OCCUPATIONAL THERAPY-LED TAI CHI: ELEVATING PERCEIVED COMPETENCE IN DAILY ACTIVITIES AMONG SEMI/FULLY RETIRED ADULTS

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Abstract

This doctoral capstone project explored the impact of a Tai Chi intervention led by the occupational therapy student researcher, on self-perceived competence and engagement in Activities of Daily Living (ADLs) among semi/fully retired adults at the Osher Lifelong Learning Institute (OLLI) at University of Nevada, Las Vegas (UNLV). Using the Occupational Self-Assessment (OSA) questionnaire, the project measured changes in participants' confidence and abilities before and after the participation of the Tai Chi program.

The Tai Chi intervention was a six-week Tai Chi program designed to accommodate the physical and cognitive capabilities of semi-retired and retired adults. This program not only aimed to improve physical balance and mobility but also sought to enhance mental well-being through the meditative aspects of Tai Chi. Results from the study indicated positive qualitative feedback, with participants reporting increased motivation, improved engagement in health activities, and a heightened sense of community. However, despite of a trend of improvement, no statistical significance on OSA scores was found between pre-test and post-test.

In conclusion, Tai Chi could be a valuable intervention for enhancing the psychosocial and physical well-being of retired adults. The findings recommended further investigation into community-based Tai Chi programs as a component of occupational therapy for retirees, emphasizing the need for larger-scale studies to better quantify the benefits observed anecdotally in this project.

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Dedication

I dedicate this work to my parents, Edgar and Leticia, whose trials and sacrifices have provided my brother and me with the opportunities to succeed—your love and strength are my pillars. To my brother Edrian, whose unwavering spirit and support inspire me to strive for excellence, your encouragement means the world to me.

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Introduction

Maintaining the ability to be independent in retirement comes with challenges that usually persist or occur in aging. Transitioning into a retired lifestyle can precipitate various health outcomes, with many leaning toward detrimental lifestyle choices that negatively influence prognosis in later years (Han, 2021). A prevalent behavior observed in retired individuals is the inclination toward sedentary lifestyles (Saunders et al.,2020). Such behaviors are correlated with chronic conditions, including hypertension, diabetes, and obesity (Katzmarzyk et al., 2019; Pedron et al., 2020; Saklayen, 2018), which subsequently initiate a vicious cycle that negatively affects engagement in an individual's ADLs (Gao et al., 2022). As aging individuals, especially retirees, face declining physical health and activity, they encounter a cascade of physiological challenge, from muscle atrophy to diminished cardiovascular resilience, that not only impair mobility and balance but also significantly increase their risk of falls and instill a debilitating fear of further injury, creating a vicious cycle that suppresses activity levels further (Gerten et al., 2022; Groessl et al., 2019; Bendayan et al., 2016; Huang et al., 2017; Li et al., 2019; Ory et al., 2015; Dautzenberg et al., 2021; Senderovich et al., 2021).

Both the World Health Organization and the US Department of Health have endorsed initiatives championing physical activity to improve the general health and well-being of the populace (WHO, 2022; US Department of Health, 2021). While they have stipulated guidelines surrounding cardiovascular and strength training duration, specific exercises for public adoption still require further research (Collado-Mateo et al., 2021; Di Lorito et al.,2021). Findings of systematic reviews suggest the importance of a dedicated scheduled exercise regimen for adults to preserve physical and cognitive health (Collado-Mateo et al., 2021; Di Lorito et al.,2021; Huston & McFarlane, 2016; Sherrington et al., 2019; Sherrington et al., 2020). However, these

reviews also pinpoint the absence of a universally optimal exercise regimen, acknowledging individual variability. A recurring theme in literature is the potential utility of Tai Chi for older adults, addressing common challenges that they experience that affect their participation in occupations (Collado-Mateo et al., 2021; Di Lorito et al.,2021; Huston & McFarlane, 2016; Sherrington et al., 2019; Sherrington et al., 2020).

Tai Chi, a martial art characterized by its gentle movements and deep breathing, is renowned for providing key physical benefits, including improved balance and flexibility, which are especially beneficial to older adults as these two human factors decline during aging and are associated with falls and fall-related injuries (Montero-Odasso et al., 2022; Qi et al., 2023). The practice has demonstrated various benefits, from muscle preservation to mental health improvements, including relaxation and enhanced cardiovascular health (Qi et al., 2023; Wu et al., 2021; Yeung et al., 2018; Zou et al., 2018). Despite these well-documented advantages, Tai Chi's potential extends beyond. This study aimed to find the relevance of Tai Chi as an intervention of choice in occupational therapy. Its low-impact nature renders Tai Chi a low-risk yet highly beneficial activity, particularly suited for older adults (Li et al., 2019). Understanding how Tai Chi can augment occupational performance and confidence in ADLs could prove pivotal in expanding therapeutic options for various populations, especially semi- or fully retired individuals, as they age in place. Given the well-documented advantages of Tai Chi for balance and physical and mental health, it is crucial to delve deeper into its extensive potential within occupational therapy. This exploration into Tai Chi's role in occupational therapy was about improving physical abilities and enriching the overall quality of life for those engaged in its practice.

This capstone project/study sought to establish a connection between Tai Chi and occupational therapy. Specifically, the purpose of this study was to examine the efficacy of a Tai Chi program on ADL-related movements on the perceived confidence of semi- and/or fully retired adults in their participation in their ADLs. The primary outcome area was individuals' perceived level of confidence in ADL performance measured by the Occupational Self-Assessment (OSA) questionnaire. The study was conducted at the Osher Lifelong Learning Institute (OLLI) at the University of Nevada, Las Vegas (UNLV) for its commitment to lifelong learning and active engagement with the older adult community.

Relevance to Occupational Therapy

The results of this capstone project may contribute to the body of knowledge in occupational therapy, particularly in its intervention efficacy for the semi- and/or fully retired population. Central to this study was exploring how physical activity, specifically the gentle and mindful practice of Tai Chi, intersected with overall well-being within the occupational therapy framework. Tai Chi's alignment with the emphasis on holistic care and the promotion of health through meaningful and healthy activities in occupational therapy positioned it as a potential intervention in enhancing retirees' overall well-being.

The outcome of this project was to determine whether Tai Chi could be a valuable community-based intervention within the scope of occupational therapy. This was particularly significant given the aging population, where adaptability to the evolving health requirements of older adults was essential. This collaboration with OLLI at UNLV, a renowned institute committed to providing learning and personal enrichment opportunities postretirement, reflected a holistic approach to health and well-being. This project aligned seamlessly with the core tenets of the American Occupational Therapy Association (AOTA), assuring that the occupational

therapy profession continues to be relevant and practical. By integrating into a well-established system such as OLLI, the project highlighted the importance of continued learning and engagement in enriching activities for retirees. This approach was instrumental in addressing the diverse needs of an aging demographic, emphasizing the contribution of occupational therapy in life-improving solutions, and promoting independence among older adults.

Definition of Terms:

Occupations

Conceptual Definition: Occupations referred to the daily activities that individuals partake in, including tasks and roles in self-care, work, and leisure. Shaped by one's values, interests, and abilities, as well as environmental influences, these activities were integral to forming identity and well-being. (AOTA, 2020)."

Operational Definition: The Definition of occupation was described and interchangeable with activities of daily living. The outcome measure in this study utilized activities in daily living as occupations.

Retirement

Conceptual Definition: A process of withdrawing: the condition of being withdrawn; departing from one's professional role or ceasing to work actively; the typical age when one usually steps back from their career. (Merriam-Webster Dictionary, n.d.).

Operational Definition: The student researcher described the Definition as the criterion for participation in the study.

Tai-Chi or Tai Ji Quan

Conceptual Definition: A traditional Chinese practice involving a series of meditative motions performed as exercise routines (Merriam-Webster Dictionary, n.d.).

Operational Definition: The Definition of Tai Chi or Tai Ji Quan was described by the student researcher as it will be the primary exercise intervention of the study.

Literature Review

The transition into retirement presents a pivotal shift in an individual's life, bringing forth many changes that significantly impact health, lifestyle, and daily functioning (Gerten et al., 2022; Saunders et al.,2020; Wu et al., 2021). This literature review aimed to delve into various facets of this transition, exploring the health effects of retirement, the consequent alteration in participation in occupations and ADLs, and the role of leisure and exercise activities in mitigating these changes. Central to our exploration was the emerging evidence on Tai Chi, a form of exercise that has garnered attention in recent research for its potential to positively influence the well-being of the retired population. Studies have recurrently highlighted Tai Chi as a beneficial leisure activity postretirement and therapeutic intervention in addressing the decline typically associated with aging (Huang et al., 2017; Wayne et al., 2014; Wu et al., 2021). This review synthesized critical findings from the literature, underscoring the significance of Tai Chi in the context of occupational therapy and its potential contribution to improving the quality of life for individuals transitioning into retirement.

Health Effects of Retirement

Retirement, a pivotal life stage, introduces profound changes in lifestyle, health, and well-being (Katzmaryk, 2019). This literature review section synthesized findings from several studies on the health implications of sedentary behavior and the transition to retirement. Saunders et al. (2020) established a link between prolonged sedentary behavior and adverse health outcomes in retired populations, highlighting the importance of active lifestyles to mitigate risks of chronic diseases in their systematic review. Sarabia-Cobo et al. (2020) found that an abrupt transition to full retirement is less detrimental than a gradual shift for older adults in physically demanding jobs. Conversely, those from mentally demanding professions benefit

cognitively from a more gradual retirement process. Furthermore, Sarabia-Cobo et al. (2020) suggested that a sense of personal well-being and life satisfaction, independent of the type of profession, emerges as a significant predictor of a fulfilling retirement for both groups. These findings highlighted the intricate ways retirement affects health and the importance of considering individual differences in professional background and psychological well-being when assessing retirement's impact on functional independence and life satisfaction.

