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Animal-Assisted Intervention for Healthcare Professionals: An Occupational Therapy Facilitated Program

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*Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy
Facilitated Program*

by

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Advisor: LaVonne Fox, PhD, OTR/L

A Scholarly Project

Submitted to the Occupational Therapy Department of the
University of North Dakota

In partial fulfillment of the requirements

for the degree of

Master of Occupational Therapy

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This scholarly project, submitted by Samantha Coyle, MOTS and Caitlin Duggan, MOTS in partial fulfillment of the requirement for the Degree of Master of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

Faculty Advisor

Date

PERMISSION

Title: **The *Animal-Assisted Intervention for Healthcare Professionals: An Occupational Therapy Facilitated Program***

Department: Occupational Therapy

Degree: Master of Occupational Therapy

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TABLE OF CONTENTS

| | |
|-------------------------------|------|
| LIST OF TABLES..... | vi |
| ACKNOWLEDGEMENTS..... | vii |
| ABSTRACT..... | viii |
| CHAPTER | |
| I. INTRODUCTION..... | 1 |
| II. REVIEW OF LITERATURE..... | 5 |
| III. METHOD..... | 37 |
| IV. PRODUCT & RESULTS..... | 40 |
| V. SUMMARY..... | 42 |
| REFERENCES..... | 46 |
| APPENDICES..... | 52 |
| Appendix A1..... | 53 |
| Appendix B1..... | 54 |

LIST OF TABLES

| Table | Page |
|---------------------------------|------|
| 1. Diseases Transmitted by Dogs | 53 |
| 2. Guidelines for AAT | 54 |

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ABSTRACT

Title: The *Animal-Assisted Intervention for Healthcare Professionals: An Occupational Therapy Facilitated Program*

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Introduction: This scholarly project explores literature regarding Animal-Assisted Interventions and possible impacts on healthcare professionals. Literature published within the past two decades has emphasized the various roles and benefits that the presence of animals may provide within various healthcare settings and with diverse populations. The evidence of animal-assisted interventions has been extensively researched and supported as it pertains to the client or patient involved. The problem is that no one has taken the time to evaluate the benefits that having an animal in the healthcare system may have on healthcare professionals (i.e. therapists, nurses, physicians). Due to the lack of literature, it is difficult to say how the involvement with a therapy animal influences the environment in which a healthcare provider works.

Methodology: A literature review was conducted on topics related to the human-animal bond, introduction to AAI, benefits of AAI, health care professionals, and guidelines for AAI, and the role of occupational therapy. The focus was to identify if AAI is mutually beneficial and if so, to what extent, and how to implement in a manner most conducive

with mutual benefits to clients and practitioners. The literature review identified best practices that were used as the foundation in the development of a clinical guide titled: *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program*.

Results: The *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program* is organized into seven sections: introduction; person; environment; occupation; occupational performance/occupational fit; conclusion and resources/references. Each section is further divided into relevant subsections to outline key components related to the Person-Environment-Occupation (PEO) Model of Occupational Performance that was utilized to structure this clinical guide. The emphasis of this model is the conceptualization of the transactional relationship between the person, environment, and occupation as a way of understanding occupational performance (Turpin & Iwama, 2011). Occupational fit occurs when the interdependent factors of the person, environment, and occupation align, and occupational performance is enhanced (Turpin & Iwama, 2011).

Chapter I

Introduction

Literature indicates that animals have been used as a part of healing and therapy since 1792, beginning in England (Velde, Cipriani, & Fisher, 2005). The use of dogs in psychiatric facilities was promoted by the United States Military during WWI in 1919 (Velde et al., 2005). Research, completed as early as 1995, has showcased the benefits of utilizing the animals, dogs in particular, in therapy at multiple healthcare facilities in Chicago, IL (Velde et al., 2005). This could be due to the natural, human animal bond that occurs. The evidence of animal-assisted interventions has been extensively researched and supported as it pertains to the client or patient involved.

The problem is that no one has taken the time to evaluate the benefits that having an animal in the healthcare system may have on healthcare professionals (i.e. therapists, nurses, physicians). Due to the lack of literature, it is difficult to say how the involvement with a therapy animal influences the environment in which a healthcare provider works. This is important because the majority of the world's population spends one-third of their life at work (WHO, 2018). Additionally, occupational stress is high among healthcare professionals and has been linked to increased physician errors, decreases in positive client outcomes, and decreased job satisfaction of the healthcare professional (Branch & Klinkenberg, 2015; Chen et al., 2013; Khamisa et al., 2014). Sustained occupational stress in the workplace, commonly leads to burnout or compassion fatigue (Branch & Klinkenberg, 2015; Chen et al., 2013; Khamisa et al., 2014). Bodenheimer and Sinsky (2014) posit the need for the healthcare field to adopt the

“Quadruple Aim.” The Quadruple Aim is designed to improve the healthcare professional’s work environment, adding to the originally stated “Triple Aim.” This approach results in improving the health of populations, decreasing price per capita, and enhancing the clients experience in healthcare.

The purpose of the *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program* is to provide a resource for occupational therapists to use with healthcare professionals who have an interest in implementing animal assisted interventions into practice. The product was designed using an occupational therapy theory to structure a sound approach regarding the benefits animal assisted interventions impose on the healthcare professional. The theoretical base used is Person-Environment-Occupation Model of Occupational Performance (PEO), which considers all aspects of the being through a holistic lens (Turpin & Iwama, 2011). This theory assesses the person, the environment, and the occupation, or tasks completed by the person, in order to provide “best fit” and enhance occupational performance (Turpin & Iwama, 2011).

Through a review of literature surrounding this topic, key terms and concepts naturally arose. These concepts are included below and broadly defined for introductory purposes.

Key Concepts and Terms

| | |
|--|---|
| <i>Animal assisted interventions (AAI)</i> | A broad term that is now commonly used to describe the utilization of various species of animals in diverse manners beneficial to humans. Animal assisted therapy, education, and activities are examples of types of animal assisted intervention. AAI may be further broken down into animal-assisted activity (AAA) and animal-assisted therapy (AAT) (Lasa et. al., 2011) |
| <i>Animal-assisted therapy (AAT)</i> | A goal directed intervention in which an animal, meeting specific criteria, is an integral part of the treatment process. Animal-assisted therapy is delivered and/or directed by health or human service |

| | |
|--|---|
| | <p>providers working within the scope of their profession. Animal-assisted therapy is designed to promote improvement in human physical, social, emotional, or cognitive function. Animal-assisted therapy is provided in a variety of settings and may be group or individual in nature. The process is documented and evaluated (AVMA, 2018).</p> |
| <i>Animal-assisted education (AAE)</i> | <p>A planned and structured intervention directed and/or delivered by educational and related service professional with specific academic or educational goals (AVMA, 2018).</p> |
| <i>Animal-assisted activities (AAA)</i> | <p>Animals that provide opportunities for motivation, education, or recreation to enhance quality of life. Animal assisted activities are delivered in a variety of environments by specially trained professionals, paraprofessionals, or volunteers in association with animals that meet specific criteria (AVMA, 2018).</p> |
| <i>AAI Resident animals (RA)</i> | <p>Animals that live in a facility full time, are owned by the facility, and are cared for by staff, volunteers, and residents. Some RA may be formally included in facility activity and therapy schedules after proper screening and training. Others may participate in spontaneous or planned interactions with facility residents and staff (AVMA, 2018).</p> |
| <i>Service Animal</i> | <p>Animals that are individually trained to do work or perform tasks for people with disabilities, is not considered to constitute an animal assisted intervention (AVMA, 2018).</p> |
| <i>The Human-Animal Bond</i> | <p>There is not one single definition of HAB that is all inclusive and widely accepted. The relationship should include the following aspects: 1) voluntary in nature, 2) of a continuous and bidirectional nature, 3) involves increased trust on the animal’s behalf and be caring, and 4) understanding on the human’s side (Tannenbaum, 1995; Russow, 2002; & Beck, 1999). The authors also state that the relationship should be of mutual benefit and promoting increased well-being for both humans and animals alike.</p> |
| <i>Occupational Stress</i> | <p>The World Health Organization (WHO) describes work-related stress as the response employees experience when their skills, as well as abilities to</p> |

| | |
|---------------------------------------|--|
| | cope, do not match job demands and pressures. Additionally, healthcare workers can experience work-related, or occupational stress, due to high demands and expectations, limited social support, or lack of skills and time (Verbeek, Marine, & Serra, 2014). |
| <i>Burnout</i> | Burnout is defined as “prolonged exposure to stressful work environments” (Khamisa et al., 2014, p. 653). |
| <i>Compassion Fatigue</i> | The traumatization of healthcare providers occurring as a consequence of their commitment to helping others (Branch & Klinkenberg, 2015, p. 161). |
| <i>Healthcare Professional</i> | For the purposes of this project, the authors of this product have defined <i>Healthcare Professional</i> as any individual who works in a healthcare profession and has regular contact with patients (Coyle & Duggan, 2018). |

A literature review was completed and is presented in Chapter II. The review of literature provides a comprehensive explanation of current research available on this topic. The methodology is outlined in Chapter III, including the process of developing the scholarly project. Chapter IV contains an outline and description of the product, followed by the product in its entirety. Chapter V provides a review and summary of this scholarly project.

Chapter II

Review of Literature

Introduction

Animals have provided individuals with companionship for many centuries. The human animal bond is a topic that has been extensively researched throughout the years, and within the past several decades, increased attention has been devoted to adding to the knowledge base and expanding upon theories to explain the phenomenon. The rate at which animals, specifically dogs, have provided supportive roles in lives of those in need has increased throughout history. Pets have been utilized in the therapy process as early as 1972, at which time occupational therapist Florence Nightingale found they were beneficial in treatment of individuals with illness (Velde, Cipriani, & Fisher, 2005). As mainstream media continues to promote coverage of the positive impacts of animals on human lives, researchers and healthcare professionals continue exploration of the human animal bond, and the role of animals within healthcare settings.

Literature published within the past two decades has emphasized the various roles and benefits that the presence of animals may provide within various healthcare settings and with diverse populations. This may come in many forms and inconsistent terminology is commonly present in existing literature. For the purposes of this scholarly project, the term Animal-Assisted Interventions (AAI) will be utilized to encompass the wide variety of ways animals may be present in healthcare settings.

AAI is the process by which a goal-oriented intervention is designed and implemented in order to promote physical, social, emotional, or cognitive functioning (Animal Assisted

Intervention International, 2016). This scholarly project will narrow in and focus on one single species, the dog, which is the animal most commonly utilized to provide support or services to those in need, as well as within therapy processes.

The use of AAI and dogs, within therapeutic settings, has been shown to be beneficial to clients and in providing health benefits to humans in general. However, there is little information emphasizing or detailing the benefits or potential drawbacks that working with animals may have on healthcare professionals. Kamioka et al. (2014) provided evidence to support the benefits of AAI through a systematic review completed on the topic. Abrahamson, Cai, Richards, Cline, and O’Haire (2016) conducted a pilot study to collect perceptions of hospital staff who had been a part of AAI interventions. The authors’ findings concluded benefits to patients but also described the feeling of decreased stress of the staff and increased social interaction between the staff and the patients, as well as their families (Abrahamson et al., 2016). Similar results were shown in studies addressing therapist and practitioner perceptions of AAT (Velde et al., 2005; Trembath, 2014). The question this literature review explored was: *How can animal assisted intervention be used in healthcare settings in a manner that extends benefits beyond the client, to positively impact health care professionals?*

A literature review was conducted on topics related to the human-animal bond, introduction to AAI, benefits of AAI, health care professionals, and guidelines for AAI, and the role of occupational therapy. The focus was to identify if AAI is mutually beneficial and if so, to what extent, and how to implement in a manner most conducive with mutual benefits to clients and practitioners. The literature review identified best practices that were used as the foundation in the development of a clinical guide titled: ***Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program.***

Human-Animal Bond

The Human-Animal Bond (HAB) is a phenomenon that has been well-documented, dating back to early domestication of animals (Fine & Beck, 2015). There is not one single definition of HAB that is all inclusive and widely accepted. However, according to Tannenbaum (1995), Russow (2002), and Beck (1999) (as cited in Fine & Beck, 2015), the relationship should include the following aspects: 1) voluntary in nature, 2) of a continuous and bidirectional nature, 3) involves increased trust on the animal's behalf and be caring, and 4) understanding on the human's side. The authors also state that the relationship should be of mutual benefit and promoting increased well-being for both humans and animals alike. According to Dr. Edward Creagan (2002) (as cited in Fine & Beck, 2015), domesticated animals provide an undeniable connection between one's mind and body, and contribute to a balance between the two. According to Fine (2010) and Fine and Eisen (2008) (as cited in Fine & Beck, 2015), domesticated animals provide a sense of connectedness to one's surrounding, as well as individual satisfaction and pleasure. The connection with one's self and an animal counterpart, the sense of satisfaction, and the opportunity for mutually beneficial relationship are just some of the unique aspects of the HAB making it a unique phenomenon that has been continually explored over time.

The literature surrounding the HAB is primarily comprised of anecdotal reports and personal narratives regarding the importance of animals in human life and the enhanced sense of well-being they may provide (Fine & Beck, 2015). While there are many testimonials emphasizing the significance that animals have in human life, empirical research is lacking (Knight & Herzog, 2009). It is difficult to conceptualize a person's experiences with animals into numerical data, because this does not identify or express the depths of the interaction. For this

reason, quantitative data is lacking. However, benefits of human and animal relationships are still widely accepted and brought to general attention by mainstream media (Fine & Beck, 2015).

In literature published by Beck (2002) (as cited in Fine & Beck, 2015), it is suggested that animals not only offer companionship, but a wide array of health benefits, as well as decreasing loneliness and stimulating conversation. Melson (2005) and Myers (2006) (as cited in Fine & Beck, 2015), describe the beneficial role that animals may hold in one's life as an external support throughout periods of transition. Bryant (2008) (as cited in Fine & Beck, 2015), describes the ways in which humans seek social support during times of distress and to assist in adapting to difficult situations. The author emphasizes the idea that social support is necessary for overall healthy functioning and mental health. Interaction with animals is one such manner in which individuals can secure social support conducive with overall positive effects on physical and mental health.

Examples within existing literature are indicative of the ways in which animals provide benefits to humans, and demonstrate a widespread acceptance of these ideals, however, the existing methodology is broad. This limits opportunity for successfully putting the beneficial and therapeutic relationship provided by animals to use within the healthcare field. There has been a growing interest in studying the human-animal bond, as the mainstream media has increased coverage on the positive impacts animals have on humans' lives (Fine & Beck, 2015). There is also growing interest in determining more scientific knowledge regarding the underlying mechanisms of the human-animal bond, there are several published theories and speculations, indicative of somewhat controversial information (Fine & Beck, 2015).

There are various theories and proposed rationales published in current literature regarding the beneficial relationship between human and animals. Fine and Weaver describe

theories of attachment, the biophilia hypothesis, and animals acting as social supports as potentially logical explanations for people's motivations to care for a dependent animal. Many of these theories date back several decades and have been expanded upon as research and attention to this area has increased.

The Attachment Theory, developed by Bowlby (1969) (as cited in Fine & Beck, 2015), encompasses the idea that humans need to protect and to be protected. Ainsworth (1989) (as cited in Fine & Beck, 2015), added to this theory, suggesting attachment behavior includes any action that enables a person, in proximity to another, to better able to cope with the world, which is attributed to the biological function of protection. The history and development of increasing insight to the Human-Animal Bond is crucial in understanding the therapeutic benefits of animal inclusion within healthcare settings for both those providing and receiving services.

Understanding Attachment Theory and how it influences the bond between humans and animals, is an important foundation for the practice of animal-assisted interventions. Furthermore, a clear definition of animal-assisted interventions and the benefits they pose, is essential to including animals in treatments and ensuring best practice.

Animal-Assisted Interventions

Along with the accumulation of literature indicating the impacts the HAB has on well-being, the popularity and use of animals in intervention has increased (Fine & Beck, 2015). Research into the benefits of animals in intervention has become widely emphasized and in recent years definitions of animal-assisted intervention have arose to offer distinct criteria for practical use. The American Veterinary Medical Association has the following definitions related to animal assisted interventions (<https://www.avma.org/KB/Policies/Pages/Animal-Assisted-Interventions-Definitions.aspx>, ¶1-6):

1. ***Animal assisted interventions (AAI)*** is a broad term that is now commonly used to describe the utilization of various species of animals in diverse manners beneficial to humans. Animal assisted therapy, education, and activities are examples of types of animal assisted intervention. AAI may be further broken down into animal-assisted activity (AAA) and animal-assisted therapy (AAT) (Munoz-Lasa et. al., 2011)

2. ***Animal-assisted therapy (AAT)*** is a goal directed intervention in which an animal meeting specific criteria is an integral part of the treatment process. Animal-assisted therapy is delivered and/or directed by health or human service providers working within the scope of their profession. Animal-assisted therapy is designed to promote improvement in human physical, social, emotional, or cognitive function. Animal-assisted therapy is provided in a variety of settings and may be group or individual in nature. The process is documented and evaluated.

3. ***Animal-assisted education (AAE)*** is a planned and structured intervention directed and/or delivered by educational and related service professional with specific academic or educational goals.

4. ***Animal-assisted activities (AAA)*** provide opportunities for motivation, education, or recreation to enhance quality of life. Animal assisted activities are delivered in a variety of environments by specially trained professionals, paraprofessionals, or volunteers in association with animals that meet specific criteria.

5. ***AAI Resident animals (RA)*** live in a facility full time, are owned by the facility, and are cared for by staff, volunteers, and residents. Some RA may be formally included in facility activity and therapy schedules after proper screening and training. Others may participate in spontaneous or planned interactions with facility residents and staff.

6. *Service animals* are animals which are individually trained to do work or perform tasks for people with disabilities and is not considered to constitute an animal assisted intervention.

According to Munoz-Lasa et. al. (2011), the benefits animals pose, in promoting human well-being, is presently considered a part of conventional wisdom. Within recent years, the therapeutic role of animals in the healthcare field has been an area of increased emphasis in research to increase evidence-based findings for proper implementation (Fine & Beck, 2015). Munoz-Lasa et.al (2011) stated that the use of animals, as a modality, for improving human physical, social, emotional, cognitive, or social functioning is considered animal-assisted interventions (AAI). Animal-assisted therapy (AAT) falls into under the realm of AAI and may be utilized as a therapeutic tool to assist in restoring balance in one's life through a goal-directed process. (Phung et al, 2017). Therapy animals possess appropriate training and temperament as to develop the skill and aptitude necessary to facilitate therapeutic treatment (Munoz-Lasa et al, 2011). Whether it is attributed to personal convictions and attraction to animals, or the perceptions that animals pose therapeutic benefits in clinical application, numerous professionals have increased curiosity and desire to incorporate AAI, or other similar approaches, into practice (Fine & Beck, 2015).

Benefits

Over the past few decades, acceptance of animals as benefiting human health has increased, and has been explored and integrated within different settings, including healthcare, among mainstream society (Phung et al, 2017). Several health benefits associated with the HAB have been defined and explored. Many studies have assessed animal effectiveness in promoting optimal patient outcomes in areas such as improved cardiovascular health or alleviating

depressive symptomology (Trembath, 2014). Black, Chur-Hansen, and Winefield (2011) presented data that included information relating use of AAI with decreasing blood pressure, psychological benefits, anxiety reduction, and increased social support. Studies such as these contribute to the widespread belief about the potential for inclusion of animals in therapeutic processes. Participants in this study indicated the belief that AAI was an effective modality across client life stages and may be encompassed in various health settings (Black et al., 2011). Animals may also provide support in stress management programs, with results including decreased ratings of depression, anxiety, pulse, and pain (Nepps, Stewart, & Bruckno, 2014).

In addition, Abate, Zucconi, and Boxer (2011), studied the impacts of canine-assisted ambulation (CAA) in patients diagnosed with chronic heart failure. There is evidence indicating early ambulation may have a positive effect on length of stay and patient outcomes (Abate, Zucconi, & Boxer., 2011). Results from the authors study, indicates decreased ambulation refusal rates when asked to participate in CAA, as compared to not having the option (Abate, Zucconi, & Boxer, 2011). CAA had an equally positive impact on distance of ambulation and patient satisfaction during their stay (Abate, Zucconi, & Boxer, 2011). The authors posit the benefits of including CAA as, low to no cost, adaptability of intervention, and low liability, as well as generalization to other populations, such as geriatric individuals in a long-term care facility, postoperative patients, and neurologically impaired individuals in both inpatient and outpatient rehabilitation settings (Abate, Zucconi, & Boxer, 2011).

As evidence of the positive effects animals have on humans and the impacts of AAI accumulate, additional factors must also be addressed. Such as, the animals impact on the health care provider (HCP) and how interactions in the workplace influence the environment.

Animal Interactions in the Workplace

AAI is being included in healthcare settings at an increasing rate (Munoz-Lasa, 2011). This may be beneficial in reducing negative responses to demanding situations and environments (Munoz-Lasa, 2011). However, it is essential to assess and decipher practitioners and attitudes, beliefs, and knowledge regarding the relationship between animal and human health (Trembath, 2014). Within healthcare settings, patients are frequently present under straining circumstances, while staff are continuously exposed to this environment (Abrahamson et al., 2016). The overall environment of the healthcare facility, also known as, the organizational culture, also participates as a major factor in healthcare professionals experience. The health benefits that domesticated animals provide have been studied in order to implement inclusion during periods of stress. This has been done with attempts of lessening the taxing demands of stressful environments or periods of transition within one's life (Abrahamson et al., 2016). Therefore, it is important to understand how occupational stress, as well as the organizational culture and the stress it may create, impacts the health care professional. Understanding perceptions and potential benefits of AAI on the health care providers and barriers or challenges that implementation of AAI may present, are important factors also.

Organizational culture is defined as “the psychology, attitudes, experiences, beliefs and values of an organization” (Leka, Griffiths, & Cox, 2003). With regards to this project, the culture is especially relevant in conveying a sense of identity to members, and in facilitating development of commitment of members to something larger than self-interest. When culture is not conducive with the values and beliefs of the members involved, it may be a liability in that it can present barriers to both change and diversity.

Organizational stress may occur when there is poor work culture. Best practice regarding organizational stress includes preventing stress from occurring, or in preventing it from causing severe implications on health and wellbeing if it is already occurring. Organizational stress can affect the workplace in the following ways: decreased commitment to work, increased staff turnover, impaired performance and productivity, increased accidents, poor staff recruitment, increased legal cases, increased absenteeism, and damage to the image of the organization. Stress may occur related to job content if it is monotonous, there is a lack of variety, or tasks are unpleasant (Leka, Griffiths, & Cox, 2003).

A person's workload as well as work hours may also cause stress if they have too much or too little to do, or when working under time pressures. Contributing factors include: strict and inflexible working hours, long and unsocial hours, and unpredictability in hours. A person's participation also has implications with stress experienced. Contributing factors include lack of participation in decision making, and perceptions in lack of control. Career development and roles are additional aspect instrumental in determining stress one experiences. If one lacks prospective promotion, has work of low social value, an unclear role, or conflicting roles, stress may also occur. Work of low social value is also detrimental, especially when there are poor relationships with co-workers, or one engages in isolated or solitary work (Leka, Griffiths, & Cox, 2003).

Stress may also occur due to organizational culture if there is poor communication, leadership, and lack of understanding about objectives. All of these factors are important to encompass in program development for AAI in healthcare settings. These potential obstacles and barriers provide ample opportunity to implement AAI procedures that may assist in overcoming them and creating a more positive workplace environment.

Occupational stress is a common factor in most healthcare settings and plays a role in various outcomes. Thus it is important to address, when assessing the animals impact on the environment and the healthcare professional. The World Health Organization (WHO) describes work-related stress as the response employees experience when their skills, as well as abilities to cope, do not match job demands and pressures. According to the WHO, a wide array of work-related situations are related to stress, and this stress response increases when employees do not feel supported in the work environment or perceive lack of control over workplace operations. Workplace pressure is both inevitable, and at times beneficial. Presence of sufficient levels of pressure is related to keeping workers alert, motivated, and receptive to learning, however when levels surpass those of manageable pressure, workplace stress can cause negative implications (WHO). Job design and workplace structure, management, work conditions, and presence of support from colleagues and supervisors are some factors related to workplace stress, according to WHO. Ruotsalaainen, Verbeek, Marine, and Serra (2014) asserted that healthcare workers can experience work-related, or occupational stress, due to high demands and expectations, limited social support, or lack of skills and time. Stress of healthcare professionals is not only detrimental to their own wellbeing, but also may put patients at risk (Abrahamson et al., 2016).

Similarly, Branch and Klinkenberg (2015) created a study involving pediatric health care workers and found that constant care of children, who are suffering, dramatically affects the environment and the staff themselves. Increased patient assignments, shortage of staff, perceived lack of supportive management, and limited resources were among the greatest stressors resulting in negative impacts on the nurse's physical and emotional health (Branch & Klinkenberg, 2015). Along with the negative impacts on the nurses themselves, this in turn results in a negative impact on the ability to provide competent, safe care of the patient's (Branch

& Klinkenberg, 2015). These factors lead to a term, defined by the authors, as compassion fatigue. Compassion fatigue is defined as “the traumatization of healthcare providers occurring as a consequence of their commitment to helping others” (Branch & Klinkenberg, 2015, p. 161). The implications of compassion fatigue lead to the development of stress related symptoms and decreased job satisfaction; resulting in increased sick days, decreased productivity, and increased job turnover (Branch & Klinkenberg, 2015).

