OT profession. Tucker & Winsor (2013) did not look specifically at resources, but did look at limitations which highlighted deficits in resources. The authors interviewed black pre-professional students about what helped and hurt them in their professional pursuits. They found that intrinsic motivation was a significant factor in professional advancement and the social environment played a large role in supporting this intrinsic motivation. This intrinsic motivation helped with career persistence despite obstacles and other extrinsic factors. This means for the proposed program to address the lack of diversity, it is important to address those extrinsic factors and lack of resources, but the important part is to have a supportive social environment. This also helps to support the need for mentorship within the program.

Besnilian, Goldenberg, & Plunkett (2016) found that peer mentorship with

minority dietetic students was especially helpful with minority recruitment in a professional setting. Students felt they had social support from their peers even without face to face interaction. A majority of students successfully matriculated through dietetic internships with supervisors finding the participants ready for internships. Students reported that although they found mentorship from experiences dietetics helpful, they really found mentorship from someone who had recently gone through the process as an asset. The program in the explanatory model only focused on OT to student mentorship, but OT student to student may be a helpful component to add to the program to increase the social and intrinsic support. Having role models and knowing that it is possible as a minority to have a successful career in healthcare is important to encouraging minority students to enroll in professional programs.

Ali, Brown, & Loh, (2017) and Pollard, Kuiper, & Meredith (2010) found that self-efficacy was an important component of diversity recruitment in healthcare. Both studies assessed how self-efficacy was impacted in middle and/or high school students when they engaged in pipeline programs focusing on science and math as it relates to healthcare professions. Both studies showed interest could be increased, but for minorities self-efficacy improvement was more difficult to attain. Persistence with programs may be needed as older students in Pollard, Kuiper, & Meredith (2010) did have better self-efficacy outcomes. Based on the explanatory model, this along with the mentorship help to address some of the poor recruitment problems to help students understand how OT can address their interests as well as help build trust and variety with leadership within OT programs.

Fortunately, some OT programs are changing admission requirements to help facilitate minority recruitment. Cahn (2015) interviewed allied health schools that eliminated the Graduate Records Examination (GRE) requirement as scores have not been found to be indicative of scholastic performance. Many of the schools were not trying to specifically increase minority recruitment, but of those that were, they found coupling the changes to admission as well as community outreach helped to increase diversity. This further supports the suppositions of the explanatory model. Admissions requirements affect recruitment, but only in part.

Based on the information gathered from the evidence-based literature, the explanatory model is accurate in the components that impact the limited diversity within occupational therapy. Although many of the articles were not OT specific, it is reasonable to presume that what was true for other allied health professions would also be true for occupational therapy. A pipeline model that provides knowledge about OT, encourages hands-on community activities, involves community and peer mentors, and gives resources to limit the effects of the resource limitations. Social support seemed to be an important factor in all of these articles to help build self-efficacy and intrinsic motivation. This helped students overcome the challenges and persist with the professional pursuits despite all the barriers that inevitable impacted their achievements. This should help to increase the number of minority students enrolled in OT programs and over time will increase the overall diversity of the profession.

### **Theoretical Framework**

As demonstrated in Appendix A, causal issues build upon the prior issue when dealing with diversity in the OT profession. As a result, a pipeline model may be an effective way to address this problem. The STEM pipeline model (PM) is an educational model that is used to recruit and retain students in STEM majors and careers throughout all levels of education from preschool to graduate school. Although the recruitment and retention programs aren't exclusively for underrepresented minorities (URM), they do address limitations often found in these groups allowing for increased enrollment and retention (Allen-Ramdial & Campbell, 2014). The model can be adapted to focus on a particular STEM area, but has key factors that are uniform through all pipeline models. Levine et al. (2007) demonstrated these key factors. Occupational therapy has its basis in the sciences, so this STEM pipeline model would be applicable to the field. Although this model is not a theory, based on the key factors, it appears to mix elements of the Diffusion of Innovations Theory (DOIT), Transtheoretical Theory (TT), Social Constructivism (SC) and Self Efficacy (SE).

#### *Social Constructivism*

Social Constructivism has many key ingredients that are also identified in the pipeline model (PM) as being important to include in program development. Six factors have been identified as important factors in SC and PM: active learning, collaborative work, evaluating the active learning experience, building on prior experiences, working with more knowledgeable people on the subject, having an innate interest in the subject (Fosnot & Perry, 2005; Brunson, Jackson, Sinkford, & Valachovic, 2010; Kim, 2010;

Amineh & Asl, 2015). In this theory, students work together to teach each other information through hands-on activities (Fosnot & Perry, 2005). Students learn from each other with the teacher providing coaching, but allowing students to acquire knowledge through discovery (Amineh & Asl, 2015). This theory works well with the PM hands-on group learning experiences where students apply their knowledge to real life situations (Brunson, Jackson, Sinkford, & Valachovic, 2010). The PM is also strongly influenced by the SE theory.

### *Self Efficacy*

Self Efficacy refers to a person's belief in their ability to successfully complete a desired act. There are three behavioral consequences as a result of this belief system:

Approach vs. Avoidance, Performance, and Persistence (Betz, 2000). Betz (2000)

theorized these outcomes are based on four initial experiences: Performance

Accomplishments, Vicarious Learning, Emotional Arousal, and Social Persuasion. PM

may address these initial experiences in order to impact the behavioral outcomes.

Through the hands-on social learning, students are able to have positive accomplishments

while successfully modeling professional behavior. Through successful accomplishments

and modeling SE hypothesizes people will have positively correlated behaviors and self-

efficacy (Betz, 2000). Additionally, PM provides experiences that may help to reduce

anxiety of not being able to complete those tasks required as a STEM professional as well

as provide social support to encourage participation. These are also components of initial

experiences Betz (2000) identified as important components of SE. The PM may

facilitate improvement in students' performance, persistence, and approach to STEM

programs.

### *Transtheoretical Theory*

The Transtheoretical Theory also addresses interpersonal determinants similar to SE. This theory postulates that in order to achieve change, a person goes through five stages of change: pre-contemplative, contemplative, preparation, action, and maintenance. Hammond, Michael, & Luke (2017) adapted this theory specifically for career changes. Behavior change is thought to be a process in this theory (National Cancer Institute, 2005). Students will need to be transitioned through the stages of changes. PM allows students to move through the stages of TT by providing basic education on the STEM profession for those in pre-contemplative stage, facilitating hands-on experiential learning for those in the contemplative and preparation stages, creating action plans for students in the action stage, and providing consistent follow up for those in the maintenance stages (Brunson et al., 2010; Allen-Ramdial & Campbell, 2014; Levine et al., 2007). The theory states the progression through the stages can move in any direction and is different for each person (National Cancer Institute, 2005). With multiple approaches present in the PM, students at any stage of the TT will receive the necessary information to continue moving them through the process. Chiesa, Massei, & Guglielmi (2016) found that addressing self-efficacy using the transtheoretical theory helped to progress high school students through the stages of changes to help with career decisions. Utilizing this information, a program needs to help facilitate career interest by building their self confidence in career skills. This will help to move them through the stages of change in a supportive manner.



*Diffusion of Innovations Theory*

To address the community level behavioral changes the Diffusion of Innovations Theory was utilized. This theory has a strong basis as a social theory similar to SC and encourages holistic communication. Additionally, DOIT has five key benefits that this program encompasses: advantage, compatibility, complexity, trialability, and observability (National Cancer Institute, 2005). PM utilizes social interactions to precipitate changes in thinking about, knowledge of, and interest in STEM professions (Brunson et al., 2010). PM also supports completing the hands-on projects in the students' community to allow them to interact socially with the community and see the profession's application in their community (Pollard, Kuiper, & Meredith, 2010; Pizur-Barnekow, Rhyner, & Lund, 2010). Shtivelband et al. (2019), found that using public spaces as a resource to help further science, technology, engineering, and mathematics initiative programs helped with sustainability and instill community integration when using DOIT. These hands-on experiences also align with the DOIT idea of demonstrating the advantages of a behavior change as well as allowing the student to trial the change and observe the impact on themselves and the community.

The PM breaks down the aspects of a STEM profession that will allow students to see the complexity, but also how the limitations can be overcome similar to DOIT (Pollard, Kuiper, & Meredith, 2010; Levine et al., 2010). DOIT proposes dynamic communication to reach the most number of people and providing information at a level the person can accept (National Cancer Institute, 2005). PM programs have educated parents of students participating in the program as well as using students to educate the

community on the information they have acquired (Levine et al., 2010; Metcalfe, 2017). Additionally for students who are not interested in STEM professions, the PM programs focused on educating students about the profession in general so they were aware that people provided that service (Mu, Royeen, Paschal, & Zardetto-Smith, 2002). Using DOIT helps students see the viability and desirability of STEM careers.

Through the TT, DOIT, SC and SE theories, the PM for occupational therapy could conceivably intercede at the recruitment and mentorship level of the explanatory model in Appendix A. Students participating in the occupational therapy PM will gain knowledge of the profession through hands-on experiences. They will also interact with occupational therapy practitioners to act as mentors and models for their future engagement in the profession. They will also gain knowledge of how viable the profession is regardless of background. This may help to encourage participation in occupational therapy by minority students.

### **Current Practices**

The U.S. healthcare system as a whole has started to address the issue of poor minority health outcomes by trying to increase the number of minority practitioners. OT can use program development examples from other health professions working to increase diversity. A review of the literature was completed for how the healthcare community is trying to develop inclusive professions. Articles from the last ten years were reviewed with an emphasis on articles published in the last five years. There is limited research available for occupational therapy specifically, so the search was expanded to include other healthcare professions with an emphasis on allied health

professions. The objective of the literature review was to answer three research questions. First, what approaches/strategies/programs have university/colleges used to increase diversity enrollment in health profession programs? Second, what aspects of current approaches/strategies/programs that university/colleges used to increase diversity enrollment in health profession programs are helpful to students? Lastly, how does mentorship impact student recruitment in healthcare professional programs? Addressing all three of these questions will give a clear picture of evidence-based strategies that can be used or avoided to create the most effective inclusion program possible. Forty-two articles were found and 11 with varying levels of significant success were more closely analyzed.

Increasing diversity within the profession is a complex problem and will take a complex solution. Taff & Blash (2017) found that limited inclusion, high costs of tuition, poor recruitment methods, and the lack of trust in administrators negatively impact minority student enrollment in OT programs. Of the articles found, all of the articles focused on professional programming recruitment and retention except Travers, Smaldone, & Gross Cohn, (2015). Instead, Travers et al. (2015) looked at how political legislation impacted minority recruitment for nursing. They found that all states that enacted minority recruitment legislation for nursing increased the number of minority students enrolled in professional nursing programs over three years. Further investigation revealed that funding that resulted from the legislation was utilized by universities to develop community outreach programs similar to those in other articles. These types of programs that provide educational and professional support for a student throughout their

educational development are referred to as pipeline programs. Given the prevalence and success of pipeline programs this synthesis focuses on the components of these programs. Additionally, as recruitment and retention research provide a breadth of information, recruitment was the principal focus of the research and data specific to retention minimized except for how it relates to recruitment.

In order to have an effective program, picking the right participants is crucial. The students who participated in the recruitment programs met certain criteria. All of the studies analyzed looked at economically, educationally, environmentally, and socially disadvantaged students with an emphasis on ethnic minorities. Programs were designed for students at various stages of development. Bellon-Harn & Weinbaum (2017), Wros & May (2013), Kuo et al. (2015), and Metcalfe et al. (2017) focused on community college and undergraduate age students while most of the other articles evaluated targeted high school students. Healey (2013) was the only study examined that addressed primary school recruitment. Programs that intervened on high school age or younger students had limited data for the students' interest in college or career aspirations, so it is unclear if a single experience at a young age makes a lasting impact. Students did however report an initial increased interest. For this reason, completing a program during undergraduate studies helps to keep interest at the forefront and increases enrollment in professional programs when a non-longitudinal program is initiated. Additionally, for all of the programs students self-selected to participate in the intervention demonstrating some interest in health sciences prior to the programs. By picking students who already have a healthcare interest, the program is able to build on this interest and increase health

profession program enrollment. Recruitment programs that educated minorities who were not already interested in healthcare increased interest, but did not affect the affiliated health profession's program enrollment (Metcalf et al., 2017). Some authors like Metcalf et al. (2017), Danner et al. (2017), and Murray, Pole, Ciarlo, & Holmes (2016) specifically selected students based on academic achievements and recommendations while others targeted students within their own university or in high schools in the surrounding area. This is a key factor in ensuring students can potentially meet the academic standards of a healthcare profession program. A basic academic benchmark will help to facilitate the student's academic success later. Picking the correct selection criteria for students is important for programs to succeed, so any new recruitment iteration of a program would need to consider the kind of student being selected.

Pipeline programs have shown success utilizing a cooperative approach. The recruitment programs were facilitated by professional healthcare programs at universities, but heavily engaged the surrounding community. Many of the articles commented on changes within the university administration's culture to increase dedication to facilitating a more diverse and inclusive student body (Glazer, Tobias, & Mentzel, 2018; Murray et al., 2016; Wros & May, 2013; Kuo et al., 2015; Healey, 2013). Changes discussed in these articles included educating staff on challenges minority students experience and how to adapt teaching strategies to be more inclusive, such as, building cross cultural learning exercises in the curriculum (Wros & May, 2013). Many of the administrations in the articles spoke of programmatic as well as systematic changes designed to mitigate some of the limitations experienced by minority students, such as

increasing scholarships awards and academic tutoring (Murray et al., 2016; Metcalfe et al., (2017). Kuo et al. (2015) stated changes were made not only within health science programs, but throughout the University of California-Los Angeles system and not only within health science programs, this helped to normalize participation in the recruitment program. Respondents in Wros & May (2013) stated programmatic and systematic changes made to help support the successful matriculation of minority students helped them feel connected to the program and helped with self-efficacy. Changes made within a university or the highlighting of programs within a university designed to help minority students succeed will help minority students believe they can become health professionals and may assist in recruitment. Cooperation from administrators is crucial to the success of a program and the larger and more inclusive that changes the more supported minority students feel. Programs that are seamlessly incorporated to campus life also help to minimize “othering” of minority students which increases interest in the program. Programs that were not limited to only minority students, but addressed issues important to minority students still showed an increase in minority enrollment (Wros & May, 2013; Kuo et al., 2015; Higgins et al., 2018). These changes help to show how dedicated the school is to improving the outcomes of minority students and consequently minority communities.

As previously stated, community engagement helps to optimize recruitment programs. Glazer et al.( 2018), Kuo et al. (2015), Murray et al. (2016), Danner et al. (2017), Healey (2013), and Bellon-Harn & Weinbaum (2017) reported on programs that were university run, but held some aspect of their program in the community and utilized

community leaders as educators. Students completed hands-on experiences, usually problem-based learning at healthcare facilities with practicing clinicians and healthcare administrators (Wros & May, 2013; Glazer et al., 2018; Murray et al., 2016; Kuo et al., 2015; Healey, 2013; Mitchell, 2014; Danner et al., 2017). Completing experiences within the students' known community helped students see a direct correlation to how their engagement in a health profession could benefit their community as well as allow them to maintain important relationships at home (Gates, 2018). Overwhelmingly, the studies supported hands-on and problem-based learning. Hands-on and problem-based learning helped to develop skills and critical thinking necessary in healthcare professions. Metcalfe et al. (2017), Kuo et al. (2015), Danner et al. (2017), and Murray et al. (2016) all specifically targeted professional skills and tested students in real life scenarios. Interestingly, Murray et al. (2016) went beyond clinical skills and provided resources for students to develop life skills as well as an aptitude test to see what health professions matched their career goals. Targeting professional skills also seemed to help students draw a connection to their abilities and the feasibility of profession. Completing life skills helps students develop skills they will need for any profession; and help to develop general self-efficacy which is good to facilitate in minority communities regardless of career choice (Murray et al., 2016). These strategies allow students to see the practical application of skills they learn in the classroom and understand that it is possible to acquire the skills needed to be a healthcare professional regardless of minority status. This point was emphasized by utilizing as many minority faculty members, community leaders, and graduate students as possible to interact with program participants allowing

them to see themselves in those roles (Danner et al., 2017; Higgins et al., 2018; Mitchell, 2014; Healey, 2013; Kuo et al., 2015; Wros & May, 2013; Murray et al., 2016; Glazer et al., 2018; Metcalfe et al., 2017; Bellon-Harn & Weinbaum, 2017). Interactions with minority faculty members, community leaders, and graduate students helps to facilitate mentorship relationships with program participants, giving students a role model to emulate.