Sprod et al. (2015) observed that while overall sitting time decreases after retirement, sedentary activities such as watching TV and reading often increase, indicating a complex shift in post-retirement behaviors. The review also noted that pre-retirement work types influence post-retirement activity levels, with those from less physically demanding jobs likely to engage in more sedentary behaviors, similar to the findings by Sarabia-Cobo et al. (2020). Notably, individuals with a history of leisure activities tended to maintain these habits into retirement. These nuances indicated the need for more nuanced research into lifestyle transitions post-retirement. Lastly, Staudinger et al. (2016) demonstrated that mental and physical leisure activities can buffer cognitive decline in retirement, particularly for those from less complex job backgrounds, emphasizing the critical role of intellectual and physical engagement in preserving cognitive health among retirees.

When considering the collective insights from these studies, a multifaceted view of the health implications of retirement emerged. Saunders et al. (2020) drew attention to the negative health impacts of a sedentary lifestyle in retirement, suggesting a need for occupational therapy interventions on transitions. Sarabia-Cobo et al. (2020) highlighted the varied effects of different retirement transitions on health. Sprod et al. (2015) called attention to the complex changes in sedentary behaviors among retirees, while Fleischmann et al. (2020) emphasized the significance

of the psychosocial aspect and mental health in postretirement life. Together, these studies illuminated the intricate relationship between retirement and health, providing valuable insights for developing tailored interventions and support systems for the retired population.

Participation in ADL is Affected After Retirement

The transition from active employment to retirement could have varied effects on an individual's physical, cognitive, and mental health, which, in turn, significantly impact their capability to participate in ADLs and maintain an independent, active lifestyle (Azar et al., 2018; Bendayan et al., 2016; Duchowny et al., 2017; Feng et al., 2021; Sieber et al., 2023). T his section provided insights into the relationship between retirement and health, shedding light on the occupational implications of these transitions.

The decline in cognitive function, health-related issues, and mental health affected participation in ADL after retirement. Jin et al. (2023) obs erved an accelerated decline in cognitive capabilities post-retirement, specifically in memory and executive function. This cognitive erosion could impede a retiree's ability to navigate complex ADLs and preserve autonomy. The circumstances leading to retirement also played a pivotal role in health outcomes. Feng et al. (2021) di scerned that retirement precipitated by health issues is associated with more adverse health consequences than retirement for non-health reasons, which can further complicate active engagement in ADLs. The psychological impact of perceived burdensomeness and social implications further exacerbates the situation, highlighting the nuanced challenges retirees face.

Moreover, the mental health effects of retirement transition could be profound. Boccaccio et al. (2021) re vealed that the physical capability to participate in ADLs independently, plays a major in role in older adults' social and mental well-being. Mental health is integral to

maintaining the drive and ability to perform daily tasks and engage effectively in ADLs. Sieber et al. (2023) obs erved that depression has the biggest implication in a retiree's motivation in participating in occupations. In summary, these studies collectively stressed the importance of addressing the multifaceted impact of retirement on physical activity, cognitive health, and mental well-being to support retirees in maintaining independence and fulfilling engagement in ADLs.

Effects of Leisure Activities and Exercise After Retirement

The transition into retirement offered an opportunity for individuals to invest in their health through leisure activities and exercise, with the literature revealing substantial benefits from such engagement. Tai Chi, as highlighted in the systematic review by Di Lorito et al. (2021), ha s emerged as a particularly beneficial exercise for the retired population, promoting physical and cognitive health. This finding was not isolated, as it resonated with Nuzum et al. 's (2020) broa der exploration of physical activities, which displayed the positive impacts on mental and functional well-being across a range of exercises, including Tai Chi. Both studies collectively suggested a potential focus area for future research, optimizing exercise types and regimens to enhance cognitive functions post-retirement.

The findings by de Paula Couto et al. (2022) on l eisure activities offered a complementary perspective, revealing that an optimistic view of aging and proactive preparation for retirement could lead to increased engagement in leisure activities. Furthermore, Collado-Matteo et al. (2022) a dvocated employing a holistic approach by emphasizing the necessity of personalization in exercise programs, supported by a multidisciplinary team to enhance adherence. Sherrington et al. (2020) e xtended the discussion by providing evidence of Tai Chi's role in fall prevention among community-dwelling older adults 60 years and older, practicing for

at least 3 hours per week. A significant reduction in fall rates among older adults due to this form of exercise echoed the previous findings. These suggested that Tai Chi could be adopted as an occupational therapy intervention addressing health strategies tailored for retirees, promoting safety alongside physical and mental health benefits.

Together, these studies created a coherent narrative: engaging in leisure activities and exercise, notably Tai Chi, could significantly enhance the physical, cognitive, and psychological well-being of retirees (Di Lorito et al., 2021; Nuzum et al., 2020; Sherrington et al., 2020). Moreover, they suggested that a supportive, personalized approach and a positive mindset toward aging are vital to sustaining these activities and maximizing the benefits during the post-retirement phase.

Benefits of Tai Chi for the Decline in Older Adults

Tai Ji Quan, or Tai Chi, has gained prominence in geriatric health as a versatile intervention to combat age-related decline, offering physical, mental, and cognitive benefits that enhance the quality of life for older adults (Guo et al., 2014; Huang et al., 2017; Phunaphich et al., 2020; Wu et al., 2021). As an exercise form that marries gentle movements with mindfulness, Tai Chi stands out for its therapeutic versatility and suitability for individuals with varying health profiles.

Research indicated Tai Chi's capacity to act as a non-pharmacological therapy for hypertension, with Wu et al. (2021) doc umenting notable reductions in systolic and diastolic blood pressure among practitioners. The appeal of Tai Chi as a low-impact, enjoyable form of exercise positioned it as an alternative for older adults who might be precluded from more strenuous activities.

Further emphasizing its preventative benefits, studies by Phuphanich et al. (2020) and Huang et al. (2017) converged on Tai Chi's effectiveness in fall reduction and chronic pain management. The combined findings revealed approximately a 20 percent fall reduction rate and enhanced balance, particularly aiding those with Parkinson's disease, osteoarthritis, and fibromyalgia (Huang et al., 2017; Phuphanich et al., 2020). Thus, Tai Chi outperformed conventional exercises in certain aspects and highlights the necessity for standardized practice protocols to maximize its therapeutic potential, especially in preventative care settings.

In particular, the Yang style of Tai Chi and increased exercise frequency have been linked with greater efficacy in fall prevention among retirees, as noted by Huang et al. (2017). The collective insights from these studies advocated for Tai Chi's integration into health promotion strategies, specially designed for the aging population, to mitigate health risks and bolster overall well-being in later life (Guo et al., 2014; Huang et al., 2017; Phunaphich et al., 2020; Wu et al., 2021). In essence, Tai Chi emerged from the literature as a holistic practice with the potential to address multiple facets of decline in older adults, reinforcing its value as a critical element in aging health strategies.

The Potential of an OT-led Tai Chi Intervention

Incorporating occupational therapists to lead Tai Chi sessions for retirees represented a comprehensive strategy for addressing the previously mentioned challenges of semi/fully retired community-dwelling individuals who are productively aging. The existing literature highlighted the significant benefits of Tai Chi on physical health, cognitive function, and mental well-being, areas critically impacted during the retirement phase (Huang et al., 2017; Wayne et al., 2014; Wu et al., 2021). With their expertise in adapting activities to promote client-centeredness and functional independence, occupational therapists are uniquely positioned to customize

intervention sessions to enhance their therapeutic benefits for retirees (Kessler & Graham, 2015; Mirza et al., 2020; Smallfield & Elliot, 2020). They can be applied to Tai Chi in this case. By accounting for the participants' unique health profiles, previous occupational backgrounds, and personal preferences, occupational therapists can ensure that Tai Chi practices are both accessible and engaging for the intended audience (de Souto Barreto et al., 2019; Guo et al., 2014; Phunaphich et al., 2020; Sherrington et al., 2019; Smallfield & Elliot, 2020).

The use of Tai Chi was extended beyond improving physical balance and reducing fall risks, which were significant concerns among older adults (Huang et al., 2017; Zhong et al., 2019), but also addressed the psychological aspects of aging, such as stress management and mental resilience enhancement, that can also affect mood regulation (Yeung et al., 2018; Zou et al., 2018). The role of occupational therapists in facilitating Tai Chi sessions encompasses fostering social interaction, promoting a positive aging outlook, and encouraging the integration of leisure and exercise into daily routines as vital components for health promotion (Koren et al., 2021; Di Lorito et al., 2021; Nuzum et al., 2020; Wu et al., 2024). This personalized, occupation-centered approach was supported by evidence indicating that engaging in intellectually and physically stimulating leisure activities can mitigate the negative impacts of retirement on health and well-being (de Paula Couto et al., 2022; Collado-Matteo et al., 2022; Hoang et al., 2022; Wu et al., 2024).

Furthermore, incorporating Tai Chi into the array of interventions provided by occupational therapists may give retirees a resource that supports their physical and cognitive health and their emotional and social well-being (Koren et al., 2021; Qi et al., 2023; Wu et al., 2024; Zou et al., 2018). This comprehensive strategy capitalized on the therapeutic potential of Tai Chi, reinforcing its role as an occupation-based intervention by facilitating a more satisfying

and fulfilling retirement experience, as it is one of occupational therapy's professions roles to promote health and well-being (Donnelly et al., 2023; Scaffa et al., 2020; Sherrington et al., 2020). In summary, the deliberate inclusion of occupational therapists in leading Tai Chi sessions for retirees has emerged as a promising path for enhancing life quality, fostering healthy aging, and facilitating a healthy retirement.

Statement of the Problem

The transition into retirement in the United States often shifts towards a more sedentary lifestyle, which poses significant health challenges for the aging population (Andel et al., 2015; Sarabia-Cobo et al., 2020; ter Hoeve et al., 2020). This change in daily routine can lead to decreased physical performance and cardiovascular endurance, heightening the risk of developing chronic diseases such as diabetes, hypertension, and heart-related conditions (Bendayan et al., 2016; Collado-Mateo et al., 2021; ter Hoeve et al., 2020). These health issues could be detrimental to the physical well-being of retired individuals and impact their independence in their occupations, ability to age in place, and overall quality of life (Sieber et al., 2023).