Correspondingly, Chen et. al. (2013) studied the impacts of burnout and job satisfaction on physicians in Taiwan, as well as how these factors influence medical malpractice. Results found that increased work hours, caseload, and decreased job satisfaction correlates to increased malpractice, leading to increased burnout (Chen et al., 2013). It was also discovered that higher rates of burnout result in higher rates of depression and substance abuse (Chen et al., 2013). Burnout is defined as “prolonged exposure to stressful work environments” (Khamisa et al., 2014, p. 653). According to Cannon’s stress theory, extensive exposure to stressors leads a breakdown of the biological system, affecting homeostasis (Khamisa et al., 2014). This in turn affects a person's ability to cope by preventing compensatory and anticipatory changes in the body, leading to poor health outcomes, including: insomnia, headaches, depression, and social dysfunction (Khamisa et al., 2014). With a breakdown in coping skills, burnout then leads to negative states of being, such as exhaustion, somatization, fatigue, and social isolation (Khamisa et al., 2014). In their study, Khamisa et. al. (2014) concluded that burnout is most closely associated with decreases in mental health, including increased emotional exhaustion and depersonalization, which affects the ability to perform job tasks, resulting in anxiety and insomnia. Companies are able to redesign workplace processes by implementing team-based approaches and increasing employee control (APA, 2003). Khamisa et al. (2014) states that the

addition of stress management programs into health care facilities to educate and train healthcare workers may increase ability to cope with stress.

The presence of AAI programs within healthcare settings is one way in which a more positive environment has been noted. Healthcare professionals have reported happier and more interesting workplaces with the presence of domesticated animals within the settings (Bibbo, 2013). Healthcare professionals have expressed more positive feelings towards administration at facilities with AAI programming, and some indicated they would select to stay at a job because of the presence of a therapy dog, thus indicating high levels of environmental satisfaction (Rosetti, DeFabiis, & Belpedio, 2008).

Bodenheimer and Sinsky (2014), proposed moving from the 'Triple aim' to the 'Quadruple Aim' to increase health outcomes for both patients and healthcare providers. The 'Triple Aim', focuses on "improving the health of populations, enhancing the patients' experience of care, and reducing per capita cost of health care" (Bodenheimer & Sinsky, 2014, p. 573). The authors similarly summarize health care provider burnout and posit the need for a fourth aim (Quadruple Aim) to improve the health care provider's work environment, resulting in increased ability to achieve the three aims mentioned previously (Bodenheimer & Sinsky, 2014). This asserts that by increasing health care provider's job satisfaction, health outcomes, and by decreasing burnout, will result in increased ability to care for patients and increases in adequate treatment (Bodenheimer & Sinsky, 2014). Similarly, Kleft et. al. (2014), conclude that nurses, as well as other health care providers, are essential for patient experiences.

Adequate treatment by healthcare providers, results from a connectedness they feel to the individuals they serve. As indicated previously, studies have shown that decreased job satisfaction, low morale, and burnout lead to decreased efficacy in patient care. However, there is

a disconnect in publications linking the benefits of AAI as potential solution to these issues for healthcare providers. While benefits of animals on human life have been clearly noted and explained, these emphasize overall human wellbeing, and focus significantly more on client's than professionals within a healthcare setting. This leaves out the essential aspect of the providers who are responsible for implementation of healthcare processes, whose knowledge and perceptions regarding the presence of animals within their workplace environment is largely influential. Therefore, it is important to expand upon and relate these benefits to healthcare professionals, to promote a more optimal workplace experience and increase quality of care for healthcare providers.

Perceptions and Benefits of AAI on Healthcare Providers

According to the American Psychological Association (APA), increased employee control over work-place decisions is related to stress reduction, as well as improvements in employee motivation and growth (2003). The impact of staff interactions with animals in healthcare settings is understudied (Abrahamson et al., 2016). It is also reported that minimal research completed to gain insight regarding practitioner beliefs of an animal's relationship to human health (Trembath, 2014). However, there is growing attention within published literature regarding the perceptions and benefits of AAI among healthcare professionals. According to Rosetti, et al. (2008), inclusion of animals in the therapeutic processes may impact staff retention, several themes regarding this area of practice have been identified and explored. A study, focusing on behavioral health professionals, indicated that interacting with animals in their workplace promoted a connection in taking care of oneself (Rosetti et al., 2008). Increased staff morale and widespread appreciation of innovative philosophies in their place of work were also noted from this study.

Additional benefits, specifically regarding an AAI program with dogs in a hospital, are decreased staff stress, promoting social interactions, and promoting positive interactions with the patients have also been described (Abrahamson et. al., 2016). Results also indicated increased morale among staff, as they stated “feeling excited” about the AAI team visits, as well as making a conscious effort to have contact with the dogs (Abrahamson et. al. 2016, p. 151). It has also been reported that AAI programs foster staff creativity by providing alternative treatment strategies and may lead to increased perceptions of job competence (Rosetti et al., 2008).

Swall, Ebbeskog, Hagelin, & Fagerberg (2016), indicates that therapy dog team members reported having special relationships with the patients. The dogs fostered moments of communication between the team members and the patients. These visits facilitated opportunities for the dog handlers to promote health, resulting in increased efficacy in reaching the goals of their job. The authors also described the presence of animals as creating a more caring climate, and providing a positive atmosphere for patients and practitioners alike.

The presence of therapy dogs was reported to decrease stress in interactions between patient and caregiver, with the animal handler being a necessary link between the animal and the client (Swall et al, 2016). AAI promotes development of an emotional connection between patient and provider, as well as enabling the practitioner to gain increased insights to make effective future plans for their client (Swall et al, 2016). Within the same study, perceptions of AAI enabling person-centeredness were also prominent within results. Within this study the participants reported feeling increasingly connected with the other person and seeing beyond their illness. They also reported feeling privileged to be a part of the positive changes in the lives of others, thus indicating satisfaction resulting from the presence of animals within a healthcare setting (Swall et al, 2016).

Moody, King, and O'Rourke (2002) completed a study to determine more about medical ward staff's perceptions on animal visitation programs. The researchers hypothesized that staff would have a positive perception of the programs. The authors report that both residents and staff benefit when AAI is implemented properly (Moody et al., 2002). Results from this quantitative study solidified staff's positive perceptions and the work environment was also regarded as happier and more interesting following the program. Reports from a previous study have indicated that the implementation of AAI programs has enabled healthcare professionals to gain better insights to a client's personality (Trembath, 2014). Trembath (2014) also identified that healthcare professionals reported greater connection to the client, as well as increased personal job satisfaction and better morale (Trembath, 2014).

Bibbo (2013) found staff acceptance of AAI in the oncology department of a regional cancer center in California. The staff agreed that having AAI did not increase stress or workload but rather increased socialization in both the health care providers and the patients (Bibbo, 2013). The benefits from social interactions include, reduced stress and increased mood among the staff members (Bibbo, 2013). It is clear that, even with the research presented thus far, there continues to be limited research involving the benefits of AAI for health care providers.

Barriers and Challenges to AAI

Extensive literature review by Black et al., (2011) has led to claims that AAI is effective, however, there is limited research detailing the therapist-animal-client relationship. Also, a lack of information regarding healthcare professional's knowledge of AAI. This indicates an important barrier to successful implementation of AAI, as well as the healthcare professional's desire for more knowledge and evidence basis for practice in order to overcome this challenge.

Common challenges identified by healthcare professionals regarding implementation of AAI were the extensive time and efforts that must be put forth in addition to already existing job demands, as well as hospital policy and healthcare standards that must be considered (Rosetti et al., 2008). In addition, AAI has the potential to increase risk of transferring pathogens between individuals (Murthy et al., 2015). Due to these factors, education and training, as well as the implementation of standards of practice regarding AAI is imperative to increase success in facilities.

Cultural values and norms, should also be addressed as they may present as a barrier to a successful AAI integration among various populations or within different healthcare settings. Culture is a learned phenomenon and shapes norms and values including, customs, beliefs, and behaviors (Fine & Beck, 2015). Many cultures perceive animals in different ways. For example, cows are viewed as “sacred” to Asian Indians and among Muslim cultures dogs are seen as “unclean” (Fine, 2015, p. 174). In writings by Subasi (2011), there is a belief that if there is a dog in a Muslim home, no angel will enter the home (Fine, 2015). This was corroborated by an interview-based study completed in Washington among children of various cultures, including: Asian-, European-, Native-, Muslim-, African-, and Latino-American, to obtain their perceptions of animals, especially dogs. In one interview, the Muslim child describes her father not allowing the family to have a dog because if the dog licked her “she would be unclean” (Fine & Beck, 2015, p. 179). Therefore, it is important to understand various cultures and their beliefs to avoid incidents and maintain rapport with the client. Guidelines for healthcare professionals regarding AAI should also include cultural perspectives, as well as education and training to increase competency.

Additionally, the animal's safety must be taken into account. While the positive effects of animal interactions with humans has been documented extensively, there are few publications regarding the animal's well-being. Glenk (2017), reviewed literature regarding the welfare of the therapy dog during AAI sessions. While most interactions are positive, it has been reported that inappropriate behaviors such as, teasing and mistreatment of the therapy dog have occurred (Glenk, 2017). A previous study required early termination due to the deteriorating health of the therapy dog, as well as increased symptoms of anxiety and stress (Glenk, 2017). In addition, contact with strangers may not be as equally positive for the therapy animal. For example, being approached, hugged, and petted by strangers can result in discomfort for the animal (Glenk, 2017). Unfamiliar environments and interactions with strangers are common occurrences for AAI dogs. There are also arguments regarding the exploitation of therapy dogs, questioning whether the animal benefits from AAI and if AAI is ethically justifiable (Glenk, 2017). Access to water and increased room temperatures, as well as duration and number of visits, impacts the wellbeing of the therapy animal (Glenk, 2017). Thus, the importance of training, education, and practice standards are important to both protect the patient and the healthcare professional. Regulations for implementation must be established and addressed to ensure best practice for AAI sessions within occupational therapy. This will provide a safe environment, in which treatment can be provided effectively

While literature on the standards of practice regarding use of animals in AAI exist, there are gaps including: formal training of the professional, education requirements for AAI implementation, as well as staff willingness and motivation to participate in training. Additionally, there is no all-encompassing guide or training available for healthcare professionals.

Standards of Practice

To ensure protection and advocacy for the client, therapy animal, and the health care professional alike, standards of practice need to be addressed. A formal training session, and education regarding AAI should be standard when implementing an AAI session. Staff motivation and willingness to participate in the trainings should also be considered. This will ensure best practice and client-centered sessions.

Formal Training

Lopez-Cepero et. al. (2015) concluded that current literature does not provide clear findings of the effects that specific training and informal information can have on how AAI is used. However, the results of Lopez-Cepero et. al. (2015) study, provided support for evidence stating that having direct experience with animals as the greatest predictor for intention and use of AAI. The results indicated a need for training in AAI for professionals that is not being met in academic curriculum (Lopez-Cepero et. al., 2015). Lastly, the research team discovered that the information provided regarding AAI, improved participants' perceptions and reduced fears associated with AAI, as well as findings to support less perceived importance surrounding theory and increased importance related to the dog and their behavior when participants interact with the animal (Lopez-Cepero et. al., 2015). Similarly, Black et al., (2011) emphasized the inadequacy of professional training for successful implementation, and the lack of efficacy studies.

Regulations for Implementation in Sessions

The Animal Assisted Intervention International (AAII), created guidelines for standards of practice regarding the implementation of AAI (2015). The basis of the guidelines was to encourage institutions and practitioners alike, who are interested in providing AAI in their

sessions (AAII, 2015). The guidelines were created as minimum expectations for an AAI membership (AAII, 2015). The following guidelines are used in the AAI document, *Standards of Practice for Animal-Assisted Intervention: Animal-Assisted Therapy* (2015), along with other documentation provided by various authors, to be utilized as a base of guidelines for professionals to use in AAI sessions.

1. **Expectations & Contract:** The focus of treatment must emphasize the therapeutic process and the outcomes obtained from this process (AAII, 2015). This includes all aspects, including planning and organization of the task. The HCP must provide supervision during the intervention (AAII, 2015). Additionally, HCP new to AAI must collaborate with an experienced AAI mentor (AAII, 2015).
2. **Ethics & Competency:** As stated previously, the healthcare provider must take a minimum of 5 hours of formal dog-specific continuing education yearly, if they want to act as handler (AAII, 2015). The AAI asserts that intervention is no longer of benefit to the client and/or the context or population does not match the dog's skills or well-being of both parties, the session must be discontinued (2015). Additionally, each profession must adhere to the association's ethical guidelines (AAII, 2015).
3. **Time commitments**
4. **Welfare of the Working Dog:** As stated previously, AAI must adhere to the "Five Freedoms" created by the Brambell Report, in regard to the rights of the working animal (AAII, 2015).
5. **Legal issues:** One of the barriers to AAI is the factor of legal issues. Documentation relating to the dog must be provided, updated, and maintained. Health and behavior evaluations, summaries of sessions, length of sessions, outcomes, and any other relevant incident reports must also be on file to ensure legal requirements are being met (AAII, 2015). Any and all dog-related health issues must be reported to ensure appropriate precautions can be taken (AAII, 2015).
6. **Insurance/Liability:** If the therapist or HCP wishes to be the handler, they must obtain and maintain liability insurance as required by their facility and professional associations, as well as abide by local and federal laws (AAII, 2015).

7. Safety: Although ownership of pets in the U.S. is common, there has been an increased presence of animals in hospitals, including acute care settings (Murthy, et. al., 2015). There is little evidence regarding the potential risks and management of animals in healthcare (Murthy, et. al., 2015). Potential risks include transmission of pathogens, including but not limited to, MRSA, c-diff, salmonella, rabies, as well as various pathogens caused by bites or scratches (Murthy, et. al., 2015). Table 1 indicates diseases and their transmissions from animal to human.
 - a. Understanding diseases and how they can be transmitted from animal to human, is critical in ensuring safety for the client involved, as well as the healthcare professionals that may come into contact with the therapy animals. A table, adapted from Murthy et. al. (2015), provides a transmission route that can bridge a condition from an animal to a human and a list of diseases which follow that route (Table 1, Appendix A).
 - b. Additionally, Murthy et. al. (2015) provides guidelines based on various inclusions of animals in healthcare settings (i.e. AAI, Service animals, pet visits, etc.). The guidelines were created to decrease incidents resulting from exposure to service or therapy animals within the healthcare setting. The guidelines for use with AAI (Table 2, Appendix B), has been adapted from Murthy et. al. (2015) to function as basic guidelines regarding potential risk of transmitting diseases. These guidelines are organized by sections, including, 1) Overview of how a facility would manage an AAI program, 2) Training and management of AAI handlers, 3) Requirements of acceptable animals, 4) Preparing the animal for a visit, 5) Managing appropriate contact between human and animal, 6) Contact tracing, and 7) Environmental cleaning. Each section presents recommendations to ensure safety and positive outcomes.

With the foundation of knowledge listed prior, additional education requirements involving facility policies and signs of stress in the therapy animal are beneficial to the professional. This ensures the wellbeing of the therapy animal and increases safety for all involved.

Education Requirements for AAI

The healthcare facility must have policies to address safety. As part of the staff education requirements it is important for them to know and uphold the policies. In addition, Murthy et. al. (2015) state that management and oversight of animals in healthcare (AHC) must reduce risk of transmission of pathogens and comply with legal requirements. Therefore, the practitioner must understand the legal requirements, as well as medical literature regarding the various risks and transmission possibilities from animal to human (Murthy et. al., 2015). Additionally, understanding how various pathogens are transmitted should be included in education. Handlers are required to follow the “Five Freedoms” formed by the Brambell Report; thus, the healthcare practitioner must also know and abide by them as well (AAII, 2015, p. 2). The “Five Freedoms” include:

1. Freedom from thirst, hunger, and malnutrition by ready access to fresh water and a diet to maintain full health and vigor.
2. Freedom from discomfort by providing a suitable environment including shelter and a comfortable resting area.
3. Freedom from pain, injury, and disease by prevention and/or rapid diagnosis and treatment.
4. Freedom from fear and distress by ensuring conditions that avoid mental suffering.
5. Freedom to express most normal behavior by providing sufficient space, proper facilities, and company of the dog’s own kind.

Additionally, if the healthcare provider wishes to be the handler, they must take a minimum of 5 hours of formal dog-specific continuing education yearly (AAII, 2015). Formal education on the signs of stress and discomfort in the therapy dog should also be required.

Stress-related behaviors include, but are not limited to lip licking, panting, paw lifting, trembling, body shaking, vocalizing, yawning, pupil dilation, withdrawal, and self-grooming (Glenk, 2017).

Education regarding animal and client safety are important aspects of AAI.

Understanding the needs of the therapy animal and recognizing signs of distress, can ensure an effective therapy session and safe practices. Staff willingness and motivation to participate in additional trainings is another crucial aspect to AAI. The professional is the gatekeeper to introducing AAI into sessions, therefore the professional must be willing to participate in the trainings.

Staff Willingness and Motivation to Participate Training

Through various studies, there is inconsistent research on attitudes and use of AAI. In one qualitative study, researchers determined that participants were indicative of desire to engage in training and professional development activities of AAT (Black et al., 2011). According to Berget, Grepperud, Aasland, & Braastad (2013), it has been noted that when looking at experience, knowledge, and motivation of behavioral health professionals, most respondents had never used AAI with patients. However, despite this lack of experience, majority of the participants reported having some or much knowledge and reported motivation to learn more and implement AAI into practice. Those who had strong belief in the positive therapeutic effects of AAI and those who had some former experience, reported higher motivation to learn more and use AAI (Berget et al., 2013). One reason cited for interest and motivation was hospital staff member's personal interest in this field as a way to offer alternative medicine (Berget et al., 2013). Overall, this study portrayed positive perceptions towards AAI, as well as motivation for learning more in order to use this treatment modality and was indicative of a demand for more information about such interventions (Berget et al., 2013).

AAI may be implemented by a wide array of professionals such as occupational therapists, certified recreational specialists, nurses, or mental health professionals with identification of specific goals and objectives to attain (Munoz-Lasa et al., 2011). The use of AAI by various professionals, including specification of methods and associated progress, is documented and included within a patient or client's medical records (Munoz-Lasa et al., 2011). Respondents in one study indicated that AAI should be used more in psychiatric treatment and were motivated to learn more about these opportunities (Berget et al., 2013). In the same study, it was noted that doctors and psychologists had limited knowledge and experience regarding AAI, implying a clear potential for professional development in this area (Berget et al., 2013).

Another report indicated that the majority of therapists who are already utilizing AAI are self-taught, and lack engagement in formal education or training (Black et al., 2011). Within this study, many mental health professionals reported desire for formal AAI training and education (Black et al., 2011). This discrepancy highlights a lapse in overlap between practitioners wanting training, but not receiving, thus highlighting again the need for increased professional development (Black et al., 2011). One area of the healthcare field that has been involved with the widespread use of animals to aid with disability treatment is occupational therapy (Velde et al., 2005). Yet again, the impact from the therapist perspective is lapsing in data, demonstrating the increased need for attention to the staff motivation to complete formal training, as well as availability of such programming (Velde et al., 2005).

Occupational Therapy and AAI

Connection with a client, as well as client-centeredness is one crucial aspect of occupational therapy. AAI is versatile and can be adapted to fit the individual's specific needs, resulting in a client-centered experience (Yap, Scheinberg, & Williams, 2017). Furthermore,

“care of pets” and “care of others” are classified as an Instrumental Activity of Daily Living (IADL) as defined by the American Occupational Therapy Association (2014, S19). Therefore, providing AAI can increase performance skills and client factors that align with caring for another person or pet (AOTA, 2014, S22-S27).

AAI with occupational therapy has been demonstrated as effective with many populations. In a systematic mapping review conducted by Wood, Fields, Rose, and McLure (2017); the researchers concluded that AAI can improve quality of life and decrease problematic behaviors in individuals diagnosed with dementia living in long term care facilities. The researchers utilized the Lived Environment Life Quality (LELQ) Model created by Wood et. al. (2017) as a base for mapping reviewed literature. The LELQ is a conceptual model designed to guide occupational therapy practitioners and services for individuals who are institutionalized diagnosed with dementia (Wood et. al., 2017). Additionally, interactions with the therapy animal elicited increased smiling episodes in those with moderate to severe dementia, as well as decreased depression in many others (Wood et. al., 2017).

Correspondingly, Smith-Forbes, Najera, and Hawkins (2014) introduced evidence of the benefits of AAI during occupational therapy in a prevention program for military service members in Iraq and Afghanistan. The Combat Operational Stress Control (COSC) was implemented to prevent, identify, and manage combat and operational stress reactions, with occupational therapists situated in both restoration and prevention roles (Smith-Forbes, Najera, & Hawkins, 2014). Within the prevention program, the authors noted increased socialization of the service members when the therapy dogs (SFC Boe and SFC Budge) were in sessions, as well as increased interest into the provided occupational therapy sessions (Smith-Forbes, Najera, & Hawkins, 2014). There was a noted increase in attendance for sessions once AAI was

implemented and officers were more likely to suggest the services to their service members (Smith-Forbes, Najera, & Hawkins, 2014; Fike, Najera, & Dougherty, 2012). Individuals were also more likely to build rapport with the therapist when SFC Boe or SFC Budge were involved, which resulted in increased disclosure to decrease symptoms of PTSD and depression (Smith-Forbes, Najera, & Hawkins, 2014). This program also resulted in inclusion into classes addressing anger management, self-esteem, and communication skills, as well as individual sessions addressing stress reduction (Fike, Najera, & Dougherty, 2012).

Additionally, the program led to three enlisted occupational therapists acting as handlers to the therapy dogs. Fike, Najera, and Dougherty (2012), questioned the occupational therapists who doubled as handlers about their experiences with the therapy animal. The researchers found that handling of a therapy dog came with challenges such as maintaining a healthy weight of the dog, obtaining food and having it shipped to the base, and fear of injury to the animal (Fike, Najera, & Dougherty, 2012). However, the experience of handling the therapy dog was overall positive for all three occupational therapists. A common factor in war zones, is that deployed persons are away from family members and have limited contact, making it difficult to cope with the stresses of war (Fike, Najera, & Dougherty, 2012). The presence of the therapy dog provided non-judgmental support to the therapist, as well as filled the need to express and receive affection (Fike, Najera, & Dougherty, 2012). The researchers also found that playing catch and petting the therapy dog provided a distraction from deployment, as it acted as a reminder of activities done at home with their pets (Fike, Najera, & Dougherty, 2012). Overall, the occupational therapists reported positive benefits to having the therapy dog but decreases in mood once the therapy dog was relocated to a new base of operations and new handler (Fike, Najera, & Dougherty, 2012).

In addition to the use of AAI with adult populations, benefits have surfaced with use in pediatric populations as well. Sams, Fortney, and Willenbring (2006), conducted a pilot study on the effects of AAI on children with Autism Spectrum Disorder (ASD). All subjects in the study were subject to occupational therapy through conventional intervention and occupational therapy with AAI. Results concluded increased social interactions and spontaneous use of language among the children, when an AAI session was implemented (Sams, Fortney, and Willenbring, 2006). Furthermore, the authors assert that the findings align with Ayer's Sensory Integration (SI) Model (1972), in that the interventions took place in a naturalistic environment, in which the animal's reactions to the children were both spontaneous and genuine (Sams, Fortney, and Willenbring, 2006). Such social cues and behaviors provided by the animal, were less complex and provided the children the ability to learn, interpret, and respond to the cues (Sams, Fortney, and Willenbring, 2006). This indicates the ability of children with ASD to gradually pick up on cues and behaviors provided by humans (Sams, Fortney, and Willenbring, 2006).

There is clear evidence to support the use of AAI in occupational therapy sessions; however, the standards of practice are limited. While, facilities supply protocols in regard to safety of the clients they serve, there are no clear, broad guidelines for best practice in sessions. More specifically, there are no guidelines to ensure the healthcare professional also benefits from interactions with therapy animals in the workplace. Proper guidelines and education for the provider, are essential to a safe and successful AAI session.

Theoretical Framework

The *Animal-Assisted Intervention for Healthcare Professionals: An Occupational Therapy Facilitated Program* is guided by the Person-Environment-Occupation Model of Occupational Performance (PEO). The emphasis of this model is the conceptualization of the

transactional relationship between the person, environment, and occupation as a way of understanding occupational performance (Turpin & Iwama, 2011). Occupational fit occurs when the interdependent factors of the person, environment, and occupation align, and occupational performance is enhanced (Turpin & Iwama, 2011).

Person

When guided by PEO, the person is defined as a “dynamic, motivated and ever-developing being, constantly interacting with the environment” Turpin & Iwama, 2011, (p. 17). The person is responsible for determination of purpose of occupation within one's life, and this is shaped by intrinsic factors of perceptions, goals, responsibilities, and desires (Turpin & Iwama, 2011). This model encompasses a holistic view of the person, including mind, body, and spirit. Additional variables associated with the person include values, interests, skills, abilities, and life experiences.

The Attachment Theory described previously, asserts that humans need to protect and be protected (Bowlby, 1969). This concept is essential in understanding the person in relation to their interactions with animals and the environment because the theory also suggests that an individual's behaviors, when in contact to another, allow a person to cope more efficiently with the world (Ainsworth, 1989). These factors, as related to the person, are characteristics within the mind and abilities.

In developing the product, PEO's representation of the person highlights relevant features conducive with the goals of the product outcome. In measuring product success, if implementation of AAI is beneficial to healthcare providers, it will be important to assess both objective and subjective experiences of the person in making determinations.

Environment

The environment is another imperative factor when being guided by the PEO model, as it is based upon human ecology and emphasizes the impacts of the person-environment relationship (Turpin & Iwama, 2011). The environment includes factors of cultural, socioeconomic, institutional, physical, and social contexts (Turpin & Iwama, 2011). These factors are also relevant when looking at the impact that these components have on implementation of AAI programming, and all need to be considered with product development. The environment may either support or impede optimal occupational performance, depending upon fit of contextual demands and the person's abilities (Turpin & Iwama, 2011). The environment provides demands and cues about expected and appropriate behavior, thus contributing to occupational performance.