Mentorship was a strong theme throughout many of the programs. Metcalfe et al. (2017), Wros & May (2013), Kuo et al. (2015), Gates (2018), Mitchell (2014), Danner et al. (2017), and Higgins et al. (2018) all incorporated mentorship by faculty, graduate students, and/or community members into their recruitment programs. Wros & May (2013) had a limited number of minority faculty, so minority administrators in the university were employed as mentors. The administrators were specifically trained to help support students in the nursing program. Additionally, a peer mentorship program, facilitated by faculty, was found to be beneficial by 66% of participants. As a result, the program was transitioned to being peer run and expanded beyond the recruitment program to include the whole student body (Wros & May, 2013). Mitchell (2014) focused on a mentorship program that was used in conjunction with a recruitment program. The program required students to complete four community events designed to advance them professionally or personally throughout the year while they interacted with older mentors. This resulted in a 20% increase in minority enrollment into professional healthcare programs. Students who are matched based on background and interests with their mentors and engaged in interactive learning had increased engagement in programs



and enrollment in healthcare professions (Higgins et al., 2018, Danner et al., 2017). Many of the mentorship programs required students to develop leadership skills completing tasks as simple as completing large group presentations to more complex programs like running student support programs for newer program members or putting on large community health-related fundraisers (Metcalf et al., 2017; Wros & May, 2013; Kuo et al., 2015). Programs that incorporate mentorship had positive feedback from students and helped facilitate a sense of community. Seeing images that look like you succeeding in prestigious professions helps to facilitate increased self-efficacy which helps people rise to new career challenges (Betz, 2000). This is best accomplished by employing minority clinicians, faculty, and graduate students. However, peer mentorship is a beneficial adjunct to academic mentorship and helps with the development of leadership skills. Although mentorship and leadership were important and beneficial aspects of the recruitment programs, students also expressed the helpfulness of other aspects of the programming.

Recruitment programs should be designed to address specific needs of minority students. The most important aspect of the programs was knowledge acquisition. Without understanding a profession, people will not elect to engage. All of the programs analyzed provided students with general information of the profession, but also skills needed for the profession (Metcalf et al., 2017; Wros & May, 2013; Kuo et al., 2015; Higgins et al., 2018, Danner et al., 2017; Mitchell, 2014; Healey, 2013, Murray et al., 2016; Glazer et al., 2018). Knowledge of the profession, especially lesser known allied health professions, is a barrier to recruitment. Bellon-Harn & Weinbaum (2017) had a pre-

recruitment program for health science and no health science students to educate them about speech language pathology (SLP) and audiology careers. Students, especially the health science majors, indicated an increased interest in SLP and audiology with 100% of health science majors electing to enroll in a SLP recruitment and mentoring program. Following that SLP recruitment program minority student enrollment significantly increased. Additionally, educating prospective enrollees on supportive programs available helped to stymie some students' reluctance to enroll. Gates et al. (2018) surveyed faculty members to determine what aspects of their diversity programs attracted or discouraged students. Cost and preparation for school are the largest barriers that need to be addressed in recruitment programs. Setting up and highlighting financial aid supports and remediations programs help prospective students feel supported and will help with retention later. Cost control measures were ubiquitous throughout all articles except Mitchell (2014), Danner et al. (2017), and Higgins et al. (2018), who made no mention of financial support. Healey (2013), Murray et al. (2016), Glazer et al. (2018), and Gates et al. (2018) all spoke of the importance of programs demonstrating diversity within their universities or the cultural humility supported by the school. When prospective students saw minority faculty or programs that embraced diversity, students felt they would be accepted and supported by the university or professional program. Financial, academic, and social support are important factors to have in a program to help students feel more welcome and promote inclusivity.

Lastly, program length was also analyzed in this literature review. Kuo et al. (2015) studied one of the most successful minority programs with 87% of program

graduates pursuing healthcare related professions. Students who graduated from this program participated in recruitment activities over four years. The other researchers like Murray et al. (2016), expressed that single year programs would benefit from extending longer to maintain the students' interest over the years until enrolling in a professional program. Metcalfe et al. (2017), Healey (2013), and Mitchell (2014) also discussed that increasing the number of interactions with students helped to maintain their interest in the health profession and increase interest in pursuing that profession. Having a consistent program over a longer period of time with numerous, but reasonable spaced interactions helps to facilitate increased encounters and offers more opportunities to address student concerns if interest starts to wane for the profession. Single experiences may increase initial interests, but without follow up, interest may not promote action and enrollment into professional programs. A balance of multiple sessions over a longer period of time without overburdening the student needs to be achieved in a successful program.

### **Conclusion**

The development of a minority student recruitment program for occupational therapy is a difficult task that will require fully understanding the limitations and using a multitude of components based on theoretical frameworks. There was little research specifically about OT, but there was valuable research by other allied health and STEM related professions. It was determined that lack of knowledge about OT, the process to become an OT practitioner, and social, academic, and financial resources available to students negatively impacted student enrollment into OT educational programs as well as URM seeing OT as a viable career option. The lack of viability by minority practitioners

was also thought to contribute to low recruitment. Minority students are not receiving adequate pre-OT skills needed and do not have minority OT role models to emulate, so they do not see themselves as being able to do the job. Occupational Therapy educational programs also have admission criteria and programmatic barriers that limit retention. There are many ways a program can intercede in this chain of events to increase the number of URM enrolling in OT programs.

Through an analysis of successful recruitment programs some key factors have been determined using a pipeline model. The PM incorporates features of many theories: SE, DOIT, SC, and TT. Programs must first look at how long a program can be run to help determine what age group to target. If a program will be shorter, an educational group closer to the professional schools' enrollment level should be targeted. The program length helps to facilitate the social and self-efficacy factors needed to make the SE, SC, and DOIT theories work as well as allow the participant to transition through TT. For advanced degree programs like occupational therapy, undergraduates would be the best target group. This also helps to filter out students who do not have the basic academic foundation for graduate level work. Additionally, the priority group that would best benefit from the program are those already interested in the healthcare field. This will allow for program coordinators to build on established enthusiasm and move the student more quickly through the career stages of change. Utilizing universities and partnering with community healthcare providers helps to bridge the gap between academia and real-world applications. This will allow students to have hands-on experiences and examples of how skills translate into practice in their own community.

Not only does this benefit the student's self-efficacy, but it also engages the community and helps spread information about OT. Additionally, students are able to directly see how OT can positively impact their community or everyday life. The community application also works best if minority clinicians, faculty, and/or graduate student mentors are present so students can clearly visualize themselves engaging in these roles. Furthermore, completing mentorship and leadership tasks will help students view the OT community as their own. University support and programmatic features that address social, economic, and academic barriers also helps to emphasize the feasibility of successful completion of a professional program. Knowledge acquisition of the basic professional role and educational path, skills needed to complete the role, and how the role matches with career aspirations in a hands-on, problem-based learning experience helps students better envision themselves following an occupational therapy career path. Utilizing all these evidence-based key components will set an OT minority student recruitment program up for success.

### **CHAPTER THREE: PROPOSED PROGRAM**

This chapter focuses on the development of a health and wellness program manual for occupational therapy practitioners looking to address the occupational imbalance of poor health care outcomes in minority communities by increasing the diversity of the profession through increased engagement of minority communities. This specific program, PromOTing Healthcare Diversity, is an educational program for college undergraduates to increase their interest in and understanding of an occupational therapy career. Additionally, for those students that show a strong interest in OT, a more intensive program to further experience life as an OT practitioner is provided.

#### **PromOTing Healthcare Diversity Objectives**

Overall, PromOTing Healthcare Diversity is designed to increase minority undergraduate students' interest in occupational therapy, their knowledge acquisition about occupational therapy and what a career in occupational therapy would entail. Specifically, the following objectives will be reached at the end of the basic educational program.

The participants will:

1. state 1 definition of occupational therapy.
2. identify 3 locations where occupational therapy practitioners work.
3. identify 4 practice entry points for occupational therapy practitioners.
4. identify 3 requirements for enrollment in local OT programs.
5. identify 2 ways occupational therapy can help minority communities.
6. report increased interest in occupational therapy based on a Likert scale.
7. have a decrease in perceived barriers to becoming an OT practitioner based on a Likert scale.

Students who self-select to discover more information about OT will have these additional objectives.

The participants will:

1. complete 20 hours of mentorship with a minority OT practitioner.
2. complete hours 16 total hours of OT observation in two different settings.
3. create a detailed action plan for OT school enrollment.
4. create a project to increase awareness about OT and address a community health issue.

### **Introduction**

In the United States (US), minority communities have poorer health care outcomes compared to their white counterparts. This is a complex issue that stems from a multitude of limitations, but one limitation that has been identified is the lack of diversity among healthcare professionals. Many times, underrepresented minorities (URM) who engage in the healthcare system do not see anyone who looks like them or understands cultural nuances. This has resulted in patients reporting gaps in care due to perceived racial or cultural bias, leading to inherent distrust with healthcare professions of different cultures. Fortunately, increasing diversity in healthcare professions helps to mitigate the impact of limited inclusion and helps to improve health care outcomes in minority communities (Mattingly, 2018). Despite serving a diverse population, only 18% of occupational therapy (OT) practitioners identify as non-white significantly below the 24% of minority people found in the general population (AOTA, 2018a; US Census Bureau, 2018). On average Black Americans are negatively impacted by their poor health care outcomes resulting in a loss of seven years of illness free living when compared to White Americans (Molla, 2013). Occupational therapy practitioners need to be advocates to ensure everyone in the US is able to maintain a life of health and wellness in order to participate in meaningful activities throughout their lifespan.

In preparation for PromOTing Healthcare Diversity, a social assessment of current minority OT practitioners, students, and educators through interviews. Information was gathered regarding their thoughts on diversity in the profession and barriers to other minorities engaging in the profession. One hundred percent of respondents stated the number one limitation was that minority communities did not know about occupational therapy with only 20% of respondents aware of OT prior to attending college. The interviewees unaware of OT discovered the profession when family or friends encouraged them to look into the career after they expressed dissatisfaction with their career path at the time. This dissatisfaction stemmed from unfulfilled career goals and qualities. The next major limitation identified by these experts was the cost-benefit of education and salary for OT practitioners with 80% of respondents stating this was a consideration for their career path choice. Lastly, the support systems available in the program were also considered an important factor in deciding to enroll in an OT school. Programs that provided academic, social, and financial support as well as earnest intention to maximize diversity and cultural humility were enrollment considerations for a majority of interviewees.

### **Theoretical Background**

In order to make the most effective recruitment program, theoretical pathways should be followed. As this is a complex problem, multiple theories need to be utilized to address not only the intrapersonal changes, but the community level changes as well. Three theories will be introduced next.



*Transtheoretical Theory*

To address the intrapersonal changes, the Transtheoretical Theory was utilized. This theory postulates that in order to achieve change, a person goes through five stages of change: pre-contemplative, contemplative, preparation, action, and maintenance. Hammond, Michael, & Luke (2017), adapted this theory specifically for career changes. Behavior change is thought to be a process in this theory (National Cancer Institute, 2005). Students will need to be transitioned through the stages of changes. PromOTing Healthcare Diversity will potentially help students move through the pre-contemplative, contemplative, preparation, and action stages. Students will be able to learn about OT and the career path, create an action plan to meet enrollment requirements, initiate engagement in pre-OT work. The theory states the progression through the stages can move in any direction and is different for each person (National Cancer Institute, 2005). For this reason, PromOTing Healthcare Diversity will try to individualize the information as much as possible and provide information for students at all stages of change. Basic knowledge acquisition about the profession and the benefits of such a career will assist students in the pre-contemplative stage. Completing hands-on and mentor interactions will assist students in the contemplative and preparation stages. Additionally, offering continued mentorship and action plans for students in the preparation and action phases will help to progress them. Students may not reach the maintenance portion until after the program, but through the social connections made, people will have the social support and self-efficacy to persist with pursuing an OT career. Chiesa, Massei, & Guglielmi (2016) found that addressing self-efficacy using the transtheoretical theory helped to

progress high school students through the stages of changes to help with career decisions. Utilizing this information, PromOTing Healthcare Diversity needs to help facilitate interest in occupational therapy among minority students by building their belief that they can complete schooling and become good OT practitioners. The students then need to be motivated to progress with the career path and educated on an action plan to complete the career path. This will help to move them through the stages of change in a supportive manner.

### *Self-Efficacy Theory*

Also addressing the intrapersonal determinants, is the Self-Efficacy Theory (SE). SE refers to a person's belief in their ability to successfully complete a desired act. There are three behavioral consequences as a result of this belief system: Approach vs. Avoidance, Performance, and Persistence (Betz, 2000). Betz (2000) theorized these outcomes are based on four initial experiences: Performance Accomplishments, Vicarious Learning, Emotional Arousal, and Social Persuasion. PromOTing Healthcare Diversity addresses these initial experiences in order to impact the behavioral outcomes. Through the hands-on social learning, students are able to have positive accomplishments while successfully modeling OT professional behavior. Through successful accomplishments and modeling, SE hypothesizes people will have positive correlated behaviors and self-efficacy (Betz, 2000). Additionally, the proposed program provides experiences that may help to reduce anxiety related to poor self-efficacy of not being able to complete tasks required as an OT professional. Students will be able to engage in tasks required of an OT practitioner increasing their self-belief that they would be able to

perform the task in a professional setting. These tasks will also be completed in social settings where students will receive encouragement and support from their peers and mentors to further boost their self-efficacy. These are also components of initial experiences Betz (2000) identified as important components of SE. The program facilitates improvement in students' performance, persistence, and approach to OT education.

### *Diffusion of Innovations Theory*

To address the community level behavioral changes the Diffusion of Innovations Theory was utilized. This theory has a strong basis as a social theory (National Cancer Institute, 2005). PromOTing Healthcare Diversity will utilize social interactions to precipitate changes in thinking about OT and knowledge about the profession as well as interest. Students will develop an understanding that having a larger minority presence in OT could significantly improve the quality of life for the whole minority community with improved access to health care and resources throughout the lifespan. This will help gain public support and make becoming an OT practitioner a socially popular career choice. Another component of the social aspect is the use of word of mouth to grow the popularity. Students who participate in the programs will have the knowledge to pass on the basic information about OT to their friends and family who are looking for jobs as well as those who might benefit from services. Students are very adept at using social media and having students spread the knowledge as a “word of mouth” type initiative could allow for a wider audience to be reached with this information.

Diffusion of Innovations Theory has a concept of holistic communication

(National Cancer Institute, 2005). The proposed program tailors the communication to different students which will also tailor the information to different members of the community to help further the education. Students without interest in the profession will leave with information of a new healthcare service available and students with interest in healthcare will leave with information on a new potential profession. Highlighting different information and providing different forms of information tailor to the students' preferences will help engage students at a level they are ready to accept and demonstrate the versatility of the profession. For example, emphasizing OT's role in education for students with more interest in education, in the medical model for students more interested in medicine, in technology for students more interested in engineering, etc. This will then allow the greatest number of people to continue passing this information onto others to help spread knowledge of OT.

The Diffusion of Innovations Theory has 5 key benefits that PromOTing Healthcare Diversity encompasses: advantage, compatibility, complexity, trialability, and observability (National Cancer Institute, 2005). Demonstrating to students and the community that OT is a viable option of a career compared to some other professions they may have considered will help create an understanding of the advantages the career offers. Additionally, educating students on how the profession meets the needs for their career goals not only helps to illustrate the advantages, but shows how it is compatible with the values of the student and the community. The education on the career path and supports available will highlight that OT has a manageable career path and may not be as complex as students may think. Students will have the opportunity to try and observe the

profession through the hands-on portion of the education as well as through the mentorship. Overall the program will demonstrate to students that OT has provided good lives for other minorities. Shtivelband et al. (2019), found that using public spaces as a resource to help further science, technology, engineering, and mathematics initiative programs helped with sustainability. Use of public spaces that most communities have and utilizing resources that already exist in those communities can help the disseminate the information in a uniformed way and allow for the greatest impact. Creating an OT readiness program utilizing resources available at most universities with OT programs can help to create a program that can be utilized in a “plug and go” manner. By creating instructions of what is needed the program will be easily implemented at any university to encourage minority students to enroll in OT graduate programs and reach the largest possible audience.

### **Information on the Priority Group**

Minority college students have specific client factors and contextual factors that impact their career choice in regards to occupational therapy. These factors need to be taken into consideration with program implementation. Environmental and social context play a large part in trying to increase minority enrollment in OT programs as seen in Appendix B. Students, their social supporters, and the community at large need to be educated on the role of OT and the career path (Carr & Collins, 2018). This will provide support to become an OT practitioner for students at all levels. Students also need to have increased self-efficacy to help students believe they can become OT practitioners regardless of challenges they may face, as has been shown in other health professions

(Pollard, Kuiper, & Meredith, 2010). Matching this with social and physical environmental determinants is key. By addressing social, academic, and financial supports, the environment can help to mitigate the educational, financial, and social limitations students have (Taff & Blash, 2017). Additionally, as shown in Appendix C, matching students' career goals and desires will also help to increase interest in OT (Chiesa, Massei, & Guglielmi, 2016). Addressing the community and interpersonal behavioral determinants will be difficult, but providing students with social support, role models, and mentors will help to increase self-efficacy and interest. Through education those social supports will understand the value of an OT career and the general benefit of OT for the minority community. Students observing minority OT practitioners successfully completing their job will also increase self-efficacy for an OT career. OT school administrators play a key role. Increasing the diversity of faculty, demonstrating cultural humility, and providing holistic support for students will help to ensure minority students feel comfortable and engaged in programs (Taff & Blash, 2017). For prospective students knowing these things are in place will help encourage enrollment. Financial support is one of the largest limiting factors for minority students, so providing scholarships and other financial aid can help to limit the effects (Levine et al., 2007). Marketing specifically to minority students can also help increase minority enrollment. This can be as simple as printing marketing material and different languages or using marketing platforms utilized by minorities (Wros & May, 2013). PromOTing Healthcare Diversity has attempted to address these limitations in order to maximize the number of students that will be encouraged to participate.