In Occupational Therapy (OT), addressing the adverse effects of a sedentary lifestyle in the retirement population is a pressing concern (Gerten et al., 2021; Saklayen, 2018; ter Hoeve et al., 2020). Interventions that could counteract these effects are essential to maintain ADLs' independence and enhance this demographic's health and wellness. Tai Chi, known for its gentle movements and potential physical benefits, such as improved balance and reduced fall risk, may play a critical role in improving self-perceived confidence in ADLs (Li et al., 2016; Qi et al., 2023; Wu et al., 2021). Integrating alternative exercises such as Tai Chi into OT frameworks presents an opportunity to explore the gaps in research in finding occupation-based strategies that respond to the specific demands of the aging population for comprehensive, patient-centered care.

This study highlighted the need for further research into integrating Tai Chi with occupational therapy (OT) principles for older adults. It sought to understand how OT's focus on holistic, client-centered care aligned with Tai Chi's benefits, aiming to enhance older adults' well-being and independence through meaningful activities. It is an opportunity to strengthen/add the available interventions for OT practitioners to effectively address these

lifestyle-induced health challenges of retirement, especially in occupational performance. Moreover, Tai Chi's potential to enhance both physical abilities and psychological resilience in older adults presents a resource that occupational therapy has yet to utilize fully.

This capstone project aimed to address the information gap by investigating the effectiveness of an occupational therapy-led Tai Chi intervention for semi- and fully retired individuals and their perceived confidence in their ADL performance. The study aimed to explore the effectiveness of Tai Chi in preventing the adverse effects of sedentary lifestyles by promoting healthy leisure activities and physical activity. The results of this investigation contributed to the body of knowledge of occupational therapy and offer a potentially impactful intervention for improving the lives of the aging population in the United States.

Addressing this problem was significant for the OT field because it aligned with the profession's commitment to providing holistic and client-centered care (AOTA, 2020). As the elderly population grows, so did the need for innovative, evidence-based interventions that promote autonomy and well-being (AOTA, 2020). Exploring Tai Chi within an OT context could significantly enhance the profession’s therapeutic approaches to aging populations.

Statement of Purpose

This capstone project aimed to explore the therapeutic potential of Tai Chi in enhancing the perceived confidence in the occupational performance and their occupational engagement of retirees, with a particular focus on its effectiveness across varying levels of balance ability. The study design focused on three key objectives: firstly, the project intended to assess the effects of Tai Chi on self-perceived confidence in engaging and performing ADLs and other occupational tasks among the semi to fully retired participants at OLLI. This measurement was pivotal in understanding retirees' subjective improvements and personal perceptions regarding their occupational engagement following Tai Chi practice.

Secondly, participants with diverse balance capabilities should be considered to assess Tai Chi's impact on retirees' occupational performance. This evaluation is critical in determining whether Tai Chi offers universal benefits irrespective of initial balance levels.

Lastly, the study sought to determine the feasibility and practicality of integrating Tai Chi into existing occupational therapy interventions for the target population. By examining the outcomes of enhanced occupational engagement and self-perceived confidence, the results of this project could contribute valuable insights into the potential inclusion of Tai Chi as an effective intervention within occupational therapy practices for retirees.

Theoretical Frameworks

The Model of Human Occupation (MOHO), established by Kielhofner in 2008, was the foundational theoretical framework that guided this capstone project. MOHO's comprehensive framework emphasizes the dynamic relationships between individuals' motivations, habits, environmental contexts, and occupation performance. This holistic approach is pivotal for understanding the nuance of occupational shifts retirees experience, especially as they navigate changes in roles, routines, and identities.

Central to MOHO is the concept of volition, habituation, and performance capacities, essential in assessing how retirees engage with their environment and daily activities. The Occupational Self-Assessment (OSA) questionnaire, deeply rooted in MOHO principles, was instrumental in evaluating these areas. The OSA offered insights into retirees' perceived confidence in their abilities to accomplish their daily occupational engagements (Kielhofner et al., 2009). By focusing on volition, the OSA helped to understand retirees' values and interests, which was crucial for engaging them in meaningful activities such as Tai Chi.

Furthermore, MOHO's adaptability to diverse settings indicates its relevance to this project. As an intervention that was utilized with an occupational therapy lens, Tai Chi aligned with MOHO by offering a structured yet flexible activity that retirees could adapt to their individual capacities and environmental contexts. This alignment ensured the Tai Chi program was client-centered and deeply reflective of the participants' evolving occupational identities and roles during retirement.

Guided by the MOHO, this project explored Tai Chi as a potential occupational therapy intervention to overcome health barriers and support retirees’ lives with meaningful engagement. The aim was to enhance well-being, improve quality of life, and positively shift occupational

engagement for retirees. Using the OSA under the MOHO framework ensured a comprehensive approach, acknowledging and addressing the multifaceted aspects of retirees' lives, thereby supporting their transition into retirement with a balanced, holistic perspective on well-being and engagement.

Methodology

This capstone project employed a structured approach to explore the efficacy of Tai Chi in enhancing occupational performance and self-perceived confidence among retirees. The methodology assessed Tai Chi's impact on individuals with moderate to good balance and evaluate its integration into occupational therapy practices. This section detailed the research design, participant selection, intervention procedures, and data analysis methods to ensure a comprehensive and systematic investigation of Tai Chi as a therapeutic intervention for the retired population.

Agency Description: Osher Lifelong Learning Institute (OLLI) at UNLV

OLLI at UNLV is a vibrant center of learning and engagement for the semi-retired and fully retired community. Established to enrich mature adults' lives through diverse educational and social opportunities, OLLI at UNLV fosters a dynamic environment where lifelong learning thrives. OLLI at UNLV is part of a national Osher Lifelong Learning Institutes network supported by the Bernard Osher Foundation (OLLI at UNLV, n.d.). The curriculum offered by OLLI at UNLV was specifically tailored to the interests and needs of the senior community, encompassing topics from arts and humanities to science and technology. OLLI actively cultivates partnerships with diverse community programs and companies, including those focused on researching and supporting Las Vegas' senior community. This commitment is further exemplified by initiatives incorporating research from UNLV's Brain Health program, aiming to enhance the well-being and resources available to older adults in the region through collaborative efforts.

The unique aspect of OLLI at UNLV is its community-driven model. The courses were often designed and led by OLLI members, UNLV faculty, and community experts, fostering a

participatory and peer-learning environment (OLLI at UNLV, n.d.). This model encourages active intellectual engagement among members and facilitates strong social connections, creating a supportive and collaborative community of learners. As a site for the capstone project, "Occupational Therapy-Led Tai Chi: Elevating Perceived Competence in Daily Activities Among Semi/Fully Retired Adults," OLLI at UNLV offered an ideal setting. This capstone project leveraged the institute's dedication to lifelong learning, health, and wellness, aligning seamlessly with its objectives. The members of OLLI, primarily semi-retired and fully retired adults, represented the target demographic for the study, making it a suitable venue for implementing and evaluating the Tai Chi intervention. Furthermore, OLLI's established infrastructure, including its facilities and community networks, provided a supportive environment for conducting this research.

OLLI at UNLV is not just an educational institution but a thriving community dedicated to lifelong learning, personal growth, and communal engagement. Its collaboration in this capstone project highlighted its commitment to exploring and embracing innovative approaches to health and wellness for the older adult population.

Study Design

This capstone project used a non-randomized, two-group, Pre/Post-Test Design to evaluate the effectiveness of an OT-led Tai Chi course on the perceived confidence of ADL performance in semi and fully retired adults. The key measure for assessing change was study participants' perceived confidence in performing and engaging in ADLs and/or daily occupations, measured by the OSA questionnaire administered before and after the intervention. Participants from OLLI who were at least 50 years of age were divided into two groups, moderate balance (35 to 44 points) and good balance (45 and above), and they were assessed

using the Berg Balance Scale (BBS)(See Appendix A). This division ensured a balanced representation of varying balance abilities within the sample. The pre-test and post-test comparisons, pre-test and post-test participation in Tai Chi using the OSA provided insights into the impact of Tai Chi on participants' self-perceived confidence in their ability to perform ADLs, directly addressing the study's objectives.

To capture a more comprehensive understanding of the impact of the Tai Chi intervention, a feedback page was included at the end of the study. This page requested open-ended written responses from the participants regarding their overall experience with the program. This qualitative data collection method was employed to gather in-depth insights into the participants' personal experiences, perceptions, and the subjective benefits of participating in the Tai Chi intervention.

Materials

The following materials were essential for successfully implementing the Occupational Therapy (OT)-led Tai Chi program at OLLI UNLV designed for semi- and fully retired adults. These materials, approved for use in the study, were critical for ensuring the safety, comfort, and effective participation of all involved.

Venue: A room provided by OLLI, suitable for group exercises and Tai Chi sessions.

- Chairs: Stable, four-legged chairs supplied by OLLI for exercises requiring support.
- Footwear: Participants must wear flat shoes with good grip for safety and balance during exercises.
- Apparel: Comfortable workout clothes for ease of movement.
- Berg Balance Scale (BBS) Paper: This is used for initial participant screening to assess balance levels.

- Occupational Self-Assessment (OSA) Questionnaire: for pre- and post-intervention assessment to measure changes in self-perceived confidence in ADL performance.

These materials were used to facilitate the effective delivery of the Tai Chi program and support the collection of essential data for the study. The Berg Balance Scale (BBS) and OSA used to evaluate the program's impact on participants' occupational performance and self-efficacy.

Facilities and Equipment

Well-maintained facilities at the institute support the conduct of group activities such as Tai Chi sessions. These include rooms of appropriate size and ample natural light and ventilation, essential for creating a conducive environment for physical activity.