Occupation

According to PEO, occupation is comprised of activities, tasks, and occupations that a person may engage in (Turpin & Iwama, 2011). According to Schell, Gillen, & Scaffa (2014), the following are definitions used in the PEO model:

1. **Activity:** recognizable and observable behavior
2. **Task:** purposeful activities recognized by the task performer
3. **Occupation:** self-directed tasks that a person engages in over the life course

Occupational Performance

Occupational performance is defined as the outcome of the transaction occurring between the person, environment, and occupation (Turpin & Iwama, 2011). Occupational performance is impacted by the interconnectedness of a person, what they are striving to do, and the context or environment where it will be done (Turpin & Iwama, 2011). The person is responsible for

determining the purpose of an occupation in which they engage. This is shaped by perceptions, goals, responsibilities, desires, along with the contextual demands they are surrounded by (Turpin & Iwama, 2011). Occupational performance is impacted by the degree of congruence occurring between the elements of the person, environment, and occupation (Turpin & Iwama, 2011). The function-dysfunction continuum within the PEO model can be attributed to person-environment fit, which impacts occupational performance. When there is maximal fit, optimal occupational performance occurs (cite).

Advantages

The advantages of utilizing PEO are as follows:

1. Provides a guide enabling intervention selection and implementation of intervention directed at person, occupation, and environment in varying and adaptable ways.
2. Presents a theoretical framework for convergence of multiple paths to elicit change.
3. Emphasizes the importance of addressing different levels of the environment, and following through with implementation of interventions in context.
4. The ecological approach to the environment allows for “use of a wider repertoire of well validated instruments of measure developed by other disciplines” (p. 18).

Conclusion

The human-animal bond has been extensively researched and has shown mutual benefits to both the animal and the person (Tannenbaum, 1995; Russow, 2002; & Beck, 1999 as cited in Fine & Beck, 2015). Additional literature indicates the value of involving animals in the workplace to decrease stress in healthcare professionals (Abrahamson et. al., 2016; Bibbo, 2013). While the benefits relating to the client involved in therapy have surfaced, the lack of

information for healthcare professionals, as well as clear guidelines on training requirements, policies, and procedures have been discovered as an area of need.

The *Animal-Assisted Intervention for Healthcare Professionals: An Occupational Therapy Facilitated Program* was created to fulfill that need and serve as a guide to increase positive outcomes and experiences for the healthcare professional. Use of the PEO Model of Occupational Performance, lays the foundation for incorporating the product into healthcare settings. As the basis of The *Animal-Assisted Intervention for Healthcare Professionals: An Occupational Therapy Facilitated Program*, the PEO Model provides a clear layout and sequence to the product. The table of contents for the product are as follows:

Table of Contents

Introduction

- A.** Purpose
- B.** Model of Practice
- C.** Organization of Manual
- D.** Key Terminology

Person

- A.** The Person Explained
- B.** Benefits of AAI on Healthcare Provider
- C.** Perceptions
- D.** Goals
- E.** Responsibilities
- F.** Occupational Stress
 - 1. Compassion Fatigue
 - 2. Burnout
- G.** Culture & Values

Environment

- A.** The Environment Explained
- B.** Cultural Implications
 - 1. Organizational Culture of the Workplace
- C.** Socioeconomic Concerns
- D.** Institutional Influences
- E.** Physical Demands
- F.** Social
 - 1. Increasing Social Connectedness in the Workplace

2. Facilitating Connection With Clients

Occupation

- A.** Activity, Task, & Occupation Defined
- B.** Implementation of Best Practice of AAI
 - 1. Health & Safety
 - 2. Animal Welfare
 - 3. Education/ Training Requirements
 - 4. Staff Responsibilities
- C.** Benefits on Providers of Implementation of AAI with Clients
- D.** AAA Programming for Healthcare Providers

Occupational Performance/ Occupational Fit

- E.** Transactive Relationship Between PEO
- F.** Person: Self-maintenance, Expression, and Fulfillment
- G.** Environment Enhancement or Constraint
- H.** Occupation: Process & Purpose
- I.** Function- Dysfunction Continuum

II. Conclusion

Resources & References

Chapter III

Methodology

The developers of *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program*, were determined to explore the impacts that AAI programming has on the healthcare professionals responsible for implementation. Both individuals have experienced firsthand the therapeutic impacts the presence of animals may have. The individuals both own dogs currently and have had family dogs in the past and present. The experiences the developers have had with dogs are numerous and provide insight into the benefits of having an animal can have on an individual. Animals, especially dogs, are a passion for the developers of this program.

Animal involvement in the therapy process is a growing field. However, more attention is given to the impacts on clients than the provider carrying out services. The purpose of this product, is to determine whether AAI can effectively be implemented by occupational therapists, to enhance the occupational fit within their professional healthcare context. The process of product development began with a literature review.

A literature review was conducted to:

1. explore the various roles and benefits that the presence of animals may provide within various healthcare settings and with diverse populations;
2. identify the available information that emphasizes or details the benefits and potential drawbacks that working with animals may have on healthcare professionals;
3. identify if AAI is mutually beneficial for clients and practitioners alike;
4. identify how to implement AAI in a manner most conducive with mutual benefits to clients and practitioners.

The literature review was conducted on topics related to the human-animal bond, introduction to AAI, benefits of AAI, health care professionals, and guidelines for AAI, and the role of occupational therapy. Several databases were utilized to gather literature surrounding these topics. Databases included: PubMed, CINHALL, SCOPUS, OT Search, EBSCO, Google Scholar, PsycInfo, Cochrane, and RefWorks. Other resources utilized include: HABRI Central Briefs- Resources for the Study of the Human-Animal Bond, World Health Organization, American Psychological Association, Animal Assisted Intervention International, and Scribd. Key search terms included: ‘animal-assisted therapy’, ‘animal-assisted intervention’, ‘occupational therapy’, ‘healthcare professional’, ‘attitudes’, ‘knowledge’, ‘beliefs’ ‘benefits’, ‘drawbacks’, ‘perspectives’, ‘occupational stress’, ‘workplace stress’, ‘health risks’, ‘risks’, ‘hazards’, and ‘therapy dogs’.

Each article was thoroughly read and analyzed. Reading summaries were completed for each article included in the literature review. Each summary contained the purpose of the article, description of literature reviewed, the sample, outcomes, conclusion, clinical significance, and relevance to proposed topic of the scholarly project. Reading summaries included information regarding key themes and gaps in available knowledge, thus serving as the foundation for the literature review.

These resources, the analysis of the information, and the literature review conducted contributed to knowledge utilized to develop *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program*. Due to the determination that occupational stress may be common among healthcare professionals, it was decided that the Person-Environment- Occupation Model would be utilized in structuring a guide to enhance occupational fit. Key concepts from this model, overlapping with themes developed from the

literature review, were utilized to structure the guide. This manual contains sections as follows: I) Introduction, II) Person, III) Environment, IV) Occupation, V) Occupational Performance/ Occupational Fit, VI) Conclusion, and VII) Resources and References.

Activities were developed based upon information detailed in the literature review and structured according to key concepts of the PEO model. The activities in the clinical guide were designed with the intent of highlighting benefits of AAI for occupational therapists, included key concepts for best practice, and promoted self-determination of whether AAI would be a beneficial way to enhance occupational fit. The section focused on occupational performance and occupational fit, details the transactional relationship, a central aspect of the PEO model. Activities in this section take components from all previous sections and enable the occupational therapist to clearly understand the relationships between all relevant factors. The organization and presentation of the activities was done to enhance occupational therapist's knowledge of AAI opportunities, benefits, and potential to address workplace challenges. Additional resources and reference were then added following the conclusion, to enable continual professional development and effective program implementation.

Chapter IV

Product

The purpose of this scholarly project was to design a resource, with an occupational therapy approach, for healthcare providers with interest in implementing Animal Assisted Interventions into their practice. The use of AAI and dogs, within therapeutic settings, has been shown to be beneficial to clients and in providing health benefits to humans in general. However, there is little information emphasizing or detailing the benefits or potential drawbacks that working with animals may have on the practitioners. The question this literature review explored and used to develop a clinical guide was: **How can animal assisted therapy be used in healthcare settings in a manner that extends benefits beyond the client, to positively impact health care professionals?**

A literature review was conducted on topics related to the human-animal bond, introduction to AAI, benefits of AAI, health care professionals, and guidelines for AAI, and the role of occupational therapy. The focus was to identify if AAI is mutually beneficial and if so, to what extent, and how to implement in a manner most conducive with mutual benefits to both clients and practitioners. The literature review identified best practices that were used as the foundation in the development of a clinical guide titled: *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program*.

This product is organized into seven sections: introduction; person; environment; occupation; occupational performance/occupational fit; conclusion and resources/references. Each section is further divided into relevant subsections to outline key components related to the Person-Environment-Occupation (PEO) Model of Occupational Performance that was utilized to structure this clinical guide. The emphasis of this model is the conceptualization of the

transactional relationship between the person, environment, and occupation as a way of understanding occupational performance (Turpin & Iwama, 2011). Occupational fit occurs when the interdependent factors of the person, environment, and occupation align, and occupational performance is enhanced (Turpin & Iwama, 2011).

The product is presented in its entirety in the following pages.



Photo credit: Caitlin Duggan

Animal-Assisted Intervention for Healthcare Professionals: An Occupational Therapy Facilitated Program

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Caitlin Duggan, MOTS
LaVonne Fox, PhD, OTR/L Advisor

2018

Table of Contents

| | Pg. |
|--|------------|
| Introduction | |
| A. Purpose..... | 4 |
| B. Model of Practice..... | 4 |
| C. Organization of Manual..... | 12 |
| D. Key Terminology..... | 13 |
| E. Needs Assessment..... | 16 |
| Person | 19 |
| A. The Person Explained..... | 19 |
| B. Benefits of AAI on Healthcare Provider..... | 24 |
| C. Perceptions..... | 26 |
| D. Goals..... | 31 |
| E. Responsibilities..... | 36 |
| F. Occupational Stress..... | 44 |
| 1. Compassion Fatigue | |
| 2. Burnout | |
| G. Culture & Values..... | 49 |
| Environment..... | 56 |
| A. The Environment Explained..... | 56 |
| B. Cultural Implications..... | 59 |
| 1. Organizational Culture of the Workplace..... | 64 |
| C. Socioeconomic Concerns..... | 65 |
| D. Institutional Influences..... | 69 |
| E. Physical Demands..... | 72 |
| F. Social..... | 75 |
| 1. Increasing Social Connectedness in the Workplace.. | 76 |
| 2. Facilitating Connection With Clients..... | 79 |
| Occupation | 80 |
| A. Activity, Task, & Occupation Defined..... | 80 |
| B. Implementation of Best Practice of AAI..... | 87 |
| 1. Education/Training Requirements..... | 105 |
| 2. Health & Safety..... | 108 |
| 3. Animal Welfare..... | 111 |
| 4. Staff Responsibilities..... | 114 |
| Occupational Performance/ Occupational Fit..... | 117 |
| C. Transactive Relationship Between PEO..... | 118 |
| D. Function- Dysfunction Continuum..... | 122 |
| II. Conclusion..... | 125 |
| III. Resources & References..... | 128 |

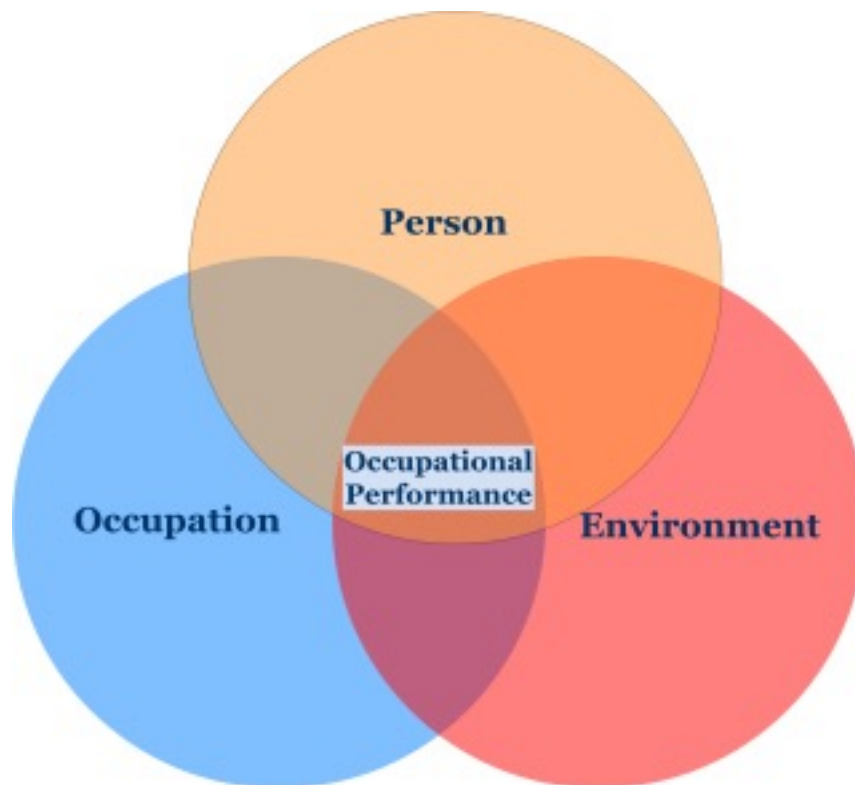
INTRODUCTION

Purpose

The purpose of the *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program* is to provide a resource for occupational therapists who have interest in implementing animal assisted interventions into practice for healthcare professionals. The product was designed using an occupational therapy theory to structure a sound approach to amplify the benefits animal assisted interventions may have on the healthcare professional.

Model of Practice

The Person-Environment-Occupation (PEO) Model of Occupational Performance was utilized to structure this clinical guide.



Emphasis of PEO: the conceptualization of the transactional relationship between the person, environment, and occupation as a way of understanding occupational performance (Turpin & Iwama, 2011). Each component of this model will be further explained in the following section. Meaning that all factors influence and respond to changes in the others.

Occupational fit occurs when the interdependent factors of the person, environment, and occupation align and occupational performance is enhanced (Turpin & Iwama, 2011). Meaning when the person is able to perform the activity within the demands required by the activity and the environment surrounding them both is supportive, the person will be successful and feel happy with the results and surroundings.

PERSON

According to PEO, the person is defined as a “dynamic, motivated and ever-developing being, constantly interacting with the environment” Turpin & Iwama, 2011, (p. 17). So, in this program the person is the healthcare professional.

The person is responsible for deciding the purpose of occupation within their life. This is shaped by intrinsic factors of perceptions, goals, responsibilities, and desires (Turpin & Iwama, 2011). This model encompasses a holistic view of the person, including mind, body, and spirit. Additional

variables associated with the person include values, interests, skills, abilities, and life experiences.

The Attachment Theory asserts that humans need to protect and be protected (Bowlby, 1969 as cited in Fine & Beck, 2015). This concept is essential in understanding the person in relation to their interactions with animals and the environment. The theory also suggests that an individual's behaviors, when in contact to another, allows them to better cope with the world (Ainsworth, 1989, as cited in Fine & Beck, 2015). These factors, as related to the person, are characteristics within the mind and abilities.

PEO's representation of the person highlights relevant features related to the goals of this product outcome. In measuring product success, if implementation of AAI is beneficial to healthcare providers, it is important to assess both objective and subjective experiences of the person in making these determinations.

ENVIRONMENT

Within this model, the environment is based on fundamentals of human ecology and emphasizes the impacts of the person-environment relationship.

For this program, the environment is the healthcare facility and includes factors of cultural, socioeconomic, institutional, physical, and social contexts

(Turpin & Iwama, 2011). The environment may either support or impede optimal occupational performance, depending upon the fit of contextual demands and the person's abilities (Turpin & Iwama, 2011). The environment provides demands and cues about expected and appropriate behavior, thus impacting occupational performance.

OCCUPATION

According to PEO, occupation is comprised of activities, tasks, and occupations that a person may engage in (Turpin & Iwama, 2011). The following are definitions used in the PEO model:

1. **Activity:** recognizable and observable behavior
2. **Task:** purposeful activities recognized by the task performer
3. **Occupation:** self-directed tasks that a person engages in over the life course

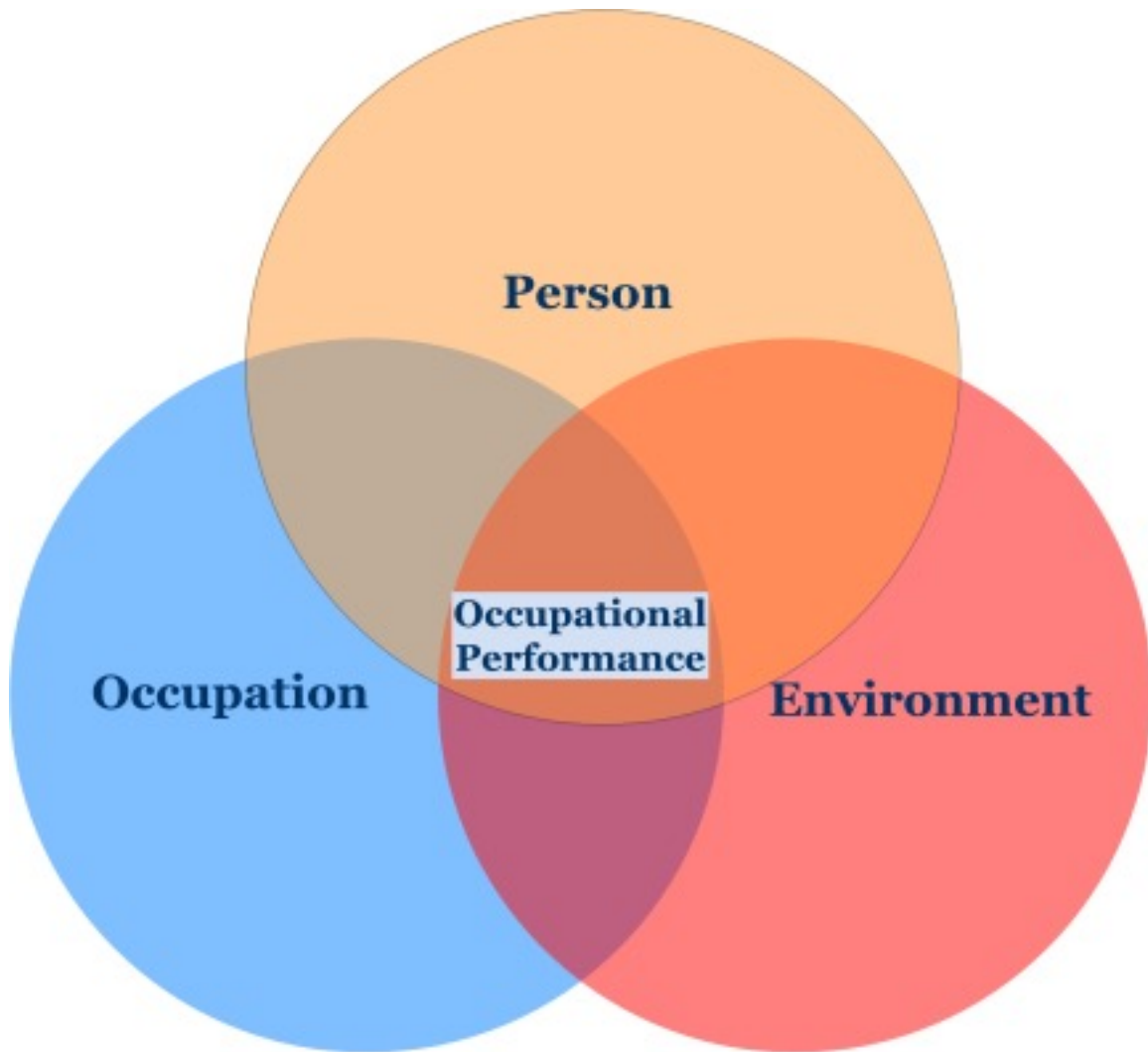
(Schell, Gillen, & Scaffa, 2014).

OCCUPATIONAL PERFORMANCE

Occupational performance is defined as the outcome of the transaction occurring between the person, environment, and occupation (Turpin & Iwama, 2011). Occupational performance is impacted by the interconnectedness of a person, what they are striving to do, and the context or environment where it

will be done (Turpin & Iwama, 2011). The person is responsible for determining the purpose of the occupations they engage in. This is shaped by perceptions, goals, responsibilities, desires, along with the surrounding contextual demands (Turpin & Iwama, 2011). Occupational performance is impacted by the degree of congruence occurring between the elements of the person, environment, and occupation (Turpin & Iwama, 2011). The function-dysfunction continuum within the PEO model can be attributed to person-environment fit, which impacts occupational performance. When there is maximal fit, optimal occupational performance occurs (Turpin & Iwama, 2011).

Figure 1: PEO Model



For the purposes of this manual, the components of PEO will be represented as follows:

Person: Healthcare provider

Environment: Healthcare environment

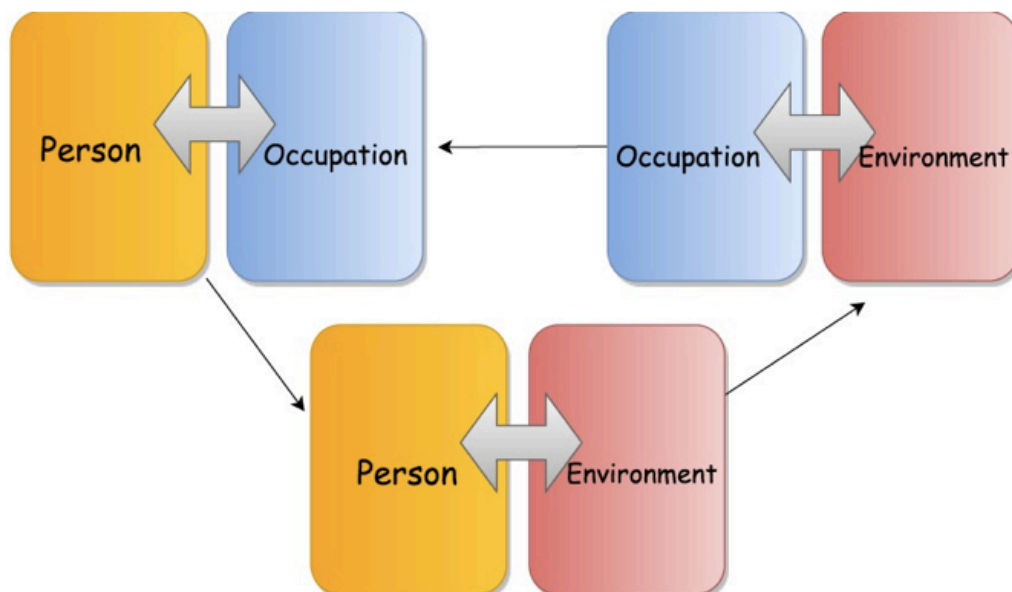
Occupation: Essential functions healthcare provider is required to do

Transactive Relationship

The PEO Model allows for the consideration of where there is less than optimal “fit” and factors that can facilitate or constrain the PEO fit (Strong et. al., 1999). The Model asserts that the outcome of occupational performance is a result of the transactions of the **Person**, the **Environment**, and the **Occupation** (Strong et. al., 1999). The flexibility of the model allows for consideration of the complexities of human functioning within the day to day experiences of an individual’s life. This is made possible by the various combinations of the P-E-O components and the transactions that occur over time, within various environments (Strong et. al., 1999).

Figure 2 indicates the possible combinations of transactions: PxO, PxO, and ExO. The lines connecting the combinations indicate the continuous and simultaneous nature of the transactions. Simply put, one transaction does not occur independently of the others.

Figure 2: PEO Transactions



Transactions as They Relate to the Healthcare Professional

Once the basic structure of the PEO Model is understood, it can be specifically applied to the intended population, more specifically healthcare professionals. Each transaction is addressed below, including examples of how a transaction could occur in the healthcare field. If the components of the P, E, and O are well-coordinated (if they “match up”), the result is maximum “fit” and increased occupational performance. If they do not “match” or “fit” there will be a decrease in occupational performance (Baptiste, 2017). Below are examples of transactions, you may identify additional personal transactions in Activity 1 under Responsibilities.