### **Student Recruitment**

To recruit students for PromOTing Healthcare Diversity, program organizers will need to meet minority students in their communities (Wros & May, 2013). Since this program is specifically for undergraduates, recruitment will be concentrated in undergraduate programs. The easiest group of minority students to recruit for PromOTing Healthcare Diversity will be those who are already interested in health sciences (Gates, 2018). To find these students, advertisements for the program will be sent to all students in healthcare and science related majors. To specifically target minority students regardless of major, advertisements will be directed to members of minority student groups on campus. Marketing campaigns will be done through email blasts, flyers in locations frequented by these groups, social media blasts, and personal recruitment by professors and advisors. Additionally, the marketing campaigns will be available in multiple languages to encourage multilingual students and place and emphasis on the inclusivity of occupational therapy (Wros & May, 2013). Utilizing this structure will maximize the minority engagement and interest in the program increasing the number of minority students who participate.

### **Program Components**

The general education portion of the program will be completed on a college campus preferably in the space minority students feel comfortable as long as there is enough space and availability of equipment to do the presentation and complete the hands-on stations. The educational portion will be a one-day seminar. The portion of the program is designed to give people a basic understanding of OT so they can decide to

pursue the career or will know the service is available as healthcare consumers. Students will then be offered an opportunity to complete the mentorship portion of the program which will be carried out over a four-month period of time. The mentorship portion of the program is designed to increase career self-efficacy and help to build the student's portfolio for OT school admission.

### *Personnel*

Volunteer minority OT practitioners will work as mentors for students. Practitioners who agree to participate in the mentorship portion of the program will also serve as educators in the general education portion. There will be one lead OT, or program director, who will facilitate the general education portion with the support of the other OT practitioners. For the mentorship portion, the students will be divided up among the mentors for a no more than a 3:1 ratio. This will allow the mentors to provide adequate support for the students without feeling overburdened.

OT school administrators will be invited to participate in some capacity in order to show support for the recruitment program and demonstrate their investment in diversity initiatives. Local OT programs can complete short in person presentations or video/virtual submission discussing the specific highlights of their programs to encourage students to apply.

### *Content*

Appendix D provides details of the components of the program as well as the theoretical and evidence bases. Appendix E also gives an example of the schedule for the one-day seminar. Appendix F provides sequencing of topics to be covered by the mentors



with the mentees over the 16-week mentorship program.

### *Key Ingredients*

All aspects of the program design are important, but the most essential components are as follows:

*Hands-on learning*-This allows students to really experience the skills needed to be an OT and allows them to envision a future using those in a meaningful career

*OT program engagement*- OT program engagement not only helps minority students feel more welcomed, but also enables the recruitment program to better highlight supportive initiatives the schools may have in place.

*Mentorship*-Representation is important to help minority students see themselves in the profession as well as mentors being able to provide encouragement and guidance to persist with the career path.

Without these key factors, the recruitment program will lack sustainability and have minimal psychosocial impact on the minority students.

### **Evaluation**

In order to assess if PromOTing Healthcare Diversity is successful, pre and post assessments will need to be complete. There are few standardized tests available to address this unique problem. Knowledge acquisition will be one variable addressed. Students will be asked basic questions about occupational therapy and how to become an occupational therapy practitioner using a scorable survey. Another variable measured will

be interest in becoming an occupational therapy practitioner. To determine this, readiness for changing career will be used as a measure. Stages of Change-Career Development is a questionnaire based on the Transtheoretical (Hammond, Michael, & Luke, 2017). It uses a Likert Scale to assess which of the four stages of change a participant is in based on response to questions in relation to occupational therapy. Another variable to be addressed is perceived limitations to becoming an occupational therapist. To measure this variable, the Career Barriers Inventory will be utilized. It is a Likert-scale assessment asking questions of various possible barriers to future career choices (Swanson & Tokar, 1991). Additionally, basic demographic data, such as age, identified minority group, marital status, gender, personal and parental socio-economic status, current major, and future career desire will be collected to help determine participant's characteristics of the minority groups served. In order to evaluate the program as a whole, formative data will be collected from the students. A survey will be given when the student exits the program to determine what aspects of the program students thought were helpful and what additional services the program could provide to help the mission. Use of these evaluative measures will help to ensure that the program meets all its objectives and will help to increase interest in and understanding of occupational therapy by minority college students.

### *Program Strengths and Limitations*

PromOTing Healthcare Diversity has the potential to be very effective in increasing understanding of and interest in occupational therapy for minority students, but like every program has strengths and weaknesses. Metcalfe et al. (2017), found that

increasing the number of interactions recruitment programs had with students helped to increase interest in those allied health careers. PromOTing Healthcare Diversity will have limited interactions with students in the educational portion, but the mentorship program will have more sustained interactions with those students. Students in the mentorship program, will also have continued access to the mentors beyond the formal program with the relationships they develop. Furthermore, students who attend the educational portion will have access to the lead mentors contact information, so they can follow up later if they develop an interest in OT. Levine et al. (2007) and Gates (2018) support the use of hands-on learning experiences to increase engagement for minority students when learning about the healthcare profession. PromOTing Healthcare Diversity uses problem-based hands-on experiential learning through the interactive modules. This allows students to really experience the skills used by occupational therapists. Additionally, this recruitment program works best with buy in from OT programs. When the recruitment program is able to highlight OT program initiatives that facilitate inclusivity as well as students being able to hear from the programs, minority students feel more welcomed and willing to engage in those healthcare career paths (Gates, 2018). This limits the control program developers have, but when a strong relationship exists with an OT program, students will feel more empowered to enroll. Lastly, having the program participants complete social media posts and complete community engagement projects will help to spread the word about OT and help to develop leadership skills which has been found to be beneficial in increasing interest in a career (Metcalf et al., 2017; Wros & May, 2013 ; Kuo et al., 2015).

### *Strengths and Limitations of the Theories*

The use of the Transtheoretical Theory, Self-Efficacy, and the Diffusion of Innovations Theory will be effective for this recruitment program. The program incorporates all the major themes of all theoretical models. The use of the Stages of Change works well to help progress the students through the path of a new career choice. However, as the program is only formally for a short period of time for a majority of participants, it is difficult to maintain high interaction to continue to progress students through the stages. Additionally, as people can start at any stage, the program will need to be flexible enough to address everyone's needs individually. The use of the TT and DOIT both incorporate aspects of the SE. Through the hands-on experiences, connection to personal values, and encouragement from mentors, concepts of the SE will strongly help to increase students self-efficacy and increase the likelihood of enrolling in an OT program, the diffusion theory has a strong base in social theory which works well in this program as students interact with community OT practitioners who act as role models and mentors. Additionally, this theory's concepts compliment the idea of demonstrating the benefits of OT professions on minority communities as well as the individual students. However, this theory is strongly rooting in the idea of "word of mouth" to help spread and popularize the behavior change. This could potentially lead to poor sustainability if the participants don't buy into the program. However, encouraging social promotion of the program can help to negate this issue.

### *Strengths and Limitations of the Evidence*

Many of the studies used to develop PromOTing Healthcare Diversity focused on

recruitment had smaller sample sizes which impacts the power of the study. This means the positive results of the study might not be as ubiquitous as the statistics imply. Additionally, the programs are often linked to retention and other programs at the universities. This makes it difficult to identify the true intervention that impacted the outcomes. This limitation is compounded by the fact that none of the studies factored out the impact of just the recruitment portions. A strength however is that many of the studies did mention specifically increased numbers of minority students enrolling into the professional programs. This does indicate the recruitment portion was successful independent of the retention portions even without knowing what components of the recruitment protocol were effective. Many of the programs evaluated provided detailed components of their program so they could be replicated. Some of the programs had components that addressed extenuating social/financial/academic circumstances built into the program, such as, distance classes, scholarships, tutoring, etc. This gives a clear roadmap to other program developers of what to include to replicate the programs.

Information on participant client factors was minimal. There was limited data for the students in the programs other than age, gender, ethnicity/race. The authors did not specify if the subjects had other outstanding factors such as family with low SES, family obligations, etc. that impacted schooling and career decisions. However, the programs did take into consideration stereotypical limitations for minority students. All of the programs showed an increase in allied health recruitment of minority students following their interventions as well as students having improved understanding of the primary profession. Lastly, many of the programs were developed to be sustainable which is

important to ensure that the programs are able to increase interest long term so the profession remains diverse. Although there were a mix of positive and negative factors, these articles overall presented strong support that will be beneficial to use in this OT recruitment program.

### **Conclusion**

This chapter provides an outline for the occupational therapy recruitment initiative for minority undergraduate students. The program is designed to increase a general understanding of occupational therapy and increase career interest in OT. This will lead to a cascade of benefits to minority communities. More minority students will enroll in OT programs and increase the diversity in the diversity within the profession. Minority communities will see more healthcare practitioners that look like them which will increase comfort and engagement in the healthcare system. This will all result in decreased negative health care outcomes for minority communities. By using evidenced based hands-on experiential learning as well as visual representation through the use of mentors, PromOTing Healthcare Diversity will increase the self-efficacy of minority students empowering them to pursue OT professions. As for those students who do not become OT practitioners, the knowledge they gain about the profession will allow them to be better informed consumers of healthcare with increased knowledge of the services available to them.

## **CHAPTER FOUR: EVALUATION PLAN**

In order to ensure a program's success, evaluative data and stakeholder support need to be garnered. This chapter describes the stakeholders involved in the creation of PromOTing Healthcare Diversity and their roles. Additionally the evaluative assessments that will be utilized to ensure objectives of the program were addressed as well as how effective the delivery of the information will also be discussed. These key features will help to clarify the vision of the program, support needed, and further demonstrate the evidence behind the evaluations and program.

### **Program Scenario and Stakeholders**

PromOTing Healthcare Diversity is an informative, one-day minority recruitment seminar for undergraduate students to learn about occupational therapy (OT) and how to become an OT practitioner. Hands-on experiences simulating interventions, as well as presentations from community members impacted by OT, will be the cornerstone of the seminar. Students will learn general information about what OT practitioners do and where they work, the educational process to become practitioners, and how to finance their education as well as other supports available at the schools. After the initial seminar, students who self-select to learn more information about becoming an OT practitioner will complete shadowing and mentorship experiences with an OT practitioner volunteering for the program. The seminar will be designed to increase engagement by underrepresented students to facilitate increased minority enrollment in occupational therapy educational programs such as advertising and hosting the seminar program in the minority student union of a college campus.

Currently, 18% of occupational therapy practitioners identify as non-white, while in the general US population 24% identify as non-white (AOTA, 2018a; US Census Bureau, 2018). This demonstrates a lack of diversity within the profession, despite the fact that OT practitioners work with individuals of all races and cultures. Cultural homogeneity among health care professionals has been shown to contribute to poor health care outcomes in marginalized communities (Mattingly, 2018). Within the OT profession, limited diversity can inadvertently add to an existing occupational injustice issue wherein communities have negative health outcomes due solely to their minority status. As US OT practitioners are encouraged by American Occupational Therapy Association's (AOTA) to use the Practice Framework as their guide for language to address occupational injustice, increasing diversity within the profession should be an important undertaking (AOTA, 2017). The primary aim of PromOTing Healthcare Diversity is to recruit underrepresented students to a career in occupational therapy in an effort to increase minority OT practitioners and improve health outcomes in minority communities.

PromOTing Healthcare Diversity is designed to directly impact undergraduate students by showing them a viable career option they may not have known was available (Bass-Haugen, 2009). Additionally, it will help marginalized communities as it will increase the number of minority practitioners who will be better able to engage with underrepresented groups (Lett, Orji, & Sebro, 2018). OT schools will also be impacted by increased diversity as minority students will be able to educate other students and professors about cultural differences within marginalized populations. Figure 4.1 is a case



example which illustrates how limited diversity in the OT profession impacts the minority community and how diversity benefits not only underrepresented population, but the OT community at large.

Jane Doe, a Bahamian, is recovering from a stroke at an inpatient rehabilitation hospital in the US. Problems include decreased safety awareness and insight into her deficits. She is working with a white OT student, Sarah, while being supervised by a Jamaican OT practitioner, Stephanie. In preparation for Jane's discharge home, Sarah asks Jane what activities she needs to do when she returns home. Jane says she takes care of her family back home and sends them barrels every few months. Sarah asks what she means by barrels and Jane responds "Nothing. Never mind. I don't want to explain it." Sarah presses for more information, but Jane does not respond. Stephanie, also from a Caribbean family, knows that barrels are large (holding up to ~300lbs) shipping containers immigrants use to ship things that cost less in the U.S. than at home. It is often an important part of immigrant experience as it provides a way for people to support their family. Stephanie interjected by explaining the nature of barrels and was able to collaborate with Sarah to provide Jane with education and practice experiences on safe ways to fill and move a barrel. By having a diverse workforce, the patient and the student had a more successful experience and the patient was able to discharge to a safer home environment. PromOTing Healthcare may have provided Sarah with additional opportunities to interact with marginalized groups and increase her cultural humility. Jane Doe may have also been treated by a minority student with whom she may have been more comfortable discussing life roles.

**Figure 4.1. A case scenario demonstrating the justification for a diversity recruitment program.**

Stakeholders will provide invaluable assistance to PromOTing Healthcare Diversity. Support for the program will primarily be provided by the program creator. She will create and deliver the seminar materials and activities. A community member who has utilized OT services will also participate in the program to emphasize what OT does for the community. Minority OT practitioners will also need to be involved in the program to mentor students who self-select as interested in OT. As the program is held on a college campus, the university/college, it's minority student union, and the university's

OT department as well as other local OT departments will also be actively involved in delivering the program. Lastly, a grant funding source for increasing diversity in health care professions will help to pay for supplies needed for the program. These groups, creator of PromOTing Healthcare Diversity, underrepresented OT practitioners, marginalized communities, OT educational programs, and the funding source, in addition to minority undergraduates are all stakeholders in this minority recruiting program for OT.

Information from the research evaluation will be most beneficial to the PromOTing Healthcare Diversity creator, OT educators, and career counselors. The information gathered will help to make future programs more effective for recruiting underrepresented OT students. Minority practitioners and undergraduate students are also stakeholders that will directly be impacted by the information gleaned from the evaluations to know how they impact the recruitment system and how recruitment affects them. For marginalized communities it is also important to have this information to let them know this is a problem being actively addressed and that OT is a viable career choice for minority students. Lastly, the funding source will want to know that the program has effective outcomes and funds are being utilized in the best way possible. The PromOTing Healthcare Diversity creator will have the ultimate control over the future direction of the program, but input from OT educators and career counselors as well as other stakeholders will have input into program changes. The research evaluation from participating students and input from stakeholders will help to guide program development.

### **Vision for the Program Evaluation Research**

The iteration of PromOTing Healthcare Diversity, as presented in this chapter will serve as a pilot for a larger project designed to increase diversity within the occupational therapy profession. The program will first provide education for students on what OT is and how to become an occupational therapy practitioner. The intent will be to increase interest in becoming an OT practitioner, and those participants who self-select will be provided with opportunities to see OT practitioners working in various settings and receive mentorship from minority OT practitioners. Findings of program evaluation research using data collected during the pilot seminar program will inform the stakeholders on what portions of the program are beneficial and where it did not meet the needs of the minority undergraduate participants to increase their interest in enrolling in OT school.

Once the pilot program is completed and adjustments made to the program, the vision is to grow the project to include not only undergraduates, but middle and high school students as well. The project will then be rolled out in multiple areas to reach students all over the country. The intention is to begin in areas where there are OT schools to allow for partnerships among PromOTing Healthcare Diversity, OT schools, minority OT practitioners, and career counselors to support minority students enrolling OT school. This will allow for students who go through this program to have access to OT schools that will help to increase minority student recruitment and the likelihood of matriculation through those OT schools. Through the mentorship program, it is anticipated that minority leadership will increase, which may help to bring even more

underrepresented students into the program. The long-term vision is to increase the recruitment of minority OT students into OT programs, and thus the number of minority OT practitioners. With a greater number of minority practitioners, healthcare outcomes in minority communities might be enhanced (Mattingly, 2018).

Outcomes from the studies on PromOTing Healthcare Diversity will be disseminated to the OT community at large. Information will be presented at state and national conferences as well as through papers in peer reviewed and professional journals. Information will also be given to OT schools, counselors, and minority communities through presentations. This will encourage these populations to continue to support PromOTing Healthcare Diversity as an effective way to increase diversity in the profession.