Safety and Accessibility

Safety and accessibility were essential in the facilities at OLLI. The rooms were accessible to individuals with varying levels of mobility, ensuring that all participants could engage safely in the Tai Chi sessions. Safety equipment, such as non-slip mats and support rails, were also available to minimize the risk of falls during the sessions. The materials and resources available at OLLI at UNLV provided optimal support for the Tai Chi intervention in this capstone project. The facilities' safety features helped ensure the participants have a positive and enriching experience.

Outcome Measures

The primary outcome of this study was self-perceived confidence in ADL performance measured by the Occupational Self-Assessment (OSA). The OSA is a client-centered questionnaire that examines an individual's perceptions regarding their occupational competence and the matching of their ADLs with their values (Kielhofner et al., 2009). Using OSA, study

participants were asked to rank their daily activities based on personal importance and identified their perceived confidence in completing these tasks. The OSA was administered approximately 10-15 minutes before and after the intervention to determine changes in the participants' perceived confidence in the ADL performance. The OSA was tested and validated rigorously using Rasch analysis during its development across three studies completed by Kielhofner et al. (2009). By ensuring the OSA accurately measures Occupational Competence and Values with a high level of internal validity (Infit MnSq within acceptable ranges from 0.74 to 1.39 for Occupational Competence items and 0.74 to 1.26 for Values items) and consistency (over 90% of participants using scales reliably) across the three studies by Kielhofner et al. (2009), this supports the OSA's appropriateness in assessing occupational engagement for this project.

Additionally, to capture data on participant experiences and the subjective impact of the Tai Chi intervention, open-ended feedback was collected during the post-test. This qualitative component allowed participants to freely express any changes in their perceptions and behaviors concerning daily activities and overall well-being that might not be fully captured by the OSA. Responses were analyzed to extract themes that emerged from the participant's experience with intervention, that gave another perspective on the intervention's impact beyond numerical scores.

Intervention

Study participants experienced 100 minutes/week of Tai Chi sessions for six weeks. The study utilized the "Tai Ji Quan: Moving for Better Balance" (TJQMBB) form of Tai Chi, which was created and developed by Dr. Fuzhon Li at the Oregon Research Institute, to improve balance and mitigate fall risks in older adults (Li et al., 2014). TJQMBB's development was based on the contemporary Yang style 24-form Tai Chi (Tai Ji Quan: Moving for Better Balance,

n.d.). The OT-led Tai Chi course consisted of eight forms of movements associated with daily activities from TJQMBB, such as sit-to-stands and weight shifting.

The student researcher, a certified TJQMBB instructor, delivered all sessions to enhance safety and ensure practical instructions. The delivery was applied with an occupational therapy lens by the OT student researcher. The forms were modified based on the participants capabilities and limitations, using the OT student's knowledge in activity modification and adaptation, that assisted participants in their Tai Chi practice. A stable four-legged chair was utilized in some forms to replicate a home environment, demonstrating fall recovery movements essential for preventing falls within a household context. In addition to enhancing balance, coordination, and core control, the practice also added cognitive training via active recall of forms and their names. After the six-week intervention, the participants executed all eight forms in sequence.

Procedure

The recruitment phase of the study primarily utilized posted flyers at OLLI at the UNLV. The student researcher's contact information was listed in the fliers (see Appendix B), allowing members of OLLI who were interested to schedule a screening session and fulfill the requirements to be part of the study. Recruitment followed the research activities, including screening, data collection, and Tai Chi interventions, which took place at OLLI's UNLV facilities, ensuring ease of access for participants and consistency in the research setting.

Screening Process:

OLLI required members to complete online enrollment to register for classes. The OLLI members who selected the Tai Chi class were provided information with the nature of the class, and regarding class eligibility, which included balance screening with the BBS. Additionally,

they also received an email from the student researcher (see Appendix C) with the information necessary to become part of the class. The student researcher contacted the potential participants and scheduled the screening session. The participants must follow the requirements listed in the email template. The two requirements to proceed to the screening were to receive a medical clearance note from their doctor or healthcare provider. The interested participants received a program description (see Appendix D) that they gave to their healthcare provider to notify them of what the study entailed. The program details were provided either through email or received as a hard copy upon request. The interested participants were notified to bring proof of medical approval before scheduling the balance screening. Further questions and clarifications by the participants about the program and what it entailed were discussed during the screening process. Screenings will be individualized by appointment, with only the researcher and participant in the room. The designated area was reserved exclusively for confidentiality screening.

Balance Screening

The student researcher administered the BBS to determine the participants' level of balance, which was vital for safe participation in the study. A threshold score of 35 out of 56 segregated participants with moderate to good balance from those with severe impairments. Individuals passing this threshold joined the study, with a minimum 48-hour consideration period following oral consent. As detailed in Appendix E, written consent and an optional media release form were required and completed by the participants. The following script was delivered in a dialogue form to the participants that qualified for the study:

"Thank you for your interest in this Tai Chi Study. After reviewing your screening results, it appears that this specific program may not be the best for you based on our criteria as dictated by the Berg Balance Scale assessment. This outcome does not reflect your overall

abilities and encourages you to explore other suitable programs that OLLI offers. We have other activities that might pique your interests and needs. Your participation is greatly valued, and I am here to help you find other engaging activities or classes here at OLLI. Please feel free to contact me if you have any questions or need further guidance. Thank you again for participating."

The following script was delivered in a dialogue form, to the individuals who were not able to fulfill the requirements of the study after screening:

"Thank you for your interest in this Tai Chi Study. After reviewing your screening results, it appears that this specific program may not be the best for you based on our criteria as dictated by the Berg Balance Scale assessment. This outcome does not reflect your overall abilities, and I encourage you to explore other suitable programs that OLLI offers. We have other activities that might pique your interests and needs. Your participation is greatly valued, and I am here to help you find other engaging activities or classes here at OLLI. Please feel free to contact me if you have any questions or need further guidance. Thank you again for participating."

Grouping

The selection process had the intention to place participants into two distinct groups based on their BBS scores: the "Good Balance Group" (scores of 45 and above) and the "Moderate Balance Group" (scores between 35 and 44). Each group hosted 10 participants, facilitating manageable and comparable cohorts. Recruitment followed the policy of first come, first served. In the event of challenges in recruiting an equal number of participants for each group within the study, the research adapted by forming multiple groups with homogeneous participants based on their balance levels. For instance, had the recruitment process yielded 15 participants classified as having 'good' balance and 5 with 'moderate' balance, the study

proceeded with one group of 10 participants with good balance, another group of 5 with good balance, and a group of 5 with moderate balance. If the participant numbers did not meet the predefined quota for each group, the researchers informed any excess participants that they could not be included in the study. An example of this scenario would have been if 16 participants qualified for the good balance group and 5 for the moderate balance group. The student researcher would personally notify the last to qualify for the good balance group through email of their inability to participate. This procedure ensured fairness and clarity in participant selection, as detailed in the attached email template provided for communication with participants.

Pre-Intervention Measurements

Before the intervention began, the OSA gauged participants' perception of their confidence in their daily activities. Taking between 7 and 15 minutes, this pre-test set a baseline for later comparison. This OSA was given to the eligible participants after they fulfilled the balance screening requirement. The investigator reserved the room for the assessment sessions. The environment was private and quiet to avoid distractions. The room temperature was maintained at 70-75 degrees to ensure comfort.

Intervention Implementation

Over six weeks, participants engaged in weekly 100-minute sessions of Tai Chi, each starting with a structured overview. The participants were provided a class procedure handout containing the activities (see Appendix F) they experienced during the six weeks of Tai Chi intervention. The instructor covered one to two forms of TJQMBB, culminating in eight forms designed to be synergistically performed by the course's end (see Appendix G). Participants who

agreed to have their audio/video recording be part of the study had footage taken only in class throughout the six weeks during their practice.

Post-Intervention Measurements

Scheduling of the post-intervention assessment of the OSA was conducted in week 6 of the practice. The participants took the post-test the following week. To secure data privacy, the data collection procedure from the pre-test assessment was applied during this session.

Data Analysis

The R software was used for data analysis. Descriptive statistics were utilized to examine the mean, median, standard deviation, and normal distribution of the data. Due to the design of the study using pre-test and post-test data to examine the effects of Tai Chi on perceived occupational competence, the study employed the Wilcoxon signed-rank test. This test provided a non-parametric analysis of the scores. Given that the OSA utilizes a Likert scale with scoring ranging from 1 to 4, which is considered ordinal data, the Wilcoxon test was a suitable choice. This approach ensured a rigorous analysis and robustness of the data by utilizing a non-parametric method.

In addition to quantitative analysis, open feedback collected post-intervention was manually analyzed to identify key themes that reflect participants' experiences. This qualitative analysis involved a thorough review to extract common insights, enhancing data interpretation depth. To ensure accuracy and reliability, the data was triangulated with inputs from the Principal Investigator, OLLI program manager, and the participants. This collaborative verification process validated the interpretations and ensured that the qualitative findings to as accurate as possible, to represent the participants' true experiences and perceptions.

Dissemination and Data Use

The study was administered with electronic data collection and participants' pen/pencil completion of forms. Both sets of data collected in the assessment were secured through the UNLV-provided Google Drive, an encrypted university online storage space provided by UNLV that was secure through the two-step authorization process by OKTA verification. The paper data were scanned into a PDF format and stored electronically through the UNLV Google Drive. The data collected were utilized to identify and find evidence to answer the research question. The results from the collected data were synthesized to see the efficacy of Tai Chi as a viable intervention for occupational therapy and to connect its benefits to occupations for the target population.

Participant Privacy and Communication

The commitment to ensuring the privacy of the participants and the screening process for potential participants was organized through a schedule-driven method through Calendly. Interested participants could reach out to the student researcher either via email or through the contact details provided by OLLI (as mentioned in the flier and the upcoming class catalog by OLLI, subject to confirmation).