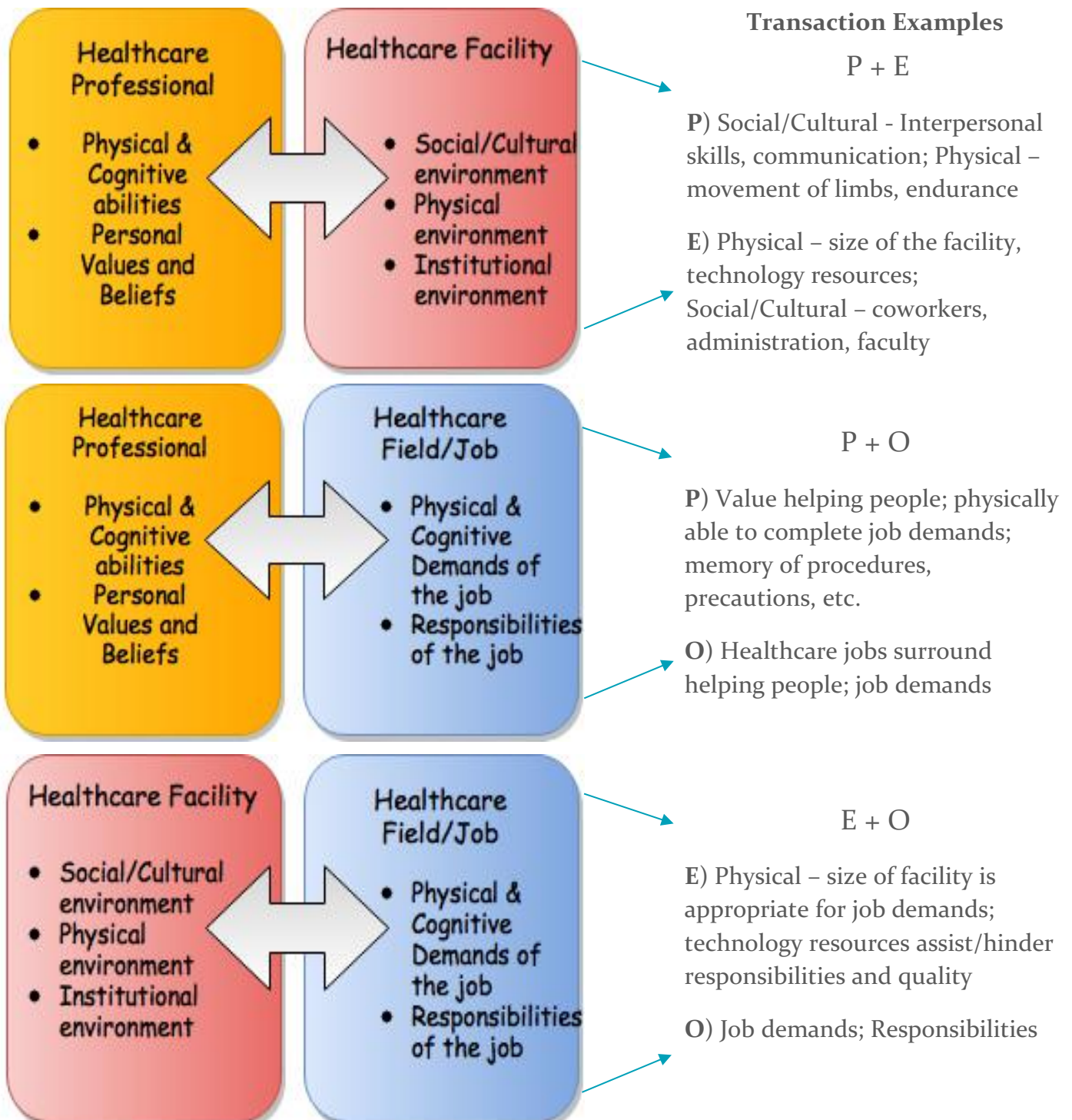


Figure 2.2: Transaction Examples

Organization of Manual

This manual will be organized according to the PEO model. It has 3 sections: Person, Environment, Occupation.

1. Person: this section will focus on identifying the healthcare professional, the healthcare organizational culture and values. Based on this our focus moves to how an AAI program fits into the culture. We will also explore the perceptions, goals, and responsibilities of healthcare providers regarding implementation of AAI to determine if it would enhance occupational performance. The final aspect of this section is on occupational stress and how AAI can decrease the influencing factors.
2. Environment: this section will focus on the cultural, socioeconomic, institutional, physical, and social aspects of the healthcare environment. The section will be utilized to identify environmental demands, barriers, and supports for successful implementation of AAI programming.
3. Occupation: in this section, essential functions the healthcare provider is required to do will be explored. Essential functions will be identified in terms of activities, tasks, and occupations. The implementation of best practices of AAI as well as benefits coinciding with implementation will be explored. Additionally, a program guide for use of AAA with the healthcare team will be included in this section as well.

An additional section will discuss the transactional relationship between these factors, and how this impacts occupational performance. The transactional relationship connects with the interdependent factors of the person, environment, and occupation; when these factors properly align, occupational performance is enhanced.

There will be a concluding summary, followed by a section containing references and additional resources.

Key Terminology

| | |
|--|---|
| <p><i>Animal assisted interventions (AAI)</i></p> | <p>A broad term that is now commonly used to describe the utilization of various species of animals in diverse manners beneficial to humans. Animal assisted therapy, education, and activities are examples of types of animal assisted intervention. AAI may be further broken down into animal-assisted activity (AAA) and animal-assisted therapy (AAT) (Lasa et. al., 2011)</p> |
| <p><i>Animal-assisted therapy (AAT)</i></p> | <p>A goal directed intervention in which an animal meeting specific criteria is an integral part of the treatment process. Animal-assisted therapy is delivered and/or directed by health or human service providers working within the scope of their profession. Animal-assisted therapy is designed to promote improvement in human physical, social, emotional, or cognitive function. Animal-assisted therapy is provided in a variety of settings and may be group or individual in nature. The process is documented and evaluated (AVMA, 2018).</p> |
| <p><i>Animal-assisted education (AAE)</i></p> | <p>A planned and structured intervention directed and/or delivered by educational and related service professional with specific academic or educational goals (AVMA, 2018).</p> |
| <p><i>Animal-assisted activities (AAA)</i></p> | <p>Animals that provide opportunities for motivation, education, or recreation to enhance quality of life. Animal assisted activities are delivered in a variety of environments by specially trained professionals, paraprofessionals, or volunteers in association with animals that meet specific criteria (AVMA, 2018).</p> |

| | |
|---|---|
| <i>AAI Resident animals (RA)</i> | Animals that live in a facility full time, are owned by the facility, and are cared for by staff, volunteers, and residents. Some RA may be formally included in facility activity and therapy schedules after proper screening and training. Others may participate in spontaneous or planned interactions with facility residents and staff (AVMA, 2018). |
| <i>Service Animal</i> | Animals that are individually trained to do work or perform tasks for people with disabilities, is not considered to constitute an animal assisted intervention (AVMA, 2018). |
| <i>The Human-Animal Bond</i> | A positive relationship between humans and animals that should include the following aspects: 1) voluntary in nature, 2) of a continuous and bidirectional nature, 3) involves increased trust on the animal's behalf and be caring, and 4) understanding on the human's side (Tannenbaum, 1995; Russow, 2002; & Beck, 1999). |
| <i>Occupational Stress</i> | The response employees experience when their skills, as well as abilities to cope, do not match job demands and pressures. A wide array of work-related situations are related to stress, and this stress response increases when employees do not feel supported in the work environment, or perceive lack of control over workplace operations. (World Health Organization, 2018) |
| <i>Burnout</i> | "Prolonged exposure to stressful work environments" (Khamisa et al., 2014, p. 653). |

| | |
|--|--|
| <i>Compassion Fatigue</i> | “the traumatization of healthcare providers occurring as a consequence of their commitment to helping others” (Branch & Klinkenberg, 2015, p. 161). |
| <i>Occupational Fit (“Fit”)</i> | Occupational fit occurs when the interdependent factors of the person, environment, and occupation align and occupational performance is enhanced (Turpin & Iwama, 2011). |
| <i>Healthcare Professional</i> | For the purposes of this project, the authors have defined <i>Healthcare Professional</i> as any individual who works in a healthcare profession and has regular contact with patients (Coyle & Duggan, 2018). |



Photo credits: Samantha Coyle

Needs Assessment

Occupational therapists have the unique skills to conduct a needs assessment and develop related programming.

- ❖ Clear and effective communication
- ❖ Collaboration
- ❖ Negotiation
- ❖ Conflict resolution
- ❖ Serving as role models for occupational balance
- ❖ Keeping occupation at the center of work
- ❖ Leadership & empowerment
- ❖ Solid professional education
- ❖ Professional and personal ethics
- ❖ Common sense
- ❖ Energy and motivation

In determining whether to implement AAI programming within your facility, it is recommended that you begin by conducting a needs assessment.

It is also recommended that you review and reflect upon program development skills, and utilize the information below to conduct the needs assessment.

Layers of Inquiry:

Setting: *the healthcare setting where services will be provided. Determine assets & capacities of the setting.*

Target population: *occupational therapists within a given setting*

Services: *what services does the agency want for the target population?*

Stakeholders: *what are their needs related to programming?*

Wants of the client: *the occupational therapists who will be implementing AAI programming*

Collecting Data: *collect data on the following areas for each layer of inquiry. Briefly write out definitions and ideas for each relevant area. Next, determine how to gather and build upon data to determine needs.*

Setting:

- Network:
- Assets:
- Resources:
- Location:

Target Population:

- Population:
- Conditions:
- Context :

Services:

- What services would be provided?
- Find evidence

Stakeholders:

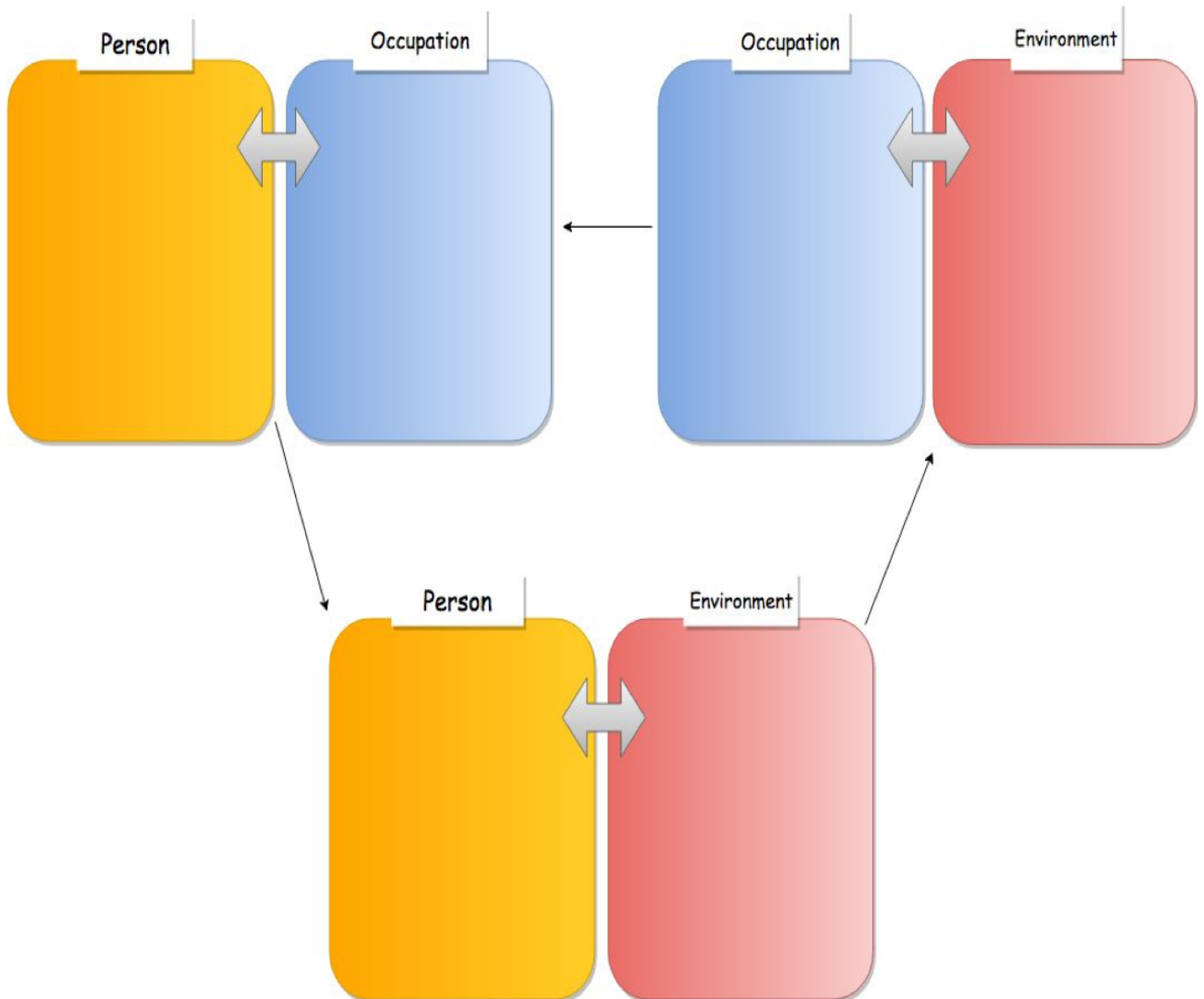
- List here:

Wants of the Client:

- List here:

Then, complete a SWOT analysis of strengths, weaknesses, opportunities, and threats. Complete this analysis below as they pertain to the following relationships:

- Person & Occupation
- Occupation & Environment
- Person & Environment



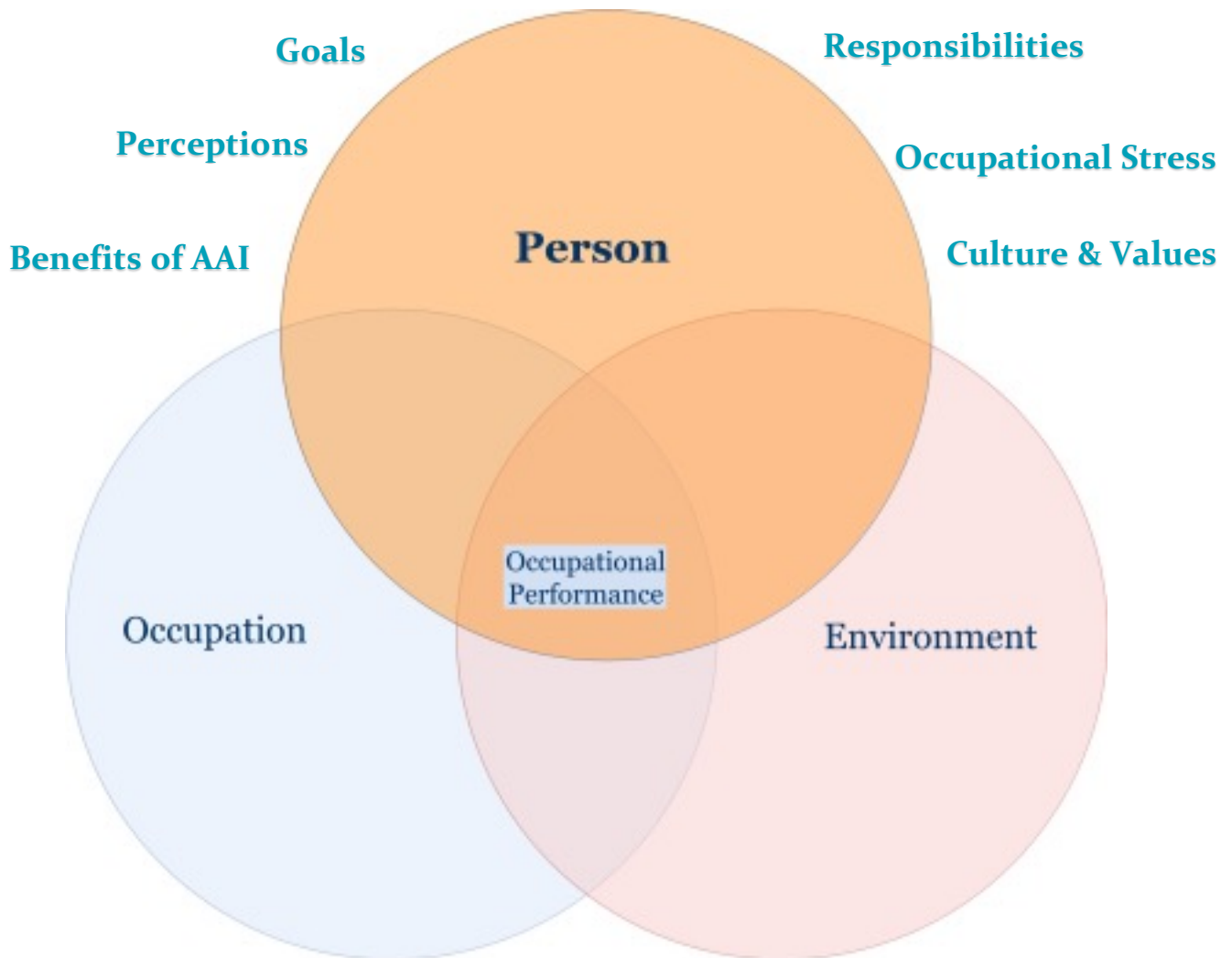
PERSON

When guided by PEO, the person is defined as a “dynamic, motivated and ever-developing being, constantly interacting with the environment” (p. 17). The person is responsible for determination of purpose of occupation within one's life, and this is shaped by intrinsic factors of perceptions, goals, responsibilities, and desires (Turpin & Iwama, 2011). This model encompasses a holistic view of the person, including mind, body, and spirit. Additional variables associated with the person include values, interests, skills, abilities, and life experiences.

The Attachment Theory, asserts that humans need to protect and be protected (Bowlby, 1969). This concept is essential in understanding the person in relation to their interactions with animals and the environment because the theory also suggests that an individual's behaviors, when in contact to another, allow a person to cope more efficiently with the world (Ainsworth, 1989). These factors, as related to the person, are characteristics within the mind and abilities.

In developing this product, PEO's representation of the person highlights relevant features conducive with the goals of the product outcome. In measuring this product success, if implementation of AAI is beneficial to healthcare providers, it will be important to assess both objective and subjective experiences of the person in making determinations.

Person: Healthcare Provider



Within this section, components of the person will be further explained accompanied by activities. The purpose is to assist the healthcare professional in determining if & how implementation of AAI may do the following:

- Benefit the healthcare professional as well as the clients they serve
- Enhance determination of personal purpose of occupation
- Relate to goals, responsibilities, and perceptions associated with meeting intrinsic needs for self-maintenance, expression, and fulfilment
- Decrease occupational stress
- Accompany personal culture and values

Person is defined as a “dynamic, motivated and ever-developing being, constantly interacting with the environment” (Turpin & Iwama, 2011, p. 17).

The person is:

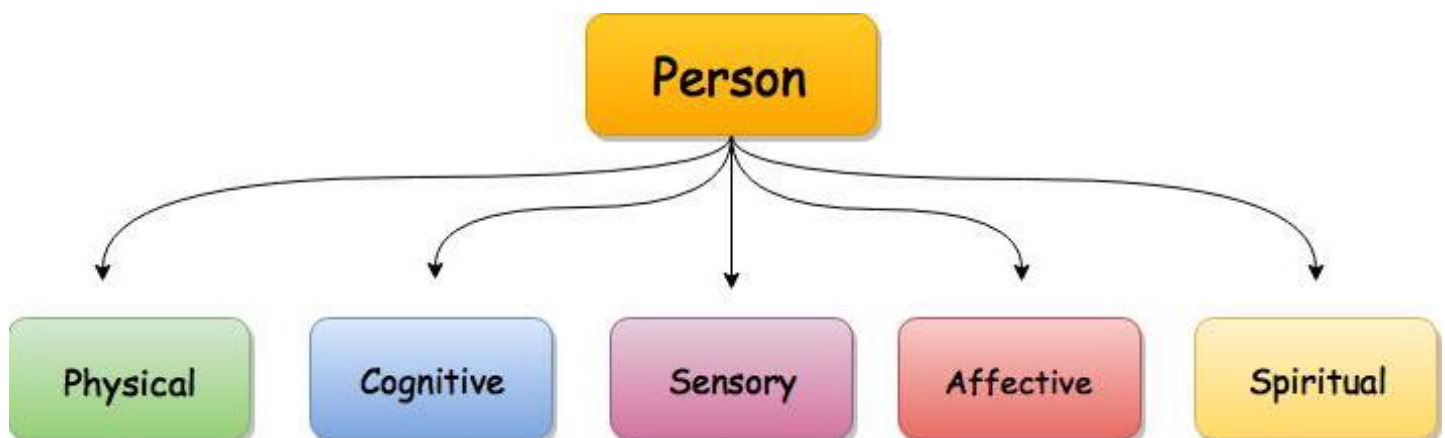
- Responsible for determination of purpose of occupation within one's life (Turpin & Iwama, 2011).
- Shaped by intrinsic factors of perceptions, goals, responsibilities, and desires (Turpin & Iwama, 2011).

The person is viewed holistically, and is a combination of the physical self (**body**), the cognitive and affective self (**mind**), and the **spiritual** self (Turpin & Iwama, 2011; Baptiste, S., 2017). Figure 3 displays the components of the person as described by Baptiste (2017).

The healthcare professional, in this case, is the PERSON. What makes the person, are their physical and cognitive abilities, and their beliefs and values. These are carried with person from place to place and throughout one's career or job. The components give a person the ability to complete the responsibilities required of them in any setting.

- For example, the ability of the body to walk and lift helps you be successful in transferring clients. The knowledge of proper techniques is also important for transfers. The value of helping individuals and the belief in maintaining human life leads a person to the job of a healthcare provider.

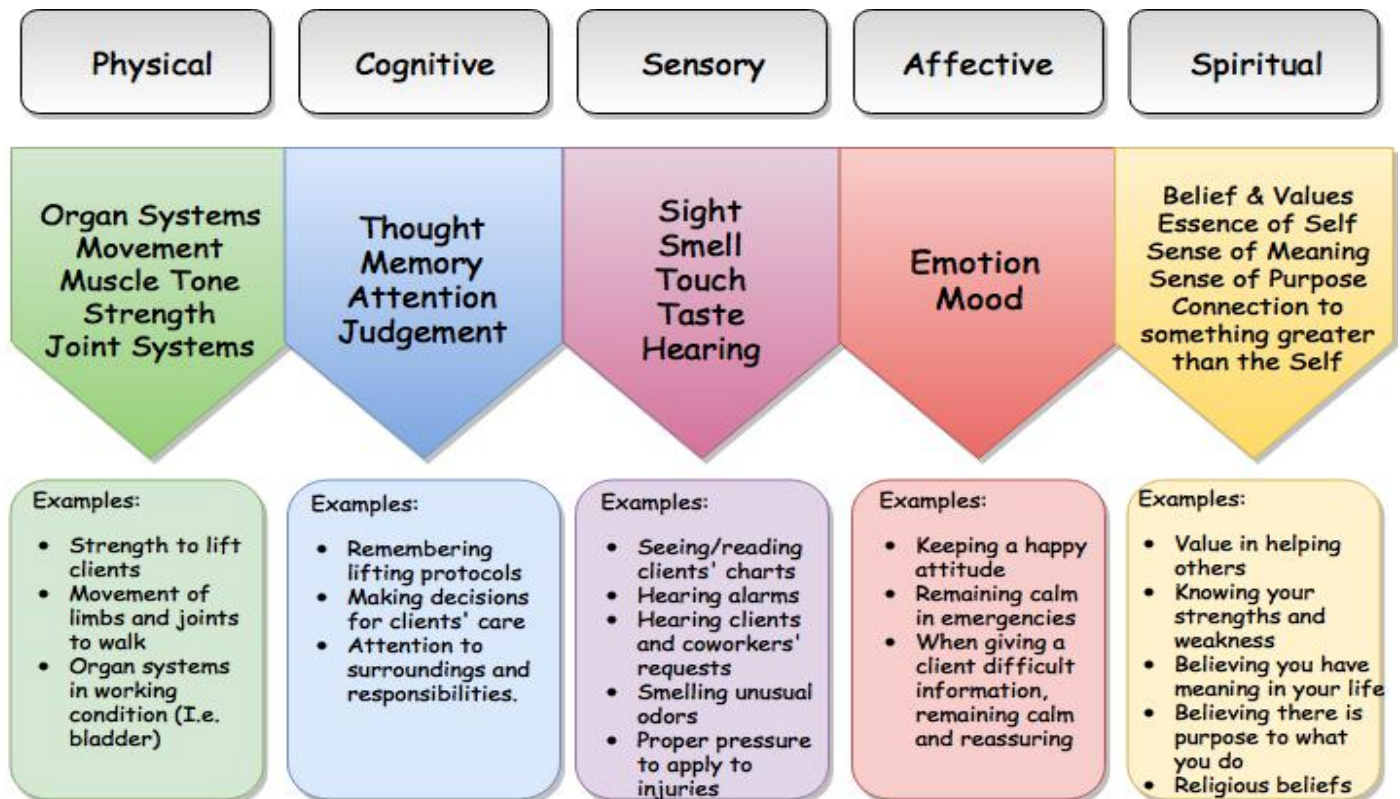
Figure 3: Components of the Person



The components above can be further broken down into aspects of the physical, cognitive, affective, sensory, and spiritual self. Figure 4 provides examples of each as described by Baptiste (2017). Additional variables associated with the person include values, interests, skills, abilities, and life experiences (Turpin & Iwama, 2011).

As the environment changes around them, **people** also change overtime. They change in their attributes, abilities, skills, and characteristics. (Turpin & Iwama, 2011)

Figure 4: Aspects of the Person



The Attachment Theory influences various components and aspects of the person, including: affective, cognitive, and spiritual. Within this theory, the person is better able to cope with the world around them (Ainsworth, 1989), making clearer judgements and impacting the individual's mood and emotions. The theory also emphasizes that humans need to protect and be protected (Bowlby, 1969). This results in

increased sense of meaning and purpose in one's life, as well as a connection to something other than the self. Researchers have used this theory to explain the bond between human and animals.

The attributes of the person presented, affect the outcome of occupational performance, within contexts and occupations. Attachment theory raises the emphasis of the use of AAI in healthcare settings to increase “fit” between the person, the environment, and the occupation. In the following pages, you will find activities and tip sheets to assess the person and their needs. These include: benefits of AAI on the Healthcare Professional, perceptions, goals and responsibilities of the professional, occupational stress, and culture and values.



Photo credits: Shae Roberts, used with permission

Benefits of AAI on Healthcare Provider

- Healthcare professionals have reported happier and more interesting workplaces with the presence of domesticated animals within the settings (Bibbo, 2013).
- Increased socialization in both the health care providers and the patients (Bibbo, 2013).
- Reduces stress and increases mood among staff members (Bibbo, 2013).
- Healthcare professionals have expressed more positive feelings towards administration at facilities with AAI programming, and some indicated they would select to stay at a job because of the presence of a therapy dog, thus indicating high levels of environmental satisfaction (Rosetti et. al., 2008).
- Inclusion of animals in the therapeutic processes may impact staff retention (Rosetti et. al., 2008).
- Interacting with animals in the workplace promotes a connection in taking care of oneself (Rosetti et. al., 2008).
- Increased staff morale and widespread appreciation of their place of work (Rosetti et. al., 2008).
- Decreased staff stress, promotion of social interactions, and promotion of positive interactions with the patients (Abrahamson et. al., 2016).
- AAI programs foster staff creativity by providing alternative treatment strategies, and may lead to increased perceptions of job competence (Rosetti et. al., 2008).
- Development of emotional connections between patient and provider (Swall et al, 2016).
- Increased insights of the healthcare professional to make effective future plans for their client (Swall et al, 2016).
- Enablement of person-centeredness within the healthcare setting (Swall et al, 2016).