### **Engagement of Stakeholders**

Stakeholder engagement will be an important part of furthering PromOTing Healthcare Diversity . Communication with stakeholders will be completed on a one-to-one and group basis, both in-person and remotely. Each stakeholder will have unique interests in the program and the outcomes of program evaluation research.

#### *OT Schools*

OT schools will be engaged through their admissions committee program directors. Obtaining input on what OT schools desire in potential students will help to facilitate how PromOTing Healthcare Diversity can help guide students. Additionally, PromOTing Healthcare Diversity can provide schools with information on what limitations are present in their admissions process that hinders minority recruitment. By

becoming involved in the process, schools will establish credibility as an educational institution that values increased diversity in their programs, which will encourage diverse students to apply. Additionally, schools will have access to common OT tools that can be borrowed for the hands-on portion of the seminar. Having a representative from the OT school deliver the items and introduce themselves briefly to the group will also show the schools support for diversity.

#### *Career Counselors*

Counselors will be engaged by providing resources available to students at the specific school and area. They will provide information on prevalent student limitations, as well as guidance on how PromOTing Healthcare Diversity can support the students and the school. Counselors will learn about program benefits, thus encouraging them to recommend the program to students and suggest OT as a viable career option.

Additionally, by seeing the limitations discovered through PromOTing Healthcare Diversity, counselors may be able to apply solutions to other students. Since they work so closely with these individuals, they can offer direct recommendations for the program, thus helping it to grow and be relevant.

#### *Minority Students*

Minority students are stakeholders that will provide key program evaluation data, particularly on the effect of receiving information on how the OT profession is a viable career choice as well as steps to becoming a practitioner. Through the shadowing and mentorship portion of the program, students will complete portions of their application process to some OT academic programs. Students will provide information on aspects of

the program that most affected their desire to become OT practitioners, any gaps in the recruitment process, and the likeliness that they will pursue an OT career. Prior participants will be able to use the research data to encourage new students to join the program.

### *Minority Practitioners*

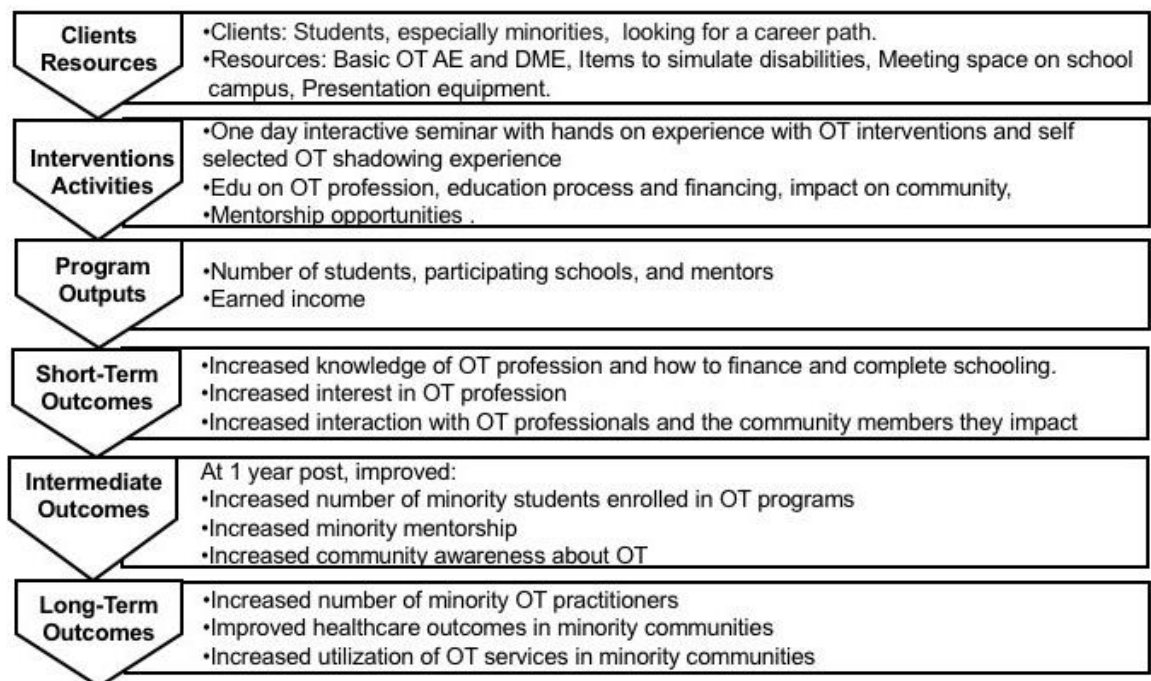
Minority practitioners will be interested in program outcomes as stakeholders directly involved in the program. Underrepresented practitioners will help to serve as mentors in the community for the students who self-select for the shadowing and mentorship portion. They will want to know the degree to which the program is completing its goals and how it aligns with their own desires to increase diversity in the profession. They will be able to see if the program would be something they could duplicate in their area to increase diversity.

### *Funding Sources*

Funding sources, such as grants dedicated to increasing professional diversity, will be interested in PromOTing Healthcare Diversity program evaluation research's formative and summative findings, and the effectiveness of the program in furthering diversity in the profession. Potential funders will be kept informed via virtual individual communications. Funding sources would assist with the logistical costs of running the program, such as paying for assessments, digital storage, marketing material, resources for hands on activities, presentation equipment, and other associated expenses. Program evaluation research will provide evidence that funds are being used in a cost-effective manner to achieve the program goals.

### Simplified Logic Model for Use with Stakeholders

In order to engage stakeholders, a clear understanding of the program must be presented. Visual models can provide a distinct concept of the project. Figure 4.2 specifies aspects of PromOTing Healthcare Diversity that will be of interest to stakeholders. Client resources outlines who will be a part of the program and the resources needed for completion. Intervention activities present the general outline of how the program will impact low minority recruitment numbers. Program outputs identify resources the program will generate. The short-term, intermediate, and long-term outcomes sections appreciate goals and expectations produced by the program directly after, one-year post, and multiple years post program.



**Figure 4.2. Stakeholder logic model for occupational therapy diversity program, PromOTing Healthcare Diversity.**

*Preliminary Exploration and Confirmatory Process*

In order to facilitate a collaborative process with active stakeholders, interviews with OT educators and career counselors will be conducted. Information provided will help determine how PromOTing Healthcare Diversity can meet the needs of the OT program admission criteria as well as meet the needs of career counselors and the students they serve. These will be virtual/telephonic conversations. OT educators, and specifically a member of the admission committee, will serve as a liaison at their schools to assist with securing a presentation location for the program at their school. This faculty member will also be asked to help procure common OT items that the school may usually use to educate enrolled students for the hand on portion of the presentation. This will help limit cost and storage needed for resources. On the day of the presentation, the liaison faculty member will be asked to attend a portion of the presentation for an introduction to undergraduate students. This may be beneficial to show prospective students that the university's OT program supports this recruitment initiative.

Minority OTs will be asked to be mentors for students who self-select to complete this portion of the program. A virtual meeting will take place with the mentors as a group prior to discussing mentorship expectations and asking for assistance with setting up shadowing opportunities for students at their jobs. During the 16-week mentorship experience, calls will be made to each mentor to make sure they feel supported and are able to fulfill their duties. Lastly, for the students who self-select to be a part of the mentorship program and shadowing portion, calls will be made individually to ensure their expectations are being met and they are able to fully participate.



*Program Evaluation Research Questions by Stakeholder Group.*

To provide an effective program evaluation, research questions need to be addressed. Appendix E provides research questions to be addressed by PromOTing Healthcare Diversity's program evaluation. Quantitative and qualitative questions were created for three categories of stakeholders: people participating in the project, directly supporting participants, and benefiting from the outcomes of the program. Answering these questions will allow the program to demonstrate it can effectively address its goal of increasing recruitment especially in underrepresented groups.

**Research Design**

The research conducted for PromOTing Healthcare Diversity will be both formative and summative. At PromOTing Healthcare Diversity's initial launch, the primary aim of program evaluation data collection will be to see if it was set up in the most effective way. The evaluation will look at three major themes. First, how likely a student would be to become an occupational therapy practitioner? Secondly, what barriers are impacting the student's choice of occupational therapy as a career? Lastly, does the student have an understanding of what an OT profession entails? Implementation evaluation will be completed at the end of the educational seminar and after the mentorship and shadowing experience. Focus groups will be conducted at the end of the seminar portion to determine how the information and activities presented during the program impacted knowledge acquisition, interest in occupational therapy, limitations to OT career selection, and enrollment in programs for minority students. These students will also participate in quantitative surveys designed to help provide

insight into these areas. Students who self-select to participate in the mentorship and shadowing portion of the program will complete semi-structured interviews at the completion of this exercise. They will be asked to reflect on the seminar portion again, complete the quantitative surveys, as well as answer questions about how mentorship and shadowing impacted their knowledge acquisition, interest in occupational therapy, and enrollment in programs for underrepresented students.

To address if PromOTing Healthcare Diversity increases knowledge of OT, increases interest in OT, increases minority enrollment in occupational therapy programs, and barriers to enrollment in occupational therapy programs especially in marginalized communities, summative data will be collected. Pre and post-tests will be taken so participants will act as their own controls for a quasi-experimental design. A basic knowledge acquisition quiz about occupational therapy will be completed. The participant's score on the quiz will be used as a data point for understanding the OT profession. Stages of Change-Career Development questionnaire will be used to identify a change in interest in the profession as well as likelihood of choosing the profession. This is a generic Likert scale questionnaire designed to assess the likelihood of someone changing professions. Lastly, the Career Barriers Inventory will be used to distinguish barriers to occupational therapy being a student's chosen profession.

### **Methods**

Participants of any age and background undergraduate students with a self-determined interest in healthcare professions will be included. Smith, Nsiah-Kumi, Jones, & Pamies (2009), reported that successful minority recruitment healthcare programs did

not specifically seek out marginalized groups, but were accessible to minorities. To facilitate this, PromOTing Healthcare Diversity will advertise the program with minority groups on campus, health science students, student life/housing, and in areas frequented by underrepresented students. From this advertising, an anticipated 20-30 students would attend the seminar with 5-10 self-selecting to participate in shadowing and the mentorship portion. To ensure confidentiality, each participant will be given an alphanumeric research code with the primary researcher will maintain and secure in a password protected digital copy of the key. All digital copies of notes, reports, surveys, questionnaires, and recordings will also be kept in password protected files and no names just research numbers will be assigned to this data.

#### *Formative or Process Research Data Gathering*

To collect qualitative data during the focus group at the end of the seminar and the semi-structured interviews at the end of the shadowing and mentorship, audio-video recordings using cameras and microphones will be collected. The focus group responses will be elicited in-person and recorded. Additionally, online open-ended surveys will also be utilized via participants' smartphones during debriefing. The aim will be to present more sensitive questions that participants may not feel comfortable answering in the focus group. Interviews following mentorship and shadowing will be completed after the 16-weeks using recorded virtual conferencing.

#### *Formative or Process Data Management and Analysis*

Audio-video recordings will be listened to and transcripts will be typed up with clear labels for the questions and responses. Responses will be categorized based on

themes identified during transcription and notes during the interviews with detailed descriptions of each code and reasoning behind the code.

Coding software such as Aquad will be utilized to ensure appropriate themes. After all transcriptions are coded, data will be aggregated

### *Summative or Outcome Research Variables and Measurement*

Knowledge acquisition will be one variable addressed. Students will be asked basic questions about occupational therapy and how to become an occupational therapy practitioner using a scorable survey quiz. Another variable measured will be interest in becoming an occupational therapy practitioner. To determine this, readiness for changing one's career will be used as a measure. The measure used is the Stages of Change-Career Development questionnaire. It uses a Likert scale to assess which of the four stages of change a participant is in based on response to questions in relation to occupational therapy. Hammond, Michael, & Luke (2017) found the finalized measure had good psychometric properties comparing it to established assessments.

Another variable to be addressed is perceived limitations to becoming an occupational therapist. To measure this the Career Barriers Inventory will be utilized. It is a Likert-scale assessment asking questions about various possible barriers to future career choices. This assessment was normed on college students and demonstrates good psychometric properties. Eighteen scales of barriers are addressed, such as, lack of confidence and racial discrimination with high internal consistency each scale and item question having a high correlation (Swanson & Tokar, 1991). Additionally, basic demographic data, such as, age, race, marital status, gender, sexual orientation, parental

socio-economic status, major, and future career desire will be collected to help determine participant's minority groups. The assessments will be administered prior to the seminar, after the seminar, and after the mentorship and shadowing opportunities.

#### *Summative or Outcome Data Management and Analysis*

All questionnaires will be digitized to allow them to be completed as online surveys. Means, percentages, and other descriptive statistics will be calculated for demographic data. T-tests will be completed on the seminar group to see difference pre and post seminar with all the assessments. For the participants who are a part of the shadowing and mentorship portion, ANOVAs will be completed to determine if a change occurs from pretest to the end of the program. Chi-Squares will be used to determine correlations among the variables and each minority group and among each variable.

#### **Disseminating the Findings of Program Evaluation Research**

Once the evaluation is completed. It will be important to give this information to stakeholders so they can continue to support the program. Three types of stakeholder groups exist and they all receive different calibers of evaluation results. For the students who participate in the program, a simple rundown of the results will be provided. Salient information about the program's effectiveness and recommendations for continuation will be given to them. This would be conveyed in a simple follow-up email to close out the students' participation in the study.

For school administrators, such as principals or dean, funding sources, and other stakeholders who would not directly be involved in the program, a more in-depth breakdown of the evaluation would be given. This summary would include stakeholder

specific detailed overview of the methods, finding, and implications. This would allow them a strong understanding of the research, without requiring too much time to read through the information. This could be provided in a written summary or a short self-explanatory PowerPoint or Prezi that could be viewed at the recipients' leisure.

Lastly, admissions committees, the OT community, policy makers, stakeholders directly involved, and those who have the ability to impact the program on a macro level would receive a detailed executive summary. With this comprehensive executive summary, these stakeholders will not only be able to complete their own evaluation of the effectiveness of the program, but would also have the information to replicate the program. The executive summary will be used as a resource for writing an article that would be submitted for publication in professional peer reviewed journals. Additionally, presentations would be made at professional state and national conferences to reach the largest audience.

### **Conclusion**

PromOTing Healthcare Diversity will be a one-day seminar with an optional 16-week mentorship program. This program will allow minority students to gain a basic understanding of occupational therapy, increase their interest in the profession, and identify barriers to becoming an OT practitioner. Surveys and interviews will be conducted to collect this information, including the use of Stages of Change-Career Development questionnaire, Careers Barrier Inventory, and a basic knowledge acquisition test. These evaluations will ensure all objectives for the participants are met. The program itself will also be evaluated during interviews to determine what

components of the program were helpful and what could be done better in future programs. With support from key stakeholders like minority students, OT schools, career counselors, minority practitioners, and funding sources, an effective program to recruit minority students into occupational therapy can be implemented.

## **CHAPTER FIVE: FUNDING**

PromOTing Healthcare Diversity is an occupational therapy (OT) recruitment program that is designed to help increase minority students' interest in an OT career. This program addresses the occupational justice issue of poor healthcare outcomes for minority populations. The Centers for Disease Control (2013) outlined innumerable negative healthcare outcomes minority populations experience when compared to their white counterparts. These poor healthcare outcomes existed even when other environmental factors were controlled for, which suggests that being a minority was directly related to the negative outcomes. Mattingly (2018) found that in minority populations there were systematic prejudices that impacted access to healthcare and having more minority health practitioners helped to decrease the healthcare gaps. Although 24% of the general population identifies as a minority, only 18% of OT practitioners identify as a minority (AOTA, 2018a; US Census Bureau, 2018).

PromOTing Healthcare Diversity strives to address this deficit by increasing the number of minority OT practitioners. PromOTing Healthcare Diversity is composed of a one-day seminar where students receive basic information about occupational therapy and what a career in this profession entails through speakers and hand-on experiences simulating OT interventions. Students who request more information are then given an opportunity to complete a 16-week OT mentorship program that culminates in a health promotion community service activity with an OT focus. Although this is a low-cost program, funding and support is needed by the community to ensure the most effective program can be executed. In this chapter the estimated budget and several funding options are



presented.

### **Local Funding**

Community support is important for the success of a pipeline program and helps to provide access to resources that already exist in the community (Wros, P., & May, B. 2013; Shtivelband et al., 2019). PromOTing Healthcare Diversity will require strong support from the local minority OT community; including the creator of PromOTing Healthcare Diversity. The program will rely on these individuals to volunteer their time to complete not only the one-day seminar, but to complete the mentorship program as well. Additionally, the creator of the program will volunteer her time to train the other mentors. To access this help, the local chapters of the National Black Occupational Therapy Caucus (NBOTC), Occupational Therapy Network for Native Americans (OTNA), Terapia Ocupacional para Diversidad, Oportunidad, y Solidaridad (TODOS) Network of Hispanic Practitioners, and Coalition of Occupational Therapy Advocates for Diversity (COTAD) will be contacted to ask their members to volunteer their time. To run the one-day seminar there will at least need to be three minority practitioners to ensure enough support to complete the logistics. The number of students self-selecting to participate in the mentorship program will ultimately determine the total number of mentors needed to maintain a 3:1 ratio of mentees to mentors. Volunteers will also be asked to utilize their personal capital, or influence, in the community to help facilitate setting up shadowing opportunities for the students during mentorship. Support from these groups and the volunteers will help to solidify all the personnel and some of the community access needs for the program.