Upon recruitment to the study, participants were assigned a case number. A codebook was created to identify the cases to the participants and was stored in a separate folder. Only the case number appeared on the questionnaire when collecting answers. Questionnaires adopted a handwritten approach, ensuring that other participants could not overhear or view any individual's feedback. The collected questionnaire was converted into a PDF file within 24 hours once obtained. The paper form of the collected questionnaire was shredded immediately after the conversion. The PDF file was stored in a secured UNLV-Google Drive with a two-step

authorization process by OKTA verifications. The PDF files were separated from other identifiable folders. Furthermore, any discussions related to the assessment were conducted privately to guarantee the participants' safety and comfort.

The audio and video recordings were used for educational purposes, including the capstone presentation and professional conferences. They were not used for detailed analysis or research data collection. The participants' anonymity was maintained by blurring their faces or features that reveal their identities. The recordings were stored in the encrypted Google Drive storage provided by UNLV and will be permanently deleted after three years.

Data Handling and Security:

All information collected in the study was maintained confidentially, ensuring that no references were made in any written or oral materials that could link participants to the study. Records were digitally stored and secured using the UNLV-provided Google Drive, with access requiring a two-step authorization process via OKTA verification. Paper data were scanned into PDF format and then shredded immediately after conversion. This data was stored in the drive, with the principal investigator (PI) securing the data storage for three years following the completion of the study. After the specified storage period, all gathered information was deleted.

Audio and video recordings were captured using a camera equipped with an SD card. The footage and audio were transferred to the student researcher's secure, UNLV-regulated Google Drive account immediately after recording. Subsequently, the data on the SD card were promptly and permanently erased to ensure the security and confidentiality of the recorded material. Faces and identifiers in the footage were blurred within 72 hours of recording. Access to these data was exclusively granted to the student researcher.

Description of Potential Risks

In the pursuit of investigating the advantages of "Tai Ji Quan: Moving for Better Balance" (TJQMBB) for older adults within an occupational therapy framework, a keen awareness existed regarding the inherent considerations linked to any physical activity. TJQMBB is renowned for its gentle, low-impact characteristics, rendering it appropriate for the physical capabilities of older adults (Li et al., 2014). Nevertheless, it remains imperative to recognize and address potential risks to guarantee the highest safety and benefit for all participants.

Physical Considerations and Safety Measures:

Tai Chi is widely acknowledged as a safe activity; however, individuals may experience muscle soreness, a typical response to physical exertion. To address potential discomfort, stretching exercises were incorporated before and after each session. Given the dynamic nature of Tai Chi movements, there was an inherent risk of falls, but measures were taken to mitigate this risk. Participants were strongly advised to wear appropriate footwear with sufficient grip, and class sizes were limited to a maximum of 10 participants. This smaller group setting allowed the interventionist to maintain a controlled environment and provide personalized attention, thereby enhancing overall participant safety.

Additionally, as part of a class offered by OLLI, communication channels were established for participants to share feedback or concerns, ensuring their comfort and safety throughout the program. If a participant displayed disruptive behavior making them ineligible to continue, the instructor would adhere to the OLLI membership handbook at UNLV, and the student researcher would notify the individual of their removal from the program. In cases of escalation, OLLI staff would be involved.

Lastly, if a fall occurred, the emergency procedure outlined in the OLLI membership handbook was followed, which included notifying OLLI staff and contacting emergency services to ensure the participant's safety.

Ethical and Legal Considerations

Ethical considerations were integral to the methodology of this study, particularly because participants were identified as a potentially vulnerable population. Respecting their rights and dignity, the study maintained anonymity in data handling through a coded system and ensured strict adherence to informed consent procedures. Participants were briefed about the study and their roles, with informed consent forms provided in advance for their review (see appendices for forms). It was crucial for all involved to adhere strictly to these guidelines to ensure the safety and comfort of all participants.

Results

Balance Screening

Out of the 40 participants originally recruited for the study, 18 completed the program. The initial screening with the Berg Balance Scale (BBS) identified this subset of participants as having good balance, which was evidenced by consistent mean scores (M = 54.4, SD = 1.90) across all three groups. The data exhibited a range from 51 to 56, with the mode of 56. This consistent balance performance across participants provided the basis for combining them into a single homogenous cohort for a more robust statistical analysis in evaluating the Tai Chi intervention with the OSA.

Pre-test and Post-test Competence Scores of OSA

When examining the impact of the Tai Chi intervention on perceived occupational competence, the OSA scores were analyzed. Descriptive statistics showed an increase in mean scores from pre-test (M = 70.56) to post-test (M = 73.56), suggesting a trend toward improved perceived competence (See Table 1). It pointed to a positive trend in the data, suggesting the Tai Chi intervention may have potential beneficial effects on participants' occupational competence. However, the result from the Wilcoxon signed-rank test showed non-statistical significance of this change (p = .08).

Pre-test and Post-test Values Scores of OSA

The analysis of the "Values" component of the OSA questionnaire revealed a positive trend following the Tai Chi intervention. The descriptive statistics for the "Values" scores showed an increase from the pre-intervention mean (M = 69.94) to the post-intervention mean (M = 73.50) (See Table 1). The change in median from pre-intervention (72.5) to post-intervention (75.5), suggesting a shift towards higher values scores post-intervention among

participants. No statistical significance of changes in values were found through the Wilcoxon signed-rank test ($p = .34$).

Table 1: OSA Competence and Values Pre-test and Post-test Descriptive Statistics

OSA "Competence" Data (n=18)	Pre-Intervention Scores	Post-Intervention Scores	*p* value
Mean (SD)	70.56 (8.84)	73.56 (8)	.08
Median	71.50	77.50	
Range (Min - Max)	50-84	47-84	
OSA "Value" Data (n=18)			
Mean (SD)	69.94 (12.87)	73.50 (9.13)	.34
Median	72.50	75.5	
Range (Min - Max)	42-84	48-84	

Participant Feedback Qualitative Aspect

The post-intervention interviews yielded qualitative feedback was collected to understand the participants' experiences. Themes that emerged from the analysis highlighted the Tai Chi intervention's complex impact (see in Table 2). Q ualitative data were collected via open-ended written responses and verbal comments recorded by the student researcher following the completion of the post-test OSA questionnaire. Overall, the Tai Chi classes were not viewed merely as a standalone activity but as a gateway to adopting a more active and health-conscious lifestyle. This perspective shows the broader impact of Tai Chi, highlighting its role not only in enhancing physical and mental health but also in fostering a sustainable approach to health and wellness.

Social Aspect of the Tai Chi Class

The social aspect of the Tai Chi class emerged as a crucial motivator for participants. Engagement with peers in a group setting cultivated a sense of community and accountability, notably enhancing commitment to the program. This was reflected in the consistent attendance of the 18 participants who completed the full 6-week study period. Notably, five participants, who were relatively new to OLLI, having only commenced their second semester, reported that the social opportunities during breakout groups were instrumental in connecting them with fellow member, as the interactions they admitted would not have occurred independently. The social component of this Tai Chi class stood in contrast to their other experiences at OLLI, where classes typically involved passive listening without active engagement post-lecture. Across participants, there was a shared sentiment that this social interaction fostered a supportive community among retirees, an element they deemed valuable. The consensus was that the experience contributed positively to their social well-being, an aspect they highlighted as a

significant benefit and crucial to understanding the collective eagerness to embrace new activities for health improvement.

Motivation in Overall Health and Well-being

The Tai Chi classes emerged as a significant motivator initiating a regular exercise routine among several participants. For many, Tai Chi provided an accessible entry point into physical activity, which they felt confident could be sustained over the long term. Participants recognized the benefits of other forms of exercise, such as walking and strength training, but they expressed a particular interest in alternatives that also support mental health. The meditative aspects of Tai Chi were appealing because they offered mental health benefits alongside physical activity.

Notably, eight participants who had previously attempted meditation practice found it challenging to remain still during seated sessions. According to them, Tai Chi offered an alternative that still allowed them to engage in mindfulness. This adaptability was especially valued by those who preferred not to participate in more conventional forms of exercise, such as gym workouts involving machines and weights. Instead, they appreciated activities that could be easily integrated into their daily lives, whether at home or in outdoor settings like parks.

Activity Modification with an OT Tai Chi Instructor

Participants' feedback from the post-test OSA interviews highlighted the value of the instructor's adaptability in modifying Tai Chi movements for those with physical challenges. The responsiveness and individualized attention provided by the instructor, who also functioned as the student researcher and brought expertise from their background as a third-year occupational therapy student were especially commended. This occupational therapy perspective was crucial in adapting activities within the Tai Chi routine, ensuring full participation for all.

Notably, three participants with rheumatoid arthritis (RA) a ffecting their knees spoke of the instructor's modifications that accommodated their condition, particularly during RA flares that made certain movements challenging. Such tailored modifications exemplify the importance of having an occupational therapist facilitate interventions like Tai Chi.

Self-reflection Started by the OSA.

The administration of the OSA served as a catalyst for introspection among participants, transforming the assessment into a reflective practice. As they responded to the OSA questions, participants engaged in thoughtful deliberation about their health and well-being, often gaining a heightened awareness of their functional capabilities and revisiting their personal health objectives. The comprehensive nature of the OSA led participants to consider various life dimensions, such as social connections, communication effectiveness, and community involvement.

The reflections started by the OSA prompted participants to think critically about how they might enhance and preserve their health, particularly as they age. Tai Chi was acknowledged as a beneficial practice that could contribute to maintaining balance and facilitating aging in place. Moreover, participants reflected on their roles and daily activities, contemplating the significance and proficiency with which they perform their routines, habits, and occupations. This introspection encouraged a reassessment of the value and effectiveness of their engagement in everyday life.