The following page is a Fact Sheet that can be used to introduce the Benefits listed, to healthcare professionals.

This Fact Sheet can be used to facilitate staff motivation for participating in AAI.



Photo Credits: Public Domain

Benefits of AAI on Healthcare Provider

Physical/Sensory

- Improved Cardiovascular Health
- Decreases in Blood Pressure
- Decreases in Pulse
- Decreases in Pain



Cognitive/Affective

- Decreases in Stress
- Increases in Social Interactions (with staff and clients)
- Decreases in Anxiety
- Decreases in Depression
- Increases in Self-care Behavior
- Increases in Morale
- Increases in Mood

Environment

- Happier and more interesting workplaces
- Increased positive feelings towards administration
- Increased workplace satisfaction
- Increases in Staff Retention
- Increases in Person-Centered Care

Photo Credits: Public Domain

DID YOU KNOW?!



The majority of the world's population spends one-third of their life at work (WHO, 2018).

Perceptions

The person is responsible for determine of purpose of occupation within one's life, which is shaped by intrinsic factors of **perceptions**, goals, responsibilities, and desires (Turpin & Iwama, 2011).

Perception – is defined as “a result of perceiving : observation”, “awareness of the elements of environment through physical sensation” (Merriam-Webster.com, 2018).

There are varying beliefs and perceptions regarding AAI among healthcare professionals. However, it is also reported that minimal research completed to gain insight regarding practitioner beliefs of animals relationship to human health (Trembath, 2014).

Healthcare professionals have reported the following perceptions:

- Increased person-centeredness with availability of AAI (Swall et al, 2016).
- Increased feelings of connectedness with clients/patients (Swall et al, 2016).
- Increased ability to see beyond the individual's illness (Swall et al, 2016).
- Feeling privileged to be a part of the positive changes (Swall et al, 2016).
- Preference to jobs with presence of therapy dogs (Bibbo, 2013).
- More positive work environments (Bibbo, 2013).



Photo credits: Public Domain

Activity 1.1: My Perceptions of AAI

The following activity is to assess your personal perceptions regarding the use of AAI within your treatment sessions and within the facility. This worksheet is to be used prior to participation in AAI sessions.

Place an 'X' next to each statement that applies to you.

Having a dog in therapy would increase my stress

Having a dog in therapy sessions would increase my work load

Having a dog in therapy would not change client outcomes

Having a dog in therapy would not increase client satisfaction

Having a dog in therapy has no benefit to me as the therapist

Having a dog in therapy would not change my experience of treatment

Having a dog in therapy would not change how I practice or provide treatment

Having a dog in therapy will not increase rapport or client-centeredness

Having a dog on the therapy unit will not change the environment

Having a dog on the therapy unit will have no impact on staff

| |
|--|
| |
|--|

Having a dog on the therapy unit will increase morale

| |
|--|
| |
|--|

Having a dog within the hospital will increase staff retention

| |
|--|
| |
|--|

Having a dog within the hospital will have positive results

| |
|--|
| |
|--|

Prior to participation in AAI Sessions

In the lines below, briefly explain why (or why not) the items apply to you:

Additional Comments/Questions:

Activity 1.2: My Perceptions of AAI

The following activity is to assess your personal perceptions regarding the use of AAI within your treatment sessions and within the facility. This worksheet is to be used after participation in AAI sessions.

Place an 'X' next to each statement that applies to you.

Having a dog in therapy would increase my stress

Having a dog in therapy sessions would increase my work load

Having a dog in therapy would not change client outcomes

Having a dog in therapy would not increase client satisfaction

Having a dog in therapy has no benefit to me as the therapist

Having a dog in therapy would not change my experience of treatment

Having a dog in therapy would not change how I practice or provide treatment

Having a dog in therapy will not increase rapport or client-centeredness

Having a dog on the therapy unit will not change the environment

Having a dog on the therapy unit will have no impact on staff

Having a dog on the therapy unit will increase morale

Having a dog within the hospital will increase staff retention

Having a dog within the hospital will have positive results

| |
|--|
| |
| |
| |
| |

Following participation in AAI Session

Compare your answers to your previous answers from Activity 1.1.

What changes did you notice in your perceptions? How were they changed?

Final thoughts and perceptions regarding the use of AAI in therapy sessions:

Goals

The person is responsible for determination of purpose of occupation within one's life, which is shaped by intrinsic factors of perceptions, **goals**, responsibilities, and desires (Turpin & Iwama, 2011).

The healthcare provider contributes to determination of purpose of occupation through setting goals related to the occupations they engage in, in order to meet intrinsic need for self-maintenance, expression, and fulfillment (Turpin & Iwama, 2011).

Therefore, determining, understanding, and working towards goals is an imperative factor in determining one's purpose of occupation, in this case, fulfillment of the role of a healthcare professional.



Photo credits: Caitlin Duggan

Activity 1:

Reflect upon your professional goals, the present opportunities you have within the workplace to work towards these goals, and why is this goal a significant part of determination of purpose of occupation.

| Professional Goals | Present Opportunities | Goal Significance |
|--------------------|-----------------------|-------------------|
| | | |
| | | |
| | | |
| | | |

Activity 2: AAI Target Outcomes

Now, look at the list of potential outcomes of AAI. Put a checkmark next to any of these that align with your personal goals (*whether you identified it on the previous page, or just now*).

| | |
|--|--|
| To assist clients with goal oriented intervention to promote physical, social, emotional, or cognitive function (Animal Assisted Intervention International, 2016). | |
| To increase sense of social connectedness with other staff, clients, and their families (Abrahamson et al., 2016). | |
| To be a part of the development, design, assessment, and revision of a new program within your facility. | |
| To increase engagement and continuing education in an expanding area of occupational therapy practice. | |
| To develop and apply novel ways to cope with workplace stressors in order to effectively meet job demands. | |
| To apply unique intervention strategies that may promote optimal patient outcomes in areas such as improved cardiovascular health or alleviating depressive symptomology (Trembath, 2014). | |
| To increase engagement in collaborative interactions with peers. | |
| To contribute to an increasingly positive and supportive atmosphere for patients and practitioners. | |
| To expand ability to develop rapport with clients, and to increase connectedness and ability to gain insights. | |
| To utilize a non-traditional therapeutic tool to assist in restoring balance in the lives of your clients, through a goal-directed process. (Phung et al, 2017). | |

Activity 3: Combining Professional Goals & AAI Target Outcomes

Copy down your target outcomes here, combine your goals from activities 1 & 2. Then, determine how you will make each goal measurable, and what steps you will need to take to achieve it.

| Goal | Measure | Steps |
|------|---------|-------|
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Activity 4: Personal Purpose of Occupational Engagement

Personal goals relate to the determination of purpose of the occupations one engages in, in order to meet intrinsic need for self-maintenance, expression, and fulfillment (Turpin & Iwama, 2011).

Reflect on how your professional goals help you address these components relevant and the contribution in determining the purpose of occupation, as a health care provider, within your life.

- **Self-maintenance:**

The ability to preserve and uphold one's desired sense of self

- **Expression:**

Communication of thoughts, feelings, or actions

- **Fulfillment:**

The feeling of satisfaction with meeting personal wants and needs

Determination of Purpose of Occupation Within One's Life

Responsibilities

The person is responsible for determination of purpose of occupation within one's life, which is shaped by intrinsic factors of perceptions, goals, **responsibilities**, and desires (Turpin & Iwama, 2011).

What role can AAI and responsibility have in increasing sense of occupational purpose within your life?



Photo credits: Caitlin Duggan

Activity 1: Present Responsibilities & Satisfaction

Staff Responsibilities: what are the responsibilities of all occupational therapy staff members? List responsibilities and rate satisfaction utilizing the following scale:

Satisfaction:

0 = Dissatisfied- *I dislike this task and wish it was not part of my job*

1 = Somewhat dissatisfied- *I would like to do less of this*

2 = Content- *I am satisfied with the level of responsibility*

3 = Desire for increase- *I enjoy this responsibility and would like to take on more*

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Individual Responsibilities: what are your personal responsibilities that may not be expected by all members within the occupational therapy department? List responsibilities and rate satisfaction utilizing the following scale:

Satisfaction:

0 = Dissatisfied- *I dislike this task and wish it was not part of my job*

1 = Somewhat dissatisfied- *I would like to do less of this*

2 = Content- *I am satisfied with the level of responsibility*

3 = Desire for increase- *I enjoy this responsibility and would like to take on more*

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Activity 2: AAI Responsibilities & Staff Willingness

The responsibilities associated with AAI implementation are listed in the chart below. List the specific requirements detailed in international standards, and those determined by your facility. Then, rate your willingness for increased responsibility with AAI programming utilizing the following scale:

0 = Not willing

1 = Willing occasionally

2 = Indifferent

3 = Would like to take on this responsibility

Staff Responsibilities with AAI:

| | |
|---|--|
| <p>Formal Training: To participate in formal training required for implementation of AAI. <i>List specific requirements here:</i></p> | |
| <p>Continuing Education: To participate, share knowledge with co-workers, and seek out new opportunities. Track continuing education involvement and reflect upon experiences. These may include, but are not limited to the following:</p> <ul style="list-style-type: none"> • Roundtables • Conferences • Webinars • In-services <p><i>List specific requirements and additional opportunities:</i></p> | |

| | |
|---|--|
| <p>Standards of Practice: To remain current with standards of practice for AAI, to ensure these standards are adhered to during practice, and to create and follow protocol to ensure adherence and address non-adherence. <i>List specific requirements:</i></p> | |
| <p>Evidence Based Practice: To seek additional sources of evidence to support implementation and to share these with co-workers. <i>List specific requirements/ recommendations:</i></p> | |
| <p>Healthcare Standards: To adhere to all healthcare standards as indicated by facility and occupational therapy department. <i>List specific requirements:</i></p> | |
| <p>Cultural Values: To increase cultural competency and remain mindful of cultural differences regarding value of animals. <i>List specific requirements and resources to enhance cultural awareness:</i></p> | |

| | |
|--|--|
| <p>Animal Safety: To ensure animal safety and well-being. Adhering to all animal safety standards <i>List specific requirements:</i></p> | |
| <p>Program Development and Evaluation: To contribute to facility AAI programing, participating in program evaluation, quality control, and ongoing enhancement of AAI programming. <i>Briefly describe program plan and evaluation process:</i></p> | |

Activity 3: AAI Responsibilities & Staff Satisfaction Following Program Implementation

Utilize this check-in form intermittently following program implementation, to assess staff responsibilities and satisfaction. This tool will increase awareness of role competence, and will serve as a resource to adjust responsibilities if satisfaction ratings are low, in order to promote optimal program implementation.

- *Complete this assessment every three months during the first year of program implementation, and biannually thereafter, or as needed.*

Responsibility Assessment For Follow-up:

Date:

Staff Responsibilities with AAI:

Satisfaction:

0 = Dissatisfied- *I dislike this task and wish it was not part of my job*

1 = Somewhat dissatisfied- *I would like to do less of this*

2 = Content- *I am satisfied with the level of responsibility*

3 = Desire for increase- *I enjoy this responsibility and would like to take on more*

N/A- *this responsibility does not apply to me*

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| | |

Check- In Questionnaire: circle the answer that best corresponds to you

- My responsibilities regarding AAI programming are:
 - Not enough
 - Sufficient
 - Too much

- This program is _____ my ability to do my job.
 - Hindering
 - Neither helping nor hurting
 - Supporting

- I would like to be _____ involved with this program moving forward
 - Less
 - The same amount
 - More

- Comments:

Occupational Stress

This section will guide you through the process of determining how implementation of AAI may decrease your occupational stress.

The following terms describe forms of occupational stress that occupational therapists may experience:

1. **Compassion fatigue** – “The traumatization of healthcare providers occurring as a consequence of their commitment to helping others” (Branch & Klinkenberg, 2015, p. 161).
2. **Burnout** – “prolonged exposure to stressful work environments” (Khamisa et al., 2014, p. 653).
3. **Work-related stress**— the response employees experience when their skills and abilities to cope do not align with job demands and pressures (WHO).

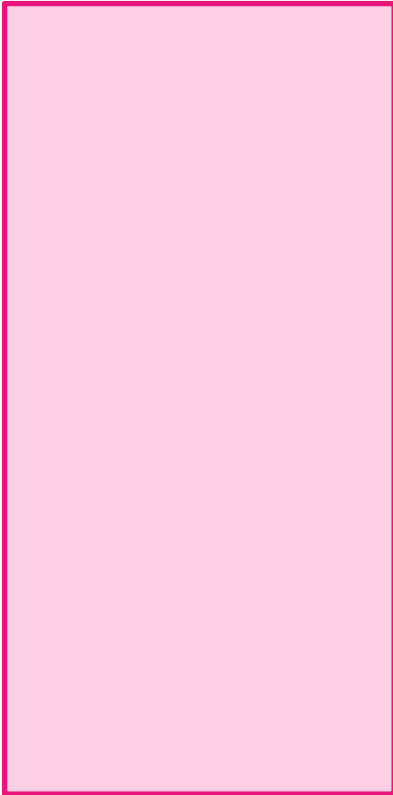


Photo credits: Caitlin Duggan

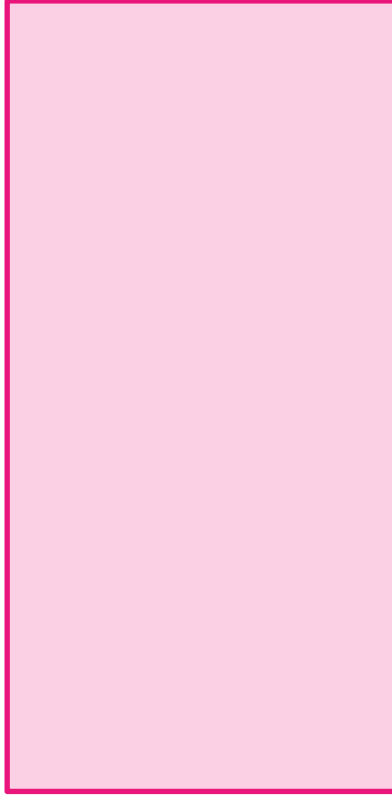
Activity 1: Stress Identification

List the following, as are personally applicable, in the space below:

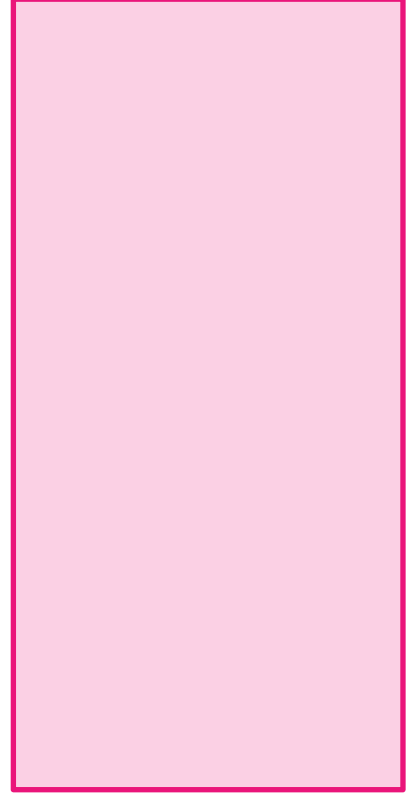
Workplace Stressors

A large, empty rectangular box with a pink background and a dark pink border, intended for listing workplace stressors.

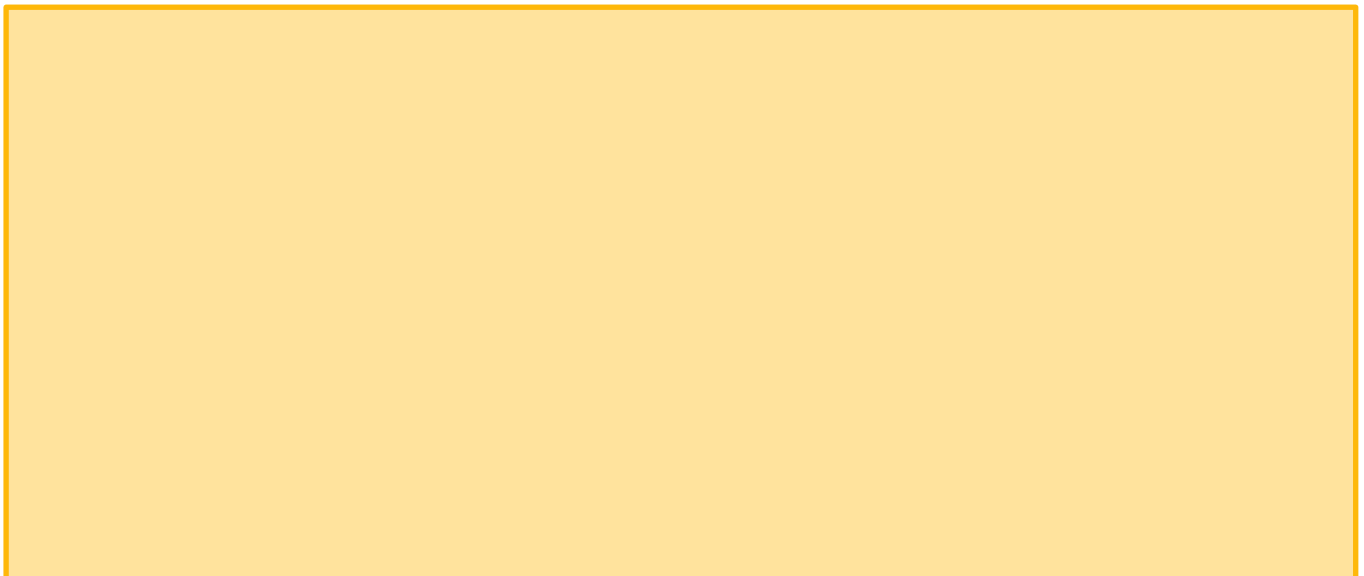
Personal Symptoms of Stress

A large, empty rectangular box with a pink background and a dark pink border, intended for listing personal symptoms of stress.

Present Coping Skills

A large, empty rectangular box with a pink background and a dark pink border, intended for listing present coping skills.

List the ways you anticipate AAI would impact your occupational stress:

A large, empty rectangular box with a yellow background and a dark yellow border, intended for listing anticipated impacts of AAI on occupational stress.

Activity 2: AAI in Relation to Stress

- Healthcare professionals have reported happier and more interesting workplaces with the presence of domesticated animals within the settings (Bibbo, 2013).
- Healthcare professionals have expressed more positive feelings towards administration at facilities with AAI programming, and some indicated they would select to stay at a job because of the presence of a therapy dog, thus indicating high levels of environmental satisfaction (Rosetti, DeFabiis, & Belpedio, 2008).

Complete the activity below by selecting a response in the middle column for each component of stress listed. Then, add comments and reflections on your responses in the blank column.

| | | | | |
|--|-----|----------|----------|-------------------------|
| Using AAI would increase my ability to provide competent, safe care of clients | Yes | Possibly | Unlikely | Comments & Reflections: |
| AAI would increase productivity at my job | Yes | Possibly | Unlikely | |
| I am more likely to stay at this job if I am able to use AAI or interact with animals in the workplace | Yes | Possibly | Unlikely | |
| AAI would increase my connectedness with clients and co-workers | Yes | Possibly | Unlikely | |
| Using AAI would increase motivation with my job | Yes | Possibly | Unlikely | |
| Promote professional growth | Yes | Possibly | Unlikely | |

** responses of “yes” or “possibly” exceeding responses of “unlikely” could mean that AAI would positively impact your occupational stress.*

Activity 3: Occupational Stress

Complete the table below to identify personal factors and the workplace dynamic in relation to occupational stress. For any responses of ‘could be better’ or ‘no,’ reflect upon steps you can take to make these improvements, and how AAI would impact these areas.

| | | | | |
|--|-----|-----------------|----|----------------------------------|
| I feel as though I am supported with my responsibilities | Yes | Could be better | No | Action plan: AAI impacts: |
| I have control over workplace operations | Yes | Could be better | No | Action plan: AAI impacts: |
| My skills match my responsibilities | Yes | Could be better | No | Action plan: AAI impacts: |

Culture & Values

Determining culture, values, and past experiences with animals which may impact the use or non-use of AAI for the healthcare professional.

1. **Culture** – “learned phenomenon that shapes norms and values including, beliefs, customs, and behaviors (Fine & Beck, 2015)
 - Culture influences how the individual views animals. For example, an animal may be seen as sacred in one culture but not valued by another culture.
 - Culture can include ones religion
2. **Organizational culture** – “the psychology, attitudes, experiences, and values of an organization” (Leka, Griffiths, & Cox, 2003).
 - Facility values and protocols my impact how AAI is used; this can either encourage use of AAI or be an obstacle.



Photo credits: Public Domain

Photo credits: Samantha Coyle

Activity 1: Personal Values, Beliefs, & Past Personal Experiences

Utilize this form prior to program implementation, to assess staff cultures, values, and beliefs. This tool will increase awareness of biases, and will serve as a resource to adjust responsibilities of staff and indicate desire to be near a therapy dog, in order to promote optimal program implementation.

The following questionnaire will provide statements or questions regarding values, beliefs, and experiences with dogs on a personal level.

Circle YES, if this statement pertains to you. Circle NO if it does not:

I love dogs YES / NO

Seeing a dog makes me happy YES / NO

I dislike having dogs around me YES / NO

My culture feels positively about dogs YES / NO

I have previously owned/had a dog in the past YES / NO

My culture does not feel positively about dogs YES / NO

I wish I could have a dog YES / NO

I have never owned a dog YES / NO

I know when a dog is in distress/anxious YES / NO

I have no idea how to care for a dog YES / NO

I have had good experience(s) with dogs in the past YES / NO

I am allergic to dogs YES / NO

I have had bad experience(s) with dogs in the past YES / NO

Dogs are important to my family YES / NO

I am not allergic to dogs YES / NO

Dogs are important to my friends YES / NO

I have never wanted a dog YES / NO

Dogs are not important to my family YES / NO

Dogs are not important to my friends YES / NO

My family/friend's feelings towards dogs effects how I feel about dogs YES / NO

Activity 2: Personal Values, Beliefs, & Past Professional Experiences

Utilize this form prior to program implementation, to assess staff cultures, values, and beliefs. This tool will increase awareness of biases, and will serve as a resource to adjust responsibilities of staff and indicate desire to be near a therapy dog, in order to promote optimal program implementation.

The following questionnaire will provide statements or questions regarding values, beliefs, and experiences with dogs on a professional level.

Circle YES, if this statement pertains to you. Circle NO if it does not:

I believe dogs are useful in therapy YES / NO

Seeing a dog in the facility makes me happy YES / NO

I dislike having dogs in the facility YES / NO

I do not believe that dogs are useful in therapy YES / NO

I feel more productive/successful when in contact with a dog in the facility YES / NO

My facility has AAI dogs that visit YES / NO

I wish I could be a handler YES / NO

My facility does not have AAI dogs visit YES / NO

| | |
|---|----------|
| I know when a dog is in distress/anxious while in the facility | YES / NO |
| I am nervous that I cannot care for an AAI dog and a client at the same time in sessions | YES / NO |
| I have had good experience(s) with dogs in the past within a healthcare facility | YES / NO |
| Providing AAI services is distracting/less efficient for me and the client | YES / NO |
| The facility feels positively about AAI dogs | YES / NO |
| I do not wish to be a handler | YES / NO |
| I have had bad experience(s) with dogs in the past within a healthcare facility | YES / NO |
| I would like more training on AAI implementation | YES / NO |
| The facility does not feel positively about AAI dogs | YES / NO |
| I feel that I have had enough training/education in order to provide AAI | YES / NO |
| I am competent in caring for an AAI dog and a client at the same time in sessions | YES / NO |

Activity 3: Facility's/Organizational Values, Beliefs, & Past Experiences

Utilize this form prior to program implementation, to assess staff understanding of the facility's beliefs, values, and experiences with AAI. This tool will increase awareness of protocols already in place, provide staff a way to make suggestions and voice concerns, and will serve as a resource to adjust protocols and responsibilities of staff, in order to promote optimal program implementation.

Check- In Questionnaire: circle the answer that best corresponds to you

- The facility has _____ provided AAI programming in the past
 - Never
 - Maybe
 - Definitely
 - I am Unsure

- The facility currently _____ provide AAI programming
 - Does not
 - Will (in the future)
 - Does
 - I am Unsure

- The facility _____ AAI programming protocols and standards
 - Does not have
 - Is in the process of creating
 - Has
 - I am Unsure

- The facility's standards and protocols on AAI programming are:
 - Not enough for successful implementation
 - Sufficient for successful implementation
 - Too obstructing for successful implementation

Next Page

- The facility's standards and protocols on AAI programming are:
 - Not known/understood by staff
 - Understood by those in direct contact
 - Known/understood by the majority (if not all) staff

- The facility demonstrates _____ behaviors towards AAI programming
 - Negative
 - Neutral
 - Positive
 - I am Unsure

- The facility _____ the use of AAI programming
 - Dismisses
 - Neither Dismisses nor Encourages
 - Encourages
 - I am Unsure

- The facility believes AAI programming has _____ outcomes
 - Negative/Poor
 - Neither Negative nor Positive
 - Positive/Good
 - I am Unsure

- Comments/Suggestions:

ENVIRONMENT

Within this model, the environment is based on fundamentals of human ecology and emphasizes the impacts of the person-environment relationship.