An important local funding support source also includes the local OT programs and the universities themselves. Pipeline programs work best when associated with universities because it shows the administrations are dedicated to increasing and supporting a diverse student body (Taff & Blash, 2017). Hosting PromOTing Healthcare Diversity on a university campus will help to drive the OT program's support of diversity home. By going through a student organization or through the school's OT department, the cost of securing a room as well as audiovisual support will be reduced as shown in Table 5.1 (Appendix G) which uses Boston University (BU) as the host school. Additionally, support from the local OT department will allow PromOTing Healthcare Diversity to have access to some more expensive OT tools for the hand-on experience portions. Items like dynamometers, sphygmomanometer, stethoscope, electrostimulation machines, etc. can be borrowed from the department for the hands-on units limiting the operational costs of the program. Additionally, if equipment cannot be borrowed from the OT department, Easterseals, a national non-profit disability resource, has a lending library that may be utilized to help access more expensive items. This will require PromOTing Healthcare Diversity to cover only the costs of minor equipment needs and disposable resources. Support from local OT departments and universities will have to offset some of the costs of the program.

### **Budget**

While PromOTing Healthcare Diversity is a low-cost program, there are some associated operational costs. Table 5.1(Appendix G) outlines the costs of the program in year one and two with optional expenses that will help to enhance the outcomes of the

program, but are not required for running the PromOTing Healthcare Diversity. As described in previous chapters, financial support is an important factor for students choosing careers. Minority students often face financial hardships making enrollment and retention in healthcare graduate programs difficult (Taff & Blash, 2017). By providing scholarships to PromOTing Healthcare Diversity's mentees some of those initial costs required for the OT school admission process will be deferred. The overall program will be free to participants, so no revenue will be generated. Additionally, providing mentors with an optional small monetary thank you will help foster a positive relationship and hopefully encourage continued volunteerism. Table 5.1 (Appendix G) also details the cost if the program is operated through the university versus being run by an outside group. There is significant cost saving with a university sponsored event, which further justifies maintaining a good relationship with a local university.

### **Funding Sources**

Although PromOTing Healthcare Diversity is a low-cost program, it does require some money to operate: about \$4000-\$10000 depending on support. Due to the relatively low cost, utilizing a funding source like crowdfunding, such as GoFundMe or GoGetFunding, would be a viable option. The program will advertise on social media platforms to garner support and funding for the program. These platforms allow PromOTing Healthcare Diversity to encourage people to support the program to meet its monetary goal while the platform requires a small percentage as a part of the processing fee. Additionally, local businesses close to the local OT programs especially those providing healthcare or education supports to the community will also be asked to

contribute money. These funding ideas will produce a small portion of the capital needed to run PromOTing Healthcare Diversity, but a majority of the necessary funds will come from grants and fellowships. Table 5.2 (Appendix H) details applicable grants and fellowships PromOTing Healthcare Diversity will qualify for as well as past awards as a reference for the potential contribution. The microgrants and fellowships listed provide funding to a combination of health and wellness programs or research and promote a more diverse and inclusive society. Use of these funding sources will allow the program to run in its current iteration as well as provide feedback to expand the program in future years. As the program expands, Table 5.3 (Appendix I) highlights grants that may be utilized for a more expansive version of PromOTing Healthcare Diversity.

### **Conclusion**

PromOTing Healthcare Diversity is an important program designed to increase the recruitment of minority OT students. Minority populations in the US have worse healthcare outcomes than their white counterparts (Centers for Disease Control, 2013). However, Mattingly (2018) found that increasing the number of minority healthcare practitioners decreases this effect. PromOTing Healthcare Diversity is a low-cost recruitment program that can be funded through simple community support and small grants from business and organizations. Use of community spaces and support from local universities can drastically reduce the cost of the program and allow a majority of funds to be allocated to support students pursuing OT careers. There are several available grants and fellowships that may support PromOTing Healthcare Diversity as a small program, as well as available funds as the program grows larger. These funds will help to support

the small operational costs as well as scholarships to support students. Community support and encouragement are necessary to promote this program as well as keep the budget balanced. Although the program does not produce revenue, increasing the number of minority students enrolling in OT programs is a great return on investment. This investment will be of interest to many people and organizations/academic programs. It will also be important to disseminate this information to others outside of PromOTing Healthcare Diversity.

## **CHAPTER SIX: DISSEMINATION PLAN**

This chapter will discuss how information from the pilot program of PromOTing Healthcare Diversity will be distributed to key groups. Minority communities in the United States (US) experience worse healthcare outcomes when compared to their white counterparts. The Centers for Disease Control (2013) found most minority groups were dying at a younger age and had an average of seven years of less healthy living than white Americans among other negative health outcomes. Mattingly (2018) determined that increasing the number of minority healthcare practitioners helps to decrease these negative outcomes. Although occupational therapy (OT) practitioners work with a diverse clientele with 24 % of the US population identifying as part of a minority group, only 18% of the OT workforce identify as a minority (AOTA, 2018a; US Census Bureau, 2018). To address this issue, a one-day OT recruitment program, PromOTing Healthcare Diversity, was created. This program educated minority undergraduate students on OT, the OT educational process and available supports, and local OT programs. Students also interacted with minority OT practitioners, who will serve as the students' mentors, and completed hands-on activities simulating interventions typical in OT practice. The seminar concluded with participants sharing information with their community via social media on what they have learned, such as how occupational therapy can improve someone's life. Following the one-day seminar, some students self-selected to complete a 16-week mentorship with the minority OT practitioners in order to see what OT looks like in the therapists' practice setting, to develop professional goals and an action plan to enroll in OT school, and to create a community education project with an OT focus. The

seminar was run with support from a local OT program utilizing the university's physical space, resources for the hands-on experience, and a representative to advertise the OT program. The program was successful in increasing awareness of OT in minority communities as well as increasing interest in and enrollment in OT school by minority students. This demonstrates how important it is to continue PromOTing Healthcare Diversity's work and provides valuable information to many people who are invested in the future of healthcare in minority communities.

### **Goals**

There are several goals to be accomplished by disseminating information on how to create a successful minority OT recruitment program. In the short term, the next 1-2 years, goals will improve inequality on a micro level, while the long term, the next 5-10 years, goals will improve inequality on a meso and macro level.

- Short term
  - Increase knowledge of OT by minority students.
  - Increase self-efficacy for minority students to think about pursuing new careers.
  - Increase minority student interest in OT.
  - Increase the number of minority students enrolling into OT programs.
  - Increase visibility of minority OT practitioners.
- Long term
  - Increase the number of minority OT practitioners.
  - Increase minority community awareness of OT.
  - Improve healthcare outcomes for minority communities.
  - Increase mentorship in minority communities.
  - Facilitate new techniques and policies educators and community groups can utilize to increase diversity in OT schools.

Short-term goals address problems at the individual level and long-term goals address them at the community and societal level. As a community-based program people will directly be impacted making the micro level changes the most immediate. As more

people are impacted, the positive outcomes will spread throughout the community and society. More people in minority communities will understand OT and utilize the services. This will then improve healthcare outcomes on a meso level. Additionally with increased interest and focus on improved minority healthcare, macro level policies changes to help further minority enrollment in healthcare professions.

### **Target Audience**

The people impacted by PromOTing Healthcare Diversity will want to know how the program is impacting their lives. The primary group to be impacted will be the minority community especially minority students. Educating the minority community as a whole is important in order to allow family and friends to support students. The minority community will benefit from knowledge of the program to continue to support PromOTing Healthcare Diversity and the increased number of minority healthcare practitioners in order to improve healthcare outcomes. Beyond the minority community, many other secondary groups will benefit from the information discovered through PromOTing Healthcare Diversity. Educators will want to know the programmatic outcomes in order to support their minority student body. These groups include OT programs, university and primary/secondary school administrators, and career counselors. The OT community, especially minority practitioners, will also want to promote improved healthcare outcomes for the minority communities and will find value in the outcomes of PromOTing Healthcare Diversity. Lastly, funding sources will have a profound interest in PromOTing Healthcare Diversity. Positive program outcomes will justify continued financial support for funders who financed the program as well as other



fundors looking for new innovative investments. With these important groups not only is it vital to give them information, it is also essential to give them the most personally relevant information about PromOTing Healthcare Diversity.

### **Key Messages**

An important part of disseminating information is having a clear message to the correct people. The messages for students will be that OT is a viable occupation for minorities regardless of background, OT can benefit minority communities, and mentorship is important. The program outcomes illustrate how the program is able to show minority students how OT aligns with their career goals and values moving them through the stages of change as it relates to careers. The program also provides education about different supports available that might mitigate some limitations to completing OT school. Students will also understand that OT can be a vehicle to making serious and lasting positive changes in their community. The leadership skills that were developed by students during the mentorship aspect of the program will show others the importance of mentorship when trying to be an agent of change. PromOTing Healthcare Diversity will give students the tools they need to understand and convey these messages. That is why having past participant students and the creator of PromOTing Healthcare Diversity, Monique Dawes MS OTR/L, as spokespeople is important to add gravitas behind the statements. Ms. Dawes is a minority occupational therapist who has gone through the process of schooling and working as a minority in the profession. This will allow her, as well as the students who have gone through PromOTing Healthcare Diversity and who are currently enrolled in OT programs or have graduated, to speak intimately about the

benefits of the program and why it is important to minority students and the community as a whole.

Secondary groups will also hear important messaging. Messaging for this secondary group which includes the OT community, educators, and funders will emphasize programming, which will allow these groups to replicate the program. Key messages are that pipeline programs work for minority OT practitioner recruitment, mentorship programs benefit minority OT students, and increasing awareness of OT in minority communities increases knowledge of OT as a healthcare resource. In order to deliver this message, Ms. Dawes and an OT program representative from the partnering OT school will provide this secondary group of stakeholders with the key information. Ms. Dawes and the representative will be able to clearly state how this program will benefit not only minority communities, but also the OT community, educators, and funders meet their goals. As the creator of PromOTing Healthcare Diversity and an OT program representative from the partnering school are a part of the impacted groups, they will be considered experts and knowledgeable by the stakeholders. Moreover, how the messages are delivered will add an additional level of prominence and credibility.

### **Dissemination Tools**

Similar to what information goes to whom, how information is delivered to groups is also important. For the minority community, information will be best delivered in quick digestible packages. As part of the programming, students are asked to generate information about the PromOTing Healthcare Diversity and OT and post it to social media in an entertaining and informative way. This aspect of the program will help to

educate those students' extended community. Additionally, during the mentorship portion of the program, students completed community outreach programs that provided some information about OT via social media, flyers, and in-person sessions. PromOTing Healthcare Diversity outcomes will similarly be conveyed to the minority community through social media posts, informative flyers and brochures, and in person contact. The social media posts will be done in groups frequented by minorities as well as through re-sharing of personal posts. The print media will be provided to places throughout the community that cater to the health, wellness, and quality of life of minority community members. As the information will be provided by Ms. Dawes and past program participants, the information given will be from the person's individual perspective. In person contact will happen through career days/fairs at schools to reach minority students. To reach the community as a whole, presentations will be made to various local community groups such as faith groups, local health initiatives, etc. This dissemination strategy provides a more personal touch and will help to increase community buy-in for the program as well as provide direct examples of how OT benefits the community.

The secondary groups will require a more technical and formal dissemination plan. These groups will benefit from details about the facts and statistics of the programs. Infographic posts summarizing the study results will be posted in social media groups for OT practitioners and educators. An example of a digital educational post can be found in Appendix J. This will help with initial education and for educators or practitioners that are interested in more information, links and instructions will be made available to access more in-depth formats. Podcasts will be another way to provide more information.

Several OT practitioners who have podcasts addressing practice area issues may have interest in having the creator as a guest. Additionally, several OT practitioners in minority OT groups have podcasts addressing the racial disparity. Presentations at local OT associations' conferences, the American Occupational Therapy Association (AOTA) Annual Conference, the annual AOTA Education Summit, and the annual AOTA Student Conclave will also be offered as short courses to provide program outcomes. This will allow for significant details on the program set up and its effects to be explored. If the project is not accepted as a short course, a poster presentation will be elected instead. This will allow for the information to be presented concisely in written form well as a brief verbal explanation to be given. Although not as much detail will be expressed as in the short course, a larger population of OTs and educators may be reached. Lastly, writing up articles will help to disseminate this information to the professional community, funders, and educators. An opinion piece will be written to be published in OT Practice to give general information and interest practitioners and educators to support PromOTing Healthcare Diversity. A more in-depth, peer-reviewed study manuscript will be submitted to peer reviewed journals like the American Journal of Occupational Therapy. The resulting manuscript will also help to justify to funders why they should continue to fund the program and the impact it has on the community. This dissemination plan is inclusive, but in order to understand if it is effective, a system needs to be created to measure the impact of dissemination.

### **Dissemination Evaluation**

In order to determine the usefulness of the dissemination plan, data will be

collected. Students who go through the program will be surveyed about how they heard about PromOTing Healthcare Diversity. This will help to track what information delivery system for students works best. This method will also be used for mentors and schools that volunteer for the program. This will provide good data regarding who was impacted to action by the information provided. To further evaluate the impact on the OT community, the number of people that attend poster or short course presentations will be collected. To evaluate the effectiveness of social media information delivery, the number of clicks, likes, shares, and comments will be aggregated to estimate the number of people who viewed the information. Lastly, in regards to journal articles, it will be difficult to count this number as the circulation of the journal does not indicate if the recipients actually read the article. However, ResearchGate does quantify how many people read your article through their site. This will allow for some accuracy in the number of people who will read the manuscript. These tactics will demonstrate how many people received the information and can be compared with the number of people who were moved to action. Comparing the numbers will help to determine if the dissemination plan was effective. In order to complete this dissemination plan, a budget will need to be assessed.

### **Budget**

Fortunately, most of the dissemination plan is free. Social media posts, journal submissions, podcast interviews , and local in person meetings such as career days will be completed in kind by PromOTing Healthcare Diversity creator, past participants, and school representatives. This will help to minimize the cost of the information distribution

plan. If enough funding is available, an optional \$20 gift certificate per local in-person engagement will be provided to the spokespeople as a thank you for volunteering their time. The items on the dissemination plan that will require significant capital are conference fees and print media. Table 6.1 (Appendix K) provides details on the budget. To complete the program outlined, about \$3340 would be required. This money can be raised through crowdfunding or using grant money. Many of the grants mentioned in the funding chapter (See Appendix....) allow for grant money to be used for dissemination purposes: Soros Equality Fellowship, AOTF Intervention Research Grant Program, AOTF Implementation Research Grant, AOTF Nedra Gillette Endowed Research Fellowship, AOTF Dr. Gary Kielhofner Doctoral Research Scholarship in Occupational Therapy, Agnes M. Lindsay Trust Grants, Entergy Micro Grants. Dissemination will be included in the grant proposal to allow for dissemination money in the original distribution. The dissemination plan for PromOTing Healthcare Diversity is relatively low cost and funds from running the program may be used to support information distribution.

### **Conclusion**

It is not only important to run an effective minority OT recruitment program, it is also just as important to be able to spread the information garnered from the project to those that would benefit. There are several stakeholders that will find the information about the benefits of PromOTing Healthcare Diversity useful. Minority students and communities will learn that OT is a viable occupation for minorities regardless of background; OT can benefit minority communities, and mentorship is important.

Educators, the OT community, and funders will learn pipeline programs work for minority OT practitioner recruitment, mentorship programs benefit minority OT students, and increasing awareness of OT in minority communities increases knowledge of OT as a healthcare resource. All of this will work for the overall goal of increasing the number of minority OT practitioners which will improve healthcare outcomes for minority communities. Spreading information resulting from PromOTing Healthcare Diversity's success through personal experiences via in-person presentations and social/print media will help to encourage continued support and participation by minority students and community. Additionally, it will ensure support from the OT community, educators, and funders to continue this important work. With the more in-depth information provided using professional publications, professional conferences, and social media posts in professional groups, PromOTing Healthcare Diversity will help to spread programmatic details. This may encourage other schools and OT professionals to implement similar programs to reach more minority students furthering PromOTing Healthcare Diversity overall goal of increasing minority presence in OT.