Table 2: Qualitative Feedback Themes

Themes	Frequency (n=18)	Participant Responses
Social Aspect of the Tai Chi Class	16	"…in-class sessions with other people were very inspiring and kept me motivated..." "…I feel like the people in the class helped me practice..." "…the teacher and members were encouraging…" "…looking forward to practicing with my classmates…" "…class allowed for mistakes and growth, bonding amongst fellow participants..." "…I could feel the energy in the room…" "…enjoyed the fun and interaction…" "…was a little nervous because I didn't know anyone, but the instructor facilitated working in groups naturally and made the experience something to look forward to..."
Benefits of an OT as a Tai Chi instructor	4	"…slowed down and spent time individually to help with making the moves easier to pull off…" "…patient and explained the movements and gave cues to understand the sequence of the forms..." "…modified body positioning because of my knee pain…"

		"…some of the movements are difficult because of stiffness, but he made it easier to learn, practice and remember..." "…knowledgeable in helping gain strength in my legs and balance…" "…the motivation to continue was because of (instructor's name), setting us up with achievable goals..."
Self-reflection started by the OSA	18	"…helpful in guiding me to be more precise in my everyday chores, tasks…" "...realized that there is always room for improvement…" "…helped me focus on situations in my life…" "…discovered the importance to have balance in my life…" "…opened many doors to my thinking…to balance not just physically, also mentally, spiritually and emotionally…." "…made me start of thinking of using a list and the calendar so I can do my chores…"

Discussion

The study aimed to explore the impact of a Tai Chi intervention conducted by an occupational therapy researcher on the perceived competence of occupations of semi to fully retired older adults living in the community. Out of the 40 participants enrolled, 18 completed the program. The post-intervention analysis, assessed through the Occupational Self-Assessment (OSA), did not show statistically significant changes. Nevertheless, a comparison of mean scores for the OSA Competence and OSA Values components suggested a positive trend toward improvement. These trends are particularly pertinent to OT as they suggest that the participants may have experienced subjective enhancements in areas central to occupational performance and engagement, which are core outcomes of interest in OT. Moreover, qualitative feedback from participants emphasized improved mental health and social interactions, reinforcing the psychosocial benefits that complement the physical benefits of Tai Chi. The participants' perceived improvements align with the goals of OT to enable individuals to participate in meaningful activities and roles, highlighting the potential of incorporating Tai Chi into OT interventions. The study's findings provided a compelling rationale for occupational therapists to consider Tai Chi as an intervention strategy for retired adults to support holistic well-being and active engagement in life pursuits.

Despite of a trend toward improvement, study participants did not perceive a significant improvement in their confidence of ADL performance. The Likert scale's subjective nature in the Occupational Self-Assessment (OSA) may have influenced participants' perceived competence in their abilities to perform their ADLs. Moreover, the homogeneity of the participants, which comprised high-functioning members of OLLI all classified as having 'good' balance, inherently limited the potential for a wide range of improvement. This uniformity in baseline functioning

suggested less room for improvement as detected by the OSA, which may explain the non-statistically significant findings. Despite this, the competence scores displayed a positive trend, albeit not reaching statistical significance. This trend is indicative of the intervention's potential benefits even among a population that already performs well in ADLs. Future research may benefit from exploring more diverse populations or including participants with greater variability in baseline functioning to assess the impact of interventions like Tai Chi more fully.

The social aspects of the Tai Chi intervention emerged as a major factor in continued participation, echoing findings by Fleischmann et al. (2020) about the importance of community and social connections in maintaining mental health during retirement. Engaging in the Tai Chi intervention allowed the participants to form connections within the class and extend these interactions outside the scheduled sessions, showing the community-building potential of group-based interventions such as Tai Chi. They reported that these social connections were critical in maintaining their motivation and enhancing the enjoyment of the Tai Chi classes. The sense of community developed through these classes provided a strong support system that encouraged continued engagement in the program. This closely aligned to the theoretical framework of MOHO that volition connects the motivation to practice and improve their occupational performance. The community aspect was not just an incidental benefit but a fundamental element of the intervention's success.

Furthermore, the employment of the OSA was effective in eliciting participants' perceptions of their occupational engagement and performance. This feedback was crucial for understanding the self-perceived impact of Tai Chi on their ADLs and overall life satisfaction. Participants, aware of their health conditions, viewed Tai Chi not only as a physical exercise but also as a proactive measure to avoid sedentary behaviors and maintain health and functionality as

they age. The process of completing the OSA facilitated participants to verbalize and reflect on their experiences, leading to a deeper understanding of how Tai Chi affected their occupational roles and daily routines. This reflective process was valuable in reinforcing the benefits of the intervention and encouraging participants to continue their practice beyond the study.

Overall, the study highlighted the beneficial effects of Tai Chi on participants' perceived confidence in performing activities of daily living and other occupations. While the quantitative data did not reveal significant changes, the qualitative insights provided by participants showing the value of Tai Chi as a holistic intervention that supports both physical and psychosocial aspects of health. The findings suggested that integrating Tai Chi into wellness programs for older adults who are semi-retired to fully retired and have good balance could provide a valuable tool against the sedentary tendencies that threaten their health. Future studies should consider a more diverse participant recruitment strategy and adopt assessments measuring occupational performance and well-being to better capture the nuanced impacts of Tai Chi for this population.

Limitations and Assumptions

Limitations

The findings were limited by the sample, primarily high-functioning individuals from OLLI, which may not represent the general population of retired adults. This selection bias could affect the generalizability of the results. Additionally, the short duration of the intervention may not have been sufficient to capture significant changes in participants' occupational engagement and self-perception. The use of self-reported measures such as the OSA can introduce several biases. Response bias may occur, as participants' answers could be influenced by their desire to provide socially desirable responses or their current mood and health status. Recall bias might also impact the accuracy of their responses, particularly if they had difficulty remembering past levels of engagement or performance accurately. External factors, such as participants' health on the day of testing or personal circumstances, could have also affected their performance and feedback, potentially impacting the reliability of outcome measures. Future studies might consider controlling for these variables or employing a mixed-methods approach to mitigate the effects of these biases.

Assumptions

There were several assumptions that may affect the interpretation of the study results. The study assumed that participants' engagement in Tai Chi and the feedback received accurately reflect their motivation and the perceived benefits of the intervention. It is assumed that the intervention was delivered consistently and adhered to the planned protocols throughout the study period. Another assumption was made that Tai Chi provided health benefits relevant to the retired population, particularly in improving balance, and overall health and wellness. There was an assumption that participants were honest and thoughtful in their feedback during post-

intervention interviews and in their responses to the OSA. Also, the research assumed that the effects observed during and immediately after the intervention would be sustained if participants continue practicing Tai Chi.

Implications for Research

The qualitative outcomes of this study calls attention to the need for further research into the effects of Tai Chi on retirees. Future studies should consider a broader participant pool to ensure a more diverse sample. Additionally, incorporating longer intervention periods and follow-up assessments could provide more substantial evidence of Tai Chi's long-term benefits on occupational engagement. There is also a need to explore other quantitative measures that may be more sensitive to the subtle changes that Tai Chi imparts on an individual's health and well-being.

Implications for OT Practice

For occupational therapy practice, the results of the study highlighted the importance of considering alternative, low-impact physical activities such as Tai Chi as part of intervention programs for older adults. Such practices can be integrated into occupational therapy to address not only the physical aspects of health but also to enhance mental well-being and social engagement. Occupational therapists can draw from the findings to advocate for Tai Chi classes within community settings, emphasizing its benefits beyond traditional exercise to support a holistic approach to health in retirement. The adaptability and therapeutic use of self, inherent in OT, proved beneficial in the Tai Chi intervention, indicating that these professional attributes should be emphasized and utilized in similar contexts to maximize client engagement and satisfaction.

Conclusion

In closing, this capstone project provided valuable insights into the psychosocial and physical benefits of Tai Chi for retired adults who are semi or fully retired and have good balance. While the quantitative results did not yield statistical significance, the qualitative feedback from participants at the OLLI at UNLV revealed enhanced motivation, a sense of community, and increased engagement in health-promoting activities.

Appendix A: Berg Balance Scale

Berg Balance Scale (with inst:rnctions)

SITTING TO STANDING
INSTRUCTIO S: Pl.ease stand up. Try not to use yom hand for support.
) 4 able to sta11d without usmg hands and stabilize independently
) 3 able to stand independently nsing hands
) 2 able to sta11d using hands after several tries
) 1 11eeds minimal aid to stand or stabilize
) 0 needs moderate or lllilximal assist lo stand

STANDING UNSUPPORTED
INSTRUCTIO S: Please stand for two minutes wi hout holding on.
( ) 4 able to stand a:fely for 2 minute
( ) 3 able to sta11d 2 minutes with supervision
( ) 2 able to muid 30 seconds wm1ppo11ed
( ) 1 needs several tries to stand 30 seconds 1msupported
( ) 0 unable to stand 30 seconds unsuppotied

If ıı subject is able to stand 2 minutes unsupported, sc-0re foll points for sittrn.g unsuppot1ed. Proceed to item #4.