For this program, the environment is the healthcare facility and includes factors of cultural, socioeconomic, institutional, physical, and social contexts (Turpin & Iwama, 2011). The environment may either support or impede optimal occupational performance, depending upon the fit of contextual demands and the person's abilities (Turpin & Iwama, 2011). The environment provides demands and cues about expected and appropriate behavior, thus influencing occupational performance.

Environment: Healthcare Environment

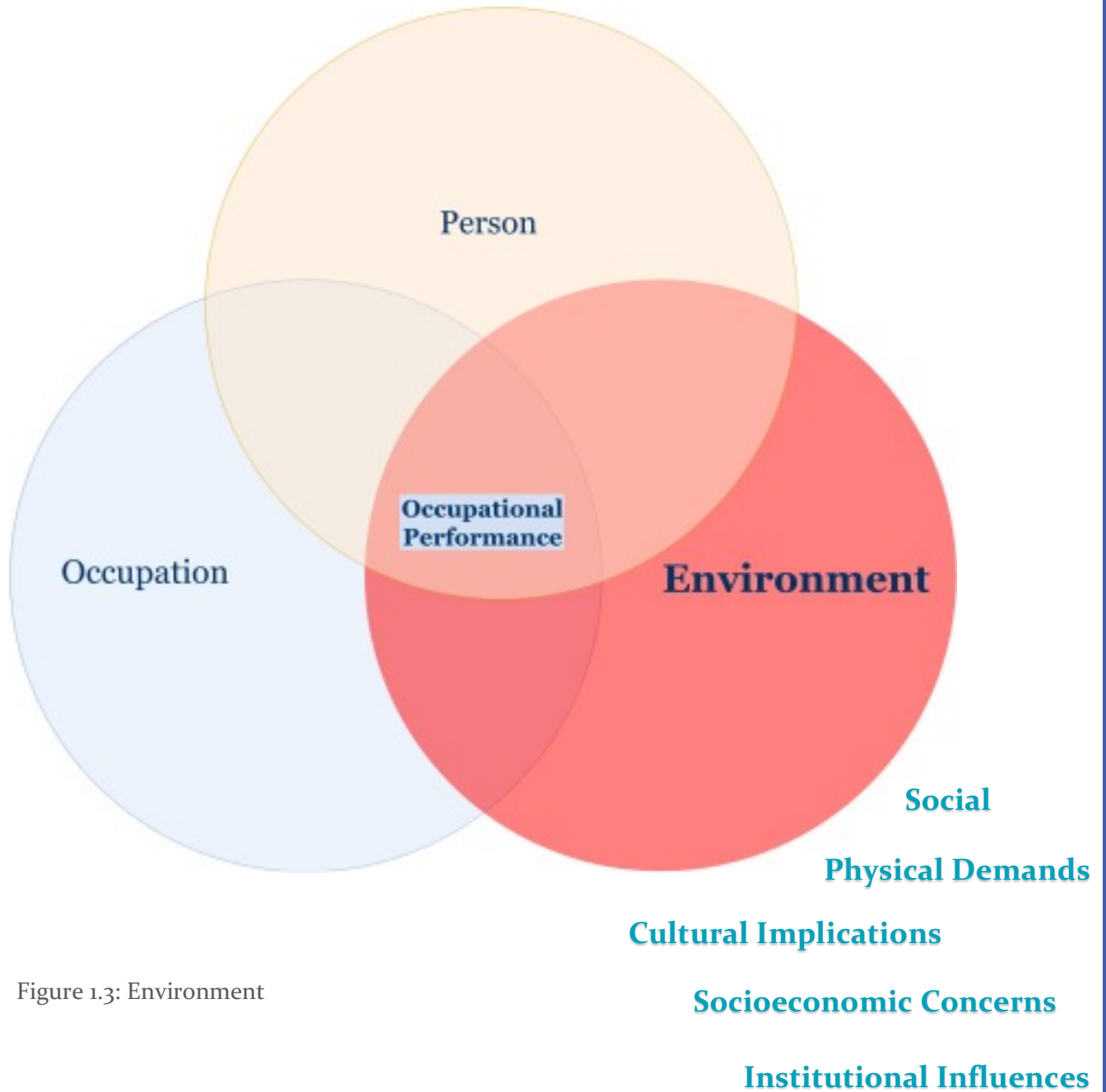
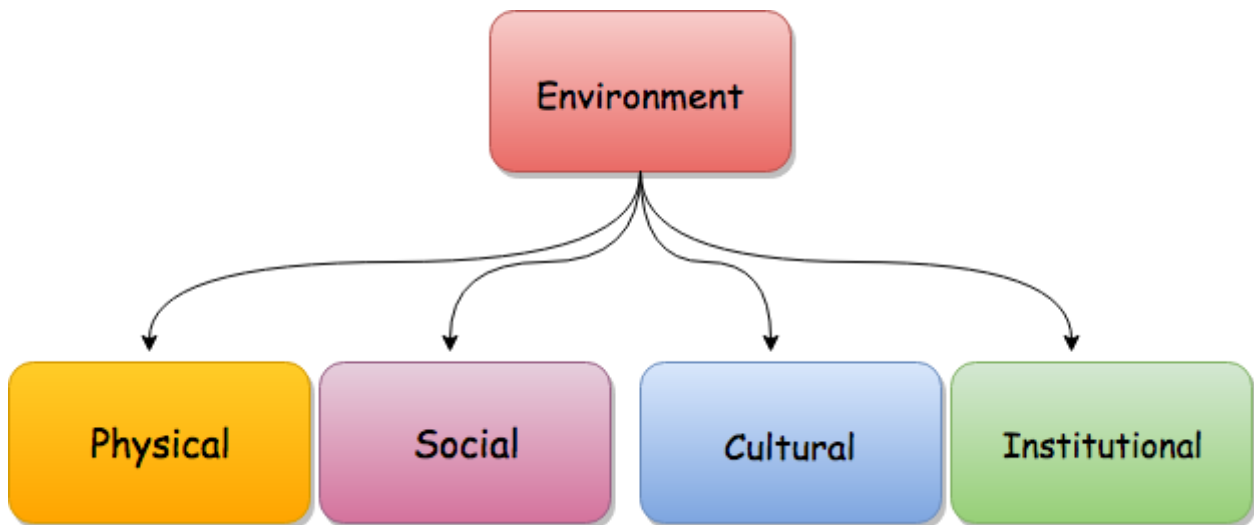


Figure 1.3: Environment

Environment is defined as the cultural, socioeconomic, institutional, physical, and social contexts in which occupational engagement takes place. (Turpin & Iwama. 2011, p. 17).

Figure 5: Aspects of the Environment



Cultural Implications

Activity 1: Cultural Components of the Workplace

Analyze the following aspects of culture as they pertain to your workplace environment. Think about the contextual demands and cues the cultural components of the environment present for behavioral expectations. Determine how AAI would relate to these demands and cues, and how each cultural component influences the way AAI is implemented. Then, determine whether these demands and cues support or impede optimal occupational performance within your work environment. Fill in any additional cultural components you see as being relevant in the blank spaces below. Complete the chart and reflection activities to enhance your understanding of the cultural implications AAI may pose within your work environment.

| Cultural Components | Demands & Cues <i>that each cultural component presents about appropriate & expected behavior within the context</i> | Support/ Impede <i>considering these factors, would the addition of AAI support or impede optimal occupational performance?</i> |
|---|--|---|
| Language Relevant components that may influence successful implementation of AAI. | | |

| <p>Cultural Components</p> | <p>Demands & Cues <i>that each cultural component presents about appropriate & expected behavior within the context</i></p> | <p>Support/ Impede <i>considering these factors, would the addition of AAI support or impede optimal occupational performance?</i></p> |
|---|--|---|
| <p>Workplace Norms <i>How would AAI alter norms?</i></p> | | |
| <p>Values & Beliefs <i>In what ways does AAI align or misalign with organizational values and beliefs?</i></p> | | |

| <p>Cultural Components</p> | <p>Demands & Cues <i>that each cultural component presents about appropriate & expected behavior within the context</i></p> | <p>Support/ Impede <i>considering these factors, would the addition of AAI support or impede optimal occupational performance?</i></p> |
|---|--|---|
| <p>Goals <i>In what ways would goals impact or be impacted by the presence of AAI programming?</i></p> | | |
| <p>Social forms <i>How would social forms be influenced by AAI programming?</i></p> | | |

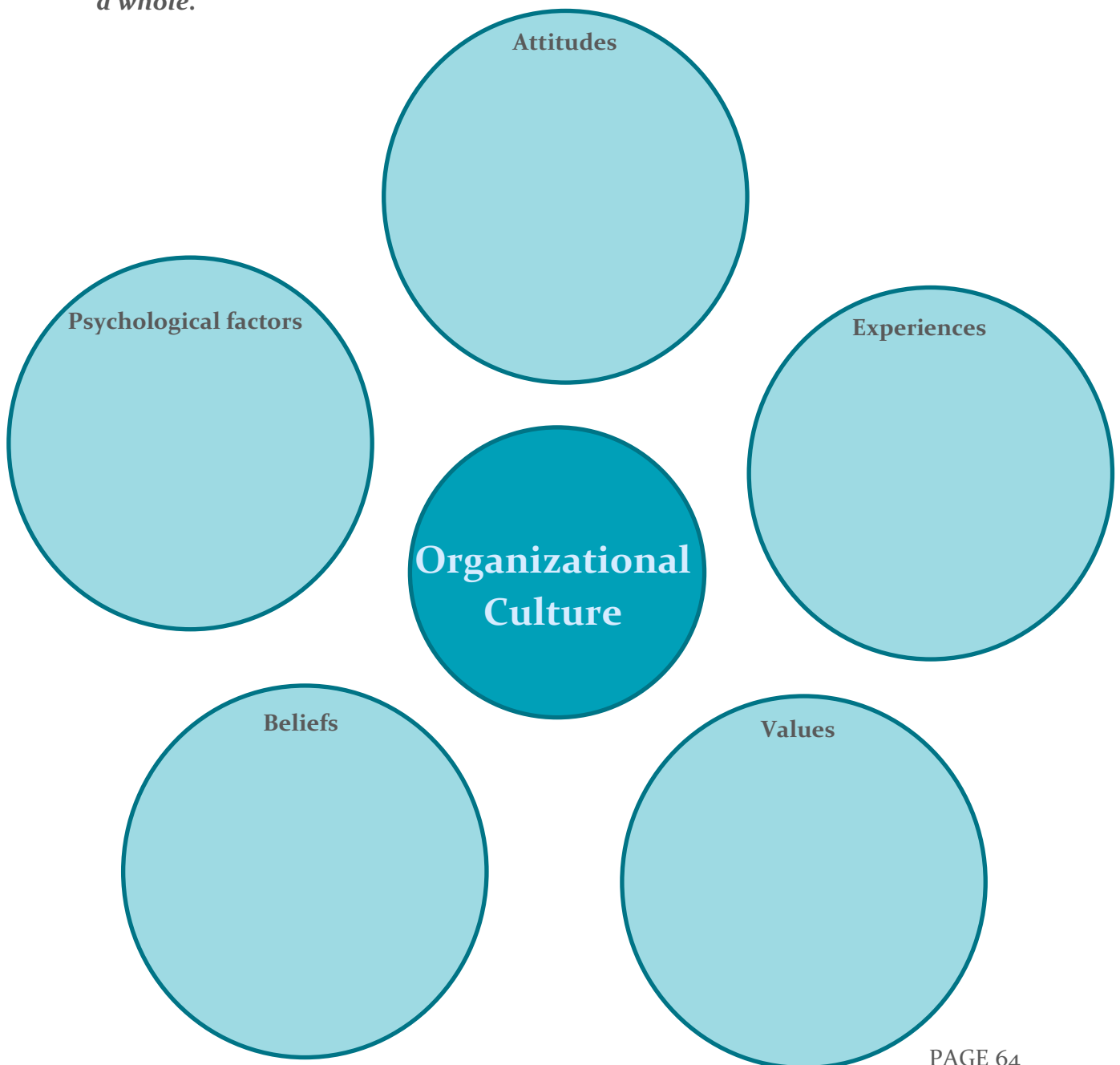
| Cultural Components | Demands & Cues <i>that each cultural component presents about appropriate & expected behavior within the context</i> | Support/ Impede <i>considering these factors, would the addition of AAI support or impede optimal occupational performance?</i> |
|----------------------------|--|---|
| | | |
| | | |
| | | |

Activity 2: Organizational Culture and AAI

Organizational culture: “the psychology, attitudes, experiences, beliefs and values of an organization” (Leka, Griffiths, & Cox, 2003).

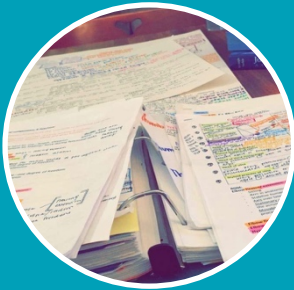
Organizational culture is important in conveying a sense of identity to members and in facilitating development of member commitment so something larger than self-interest

Fill in each of the circles below with components in each category related to AAI. Complete this activity thinking about your department or workplace as a whole.

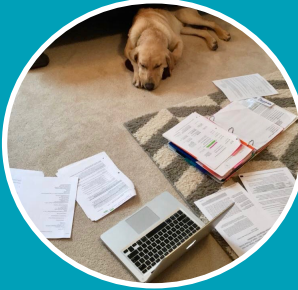


Socioeconomic Concerns

Photo credits: Caitlin Duggan



Determining
Relevant
Socioeconomic
Factors



Demands & Cues
Presented



Impact on
Occupational
Performance



The following factors will be analyzed further in the activity within this section:

- Employee education & experience
- Finances
- Resources
- Future opportunities

Activity 1: Socioeconomic Influences

In this activity you will be analyzing the relationship between socioeconomic factors, environmental demands and cues, and components supporting or impeding optimal occupational performance. Complete the table below.

| <p style="text-align: center;">What socioeconomic factors of your workplace environment are relevant in implementing AAI programming?</p> | <p style="text-align: center;">What demands and cues are presented by this component, with regards to AAI?</p> | <p style="text-align: center;">Does this factor support or impede optimal occupational performance? Would AAI enhance or hinder occupational performance when considering these socioeconomic factors?</p> |
|--|--|--|
| <p style="text-align: center;">Employee Education & Experience <i>List relevant factors below. Relate specifically to AAI</i></p> | | |
| <p style="text-align: center;">Finances <i>Consider financial resources of your organization. List influential factors below.</i></p> | | |

| | | |
|--|--|--|
| <p>Resources: <i>What resources do you have available? Consider access to information, opportunities to participate in continuing education and professional development, etc.</i></p> | | |
| <p>Future Opportunities: <i>Consider future directions of all of the above factors and any new socioeconomic opportunities that may arise in the future. List some implications below.</i></p> | | |

Reflecting upon information from the table on the previous page, answer the following:

- Do you believe that there is adequate employee education & experience to implement AAI programming?
 - Yes
 - No
- Do you have adequate financial resources to implement and maintain AAI programming?
 - Yes
 - No
- Do you have access to adequate resources, or means to obtain access to resources regarding successful implementation?
 - Yes
 - No

Answers of “No” to any of these areas may present socioeconomic barriers and should be addressed.

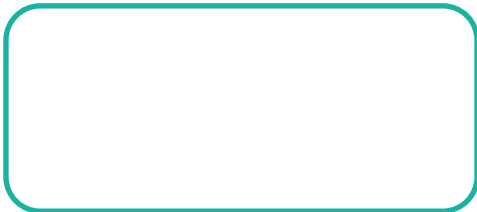
- Future opportunities. List potential future directions below. Include potential opportunities for deficient areas from the previous questions:

Institutional Influences

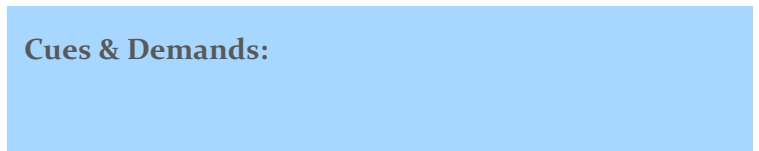
Each institution presents different factors that will influence the AAI implementation process. Within this section, you will identify & explore components of your institutional environment that are important to consider in determining whether to implement AAI programming.

Activity 1: Institutional Influences

Institutional Factor:

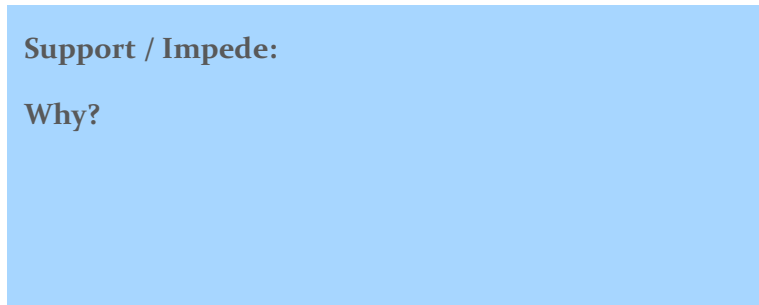


Cues & Demands:

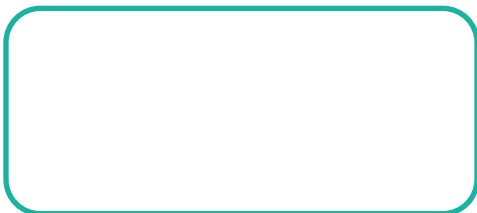


Support / Impede:

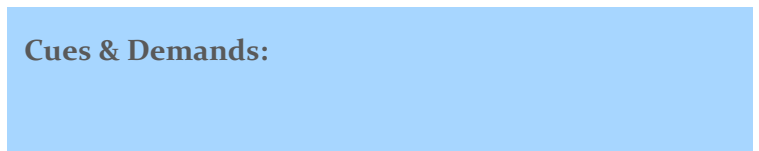
Why?



Institutional Factor:

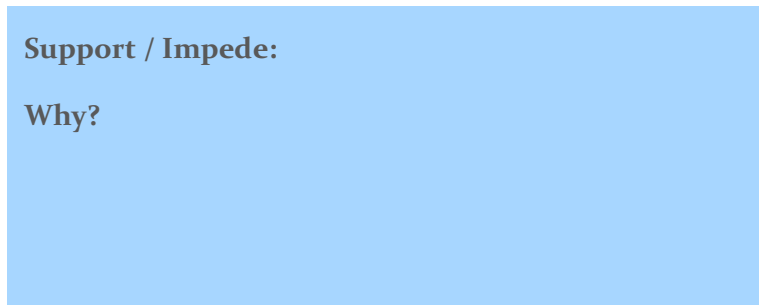


Cues & Demands:



Support / Impede:

Why?



Institutional Factor:

Cues & Demands:

Support / Impede:

Why?

Institutional Factor:

Cues & Demands:

Support / Impede:

Why?

Institutional Factor:

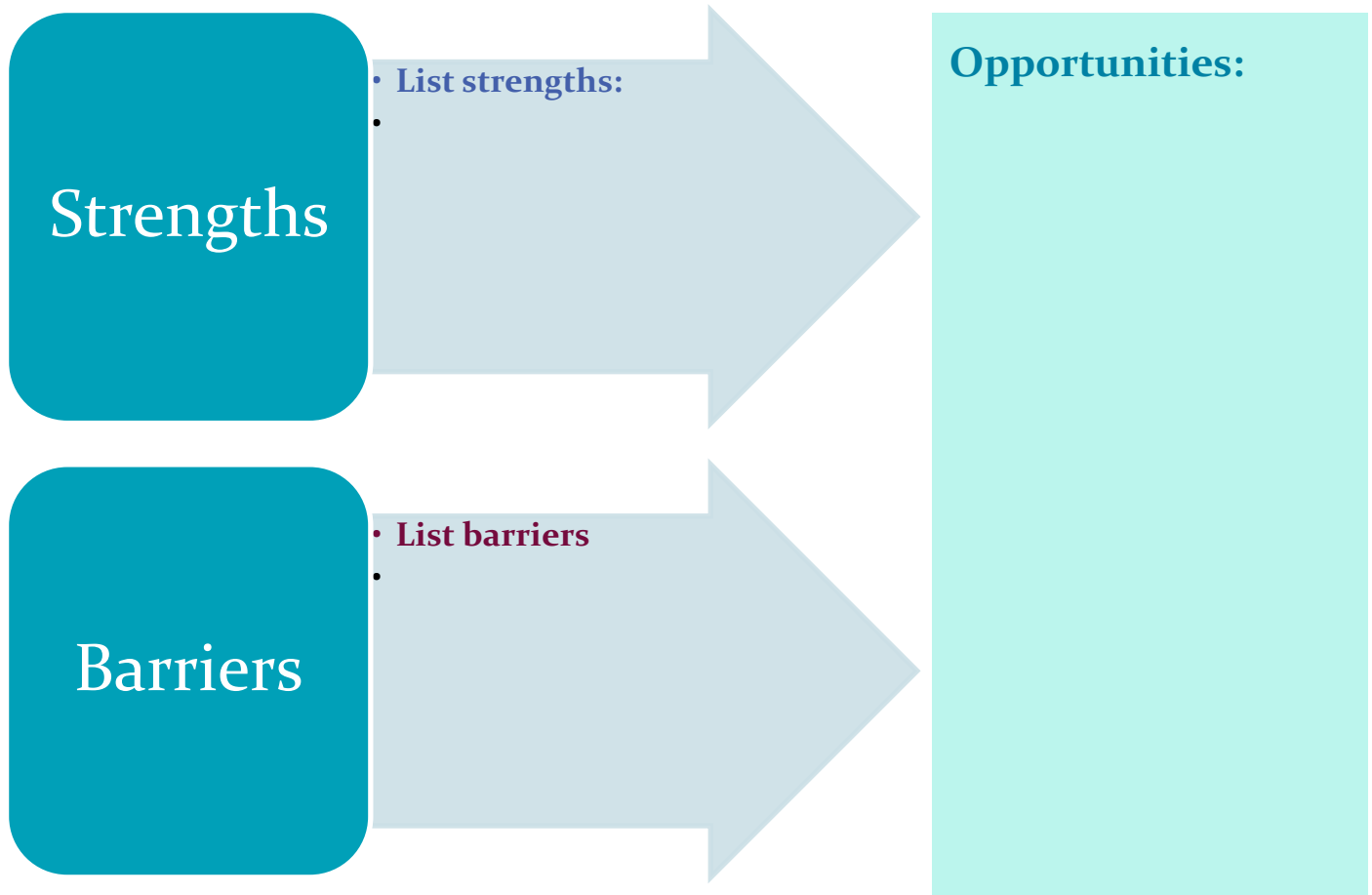
Cues & Demands:

Support / Impede:

Why?

Activity 2: Strengths, Barriers, & Opportunities

Complete the lists below to determine institutional strengths, barriers, and opportunities for AAI implementation.



Reflect below on your perceptions of the ability to amplify strengths, overcome barriers, and determine opportunities for AAI within your institution:

Physical Demands

In this section, components of the physical environment will be analyzed to determine how they impact implementation of AAI and enhanced occupational performance.



Photo credits: Caitlin Duggan



Activity 1: Analyzing Physical Demands

| Physical Demand | Ideal Physical Environment | Physical Environment of Your Workplace | Discrepancies & potential solutions |
|--|----------------------------|--|-------------------------------------|
| Animal relief station within proximity to therapy setting so the therapist is able to manage the dogs needs efficiently | | | |
| A place the animal can go to rest during non-working hours that will not serve as a distraction to those working | | | |
| Adequate space for the animal to safely play and move about without interfering with other therapy sessions or workplace demands | | | |
| Barriers or restricted areas so exposure to animals is not | | | |

| | | | |
|---|--|--|--|
| forced for those who wish to avoid contact with animals | | | |
| Access to sanitation tools to complete environmental management with ease, as well as an area for routine dog grooming | | | |
| Others: | | | |

Social Factors

Animals may hold a beneficial role, as external supports, for people during periods of transition (Melson, 2005 & Meyers, 2006 as cited in Fine & Beck, 2015). Humans seek social support during times of distress to adapt to difficult situations (Bryant, 2008 as cited in Fine & Beck, 2015). Social support is necessary for overall healthy functioning and interaction with animals is one manner individuals can secure social support (Bryant, 2008 as cited in Fine & Beck, 2015).

The following are key components of social interaction that are relevant aspects of the social environment to consider in determining AAI programming:

Practical support (instrumental, aid, tangible support)

Informational support (advice, guidance, knowledge, skill training)

Emotional support (communicates esteem & belonging, provides guidance)

(Turpin & Iwama, 2011).



Photo credits: Caitlin Duggan



Within this section, explore these components in relation to peer relationships and client-provider relationships within the healthcare environment.

Social Connectedness in the Workplace

Activity 1:

Rank the following:

1. each type of social support you feel is now present in your work environment;
2. if the level is appropriate or could be improved, and;
3. how you think the presence of AAI would influence this.

Practical support (instrumental, aid, tangible support)

| | | | |
|--|------|-----------------|------|
| The present level of practical support present in the work place is : | High | Moderate | Low |
| I would like _____ practical support at work | More | The same amount | Less |
| I believe that I would need _____ practical support in implementing AAI programming. | More | The same amount | Less |
| In implementing AAI, I would likely experience _____ practical support. | More | The same amount | Less |

Do they levels you need and the levels that you would hope to experience align?

Informational support (advice, guidance, knowledge, skill training)

| | | | |
|---|------|-----------------|------|
| The present level of informational support present in the work place is : | High | Moderate | Low |
| I would like _____ informational support at work | More | The same amount | Less |

| | | | |
|--|------|-----------------|------|
| I believe that I would need _____ informational support in implementing AAI programming. | More | The same amount | Less |
| In implementing AAI, I would likely experience _____ informational support. | More | The same amount | Less |

Do they levels you need and the levels that you would hope to experience align?