## **CHAPTER SEVEN: CONCLUSION**

Diversity in healthcare professions is crucial to improving healthcare outcomes for minority communities (Mattingly, 2017). Occupational therapy (OT) is a healthcare profession that works with people from various backgrounds throughout the lifespan. In order to provide authentic and meaningful interventions, practitioners need to empathize with their clients through therapeutic use of self; this is best achieved through understanding the client's cultural background and experience (AOTA, 2017). In order to help achieve this goal, occupational therapy as a profession needs to be diverse. Unfortunately, only 18% of OT practitioners identify as a minority, while 24% of the general population identify as non-white (AOTA, 2018a; US Census Bureau, 2018). This leads to a limited number of minority practitioners available to educate the profession on different cultural norms and potentially perpetuating the idea of racial and cultural monoliths. Despite occupational therapy recognizing diversity is an important part of the therapeutic process, the profession is fairly homogeneous.

The lack of diversity in occupational therapy is due to the limited matriculation of minority students through OT educational programs. Minority students have been found to have limited awareness of the profession and understanding of the OT schooling process (Bellon-Harn & Weinbaum, 2017; Lucas, 2018). This demonstrates a need for more recruitment measures needed to help increase minority student enrollment. Other factors that have been found to influence underrepresented minorities' (URM) enrollment in science-based professions have been a sense of diversity in the program, available social supports, the cost of the program, location of the program, and admission



requirements (Healey, 2013; Murray et al., 2016; Glazer et al., 2018; Gates et al., 2018). Pipeline and mentorship programs have been utilized to address poor minority recruitment in science-based professions (Houser et al., 2015; Pollard et al., 2010; Metcalfe et al., 2017).

Pipeline programs engage with students throughout the educational continuum providing education on a profession through hands-on, problem-based learning in community settings (Houser et al., 2015). These programs have been successfully used to increase student interest in science-based professions (Houser et al., 2015; Pollard et al., 2010; Metcalfe et al., 2017). Mentorship programs, which encouraged students to complete tasks designed to promote personal and professional growth, were also successful in increasing student enrollment (Metcalfe et al., 2017; Wros & May, 2013; Kuo et al., 2015; Gates, 2018; Mitchell, 2014). Both mentorship and pipeline programs utilize a combination of principles from four theories: Transtheoretical Theory, Diffusion of Innovation Theory, Social Constructivism, and Self-Efficacy Theory (Hammond, Michael, & Luke, 2017; National Cancer Institute, 2005; Kim, 2010; Betz, 2000). Collectively, these theories facilitate an environment where students can increase their awareness of a profession, transition from thinking about a profession to completing action steps to become trained in that profession, and experience a profession to see how it can positively impact their life. Each of these occur while interacting with experts that sympathize and empathize with their life experiences. Using these evidence and theory-based programs could be an effective way to improve recruitment of minority students into occupational therapy.

PromOTing Healthcare Diversity was created as a minority recruitment tool for occupational therapy. This program uses the principles of pipeline and mentorship programs to increase minority knowledge of occupational therapy, increase minority undergraduate students' interest in occupational therapy, and progress students through the process of becoming OT practitioners. PromOTing Healthcare Diversity is a two-part program. The first part of the program is a one-day seminar geared towards minority students to teach them general information about OT and the process of becoming an OT practitioner. Students learn from minority practitioners as well as representatives from local universities about the profession and resources available to help them through the process at local schools. Students have the opportunity to complete hands-on experiences simulating a typical work day for an OT practitioner to see how being a part of the profession can benefit their lives.

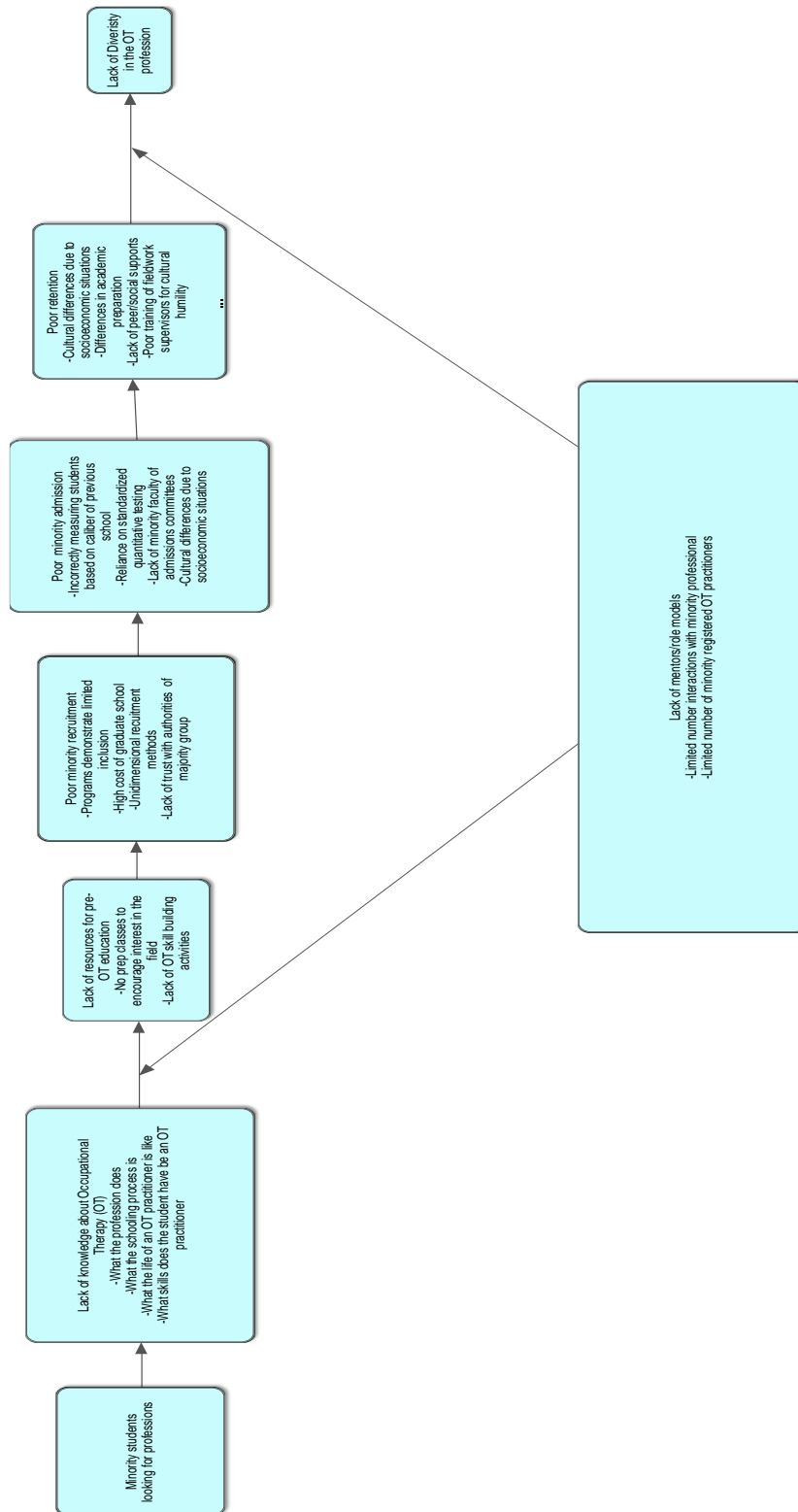
The second part of PromOTing Healthcare Diversity is a mentorship program. Following the one-day seminar, students with a stronger interest can elect to participate in the mentorship portion of the program. During the mentorship program, students are matched with minority practitioners to complete personal and professional growth activities over sixteen weeks. This all culminates in a community outreach project to help increase community awareness of occupational therapy.

PromOTing Healthcare Diversity provides a framework to increase the diversity of the profession, and as it grows, will expand its outreach by incorporating younger age groups. By working backwards from undergraduates to elementary school, students will be able to stay with the program throughout their educational process. This will help to

ensure that students are able to maintain their interest in occupational therapy to increase the likelihood of minority student enrollment. Increased enrollment is an initial step to increasing diversity in the profession. However, further programming needs to be developed to address additional barriers to diversity, such as minority student retention, culturally biased admission and education practices, and lack of inclusive educational programs which also limit the number of minority practitioners available (Lucas, 2018; Taff & Blash, 2017). Future programs will need to also address these additional problems to allow for a more equitable educational and profession process for minority OT practitioners, however, PromOTing Healthcare Diversity is a great beginning to addressing the lack of diversity in occupational therapy.

PromOTing Healthcare Diversity is designed to be an effective minority recruitment program for occupational therapy, successfully increases minority student enrollment, and increases community awareness of occupational therapy as a healthcare resource. By targeting minority students and fostering an interest in occupational therapy, PromOTing Healthcare Diversity can increase the number of minority practitioners available in future. This will not only help minority OT clients feel more comfortable and have more trust for the healthcare system, but will also benefit non-minority practitioners. Having more minority practitioners will help to spread knowledge and understanding of the various cultural norms throughout all cultures so all practitioners are better able to care for minority clients. Additionally, by including community outreach, PromOTing Healthcare Diversity increases the community knowledge of OT and empowers minority communities to ask for OT as a healthcare resource if it is needed.

## APPENDIX A



**Figure 2.1 Explanatory Model. This figure demonstrates the causes for poor diversity among occupational therapy practitioners**

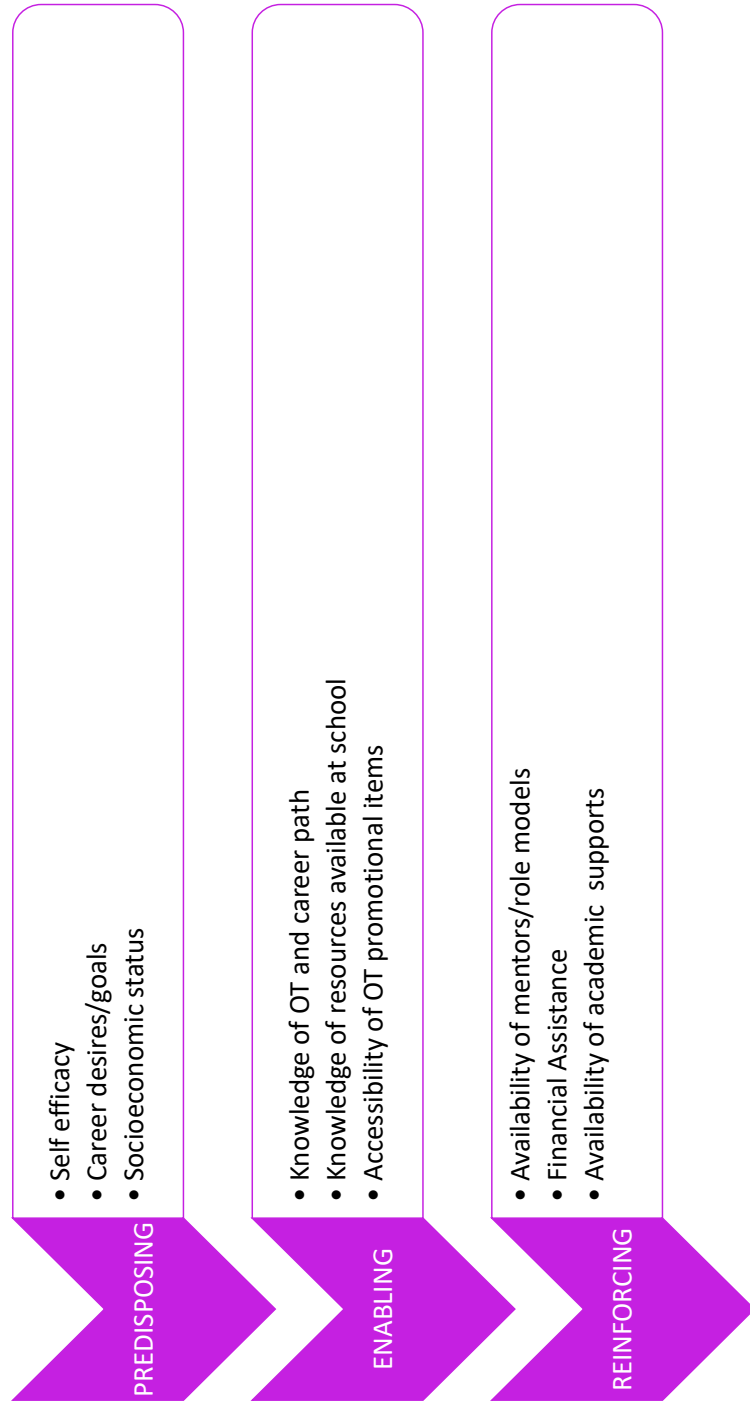
## APPENDIX B

Figure 3.1 Social and environmental determinants of OT school enrollment for minorities



## APPENDIX C

Figure 3.2 Educational and ecological factors impacting OT school enrollment for minorities



## APPENDIX D

<b>Table 3.1 Programmatic Content for PromOTing Healthcare Diversity with Theoretical and Evidentiary Backing</b>		
<b>Program Content</b>	<b>Theoretical Grounding</b>	<b>Evidence Base</b>
<ul style="list-style-type: none"> <li>Minority OT practitioners to serve as the general educators and the mentors</li> </ul>	<ul style="list-style-type: none"> <li>Diffusion of Innovations Theory (DOIT)- Draws from the social theory with availability of people encourage the students to become OT practitioners</li> <li>Self-Efficacy Theory (SE)- Allows students to see themselves in the minority practitioners. Seeing that if the practitioners can be successful in the profession, so can they through vicarious learning</li> </ul>	<ul style="list-style-type: none"> <li>Mentorship and representation of minority healthcare professionals has been found to increase interest in healthcare professions for minority students (Wros &amp; May, 2013; Gates, 2018).</li> </ul>
<ul style="list-style-type: none"> <li>Basic education on what OT is and where practitioners work. Highlighting importance in minority communities</li> </ul>	<ul style="list-style-type: none"> <li>DOIT- Demonstrated the advantage as well as compatibility OT provides to minority communities</li> <li>Transtheoretical Theory TT- Provides a basis of information so it can be built upon in the continued behavior change process.</li> </ul>	<ul style="list-style-type: none"> <li>Having a basic understanding of a healthcare profession and having a personal connection to the profession increases interest and engagement (Carr &amp; Collins, 2018; Wros &amp; May, 2013)</li> </ul>
<ul style="list-style-type: none"> <li>Education on how to become an OT and what an OT program experience looks like. Involve local OT programs and highlight academic, social, and financial supports available</li> </ul>	<ul style="list-style-type: none"> <li>DOIT- Demonstrates how to navigate the complexity of the OT career path and strategies/supports to help simplify the process</li> <li>TT- Builds on the other portions of the behavior change process and meets the needs of people in the all but the maintenance stages</li> </ul>	<ul style="list-style-type: none"> <li>Education on the process of how to become a healthcare professional as well as understanding a school's devotion to inclusivity helps to improve minority student enrollment (Wros &amp; May, 2013; Gates, 2018).</li> </ul>
<ul style="list-style-type: none"> <li>Education on the benefits of being an OT and</li> </ul>	<ul style="list-style-type: none"> <li>DOIT- Demonstrated the advantage as well as</li> </ul>	<ul style="list-style-type: none"> <li>Relating the career to the specific goals and values of the</li> </ul>

connecting it to career goals of the students	<p>compatibility OT provides the student</p> <ul style="list-style-type: none"> <li>• TT- Builds on the other portions of the behavior change process and meets the needs of people in the all but the maintenance stages</li> </ul>	student helps them to identify to benefits of becoming a healthcare professional (Murray et al., 2016)
<ul style="list-style-type: none"> <li>• Complete hands-on problem-based learning for case studies (ie trying to play cards with a simulated disability).</li> </ul>	<ul style="list-style-type: none"> <li>• DOIT- Facilitates the trialability and observability of theory allowing students to see and experience being an OT practitioner.</li> <li>• TT and SE-Addresses self-efficacy and empowers the student to see themselves in the OT professions and empowered to be able to complete what will be asked of them in the profession</li> </ul>	<ul style="list-style-type: none"> <li>• Completing hands-on experiences, especially problem-based learning helps to increase self-efficacy of students and facilitates positive experiences with science-based professions (Pollard et al., 2010; Metcalfe et al., 2017)</li> </ul>
<ul style="list-style-type: none"> <li>• Complete social media post on something learned during the general education portion</li> </ul>	<ul style="list-style-type: none"> <li>• DOIT-Supports the social aspect and the holistic style of communication in the theory by allowing the movement to grow through social acceptance and word of mouth. Spreads basic knowledge of occupational therapy to the minority community as a whole.</li> <li>• SE- Positive feedback will help encourage students to continue engaging in the program.</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing awareness of occupational therapy will help the minority community as a whole see this as a respectable profession. This will allow the community to provide support to the student during hardships to continue engagement with the profession (Healey, 2013).</li> </ul>
<ul style="list-style-type: none"> <li>• Provide follow up mentorship by minority practitioners for students who self-select to initiate the process of becoming OT practitioners.</li> </ul>	<ul style="list-style-type: none"> <li>• DOIT- As above the social aspect of encouraging engagement in the profession</li> <li>• TT- Addresses self-efficacy and empowers the student to see themselves as well as other minorities in the OT professions. Helps to encourage students in all stages of change, but specifically those in the</li> </ul>	<ul style="list-style-type: none"> <li>• Mentorship by minority practitioners help students to see themselves in those roles and the mentors help to facilitate engagement in the profession for students (Wros &amp; May, 2013; Gates, 2018).</li> </ul>