SITTING WITH BACK UNSUPPORTED BUT FEET SUPPORTED O FLOOR ORO A STOOL
INSTRUCTIO S: Please sit with anus folded for 2 minutes.
) 4 able to sit safely and securely for 2 minutes
) 3 able to sit 2 minutes under supe1vision
) 2 able to abk to sit 30 seconds
) 1 able to sit 10 seconds
) 0 unable to sit without support 10 seconds

STANDING TO SITTING
INSTRUCTIO S: Please it down.
( )4 sits safely with minimal use of hands
( )3 controls descent by using hands
( )2 uses back of legs against cha.it·lo control descent
( )I sits independently but has unco11trolled descent
( )0 11eeds assist to sit

TRA SFERS
INSTRUCTIO S: Arrange chai.t(s) for pivot transfc:r. Ask subject to transfer one way toward a seat with anurests and one way toward a seat without armrests. You may use two chairs (one with and one without annrests} or a bed and a chair.
) 4 able to transfer safely with minor use of hands
) 3 !lbk to tron,;fo!rlfs:ly ddinite ns:ed of hand,;
) 2 able to transfer with vcFbal cuing and/or supervision
) I needs one person to assist
) 0 needs two people to assist or upe1vise to be safe

STANDING UNSUPPORTED WITH EYES CLOSED
INSTRUCTIO S: Ple ase dose ymu·eyes and sta11d still for 10 seconds.
( ) 4 able lo sta11d 10 seconds safely
( ) 3 able to stand 10 seconds with upervision
( ) 2 able to stand 3 seconds
( ) 1 unable to keep eyes do ed 3 econds buc tay afely
( ) 0 nee-ds help to keep from falli.no

STANDING UNSUPPORTED WITH FEET TOGETHER
INSTRUCTIO S: Place your feet together and sta11d witl1oul holding011.
( ) 4 able to place feet together independently and stand 1 lllllllllte safely
( ) 3 able to place feet logelher independently and stand 1 minute with supervision
( ) 2 able to place feet together independently but unable lo hold for 30 seconds

) 1 needs help to attain position but able to stand n5 seconds feet together
) 0 needs help to attain position and unable to hold for 15 seconds

REACHING FORWARD WITII OUTSTRETCHED ARM WHILE STANDING
INSTRUCTIO S: Lift ann to 90 deg1'ees. Stretch out your fingers and reach forward as far as you can. (Exruniner places a ruler at the end of fingertips when am1 is at 90 d.egrees. Fingers bould not touch the mkr while reaclu.ng fo,wru·d. The recorded !lleasu.re i the distance forward that the fo1gers reach while the subject is in the IllMt fo1wa.rd lean position. \Vhen possible, ask subject to use both anns when reaching to avoid rotation of the 1:!unk.)
( ) 4 can reach forward confidently 25 cm (10 inches)
( ) 3 can reach forward 12 cm (5 inches)
( ) 2 can reach forward. 5 cm (2 inches)
( ) 1 reaches forward but needs supe1vision
( ) 0 loses balance while trying/requires extern.al support

PICK UP OBJECT FROM THE FLOOR FROM A STANDING POSITION
INSTRUCTIO S: Pick up the shoe/slipper, which is place in front of your **feet.**
( ) 4 able to pick up lipper safely and easily
( ) 3 able lo pick up slipper but r,eeds sttpe,vision
( ) 2 unable to pick up but re.aches 2-5 cm(l-2 inches} from slipper and keeps balance independently
( ) 1 unable to pick up and needs supe1visio11while trying
( ) 0 unable to lly/needs assist to keep from losing balance or falling

TIJRNING TO LOOK BEHIND OVER LEFT AND RIGHT SHOULDERS WHILE STA DING
INSTRUCTIO S: T,un to look directly behi11d you over toward the left shoulder. Repeat to tl1e right. Examiner may pick an object to Look at directly behind the subject to encourage a better twist tum.
( ) 4 looks behind from both sides and.weight shifts well
( ) 3 looks behind one side only oth:r side shows less weight shift
( ) 2 turns sideways only but maintains balance
( ) 1 needs supervision when turning
( ) 0 needs assist to keep from losing balance or falling

TURN 360 DEGREES
INSTRUCTIO S: T,un completely around in a foll circle. Pause. TI1eu turn a.foll circle i11 the other direction.
( ) 4 able to,tum 360 degrees safely in 4 seconds or less
( ) 3 able to tum 360 degrees safely one ide only 4 seconds or less
( ) 2 able to tum 360 degrees safely bnt slowly
( ) 1 needs close supe1vision or verbal cuing
( ) 0 needs assistance while turning

PLACE ALTERNATE FOOT ON STEP OR STOOL WHILE STAND G UNSUPPORTED
INSTRUCTIO S: Place each foot altemately on the step/stool. Continue until each foot has touch the step/stool four times.
) 4 able to stand independently and safely and complete S steps in 20 sec.ands
) 3 able to,stand independently and complete 8 steps in > 20 seconds
) _ able to,c,ompkte 4 steps withont aid with supe.rvision
) 1 able to,c,omplete > 2 steps needs minimal assist
) 0 needs assistance to !keep from falling/w1able to try

STANDING UNSUPPORTED ONE FOOT IN FRONT
INSTRUCTIO S: (DEMO STRATE TO SUBJECT) Place one foot directly in front of the other. If you feel that you cannot place yom foot direct.ly in front, try to step far enough ahead! that the heel of your forward foot is ahead of the toes of the other foot. (To score 3 points, the length of the step should exceed the length of the other foot and the width of the stance should approxin1ate the subject's uonna1stride width..)
( ) 4 able to place foot tandem independently and hold 3CI seconds
( ) 3 able io place foot ahead independently and hold 30 seconds
( ) 2 able to,take small step independently and hold 30 seconds
( ) 1 needs help to step but can hold 15 seconds
( ) 0 loses balance while stepping or standing

STANDING ON ONE LEG

INSTRUCTIONS: Stand on one leg as long as you can without holding on.

( ) 4 able to lift leg independently and hold > 10 seconds
( ) 3 able to lift leg independently and hold 5-10 seconds
( ) 2 able to lift leg independently and hold ≥ 3 seconds
( ) 1 tries to lift leg unable to hold 3 seconds but remains standing independently.
( ) 0 unable to try of needs assist to prevent fall

( ) TOTAL SCORE (Maximum = 56)

Appendix B: Study Flyer

Appendix C: Email Template

- Interested participants will be provided with the following email with instructions:
  Subject: Quick Safety Steps Before Joining Our Tai Chi Program

  "Dear [Participant's Name],

  Thank you for your interest in joining our Tai Chi program at OLLI at UNLV! We would like to remind you that this program is a research project. This project is a collaboration between OU

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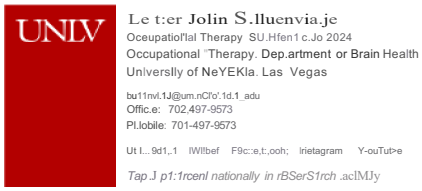
and the Occupational Therapy Doctorate program at UNLV. By joining the program, you need agree to be part of this study. To ensure your safety and the best experience, we require a sin medical clearance and scheduling your balance screening.
The two steps required will be the following:

1. The First Step is to get approval from your doctor to join the program. It can be through wrttten note or submitted through email at: buenviaj@unlv.nevada.edu. It's a quick chec your doctor or healthcare professional to confirm that Tai Chi is safe and suitable for yo, program description regarding the study will be provided to you, to show your doctor or healthcare professional. If you need a printed copy, please visit us at our staff office at (and we will provide one for you. Once obtained, you can either email the approval or bri to your scheduled screening date.
2. The Second Step is to schedule your balance screening appointment. You can schedul, your appointment by replying to this email or give me a call at 702-497-9573 from Mond to Thursdays from 8 am to 3 pm.

Any questions or need assistance? Feel free to reach out. We're e cited to have you with us a committed to making your Tai Chi experience safe and enjoyable!

For more information contact:
Student Researcher:

- Lester John S. Buenviaje, OTDs
  - Occupational Therapy Student
  - Email: Buenviaj@unlv.nevada.edu
  - Phone: 702-49,7-9573



Principal Investigator:

- Dr. Chih-Huang Yu, PhD, OTR/L
  - Assistant Professor I Doctoral Capstone Coordinator
  - Email: Chih-huang.yu@unlv.edu
  - Office: 702-895-1830

Appendix D: Program Detail Handout/Email

Program Details:

Program Name: Tai Chi Class and UNLV Occupational Therapy Capstone Research Study
"Empowering Daily Life: An Occupational Therapy-Led Tai Chi Intervention, to enhance confidence in ADL performance Among Semi-Retired/Fully Retired Community-Dwelling Older Adults"

Location: Osher Lifelong Learning Institute (OLLI) at the University of Nevada, Las Vegas (UNLV)
Description:

The project is part of a study to understand how Tai Chi led by an OT can effectively affect participants' engagement and confidence in everyday activities like walking, moving around the house, and other routine tasks. Tai Chi is a gentle form of exercise, known for its slow movements and focus on balance and relaxation. The practice that will be taught is based on Tai Ji Quan: Moving for Better Balance style, which will have similar movements of daily activities. In this class, participants will learn and practice Tai Chi movements under the guidance of a certified trained instructor and a third-year Occupational Therapy student, with the sessions adapted to suit their level of balance.

The program will meet weekly for 6 weeks. A session **will** last 95 to 100 minutes, which will include the following activities:

Class content (95-100 minutes)	Description
1. Overview of content for the day a. Ice Breaker b. Question and Answer	Class will begin with the instructor preparing the students for the activity of the day, checking in with clients, and answering quick questions prior to starting session
2. Warm-Up exercise and stretching (5 to JO minutes)	Conservative passive and dynamic stretching to improve mobility and flexibility prior to activity
3. Lntervention: Practicing of forms • Breaks will be provided	Will consist of: • Instructor demonstrating the form • Participants practicing forms individually • Participants will be put in pairs, for peer review of form • All the pairs will demonstrate and lead the class • Everyone will practice together
4. Question and Answer to correct form	• Open forum for class
5. Closing exercises	Cool-down and relaxation exercises to end the session

The goal is to make sure that the participant is able to tolerate the activity demands. This is why we are asking for a medical clearance from their health care providers. This is an overview of the contents of the program. Please contact us if you have any questions or require further information.

UNLV

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Appendix E: Informed Consent Form and Optional Media Release Form

UNLV

INFORMED CONSENT

Department of Brain Health-Occupational Therapy

Title of Study: EMPOWERING DAILY LIFE: AN OCCUPATIONAL THERAPY(OT)-LED TAI CHI INTERVENTION, TO ENHANCE CONFIDENCE IN ACTIVITIES OF DAILY LIVING (ADL) PERFORMANCE AMONG ADULTS WHO ARE SEMI-RETIRED/FULLY RETIRED

Investigator(s): CHIH-HUANG YU PH.D., OTR/L; LESTER BUENVIAJE OTD/S

For questions or concerns about the study, you may contact Dr. Chih-Huang Yu, the Principal Investigator and Doctoral Capstone Coordinator of Occupational Therapy Doctorate Program at **702-895-1830**.