Emotional support (communicates esteem & belonging, provides guidance)

| | | | |
|--|------|-----------------|------|
| The present level of emotional support present in the work place is : | High | Moderate | Low |
| I would like _____ emotional support at work | More | The same amount | Less |
| I believe that I would need _____ emotional support in implementing AAI programming. | More | The same amount | Less |
| In implementing AAI, I would likely experience _____ emotional support. | More | The same amount | Less |

Do they levels you need and the levels that you would hope to experience align?

What changes would need to occur for successful program implementation?

Are these changes possible? If so, list specific action steps and plan.

Activity 2: Social Connectedness at Work

Respond to the following statements to gain insights about the impact of AAI and social connectedness in the workplace.

I am more likely to approach or be approached by an unfamiliar co-worker if there is a dog present:

Yes

Maybe

Unlikely

I would bond with a co-worker over a shared interest in dogs:

Yes

Maybe

Unlikely

Having a dog for AAI would enhance my social connectedness at work:

Yes

Maybe

Unlikely

I believe that I would benefit from the presence of a dog, specifically considering the human-animal-bond:

Yes

Maybe

Unlikely

I would feel increasingly supported in the workplace if I had a dog to complete AAI with present throughout the work day:

Yes

Maybe

Unlikely

I would like to participate in new experience, expanding my social connectedness outside of my immediate facility (including networking, conference attendance, collaborating with colleagues regarding AAI):

Yes

Maybe

Unlikely

Reflect on any additional comments or perceptions about the potential benefits using AAI may present to you in the social environment of your workplace:

Facilitating Connection with Clients

The presence of animals in healthcare settings is linked with the following benefits:

- Increased social interaction between the staff, the patients, and their families (Abrahamson et al., 2016).
- Domesticated animals provide a sense of connectedness to one's surroundings (Fine & Eisen, 2008 as cited in Fine & Beck, 2015).
- The presence of animals may be beneficial in reducing negative responses to demanding situations and environments (Munoz-Lasa, 2011).

Activity 1:

I am more satisfied when my clients are highly satisfied:

Yes No

I believe the presence of a dog in therapy sessions would help me connect to my clients and their families with greater ease:

Yes No

I think using AAI will enable me to use creativity in intervention sessions:

Yes No

I would feel supported by the presence of a dog during stressful or difficult interactions with clients:

Yes No

I think using AAI would enhance my practice and competence in best serving my clients:

Yes No

Comments regarding AAI & client interactions:

OCCUPATION

Occupations are what an individual does in their daily life within environmental contexts (Turpin & Iwama, 2011).

For this program, the occupation is the occupational therapy profession.

According to PEO, occupation is comprised of activities, tasks, and occupations that a person may engage in (Turpin & Iwama, 2011).

1. **Activity:** “a singular pursuit in which a person engages as part of their daily occupational experience” (Turpin & Iwama, 2011, p. 103).
2. **Task:** “a set of purposeful activities in which a person engages” (Turpin & Iwama, 2011, p. 103).
3. **Occupation:** “groups of self-directed, functional tasks and activities in which a person engages over the lifespan” (Turpin & Iwama, 2011, p. 103).

Occupation: Essential functions the occupational therapist is required to do

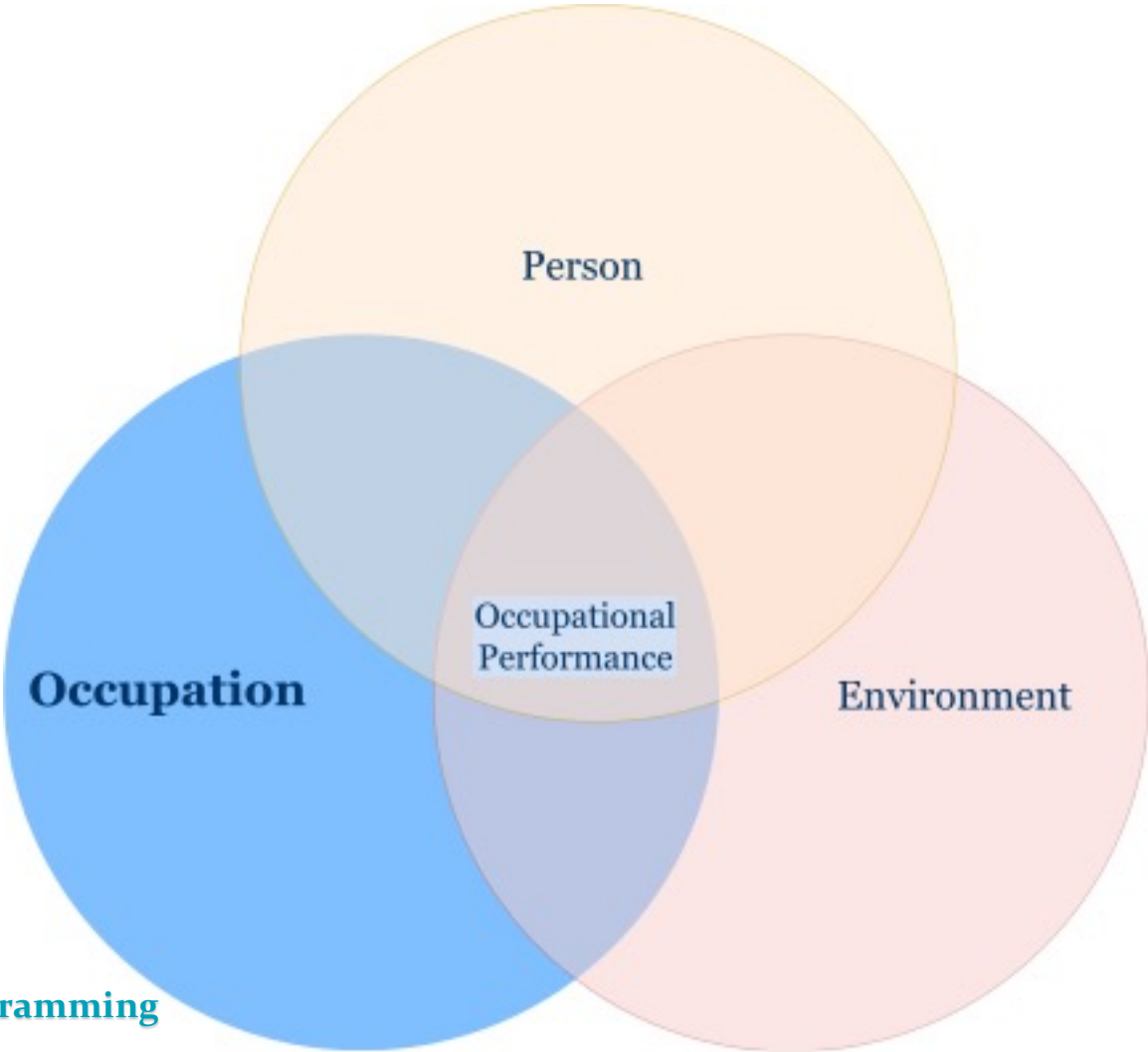


Figure 1.4: Occupation

AAI Programming

Activity, Task, Occupation

Benefits of AAI Implementation

Best Practice Implementation

Occupation is what people do within their environment and is comprised of activities, tasks, and occupations that a person may engage in (Turpin & Iwama, 2011).

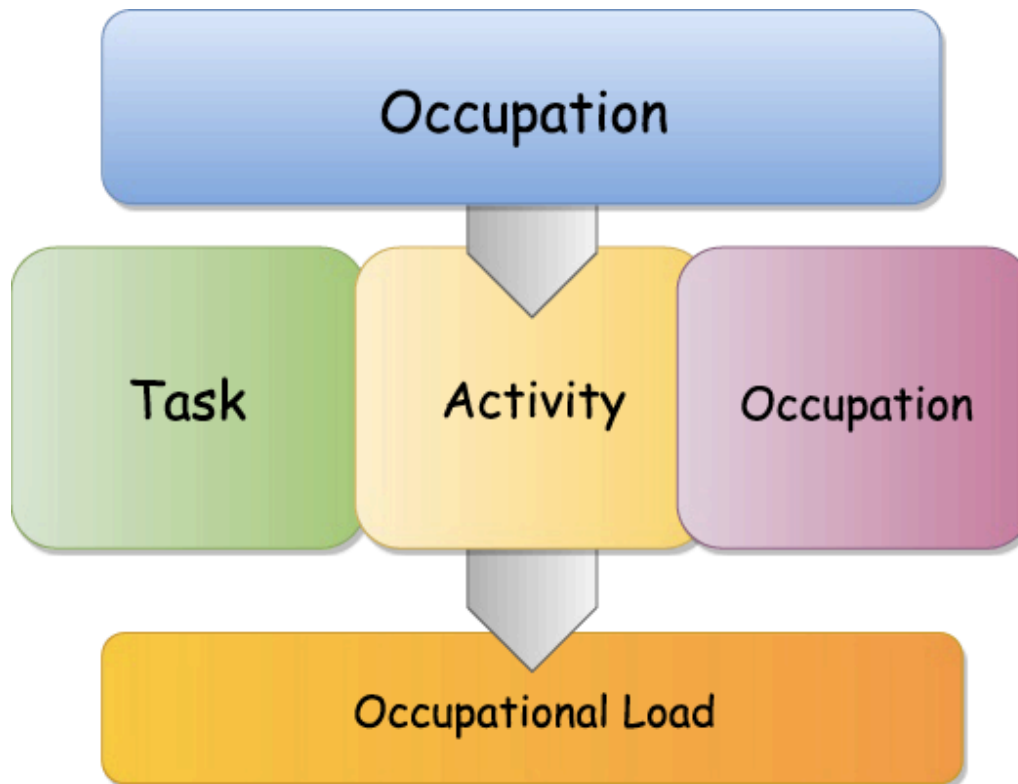
Occupation can be subdivided into 3 categories. The following definitions are in the PEO model and are simplified from the definitions given previously:

1. **Activity:** recognizable and observable behavior
2. **Task:** purposeful activities recognized by the task performer
3. **Occupation:** self-directed tasks that a person engages in over the life course

(Schell, Gillen, & Scaffa; 2014)

Simply put, an activity is “the basic unit of a task” (Turpin & Iwama, 2011, p. 103) or a single step within the task or experience. A task is a group of steps that are required to complete the overall occupation. Lastly, occupations are all the activities and tasks that a person does daily, weekly, and yearly. **Figure 6** displays aspects of occupation including the 3 subcategories.

Figure 6: Aspects of Occupation



- It is important to note that the three levels of action presented, are different, yet they are nested within each other (Baptiste, 2017). Table 1, below, provides an example of how each are embedded within another.

Table 1: Examples of Occupation, Task, Activity

| <i>Occupation</i> | <i>Task</i> | <i>Activity</i> |
|-------------------------------|---|---|
| <i>Occupational Therapist</i> | <ul style="list-style-type: none"> • Documentation | <ul style="list-style-type: none"> • Act of typing into documentation system |
| <i>Care of Pets</i> | <ul style="list-style-type: none"> • Bathing | <ul style="list-style-type: none"> • Act of soaping/ rinsing |

- The occupation of a caring for a pet requires many different tasks and activities, as does an occupational therapist.

Photo credits: Samantha Coyle



Taking the dog for a walk



Bathing the dog

Occupational Load is a result of the number of occupations and roles a person takes on (Baptiste, 2017).

According to Baptiste (2017), occupational load can be positive; however, if a person continues to add occupations and roles it may have negative impacts. This is addressed further on page 82, along with activities to assess occupational load.

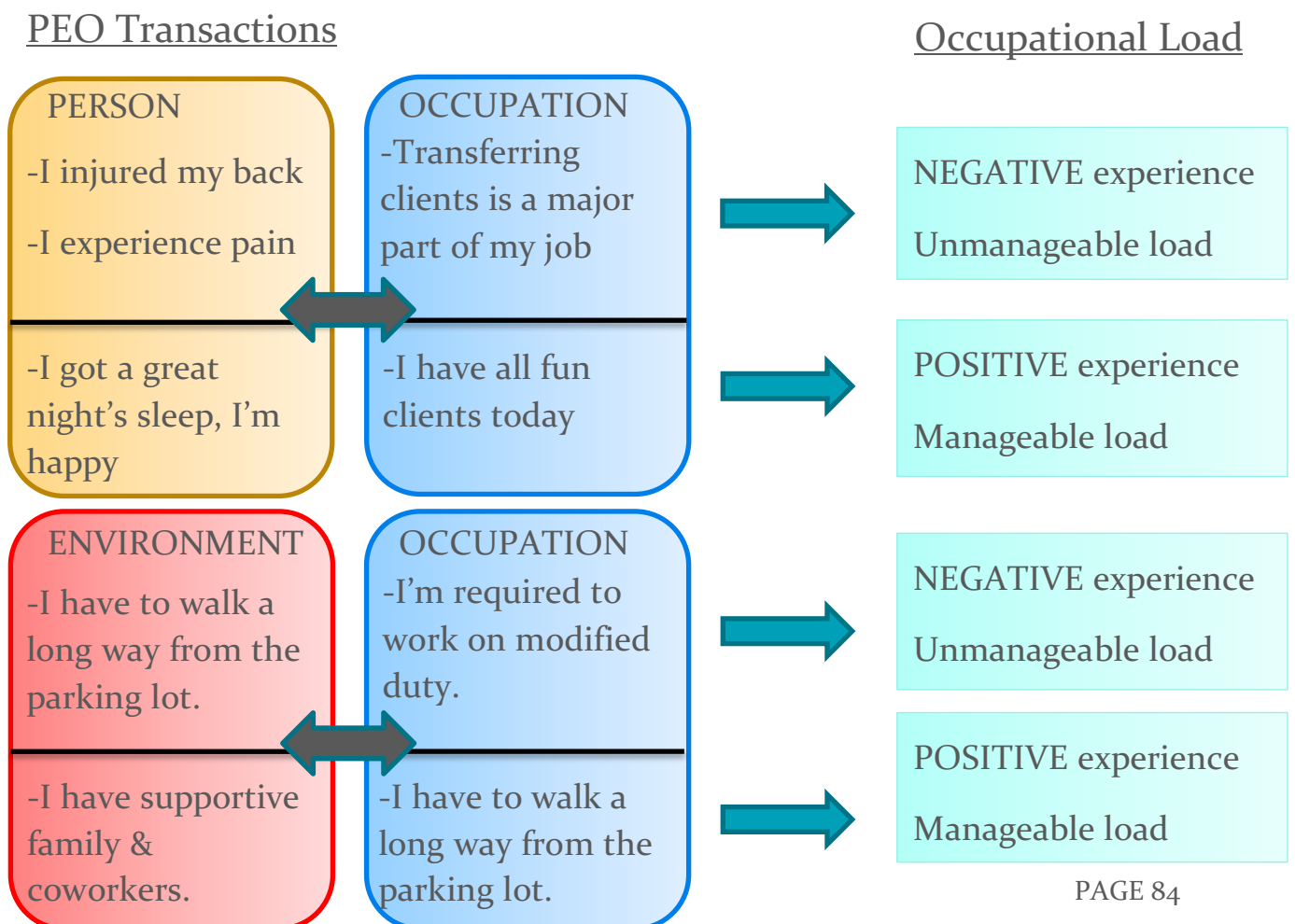
Occupational Load

Occupational load – refers to “the number of roles, tasks, and occupations that an individual undertakes in the course of a specific time span, such as a day or week” (Baptiste, 2017).

- Simply put, *occupational load* is everything you do in your life, combined.

The term itself is neither positive nor negative, meaning a person’s “load” can be manageable or overwhelming (Baptiste, 2017). Changes in the **Person** and **Environment** can facilitate a manageable load, while other changes may result in a “load” that the person cannot manage.

- The figure below gives examples of “load”, in each is a positive and negative.



Activity 1: Assessing My Occupational Load

*Utilize this form to assess your “load” and discover what aspects you can change. This form is only to note the roles, occupations, and tasks that one does. Later worksheets will help assess manageable vs. unmanageable. *NOTE: not everyone will have both positive and negative examples; most will have one or the other.*

Under each category, list all roles, tasks, and occupations that you engage in throughout your day/week/year. Indicate the frequency below (i.e. daily)

ROLES

TASKS

OCCUPATIONS

Daily

Weekly

Yearly

Activity 2: Manageable Vs. Unmanageable

Utilize this form to assess your “load” and if it is manageable or unmanageable...

**NOTE: not everyone will have both positive and negative examples; most will have one or the other.*

Fill in this form using the previous activity (Activity 1) and the examples on page 79. Include any changes (both positive & negative) that have occurred in you as a Person, your Environment, and demands of your job. This influences your “load”.

| | | |
|--------------------|-------------------|---|
| PERSON | OCCUPATION | <u>Is your “Load”:</u> (circle one) Manageable Unmanageable Why/Why Not? |
| ENVIRONMENT | OCCUPATION | <u>Is your “Load”:</u> (circle one) Manageable Unmanageable Why/Why Not? |

Best Practice of AAI Implementation

To ensure protection and advocacy for the client, the therapy animal, and the health care professional alike, standards of practice need to be addressed. A formal training session, and education regarding AAI should be standard when implementing an AAI session. This will ensure best practice and client-centered sessions.

The Animal Assisted Intervention International (AAII), created guidelines for standards of practice regarding the implementation of AAI (2015). The guidelines were created as minimum expectations for an AAII membership (AAII, 2015). The following guidelines are used in the AAII document, *Standards of Practice for Animal-Assisted Intervention: Animal-Assisted Therapy* (2015):

1. **Expectations & Contract:** Contracts are needed to maintain liability and standards.
2. **Ethics & Competency:** Ethical considerations and competency for therapists.
3. **Time commitments:** Understanding the time and needs to implement the AAI sessions.
4. **Welfare of the Working Dog:** All AAI sessions must adhere to the “Five Freedoms” created by the Brambell Report, in regards to the rights of the working animal (AAII, 2015).
5. **Legal issues:** Standards for legalities to remain ethical.
6. **Insurance/Liability:** Understanding who carries the liability insurance.
7. **Safety:** This includes safety of the animal and preventing potential hazards (i.e. disease transmission).

The items presented prior are expanded on in the following regarding best practices.

There are additional guidelines for AAI implementation found on page 74.

Expectations & Ethics

The focus of treatment must emphasize the **therapeutic process** and the **outcomes** obtained from this process (AAII, 2015). This includes all aspects, including planning and organization of the task. The healthcare professional must provide supervision during the intervention (AAII, 2015). Additionally, healthcare professionals new to AAI must collaborate with an experienced AAI mentor (AAII, 2015).

A **legal contract** must be designed with the client, animal, and healthcare professional in mind to ensure safety standards. It must include **federal, state, and local** laws and policies. This will vary by facility and state.

If the **healthcare professional** wishes to be a handler, they must take a minimum of **5 hours** of formal dog-specific continuing education yearly, if they want to act as handler (AAII, 2015).

If the **Intervention** is no longer of benefit to the client and/or the context or population does not match the dog's skills or well-being of both parties, the session must be **discontinued** (AAII, 2015).

Each profession must adhere to the association's **ethical guidelines** (AAII, 2015).



Photo credits: Samantha Coyle

Legal Issues, Insurance, & Liability

One of the barriers to AAI is the factor of legal issues. Documentation relating to the dog must be provided, updated, and maintained.

The standards listed below, must be implemented to ensure legal standards:

- Health and behavior evaluations (see “Animal Welfare”, p.111), summaries of sessions, length of sessions, outcomes, and any other relevant incident reports* must also be on file to ensure legal requirements are being met (AAII, 2015).
- All dog-related health issues must be reported to ensure appropriate precautions can be taken (AAII, 2015).
- If the therapist or HCP wishes to be the handler, they must obtain and maintain liability insurance as required by their facility and professional associations, as well as abide by local and federal laws (AAII, 2015).

*Follow incident report protocols at your facility.

Photo credits: Samantha Coyle



Activity 1: AAI Session Summary

Utilize this form along with your facility's official documentation system to document length of session, session summary, and outcomes of AAI sessions. Keep these on file to ensure legal requirements are being met.

Length of Session:

Session Summary:

Session Outcomes:

Activity 2: Therapy Animal Health Concerns

Utilize this form to document health concerns of the therapy animal. Keep these on file to ensure legal requirements are being met.

| | | |
|-------------------------------------|------------|-----------|
| Onset of Symptoms: | | |
| | | |
| Symptoms: | | |
| | | |
| Current on All Vaccinations: | YES | NO |
| Vet Appointment Made? | YES | NO |
| <i>If YES, What is the Date?</i> | | |
| Precautions: | | |
| | | |

Guidelines for AAT

I. Overview of management of an animal-assisted therapy program within a healthcare facility

- A. Facilities should develop a written policy for AAT.
- B. An AAT visit liaison should be designated to provide support and facilitate animal-assisted activities visits. Often the facility's Volunteer Office or Department manages these visits.
- C. Only dogs should be used (i.e., exclude cats and other animals). Cats cannot be reliably trained to provide safe interactions with patients in the healthcare setting.
- D. Animals and handlers should be formally trained and evaluated. Facilities should consider use of certification by organizations that provide relevant formal training programs (e.g., Pet Partners, Therapy Dogs Incorporated, Therapy Dogs International). Alternatively, facilities should designate responsibility for the program elements to an internal department (e.g., volunteer department) to verify all elements (see section III).
- E. Animals and animal handlers should be screened prior to being accepted into a facility animal-assisted activities program (see section II).
- F. The IPC should be consulted regarding which locations are appropriate for animals interacting with patients.
- G. All clinical staff should be educated about the AAT program, its governance, and its policies.

II. Training and management of AAT handlers. Facilities should do the following:

- A. Ensure that animal-assisted activities handlers are informed of the facility's IPC and human resource policies (similar to volunteers), and have signed an agreement to comply with these policies.
- B. Confirm that AAT handlers have been offered all immunizations recommended for healthcare providers (HCP) within that facility (e.g., measles, mumps, and rubella,

varicella, pertussis, influenza). If immunization is required of HCP, it should be required for AAT handlers.

- C. Require the animal-assisted activities handler to escort the animal to the destination as arranged by the facility's AAT liaison and following hospital policy.
- D. Instruct the AAT handler to restrict contact of his or her animal to the client(s) being visited and to avoid casual contact of their animal with other clients, staff or the public.
- E. Limit visits to one animal per handler.
- F. Require that every AAT handler participate in a formal training program and provide a certificate confirming the training, which includes modules on the following:
 - 1. Zoonotic Diseases
 - 2. Training on standard precautions including hand hygiene before and after client contact
 - 3. Proper cleaning and disinfection of surfaces contaminated by animal waste (urine or feces)
 - 4. Proper disposal of animal waste
 - 5. Visual inspection for ectoparasites
 - 6. Reading of an animal's body language to identify signs of physical discomfort, stress, fear, or aggression
 - 7. Identification of appropriate contacts in the event of an accident or injury
- G. Require that a handler use particular care in directing the visit to prevent clients from touching the animal in inappropriate body sites (e.g., mouth, nose, perianal region) or handling the animal in a manner that might increase the likelihood of frightening or harming the animal or the animal accidentally or intentionally harming the client.
- H. Restrict visiting sessions to a maximum of 1 hour to reduce the risk of adverse events associated with animal fatigue.
 - 1. Handlers must observe the animal for signs of fatigue, stress, thirst, overheating, or urges to urinate or defecate.

- a. If taking a short break (or taking the animal outside to relieve it) does not ease the animal's signs of discomfort, then the session should be terminated for that day.
 2. Handlers must comply with facility-defined restrictions for client visits and be familiar with facility-specific signage regarding restricted areas or rooms.
- I. Require that all animal handlers observe standard occupational health practices. Specifically, they should self-screen for symptoms of communicable disease and refrain from providing AAT services while ill. Such symptoms include, but are not limited to the following:
1. New or worsening respiratory symptoms (i.e., cough, sneezing, nasal discharge)
 2. Fever (temperature > 38°C)
 3. Diarrhea or vomiting
 4. Conjunctivitis
 5. Rash or non-intact skin on face or hands
- J. Require that handlers keep control of the animal at all times while on the premises, including the following:
1. Keeping a dog leashed at all times unless transported within the facility by a carrier (as may be the case with smaller breeds).
 2. Refraining from using cell phones or participating in other activities that may divert his/her attention away from the animal.
- K. Require all handlers to manage their animal as follows:
1. Approach clients from the side that is free of any invasive devices (e.g., intravenous catheters) and prevent the animal from having contact with any catheter insertion sites, medical devices, breaks in the skin, bandage materials, or other compromised body site.
 2. Before entering an elevator with an animal, ask the other passengers for permission, and do not enter if any passenger expresses reluctance or appears apprehensive.

3. Require that everyone who wishes to touch the animal practice hand hygiene before and after contact.
4. Do not permit a client to eat or drink while interacting with the animal
5. Restrict the animal from client lavatories.
6. In the case of an animal's urinary or fecal accident, immediately terminate the visit and respond appropriately to prevent recurrence during future visits.
 - a. If submissive urination was involved, this will require suspending the animal's visiting privileges, having the handler address the underlying cause, and then formally reevaluating the animal's suitability before visiting privileges are restored.
 - b. If repeated incidents of this nature occur, permanently withdraw the animal's visiting privileges.
 - c. In the case of vomiting or diarrhea, terminate the visit immediately and withdraw the animal from visitation for a minimum of 1 week.
7. Report any scratches, bites, or any other inappropriate animal behavior to healthcare staff immediately so that wounds can be cleaned and treated promptly. Report any injuries to the AAT liaison as soon as possible and to public health or animal control authorities, as required by local laws.
 - a. The visit should be immediately terminated after any bite or scratch.
 - b. In the case of bites, intentional scratches, or other serious, inappropriate behavior, permanently withdraw the animal's visiting privileges.
 - c. In the case of accidental scratches, consider the circumstances that contributed to the injury and take appropriate measures to prevent similar injuries from occurring in the future. If measures cannot be taken to reduce the risk of recurrence, then visitation privileges should be withdrawn.
 - d. If it is determined that the handler's behavior was instrumental in the incident, then the handler's visitation privileges should be

terminated until the AAT program manager has addressed the situation.