	<p>preparation, action, and maintenance stages</p> <ul style="list-style-type: none"> <li>• SE- Mentors will encourage students to pursue the profession and minimize limitations providing social persuasion</li> </ul>	
<ul style="list-style-type: none"> <li>• Mentees will observe mentors or other OT practitioners in at least 2 practice areas</li> </ul>	<ul style="list-style-type: none"> <li>• SE-Students will see representation of themselves in the mentors to increase their ability to see themselves being able to complete the jobs.</li> <li>• DOIT- Students will be able to try the profession and see the value it can bring to themselves and to the community.</li> <li>• TT-Building on self-efficacy this will help to move students along the stages of the theory through real life experiences and positive reinforcement</li> </ul>	<ul style="list-style-type: none"> <li>• Seeing OT practice in real life will help to reinforce pursuing the career (Pollard et al., 2010; Metcalfe et al., 2017).</li> </ul>
<ul style="list-style-type: none"> <li>• Mentees and mentors will work together to complete a health and wellness initiative for a minority community</li> </ul>	<ul style="list-style-type: none"> <li>• DOIT- Students will be able to engage in the community teaching them about OT and also addressing a health issue in the community making the management/preventive measures more socially acceptable. Also, a successful program will engage students more to continue to persist with tasks as they would have been able to trial OT.</li> <li>• TT- Successful completion of the program will positively reinforce pursuing an OT career.</li> <li>• SE-Students will get support from mentors to be able to complete a large leadership task. This will reinforce the belief in the student that they can be OT practitioners</li> </ul>	<ul style="list-style-type: none"> <li>• Engagement in leadership roles helps to facilitate more self-efficacy and develops skills needed in the healthcare field (Metcalfe et al., 2017; Wros &amp; May, 2013; Kuo et al., 2015).</li> </ul>

<ul style="list-style-type: none"><li>• Mentees and mentors will create an action plan for mentee to be able to enroll in an OT program.</li></ul>	<ul style="list-style-type: none"><li>• SE-This will allow the student to feel that that school enrollment is more manageable.</li><li>• TT-This will move students in the preparation, action, and maintenance phases in a supportive environment.</li><li>• DOIT- The social support and encouragement given to the students will allow them to see their potential. The action plan will also help simplify the complexity of being an OT.</li></ul>	<ul style="list-style-type: none"><li>• Mentorship and providing students with a supportive environment to engage in a health profession helps the student build a sense of community and encourages them to continue a pursuit of the career (Betz, 2000; Metcalfe et al., 2017; Wros &amp; May, 2013; Kuo et al., 2015).</li></ul>
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## APPENDIX E

### Sample Educational Presentation Schedule

- Registration and pre-tests
- Welcome Students
  - Introduce the presenters and guest speakers
  - Give schedule for the day
- Complete an ice breaker
  - Complete a brief activity to build group rapport
- Present general information about occupational therapy (OT)
  - What the profession does
    - Specifically, how it impacts health and wellness in the minority communities
    - Qualities of the profession
      - Highlight some qualities students identified in the pretest
  - Where practitioners work
  - Who the practitioners are and division of responsibilities
  - Example of a typical day
- Present on the career path of OT practitioners
  - Degrees available
  - Types of programs
  - General information about program requirements
    - Application process
      - General information of applying
    - Academic requirements
      - General resources for GRE prep, course requirements, recommendations, etc.
    - Financial cost
      - General resources for scholarships, grants, cost cutting measures
  - Presentation by local OT programs
    - Facilitate programs to highlight academic, social, and financial programs available that might benefit minority students
- Complete hands-on experience stations
  - Simulate different diagnosis while trying to engage in different activities and have students try to create interventions to minimize the impact of the disability on the person's function
    - Discuss what therapists would do in actual practice
    - Provide general information and demonstrations of some adaptive equipment available
- Have students in small groups complete a social media post about OT as a contest
  - Students can pick the social media platform and create the content
    - Students should promote a career in OT or the use of OT as a health and wellness consumer

- Vote as a group on the best post and give the winning group a small prize
- Identify students who want to continue onto the mentorship portion of the program
  - Give a general overview of the mentorship program
- Complete an interactive termination activity to help students reflect on what they learned and how it will personally impact their lives
- Complete post tests

## APPENDIX F

### Guidelines for Mentors

Please cover these topics with your mentees using the prezis as a guide:

- Importance of mentorship
  - <https://prezi.com/p/skjkeqy67a38/?present=1>
- Creating a good mentor-mentee relationship
  - [https://prezi.com/p/ayzuf\\_ozonjn/?present=1](https://prezi.com/p/ayzuf_ozonjn/?present=1)
- Being an effective mentor
  - [https://prezi.com/p/2mowoek\\_vxag/?present=1](https://prezi.com/p/2mowoek_vxag/?present=1)
- Getting the most of being a mentee
  - <https://prezi.com/p/bt5q4kx1ngya/?present=1>
- Goal setting
  - <https://prezi.com/p/x1h15fifjfpf/?present=1>

Students should complete 16 hours of observations in 2 different settings

- Arrange for students to observe you at work
- Work with other mentors to have students observe in other settings or reach out to your OT network

Work with student to create a health and wellness initiative for a minority community (i.e., culturally appropriate handout on diabetes)

- Work with student and possibly other mentor/mentee dyad to create an initiative that will highlight OTs role in health and wellness for this community

Assist student in pursuit of OT career

- Provide support and resources for meeting academic requirements
- Provide support and resources for financial requirements
- Provide support and resources for application process

## APPENDIX G

<b>Table 5.1 Budget for PromOTing Healthcare Diversity</b>			
	Year 1	Year 2	Justification
Personnel	\$300	\$400	Includes \$100 gift certificate to thank mentors for volunteering their time. It is expected year one will have three mentors and grow to four mentors in year two.
Training	\$0	\$0	Training for mentors will be completed on a volunteer basis by PromOTing Healthcare Diversity creator.
Advertisement	\$70	\$70	Most advertisement will be done through virtual platforms (email blasts, social media events, etc.), but print flyers will also be distributed on campus. This is based on current FedEx/Kinkos printing prices. This pricing will allow for 400 quarter sheet flyers to be printed.

Hand-on Experience Supplies	\$200		\$250		This will provide items used to simulate disabilities, tools to complete occupations, and items to adapt the person/task/environment for the given occupation (i.e. glue, gloves, cotton balls, beans, and a pill box to simulate medication management with diabetic neuropathy). This does not include the price of more expensive adaptive equipment or durable medical equipment which will be provided by the OT department at the partnering school.
Technology	Non-BU affiliated group	BU sponsored	Non-BU affiliated group	BU sponsored	Includes subscriptions to online meeting platforms and audiovisual support during seminars. Estimates based on quotes from Boston University and current prices for online platforms like Zoom. Budget may vary based on the local university.
	\$650	\$0	\$725	\$0	
Room rental	Non-BU affiliated group	BU sponsored	Non-BU affiliated group	BU sponsored	Estimates based on quotes from Boston University for a room designed for 50 people. This will allow the program to have space to complete the computer and hand on portions of the seminar. Budget may vary based on the local university.
	\$2000	\$200	\$2000	\$200	

Catering	\$360	\$600	Since this will be a daylong event, lunch will be provided for those in attendance. This price is based on the current cost of catering (\$10-12/meal) for an event at BU for 30-50 people.
Scholarships	\$2500	\$5000	This is an optional expense if enough grant funding came through. Scholarships would be provided to students in the mentorship program who were applying to OT school. This would help to defer costs of the application, GRE testing, tuition deposit, etc. This will allot for about \$500 per student which will cover some, but not all of the costs associated with applying to OT school
Prize incentive	\$30	\$30	This is another optional line expense. This will allow for a \$10 gift card for members of the group that has the best social media post at the end of the one-day seminar. This helps to encourage students to put forth a good presentation to represent what they learned and spread knowledge of OT to their followers.



Revenue/Cost for participants	\$0		\$0		This program will be free to students. This will help to encourage students regardless of their financial situation to learn about occupational therapy.
Dissemination Plan	\$3340	\$3580 with optional cost	\$3340	\$3580 with optional cost	See Appendix K
Total	\$7000- \$9690		\$9890- \$12655		

## APPENDIX H

<b>Table 5.2 Potential Funding Options for PromOTing Healthcare Diversity</b>		
Grant	Requirements	Past Recipient Examples
Open Society Foundation: Soros Equality Fellowship	Supports programs created by mid-career professionals who will become long term innovative leaders impacting racial justice. Supported programs are innovative and risk taking with the fellow expected to work full time on the project.	There have been a breadth of past fellows working on different projects looking at social justice for minority groups. This has included everything from creating a digital archive of oral histories of queer and trans people of color to creating a training program to help educate and empower over policed and under protected Muslim communities on issues of surveillance and counter radicalization to creating a leadership program for black trans women in southern and midwestern US. Fellows are awarded \$100,000 over 18 months (Open Society Foundation, 2020).
US Department of Health and Human Services: Educating Medical Professionals and Optimizing Workforce Efficiency and Readiness (EMPOWER) for Health Act of 2019 (H.R. 2781), the Allied Health Workforce Diversity Act (H.R. 3637)	Although grants have not been created from this law, it was designed to help fund programs that will increase diversity within the allied health professions. When grants are created from money earmarked for this law, there may be several that this PromOTing Healthcare Diversity would qualify for (Rep. Rush, 2019; Rep. Schakowsky, 2019).	

AOTF Intervention Research Grant Program	This grant is for OT practitioners looking to complete research that aligns with AOTA's vision 2025. This includes a pillar to improve diversity and inclusion for the profession.	Past recipients completed projects that promoted AOTA initiatives to increase meaningful participation in life by OT service recipients. Grant amounts vary, but are no larger than \$50,000 (AOTF, 2020b).
AOTF Implementation Research Grant	This grant is for OT practitioners using evidence-based practice in the community setting. Projects are expected to facilitate realistic implementation of interventions in real life context.	Past recipients completed projects that promoted AOTA initiatives to increase meaningful participation in life by OT service recipients. These recipients took evidence-based interventions and applied them in the clinic or real-life community settings. Grant amounts vary with two tiers awarded for \$50,000 or \$100,000 (AOTF, 2020a).
AOTF Nedra Gillette Endowed Research Fellowship	This grant is for OT practitioners with doctorates or completing postdoc work completing IRB approved research at an education institute. The research should support health and wellness including social justice innovations	Past recipients completed a breadth of projects that were OT centric in nature and facilitated occupational participation by marginalized groups. This fellowship awards a \$5000 grant (AOTF, 2020d).
AOTF Dr. Gary Kielhofner Doctoral Research Scholarship in Occupational Therapy	This award is for OT practitioners in a doctoral program completing a project that addresses social justice, human volition, or bridges a gap between research and practice.	This is a new award and only has 1 recipient who received a \$5000 award to address oral health in African American families (AOTF, 2020c).

Agnes M. Lindsay Trust Grants	Supports organizations in New England (except Connecticut) working to improve health and welfare, dental health, higher education, and camperships for low income individuals.	Past grant awardees come from a range of backgrounds and used the award for a specific purchase to benefit a larger mission such as purchase of a truck to deliver donated furniture or instruments for an afterschool program. Award amounts for this past year were \$1,0000-\$5,0000 (The Agnes M. Lindsay Trust, 2020).
Entergy Micro Grants	Supports small projects in MA, MI, MS, NH, NY, TX that impact arts and culture, community improvement, education, environment, or healthy families.	No information was found about past recipients, but award amounts were reported to be \$1,0000 (Entergy, 2020).

## APPENDIX I

<b>Table 5.3 <i>Funding Options for Expanded PromOTing Healthcare Diversity</i></b>		
Grant	Requirements	Past Recipient Examples
US Department of Health and Human Services National Institute of Health: Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) Institutionally-Focused Research Education Award to Promote Diversity	Supporting educational activities that encourage people from diverse backgrounds in the biomedical and behavioral sciences to pursue further studies or careers in research. This grant is specifically for activities working on skill development and mentorship. This grant will require a partnership with a university, so ensuring a relationship with the local OT program will be a necessity.	No information was given on past recipients, but award amounts are said to be about \$250,000 (National Institutes of Health, 2020a).
US Department of Health and Human Services National Institute of Health: Short-Term Research Education Program to Increase Diversity in Health-Related Research	Supporting research education activities that enhance the diversity of biomedical, behavioral, and clinical research workforce by providing research experiences and related opportunities. This includes hands-on exposure to research to reinforce their intent to graduate with a science degree and for pre health professional students to become acquainted with the role of health professionals in applied clinical research. This grant is open to a multitude of groups and PromOTing Healthcare Diversity could qualify in its current iteration.	No information was given on past recipients, but award amounts are said not to exceed \$119,000 (National Institutes of Health, 2020c).

<p>US Department of Health and Human Services National Institute of Health: Training Program for Institutions That Promote Diversity is a Ruth L. Kirschstein National Research Service Award Program</p>	<p>Supporting programming that trains predoctoral and health profession students focusing on serving health disparity populations addressing cardiovascular, pulmonary, sleep disorders and hematological diseases.</p>	<p>No information was given on past recipients, but award amounts are said not to exceed \$231,000. This will require a small change to the program requiring students to complete the community outreach project on a cardiovascular, pulmonary, sleep disorders and hematological disease. Additionally, a partnership with a university would be required for eligibility. (National Institutes of Health, 2020b).</p>
<p>National Science Foundation: Advancing Informal STEM Learning</p>	<p>Supports programs that provide the community better understanding of science, technology, engineering, and mathematical concepts in informal settings. The grant requires a budget of at least \$75,000 if collaborating with an organization who is also receiving this grant. This will require knowledge of the universities grant applications to ensure budgetary benchmarks are achieved.</p>	<p>There have been many recipients over the years with award amounts \$49,000-\$23,000,000 (National Science Foundation, 2020).</p>

## APPENDIX J

OT MINORITY  
REPORT

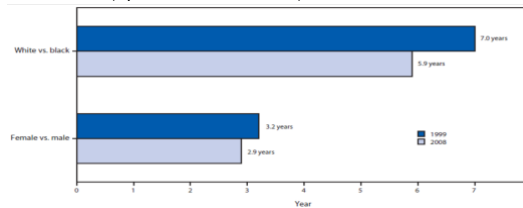
Davies OT 610 MA 1

Where are all  
the minority OT  
practitioners?

Insufficient number  
of minority  
Occupational  
Therapy (OT)  
practitioners are  
leading to poor  
healthcare outcomes  
in minority  
communities.



**FIGURE 1. Disparities in expected (at birth) years free of activity limitations caused by chronic conditions, by race and sex – United States, 1999 and 2008**



Source: National Vital Statistics System and National Health Interview Survey, 1999 and 2008. The figure shows disparities in expected (at birth) years free of activity limitations caused by chronic conditions, by race and sex for the white and black populations of the United States for 1999 and 2008. By race, white versus black disparities were 7.0 years in 1999 and 5.9 years in 2008. By sex, male versus female disparities were 3.2 years in 1999 and 2.9 years in 2008. Reprinted from Expected Years of Life Free of Chronic Condition-Induced Activity Limitations – United States, 1999–2008, by Michael T. Molla, November 22 2013, retrieved from [https://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a15.htm?s\\_cid=su6203a15\\_w](https://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a15.htm?s_cid=su6203a15_w)

racial or cultural bias, leading to inherent distrust with healthcare professionals of different cultures. Fortunately, researchers have found **increasing the number of minority healthcare professionals helps to mitigate the impact of this healthcare disparity** (Mattingly, 2018). OT practitioners work in various settings with diverse populations, however, the profession's level of diversity does not represent the diversity of the populations it serves. **Eighteen percent of the profession identifies as non-white while in the general US population 24% of people identify as non-white** (AOTA, 2018; US Census Bureau, 2018). This demonstrates an occupational imbalance where minorities are not able to engage in the healthcare system to the same degree as other ethnic groups as a result of systemic injustices. In order to help increase the number of minority practitioners, more minorities need to enroll into OT programs.

## Minorities don't know about OT

(Carr & Collins, 2018)

In order to determine some of the causes as to why there are so few minority OT practitioners, interviews were completed. Respondents were minority occupational therapists, OT assistants, OT students, and OT educators between the ages 29–54 with 0–30 years of experience in the field.

All the respondents were female, located and educated east of Chicago, and had at least a bachelors even if it was not in OT.

Respondent were asked questions related to their and other minorities interest in OT, OT school experience/decision making process for programs, social/economic/academic supports, and relationship with the profession.

An overview of the response can be found in figure 3. Four of the five interviewees had not heard of OT until they were in college and a friend or family member told them about the profession when another major was not working out. All of the respondents felt that most people in the minority communities did not know what OT is or interacted with an OT as resources in the community are limited.