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted, contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or via email at IRB@unlv.edu.**

It is unknown as to the level of risk of transmission of COVID-19 if you decide to participate in this research study. The research activities will utilize accepted guidance standards for mitigating the risks of COVID-19 transmission: however, the chance of transmission cannot be eliminated.

PURPOSE OF THE STUDY

You are invited to participate in a research study. The purpose of these study is to investigate if a 6-week (100-minute, once weekly; a total of 6 sessions) OT Tai Chi course will improve confidence in performing activities of daily living (ADL) in adults who are semi or fully retired.

PARTICIPANTS

You are being asked to participate in the study because you fit these criteria:

- An adult who is currently Semi-retired or fully retired
- A current member or volunteer at Osher Lifelong Learning Institute (OLLI) at UNLV
- Have a balance score of at least 35 points measured by the Berg Balance Scale
- Cleared by your doctor and willing to participate in an exercise program.
- Does not have the following medical and functional limits:
    - Severe Osteoporosis or other bone-related diseases that increases the risk of fractures.
    - Not able to walk or Individuals that are fully dependent on assistive devices for mobility

PROCEDURES

If you volunteer to participate in this study, you will be asked to do the following:

You will be part of a total 20 participants in this study. You will be screened and invited for the 6-week Tai Chi program that will run from February 12 through April I, 2024. All activities related to this program will take place at OLLI UNLV. Before participating in the class, you will be asked to gain approval from your doctor or a healthcare professional first. After receiving an approval, you will then schedule a date for you balance screening and to complete a I0-15-minute questionnaire asking about your confidence in performing your AOL tasks, . In all 6 sessions, you will be participating in a 15-20-minute overview of the session, including a 5-10 minute warm up and 5-10-minute cool down. The style of Tai Chi that you will learn will be *"Tai Ji Quan: Moving for Belter Balance",* which will consist of 8 fom1s. In each session, we will learn new fom1s, and build your skills and ability to perform these fom1s in sequence by the end of the 6th week. The same questionnaire will be given to you again, at the end of the program. We will use the information you provided to investigate the effect of the class.

Participation will be on a first come first served basis.

BE EFITS OF PARTICIPATIO

There may be direct benefits to you as a participant in this study. By participating in this program, participants will be introduced, learn, and participate the *"Tai Ji Quan: Moving for Better Balance"* form of Tai Chi, an approach that is closely related to the occupational therapy principles for its potential benefits on daily occupations and activities. Designed to enhance balance and reduce the risk of falls, this program may inform the potential benefits on self-efficacy which can be measured through the increase of confidence in your ADL performance. While participants' experiences may vary, the skills and forms learned in this study can potentially translate to safer and more effective participation in daily activities and routines within the home environment.

RISKS OF PARTICIPATION

There are risks involved in all research studies. This study may include only minimal risks. The form of"Tai Ji Quan: Moving for Better Balance" (TJQMBB) used in this study is recognized as a gentle and low-impact exercise, ideally designed to improve balance and safety. Participants can anticipate possible muscle soreness after sessions. To minimize muscle soreness, preparatory and cool-down activities such as stretching will be conducted before and after each session. As there will be movements involved, the risks of falls cannot be ruled out. To enhance safety, participants will be advised and encouraged to wear shoes with proper grip. The class is limited to 10 participants, to provide a more controlled environment for the instructor to be more attentive to participants' safety. If a fall event occurs, we will follow the emergency procedure written in the OLLI membership handbook, including notifying the OLLI staff and contacting 911 to ensure the participant's safety.

EXERCISE SAFETY PROTOCOL

- All participants must have approval from their doctor prior to the commencement of an exercise program.
- Clothing should be comfortable and appropriate for physical activity to provide comfort and safety.
    - Examples include joggers, sweatpants, umestrictive shorts, leggings, tank tops, and !-shirts.
    - Footwear is required. The shoes should be comfortable, preferably flat shoes, with good traction or grip to minimize the risk of slipping during movement.
- Be aware of how you feel. If you experience the symptoms below, stop and let the instructor know:
    - Discomfort, shortness of breath, and dizziness during the activity
    - Be mindful of the people around you, they might need yow- help.
- Stay hydrated. Make sure to drink water before, during, and after the sessions.

COST /COMPENSATION

There may not be financial cost to you to participate in this study. The study will take a maximum of 100 minutes of your time once weekly for 6 weeks (600 minutes total). You will not be compensated for your time.

CONFIDENTIALITY

All information gathered in this study will be kept as confidential as possible. Only the student researcher will have access to the participants data. No reference will be made in written or oral materials that could link you to this study. All records will be stored digitally and secured via the UNLV-provided Google Drive. Access to this data will require a two-step authorization process by OKTA verification. The paper data will be scanned into a PDF fomiat and will be shredded as soon as the conversion of the file is completed. This data will be in the drive, and the Pl will secure the storage of data for 3 years after the completion of the study. After the storage time expires, the information gathered will be deleted.

Video and Audio Recording:

- Audio and video recordings will be captured using a camera equipped with an SD card. Immediately after recording, the footage and audio will be transferred to a secure, UNLV-regulated Google Drive account of the student researcher. Following this transfer, the data on the SD card will be promptly and pem1anently erased to ensure the security and confidentiality of the recorded material. Only the student researcher has the access to these data. We have added the description to the box.

VOLUNTARY PARTICIPATION

Appendix F: Class Procedure

Class content (100 minutes)	Description
1. Overview of content for the day 1. Ice Breaker 2. Question and Answer	The class will begin with the instructor preparing the students for the day's activity, checking in with clients, and answering quick questions before starting the session.
2. Warm-up exercise and stretching (5 to 10 minutes)	Conservative passive and dynamic stretching to improve mobility and flexibility prior to activity
3. Intervention: Practicing of forms ● Breaks will be provided	Will consist of: ● Instructor demonstrating the form ● Participants practicing forms individually ● Participants will be put in groups for peer review of the form ● Groups will demonstrate and lead the class ● Everyone will practice together
4. Question and Answer to correct form	● Open forum for class
5. Closing exercises	Cool-down and relaxation exercises to end the session

Appendix G: Class Schedule

Schedule of Intervention	Forms
Week 1	● Form 1: *Move a Ball* ● Form 2: P*art Wild Horse's Mane*
Week 2	● Form 3: *Single Whip* ● Form 4: *Wave Hands like Clouds*
Week 3	● Practice forms 1 to 4 ● Form 5: *Repulse Monkey*
Week 4	● Practice forms 1 to 5 ● Form 6: *Brush Knees*
Week 5	● Practice forms 1 to 6 ● Form 7: *Fair Lady Works at Shuttles*
Week 6	● Practice of all forms ● Form 8: Grasp of Peacock's Tail

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Curriculum Vitae

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Education

Bachelor of Science in Kinesiology — December 2020
University of Nevada, Las Vegas

Occupational Therapy Doctorate — Expected May 2024
University of Nevada, Las Vegas

Relevant Coursework and Projects

Capstone Project — Spring 2024

- Occupational Therapy Led Tai-Chi intervention to increase perceived ADL Performance in Semi/Fully retired community-dwelling older adults.

Work Experience

Certified Pharmacy Technician — June 2010 -May 2022
Walmart Pharmacy

- Graduated with an associate degree in pharmacy technician at PIMA institute.
- Certified in Aseptic technique, handling laminar hood and IV medications.
- Certified Immunization Administration: Influenza and Covid-19 vaccines
- Pharmacy Lead Technician
    - Handling technician shift schedules
    - Customer service assistance/Conflict resolution
- Walmart Pharmacy Technician of the Year 2021

Fieldwork Experience - Level II

Spring Valley Hospital - Level IIB — Summer 2023
Acute Care - ICU

- Provided evidence-based OT interventions and early mobilization to clients during their ICU stay.
- Evaluated and Treated Various Diagnosis in the ICU
- Promoted Early Mobilization during ICU stay.
- Collaborated with a Multidisciplinary Team to create appropriate discharge plans.

Vibra Rehabilitation Hospital of Rancho Mirage - Level IIA Summer 2022
Inpatient Rehabilitation Facility

- Provided creative and evidence-based interventions to clients.
- Treated various orthopedic and neurological diagnoses.
- Provided education for patients for discharge planning.

Fieldwork Experience - Level I

Inclusion Fusion- Level ID Fall 2023
Community Setting - After School Program for Teens and Adults with Disabilities

- Engaged with participants in group and one-on-one settings to facilitate their participation in activities designed to improve daily living and social skills.
- Observed and interacted with participants to understand their needs and interests, to create individualized therapeutic interventions.
- Assisted in the design and implementation of therapeutic programs focusing on enhancing social and life skills.

Ulis Newton Elementary School - Level IC Spring 2023
School Setting OT

- Conducted observations of students under the guidance of an occupational therapist to identify the role of OT in providing support and access to their educational environment.
- Assisted licensed occupational therapists in delivering therapeutic services to improve students' functional abilities within the educational environment.
- Documented students' responses to interventions and progress toward goals, maintaining confidential records per regulatory standards.

Encompass Rehab Hospital - Level IB Fall 2022
Inpatient Rehab

- Observed clinical procedures and the role of OT in the rehabilitation process.
- Assisted occupational therapists in the execution of therapeutic interventions for patients.
- Engaged in education for discharge planning to the patient and the patient's family with the support of the OT instructor.

Nevada Adult Day Care Center- Level IA Spring 2022
Community Geriatric Setting - Adult Day Care

- Assisted and led one-on-one and group therapeutic sessions, catering to the specific needs of the clients.
- Collaborated with a multidisciplinary team, including nurses, social workers, and CNAs, and integrated OT principles in client care.
- Ensured that activities were accessible to clients with varying levels of mobility and cognitive function.