**Overall these experts reported the reasons minority students were not enrolling in OT programs are:**

- ☐ Lack of knowledge of the profession
- ☐ Cost
- ☐ Lack of minority role models
- ☐ Limited diversity or cultural humility in OT programs
- ☐ Limited supports for non-traditional students

Access to good healthcare should be available to every American as a way to have a healthy life allowing everyone to engage in meaningful occupations. Research, however, has found that **minorities in the United States have poor health outcomes when compared to their white counterparts**. Figure 1 and 2 demonstrates that life expectancy and life without chronic health conditions is lower for minorities than whites with similar backgrounds (Molla, 2013). Minority patients have reported **gaps in care due to perceived**

**FIGURE 2.**

**TABLE 1. Life expectancy at birth and expected years free of activity limitations caused by chronic conditions, by sex and race – United States, 1999–2008**

Year	Male			Female			White			Black		
	LE	YFAL	YFAL as % of LE	LE	YFAL	YFAL as % of LE	LE	YFAL	YFAL as % of LE	LE	YFAL	YFAL as % of LE
1999	73.9	63.9	86.5	79.4	67.1	84.5	77.3	66.2	85.6	71.4	59.2	82.9
2000	74.1	64.3	86.8	79.5	67.7	85.4	77.3	66.6	86.2	71.8	60.2	83.8
2001	74.2	64.0	86.3	79.4	67.5	85.0	77.4	66.4	85.8	72.0	59.5	82.6
2002	74.3	64.1	86.3	79.5	67.7	85.1	77.4	66.5	86.4	72.3	59.4	82.4
2003	74.5	64.5	86.6	79.6	67.9	85.2	77.6	66.5	86.7	72.6	59.6	82.6
2004	74.9	64.8	86.5	79.9	67.8	84.9	77.9	66.9	86.9	72.8	60.0	82.4
2005	74.9	64.9	86.6	79.9	68.1	85.2	77.9	67.0	86.0	72.8	61.1	83.9
2006	75.1	65.1	86.7	80.2	68.4	85.3	78.2	67.3	86.1	73.2	61.2	83.6
2007	75.4	65.1	86.3	80.4	68.6	85.4	78.4	67.1	85.6	73.6	60.2	81.8
2008	75.6	65.1	86.1	80.6	68.4	84.9	78.5	67.0	85.4	74.0	61.1	82.6

Reprinted from Expected Years of Life Free of Chronic Condition-Induced Activity Limitations – United States, 1999–2008, by Michael T. Molla, November 22 2013, retrieved from [https://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a15.htm?s\\_cid=su6203a15\\_w](https://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a15.htm?s_cid=su6203a15_w)

This demonstrates an occupational imbalance where minorities are not able to engage in the healthcare system to the same degree as other ethnic groups as a result of systemic injustices. In order to help increase the number of minority practitioners, more minorities need to enroll into OT programs.

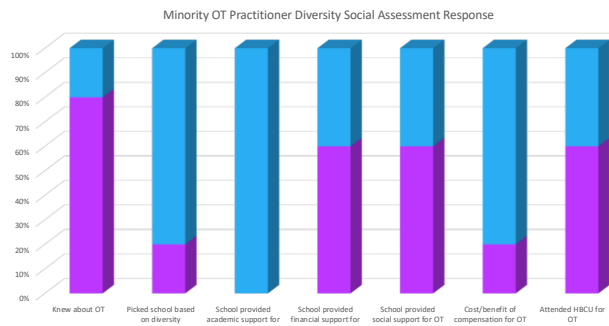
The one respondent had met an OT prior to school and that was through a high school program where an OT came to talk about the profession and then she mentored with an OT in the community for observation hours. She did mention that both of the OTs were also minorities and she thought at the time the profession was more diverse.

All of the respondents spoke of microaggressions or racism they experienced during education and practice.

They stated that diversity of programs or attempts at diversity in education programs are important. Schools provided academic supports, but social and financial supports specifically for OT programs were limited with programs at historically black colleges and universities (HBCU) primarily providing minority scholarships specific to OT. For most of the interviewees, schooling cost was a factor in the program they choose when compared with their salary. One OT assistant reported not pursuing an advanced degree in OT due to the cost comparison with salary. Some respondents who did not attend HBCU for OT schooling, but did for undergraduate education did express a cultural shock transitioning to a non-HBCU program

OT MINORITY REPORT

FIGURE 3.



Proposal:

An OT recruitment program targeting minority college undergraduates to encourage them to enroll in an OT program to address the occupational injustice of limited numbers of minority OT practitioners.

Program Objectives:

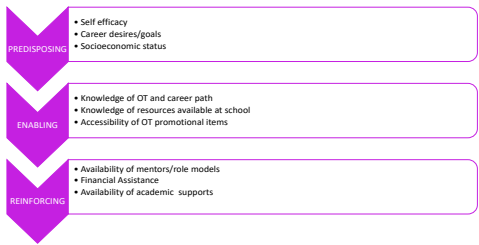
- Participants will know what a career in occupational therapy entails
- Participants will know how occupational therapy can help minority communities
- Participants will know how to become an occupational therapy practitioner
- Participants will have increased interest in occupational therapy

FIGURE 4. SOCIAL AND ENVIRONMENTAL DETERMINANTS OF OT SCHOOL ENROLLMENT FOR MINORITIES



Environmental and social context play a large part in trying to increase minority enrollment in OT programs as seen in figure 4. Students, their social supporters, and the community at large need to be educated on the role of OT and the career path. This will provide support to become an OT practitioner for students at all levels. **Students also need to have increased self-efficacy to help student believe they can become OT practitioners regardless of challenges they may face.** Matching this with social and physical environmental determinants is key. **By addressing social, academic, and financial supports, the environment can help to mitigate the educational, financial, and social limitations students have.** Additionally, as shown in figure 5, matching students career goals and desires will also help to increase interest in OT. Addressing the community and interpersonal behavioral determinants will be difficult, but **providing students with social support, role models, and mentors will help to increase self-efficacy and interest.** Through education those social supports will understand the value of an OT career and the general benefit of OT for the minority community. **Students observing minority OT practitioners successfully completing their job will also increase self-efficacy for an OT career.** OT school administrators play a key role. **Increasing the diversity of faculty, demonstrating cultural humility, and providing holistic support for students will help to ensure minority students feel comfortable and engaged in programs.** For prospective students knowing these things are in place will help encourage enrollment. Financial support is one of the largest limiting factors for minority students, so providing scholarships and other financial aid can help to limit the effects. **Marketing specifically to minority students can also help increase minority enrollment.** This can be as simple as printing marketing material and different languages or using marketing platforms utilized by minorities. Minorities in the US have poorer healthcare outcomes

FIGURE 5. EDUCATIONAL AND ECOLOGICAL FACTORS IMPACTING OT SCHOOL ENROLLMENT FOR MINORITIES



then their white counterparts and having more minority healthcare practitioners helps to decrease this gap in healthcare. OT needs to do its part and increase the number of minority practitioners available. **Creating a OT recruitment program for minority college students will help to funnel minority students into OT programs to become future practitioners who can help mitigate this occupational injustice.**

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**APPENDIX K**

<b>Table 6.1 Budget for PromOTing Healthcare Diversity Dissemination</b>			
	Cost Year 1	Cost Year 2	Justification
Conference Fees	\$1200	\$1200	Conference prices vary, but are between \$150-450. In order to reach the largest group of people, several conferences will need to be attended.
Travel, Room, and Board	\$2000	\$2000	Since several of the conferences will not be local to the program, housing, food, and travel will need to be covered. This will help to defer the creator's personal costs.
Print Advertisement Campaign	\$140	\$140	Print flyers and brochures will also be distributed throughout the community. This cost is based on current FedEx/Kinkos printing prices. This pricing will allow for 800 quarter sheet flyers and brochures to be printed.
Optional:	\$240	\$240	Gift certificates of \$20 for about 6 local personal engagements throughout the year by spokespeople.
Total	\$3340 or \$3580	\$3340 or \$3580	

## **EXECUTIVE SUMMARY**

### **Introduction**

Racial and ethnic inequality has been found in the United States' healthcare system. Minority communities have worse health care outcomes than their white counterparts in almost every measure including mortality, years living free of chronic conditions, and preventable hospitalizations (Centers for Disease Control, 2013). Mattingly (2018) found increasing diversity among healthcare professionals helps to improve the healthcare outcomes of minority communities. As a healthcare profession, occupational therapy (OT) should strive to have a diverse workforce. Currently, eighteen percent of OT practitioners identify as a minority while 24% of the general population identify as non-white (US Census Bureau, 2018). The American Occupational Therapy Association (AOTA) former President Clark (2013) recognized the lack of diversity in the profession as a problem of occupational justice, "a justice that recognizes occupational rights to inclusive participation in everyday occupations [activities] for all persons in society, regardless of age, ability, gender, social class, or other differences" (AOTA, 2017, p. S43). With the governing body of OT practitioners identifying the lack of minority practitioners in the workforce as a contributing problem to healthcare disparities in minority communities, how the profession can address the issue needs to be explored.

### **Diversity Background Information**

There has been limited research specific to OT regarding why minorities are not entering the profession. Lucas (2018) found minority OT practitioners were encouraged

to enroll in programs that demonstrated cultural humility. Carr & Collins (2018) found 49% of minority students were not aware of OT as a profession and of those that knew about OT, 80% had no exposure to the profession. Without fully understanding occupational therapy, people will not be motivated to join the workforce. Looking at other health professions to supplement the dearth of evidence specific to OT, other limitations for minority students choosing healthcare professions, especially, physical therapy are location, cost, availability of financial aid, campus environment, social support, self-efficacy, and representation (Johanson, 2007; Pizur-Barnekow, Rhyner, & Lund, 2010; Ali, Brown, & Loh, 2017; Tucker & Winsor, 2013; Besnilian, Goldenberg, & Plunkett; 2016). These factors were found to be important to minority students and professionals when determining their career paths. In order to address the lack of diversity in occupational therapy it is paramount to understand what goes into career choice decisions. With a better understanding of these reasons, a program can be created that targets these limitations.

### **Program Development**

In order to have a diverse OT workforce, more minority students need to be recruited into OT educational programs. PromOTing Healthcare Diversity was created as a minority recruitment program for OT. PromOTing Healthcare Diversity partners with local OT programs and universities in order to educate minority students about OT. The program uses evidence-based theories and models in order to achieve its goals. This recruitment program is a one-day seminar for minority students where after students will:

1. State a definition of occupational therapy.
2. Identify three locations where occupational therapy practitioners work.

3. Identify four practice entry points for occupational therapy practitioners.
4. Identify three requirements for enrollment in local OT programs.
5. Identify two ways occupational therapy can help minority communities.
6. Report increased interest in occupational therapy based on a Likert scale.
7. Report a decrease in perceived barriers to becoming an OT practitioner based on a Likert scale.

These objectives will be met using interactive and hands-on group learning experiences. Students will engage with minority OT practitioners and professors on a university campus to understand OT and the educational process as well as supports available. Information given targets the social, financial, and academic limitations that were identified as barriers to minority students enrolling in health profession programs.

After participating in PromOTing Healthcare Diversity, some students may have continued interest in OT and can elect to participate in a mentorship program. Mentees will be matched up with a minority OT practitioner completing 16 hours of observing OT practitioners at work, completing personal and career development work, and completing a community outreach project. Using principles from the Transtheoretical Model, Self-Efficacy Model, and Diffusion of Innovation Theory this program was able to help educate minority students about occupational therapy as well as help some of those students enroll in OT programs. Additionally, the program was able to provide education to other people in the minority community connected to those students encouraging the students to spread their new knowledge. Most importantly the program was able to increase visibility of minority practitioners in the community to help facilitate increased minority engagement with health professionals either at career aspiration level or a health resource utilization level.

### **Budgeting Needs**

PromOTing Healthcare Diversity is a program run primarily through the kindness of community supporters volunteering their time. The OT practitioners working with the program volunteer to act as mentors and run the educational seminar. Alumni of the program and the creator of the program will act as spokespeople in kind to help inform stakeholders of the outcomes of the program. The creator of the program also volunteers her time to complete logistical planning. Additionally, the partnering local universities and OT program will allow for space to be used at a discounted price as well as other cost cutting efforts. The total cost of the program is relatively inexpensive with \$7000- \$9690 in year one and \$9890- \$12655 in year two. These budgets include costs with and without university sponsorship as well as includes optional cost. When extra funding is available, small monetary gifts are given to volunteers as a thank you, although compensation isn't expected. Additionally, scholarships will be available as an optional cost to help mentees defer application costs for enrolling into OT program. These scholarships are a substantial percentage of the proposed \$7000-\$12655 budget. Another large portion of the budget is the travel and conference fee for the dissemination plan. Luckily, the grants and scholarships that can be utilized by the program will cover not only the program itself, but also the dissemination.

### **Dissemination**

Information on the benefits of PromOTing Healthcare Diversity will primarily be directed at minority students and community to help increase interest in and support for the program. A secondary group will be those that directly support minority

communities: Educators, OT professionals, and funders. Digital media will be utilized in the form of social media posts and podcasts. Printed items, such as flyers and brochures, will also be distributed to the community. Lastly, word of mouth will be utilized. In-person presentations at universities and conferences will be used to help provide stakeholders with information on the benefits of PromOTing Healthcare Diversity. Dissemination of the information will help to garner support for the program and inspire others to address the problem of poor diversity in the OT profession.

## **Conclusion**

The lack of diversity in the healthcare profession has been linked to poor healthcare outcomes in minority communities (Mattingly, 2018). As an occupational justice initiative, PromOTing Healthcare Diversity was created as a recruitment tool utilized in occupational therapy to help recruit more future minority practitioners. The program partners with local OT programs and universities to put on a free one-day interactive educational seminar about the OT profession and its role in healthcare. For those students who are interested, an optional mentorship program is available where mentees will work on personal and professional growth with a volunteer minority OT practitioner. The mentorship will culminate in a community outreach project directed by the mentee. Alumni of the program will work with the program creator to educate stakeholders of the benefits of the program via print and digital media as well as personal interactions. Through PromOTing Healthcare Diversity increased diversity in occupational therapy is possible. This will ultimately lead to improved professional equity and healthcare outcomes for minority communities.

## FACTSHEET



### PromOTing Healthcare Diversity: A Diversity Initiative for Occupational Therapy

Monique Dawes, MS, OT, OTR

#### The Problem:

- Minorities in the United States have worse healthcare outcomes in most markers (years without illness, diabetes, heart disease, etc.) in comparison to their white counterparts (Molla, 2013). With poor health and wellness, minorities are at risk for poor occupational engagement.
- Mattingly (2018) found that increasing the number of minority healthcare practitioners helped to increase healthcare outcomes in minority communities.
- Occupational therapy (OT) practitioners who identify as minorities make up 18% of practitioners, but 24% of the US population identify as non-white (AOTA, 2018; US Census Bureau, 2018).
- Despite working with diverse populations, the OT profession is not diverse and this contributes to the occupational injustice of poorer healthcare outcomes for minority communities.
- Lack of knowledge about OT and awareness of financial, social, and academic supports available at universities are limiting minority enrollment in OT programs (Taff & Blash, 2017; Lucas 2018).

#### The Proposed Solution:

- To address this problem, *PromOTing Healthcare Diversity* was created as a educational pipeline recruitment program with a one-day educational seminar followed by a mentorship program for interested students.
- Key Ingredients
  - o Partnerships with universities-Allows students to experience the university, demonstrates the university's dedication to diversity, enables students to interact with future professors and administrators.
  - o Community engagement-Completing activities in the student's community helps to emphasize the importance of the profession for that student's friends and family.
  - o Hands-on experiences-Interactive activities allow students to envision themselves working in that profession.
  - o Education-Providing students with a basic understanding of OT, the OT schooling process, and available social, financial, and academic supports will increase interest in OT and provide students with solutions for perceived limitations.
  - o Mentorship-Students will have minority OT role models as an example of representation. They will also participate in activities to facilitate personal and professional growth.

### The Program's Affect:

#### Program Objectives

- Participants will know what a career in occupational therapy entails.
- Participants will know how occupational therapy can help minority communities.
- Participants will know steps to become an occupational therapy practitioner.
- Participants will have increased interest in occupational therapy.

#### Changes in Participants

- Increased self-efficacy to become OT practitioners.
- Increased knowledge of graduate school application, financial aide, and academic support.
- OT practitioner role models.

#### Outcomes

- Increased minority enrollment in OT programs.
- Increased number of minority OT practitioners.
- Improved access to OT and healthcare outcomes in minority communities.

### Impact on Occupational Therapy:

- OT practitioners interact with a diverse population of clients. Increasing the number of minority practitioners will help all OT practitioners develop improved cultural humility as they will have greater exposure through school and professional interactions with different cultures. This will lead to better client-therapist interactions and improve health outcomes for the client.
- PromOTing Healthcare Diversity will educate minority students about OT resulting in an increased interest in the profession. Students who do not pursue OT careers will at least have an understanding of OT and be aware of a health resource they and their families can access if needed.

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**CURRICULUM VITAE**