- e. Report any inappropriate client behavior (e.g., inappropriate handling, refusal to follow instructions) to the animal visit liaison.

L. Facilities should maintain a log of all AAT visits that includes rooms and persons visited for potential contact tracing.

III. Requirements of acceptable animals for AAT programs

A. Allow only domestic companion dogs to serve as AAT animals. Cats are not included in the recommendation due to concerns for increased potential allergenicity, potential increased risk of bites and scratches, and lack of data demonstrating advantages over dogs.

1. Allow only adult dogs (i.e., dogs of at least 1 year but ideally at least 2 years of age, the age of social maturity).
2. Deny the entry of dogs directly from an animal shelter or similar facility.
3. Require that dogs be in a permanent home for at least 6 months prior to enrolling in the program.
4. Admit a dog only if it is a member of a formal AAT program and is present exclusively for the purposes of AAT.

B. Require that every dog pass a temperament evaluation specifically designed to evaluate it under conditions that might be encountered when in the healthcare facility. Such an evaluation should be performed by a designated evaluator.

1. Typically, this evaluation will assess, among other factors, reactions toward strangers, loud and/or novel stimuli, angry voices and potentially threatening gestures, being crowded, being patted in a vigorous or clumsy manner, reaction to a restraining hug, interactions with other animals, and the ability to obey handler's commands.

- C. Require all evaluators (either at facility or at the formal certification program) to successfully complete a course or certification process in evaluating temperament and to have experience in assessing animal behavior and level of training.
1. Require all evaluators to have experience with animal visiting programs or, at the very least, appreciate the types of challenges that animals may encounter in the healthcare environment (e.g., startling noises, crowding, rough handling).
 2. If several animals need to be evaluated for behaviors other than reactions to other animals, require that the temperament evaluator assess each animal separately, rather than assessing several animals simultaneously.
- D. Recommend that animal-handler teams be observed by an AAT program liaison at least once in a healthcare setting before being granted final approval to visit.
- E. Recommend that each animal be reevaluated at least every 3 years.
- F. Require that any animal be formally reevaluated before returning to AAT after an absence of > 3 months.
- G. Require that a handler suspend visits and have his or her animal formally reevaluated whenever he or she notices or is apprised (either directly or through the animal visit liaison) that the animal has demonstrated any of the following:
1. A negative behavioral change since the time it was last temperament tested
 2. Aggressive behavior outside the healthcare setting
 3. Fearful behavior during visitations
 4. Loss of sight or hearing and, consequently, an overt inclination to startle and react in an adverse manner
- H. Health screening of animals
1. Basic requirements for all animals
 - a. Require that dogs be vaccinated against rabies as dictated by local laws and vaccine label recommendations. Serologic testing for rabies antibody concentration should not be used as a substitute for appropriate vaccination.
 - b. Exclude animals with known or suspected communicable diseases.

- c. Animals with other concerning medical conditions should be excluded from visitation until clinically normal (or the condition is managed such that the veterinarian feels that it poses no increased risk to clients) and have received a written veterinary health clearance. Examples include: 1. episodes of vomiting or diarrhea; urinary or fecal incontinence; 2. episodes of sneezing or coughing of unknown or suspected infectious origin; 3. animals currently on treatment with non-topical antimicrobials or with any immunosuppressive medications; 4. infestation by fleas, ticks, or other ectoparasites; 5. open wounds; ear infections; 6. skin infections or “hot spots” (i.e., superficial folliculitis or pyoderma). Also, orthopedic or other conditions that, in the opinion of the animal’s veterinarian, could result in pain or distress to the animal during handling and/or when maneuvering within the facility.
 - d. Exclude animals demonstrating signs of heat (estrus) during this time.
2. Scheduled health screening of AAT animals.
 - a. Require that every animal receive a health evaluation by a licensed veterinarian at least once (optimally, twice) per year.
 - i. Defer to the animal’s veterinarian regarding an appropriate flea, tick, and enteric parasite control program, which should be designed to consider the risks of the animal acquiring these parasites specific to its geographic location and living conditions.
 - ii. Routine screening for specific, potentially zoonotic microorganisms, including group A streptococci, *Clostridium difficile*, VRE, and MRSA, is not recommended.

- b. Special testing may be indicated in situations where the animal has physically interacted with a known human carrier, either in the hospital or in the community, or when epidemiologic evidence suggests that the animal might be involved in transmission. Testing should be performed by the animal's veterinarian in conjunction with appropriate infection prevention and control and veterinary infectious disease personnel, if required.
 - c. Special testing may be indicated if the animal-assisted activities animal is epidemiologically linked to an outbreak of infectious disease known to have zoonotic transmission potential. Suspension of visitation pending results is recommended in these situations.
 3. Dietary guidelines for all animals
 - a. Exclude any animal that has been fed within the past 90 days any raw or dehydrated (but otherwise raw) foods, chews, or treats of animal origin, excluding those that are high-pressure pasteurized or γ irradiated.

IV. Preparing animals for visits:

A. Require that every handler do the following:

1. Brush or comb the animal's hair coat before a visit to remove as much loose hair, dander, and other debris as possible.
2. Keep the animal's nails short and free of sharp edges.
3. If the animal is malodorous or visibly soiled, bathe it with a mild, unscented (if possible), hypoallergenic shampoo and allow the animal's coat to dry before leaving for the healthcare facility.
4. Visually inspect the animal for fleas and ticks.
5. Clean the animal carrier.
6. Maintain animal leashes, harnesses, and collars visibly clean and odor-free.

7. Use only leashes that are non-retractable and 1.3 to 2 m (4 to 6 feet) or less in length.
8. Not use choke chains or prong collars, which may trap and injure clients' fingers.
9. Make an animal belonging to an AAT program identifiable with a clean scarf, collar, harness or leash, tag or other special identifier readily recognizable by staff.
10. Provide a dog with an opportunity to urinate and defecate immediately before entering the healthcare facility. Dispose of any feces according to the policy of the healthcare facility and practice hand hygiene immediately afterward.

V. *Managing appropriate contact between animals and people during visits*

- A. Obtain oral or written consent from the client or his or her agent for the visit and preferably from the attending physician as well. Consider documenting consent in the client's medical record.
- B. The handler should notify caregiver (e.g., nurse or physician) of the animal visitation.
- C. The handler should be required to obtain oral permission from other individuals in the room (or their agents) before entering for visitation.
- D. All visiting animals should be restricted from entering the following clinical areas at all times, in addition to nonclinical areas outlined below and in Service Animals section IV.E.2.
 1. Intensive care units; isolation rooms; neonatal and newborn nurseries; areas of client treatment where the nature of the treatment (e.g., resulting in pain for the patient) may cause the animal distress; and other areas identified specifically by the healthcare facility (e.g., rooms of immunocompromised clients).
 2. Section IV.E.2 of Service Animals:
 - a. Food and medication preparation areas where appropriate hygiene is required, including but not limited to kitchen, infant formula preparation room, and central and satellite pharmacies.

- b. Invasive procedure areas where sterility is required, including but not limited to the operating rooms, recovery rooms, cardiac catheterization suites, and endoscopy suites.
 - c. Units/rooms where a patient is: 1. immunocompromised or deemed at particularly high risk for infection, 2. in isolation for respiratory (droplet or airborne) contact, 3. compromised host precautions. Unless in a particular circumstance a service animal does not pose a direct threat and the presence of the service animal would not require a fundamental alteration in the hospitals' policies, practices, or procedures.
 - d. Areas where the service animal or equipment may be harmed by exposure (e.g., metal is not allowed in a magnetic resonance imaging (MRI) room, and a dog may have metal on a collar or in a surgical implant), after consultation with the client or his/her authorized representative. When there is potential harm to the service animal (e.g., animal present in room during radiation therapy), the client should be advised of the potential harm and assumes full responsibility for any harm to the service animal.
- E. Require the handler to prevent the animal from coming into contact with sites of invasive devices, open or bandaged wounds, surgical incisions, or other breaches in the skin, or medical equipment.
- F. If the client or agent requests that an animal be placed on the bed, require that the handler do the following:
- 1. Check for visible soiling of bed linens first.
 - 2. Place a disposable, impermeable barrier between the animal and the bed; throw the barrier away after each animal visit.
 - 3. If a disposable barrier is not available, a pillowcase, towel, or extra bed sheet can be used. Place such an item in the laundry immediately after use and never use it for multiple clients.

- G. Instruct the handler to discourage clients and HCP from shaking the animal's paw. If the dog is trained to shake hands with a client and this contact is allowed by facility, ensure that the client performs hand hygiene before and after shaking the animal's paw.
- H. Require the handler to prevent the animal from licking clients and HCP
- I. Prohibit feeding of treats to animals by HCP; however, if the act is believed to have a significant therapeutic benefit for a particular client, then require that the handler:
 - 1. Ensure that the animal has been trained to take treats gently.
 - 2. Provide the person with appropriate treats to give, avoiding unsterilized bones, rawhides and pig ears, and other dehydrated and unsterilized foods or chews of animal origin.
 - 3. Ensure that the person practices hand hygiene before and after presenting the treat to the animal.
 - 4. Instruct the person to present the treat with a flattened palm.

VI. *Contact tracing*

- A. The facility should develop a system of contact tracing that at a minimum requires animal handlers to sign in when visiting and ideally provides a permanent record of areas and/or room numbers where the animal has interacted with clients. (See pg.81)

VII. *Environmental cleaning*

- A. Practice routine cleaning and disinfection of environmental surfaces after visits. Clean and disinfect all areas (e.g., floors, chairs) with an EPA-registered hospital disinfectant.
- B. It is recommended that clean additional bed sheet be used to cover the bed if the animal has contact with surface of the bed, and this should be removed and laundered after the animal visit. If a separate sheet is not used, replace any bedding that might be contaminated.

(Adapted from: Murthy et. al., 2015. Animals in healthcare facilities: Recommendations to minimize potential risks.)

Contact Tracing

This form is used between the facility, the occupational therapist and/or team handler. The purpose is to track contact between the animal and the clients, as well as other staff they may have met. This will decrease the potential for transmission of various pathogens and/or illness across clients and staff.

Please fill in the information for each visit

| Date | AAT Team | Time In/Time Out | | Units/Rooms | Comments/Concerns |
|------|----------|------------------|--|-------------|-------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Education & Training Requirements

The healthcare facility must have policies to address safety. As part of the staff education requirements, it is important for them to know and uphold the policies. In addition, Murthy ET. al. (2015) state that management and oversight of animals in healthcare (AHC) must reduce risk of transmission of pathogens and comply with legal requirements. Therefore, the practitioner must understand the legal requirements, as well as medical literature regarding the various risks and transmission possibilities from animal to human (Murthy et. al., 2015).

Additionally, if the healthcare provider wishes to be the handler, they must take a minimum of 5 hours of formal dog-specific continuing education yearly (AAII, 2015). Formal education on the signs of stress and discomfort in the therapy dog should also be required.

Stress-related behaviors include, but are not limited to:

- Lip licking
- Panting
- Paw lifting
- Trembling
- Body shaking
- Vocalizing
- Yawning
- Pupil dilation
- Withdrawal
- Self-grooming



(Glenk, 2017).

The following sections provide worksheets and training information regarding Health & Safety, Animal Welfare, and Staff Responsibilities.

Facility Policies Regarding AAI

This form is to be used to obtain the facility's policies and any procedures deemed necessary to incorporating animals into the healthcare environment. This should then be incorporated into all training and education sessions. *Note: if your facility does not have policies and you believe they should, use the next page under possible policies to present to your facility.

Identify the policies at your facility prior to implementation of AAI.

General Policies:

Safety Standards:

Protocols for AAI:

Other:

Possible Policies:

Health & Safety

With the increased presence of animals in hospitals, it is important to understand the potential risks and health and safety concerns that may arise in the facility.

- Potential risks can arise with the transmissions of pathogens, including but not limited to MRSA, c-diff, salmonella, rabies, as well as various pathogens caused by bites or scratches (Murthy et al., 2015).
- Understanding diseases and how they can be transmitted from animal to human, is critical in ensuring safety for the client involved. This can increase safety for healthcare professionals who may be exposed to the therapy animals.

Following current procedures for health and safety put in place by your facility is one important way to keep these risks at a minimum. For example, hand-washing standards are incredibly important in decreasing transmission of diseases and pathogens between patients. It is just as important to wash your hands when working with an animal for the same purpose.

The following pages should be used to provide education regarding transmission of pathogens and healthy hand policies.

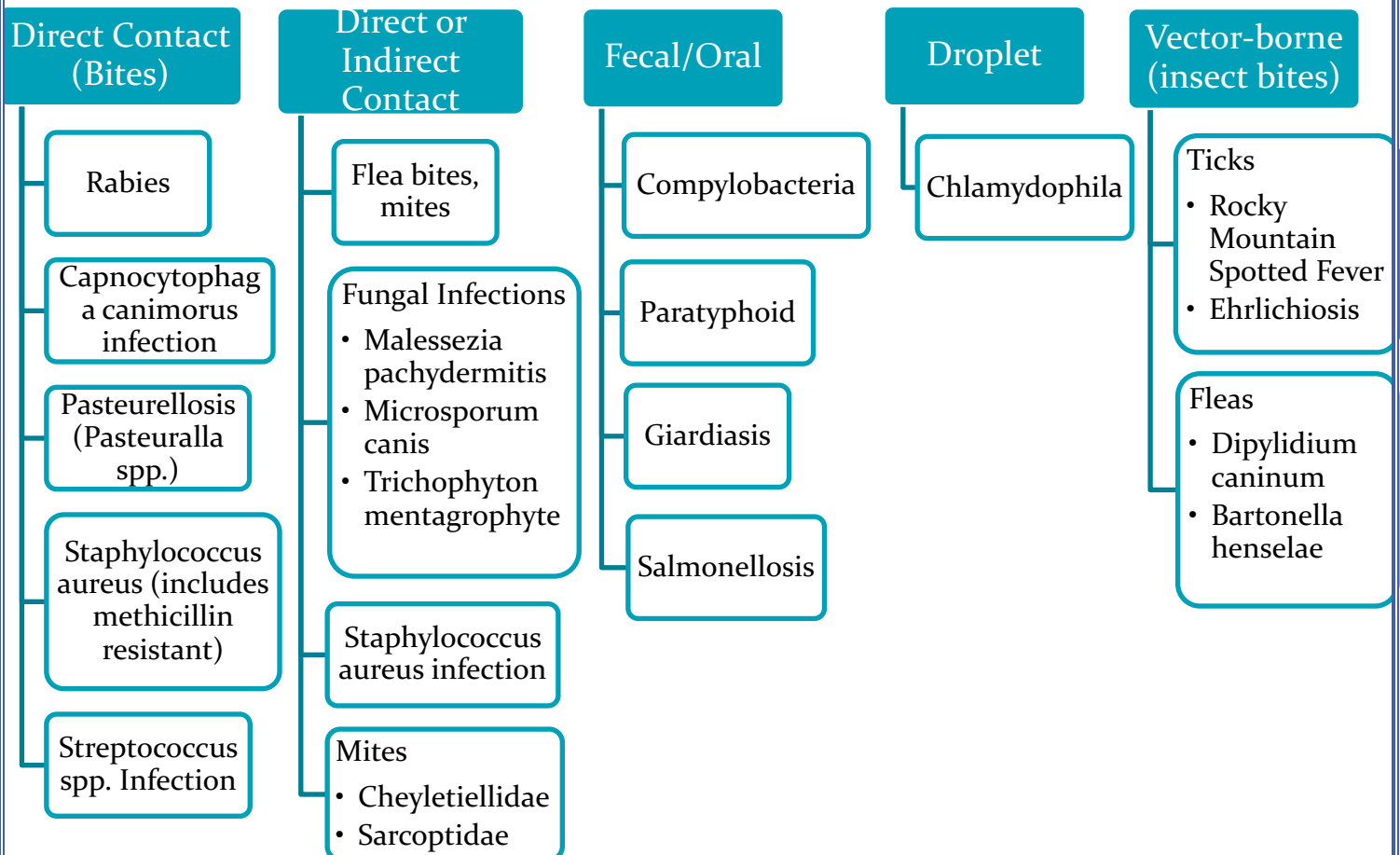


Photo credits: Wikimedia

Pathogens & Transmissions

With the addition of animals into the healthcare facility, there runs a risk of pathogens being transmitted from human to animal and animal to human. Below is a figure, adapted from information in Murthy et al. (2015), which provides a transmission route that can bridge a condition from animal to human and a list of pathogens and diseases that follow that route.

- This form should be included in education sessions prior to AAI implementation.



Proper Handwashing Procedures

(This page should be used in education sessions as a review)

When to Wash your Hands

- Before eating
- Before & after direct contact with a client's intact skin (i.e. taking a pulse, blood pressure, physical exams, lifting client's into bed)
- After contact with blood, body fluids or excretions, mucous membranes, non-intact skin, or wound dressings.
- After contact objects, including medical equipment, in the area around the client.
- If your hands will make contact with a clean-body site after coming in contact with a contaminated-body site during client care.
- After glove removal.
- After using the restroom.

“Keeping hands clean is one of the most important steps we can take to avoid getting sick and spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean, running water. CDC recommends cleaning hands in a specific way to avoid getting sick and spreading germs to others.”

(CDC.gov, 2015)

Reminder on Washing your hands

Step 1.

Wet hands with water

Step 2.

Apply Soap

Step 3.

Rub Hands together (vigorously) for at least 15 seconds.

Step 4.

Rinse hands with water

Step 5.

Use disposable towel to dry hands

Step 6.

Use towel to turn off faucet

Information provided can be found at:

<https://www.cdc.gov/handhygiene/index.html>

Animal Welfare

Handlers are required to follow the “Five Freedoms” formed by the Brambell Report; thus, the healthcare practitioner must also know and abide by them as well (AAII, 2015, p. 2). The “Five Freedoms” include:

1. Freedom from thirst, hunger, and malnutrition by ready access to fresh water and a diet to maintain full health and vigor.
2. Freedom from discomfort by providing a suitable environment including shelter and a comfortable resting area.
3. Freedom from pain, injury, and disease by prevention and/or rapid diagnosis and treatment.
4. Freedom from fear and distress by ensuring conditions that avoid mental suffering.
5. Freedom to express most normal behavior by providing sufficient space, proper facilities, and company of the dog’s own kind.

The following pages provide more information and activities to assess if the Five Freedoms are being followed.



Photo credits: Samantha Coyle

What are the “Five Freedoms”?

(AAI, 2015, p. 2)

1

Freedom from thirst, hunger, and malnutrition by ready access to fresh water and a diet to maintain full health and vigor.

2

Freedom from discomfort by providing a suitable environment including shelter and a comfortable resting area.

3

Freedom from pain, injury, and disease by prevention and/or rapid diagnosis and treatment.

4

Freedom from fear and distress by ensuring conditions that avoid mental suffering.

Freedom to express most normal behavior by providing sufficient space, proper facilities, and company of the dog's own kind.

5



Photo credits: Samantha Coyle

Activity 1: Maintaining Animal Well-being

Utilize this form prior to program implementation and throughout AAI sessions to assess the behaviors and well-being of the therapy animal. This tool will increase awareness of the animal's needs prior to and during the session, ensuring a safe and successful session for all involved.

Fill in this checklist as you observe the therapy animal for any signs of distress as presented prior in pages 105, 108, 111, & 112.

Place an 'X' in either the 'YES' box or the 'NO' box next to each statement.

| Statement | YES | NO |
|---|-----|----|
| The animal has regular access to water. | | |
| The animal has regular access to rest breaks. | | |
| The animal is withdrawn, indicating distress. | | |
| The environment is safe for the animal. | | |
| The animal is not in contact with a client under 'contact precautions' or easily spread diseases. | | |
| The animal is licking his lips, self-grooming, and yawning continuously. | | |
| There is an adequate area at my facility for the animal to rest. | | |
| The animal has eaten, per recommended daily amount (dependent on size). | | |
| The animal is shaking and making vocalizations. | | |
| The animal is given regular opportunity to relieve itself | | |

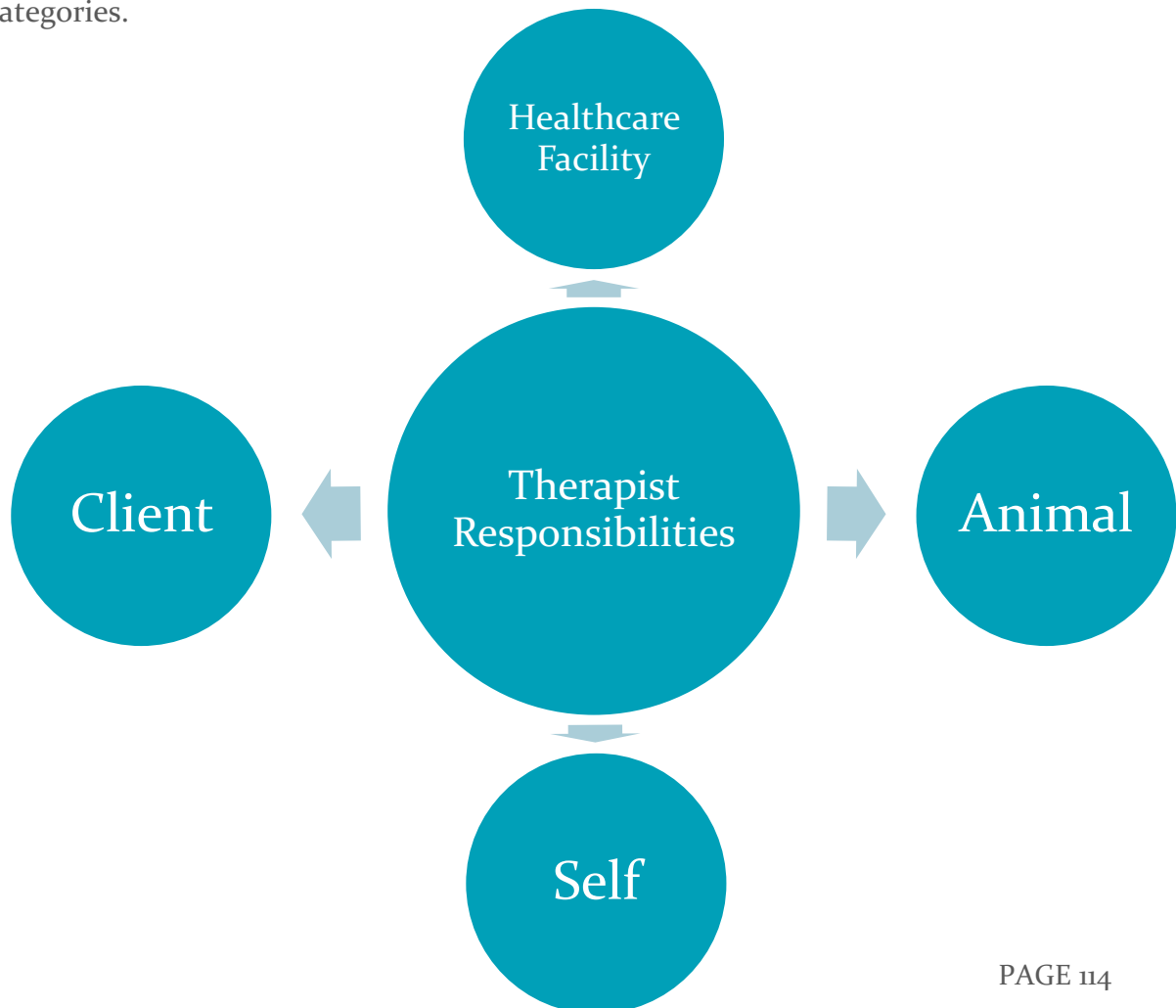
Staff Responsibilities

Therapists providing AAI in the healthcare field have dual responsibilities, to both their client and the therapy animal. Additional responsibilities occur if the therapist wishes to be the handler.

Researchers questioned the occupational therapists who doubled as handlers in combat zones, about their experiences with the therapy animal. The researchers found that handling of a therapy dog came with challenges such as maintaining a healthy weight of the dog, obtaining food and having it shipped to the base, and fear of injury to the animal (Fike, Najera, & Dougherty, 2012).

- However, the experience of handling the therapy dog was overall positive for all three occupational therapists (Fike, Najera, & Dougherty, 2012).

The figure below depicts responsibilities to which the therapist experiences throughout their day. The next page details what responsibilities fall under each categories.



Therapist Responsibilities with AAI

Client

Understand potential risks and health/safety concerns

Do they have allergies?

Follow current procedures for health and safety

Recognize when the session is no longer therapeutic/of benefit.

Positive attitude

Animal

Know & follow the "Five Freedoms"

Know the signs of distress and discomfort

Offer frequent rest breaks & water

Recognize when the session is no longer therapeutic/of benefit.

Understand potential risks and health/safety concerns

Knowing what pathogens have the potential to be transmitted.

Follow current procedures for health and safety

Minimum of 5 hours of dog-specific continuing education

Self

Maintaining emotional health

Stress management

Positive attitude

Maintain licensure and liability

Healthcare Facility

Follow current procedures for health and safety

Positive attitude

Attend sessions/come to work

Maintain licensure and liability

Activity 1: My Responsibilities with AAI

Utilize this form prior to program implementation and throughout practice as changes occur, to assess your responsibilities. This tool will increase awareness of the needs of various individuals or entities, ensuring effective communication and a successful session for all involved.

Fill in each box to obtain a visual representation of your overall responsibilities.

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Occupational Performance: Outcome of the transaction between healthcare provider, healthcare environment, and essential job functions

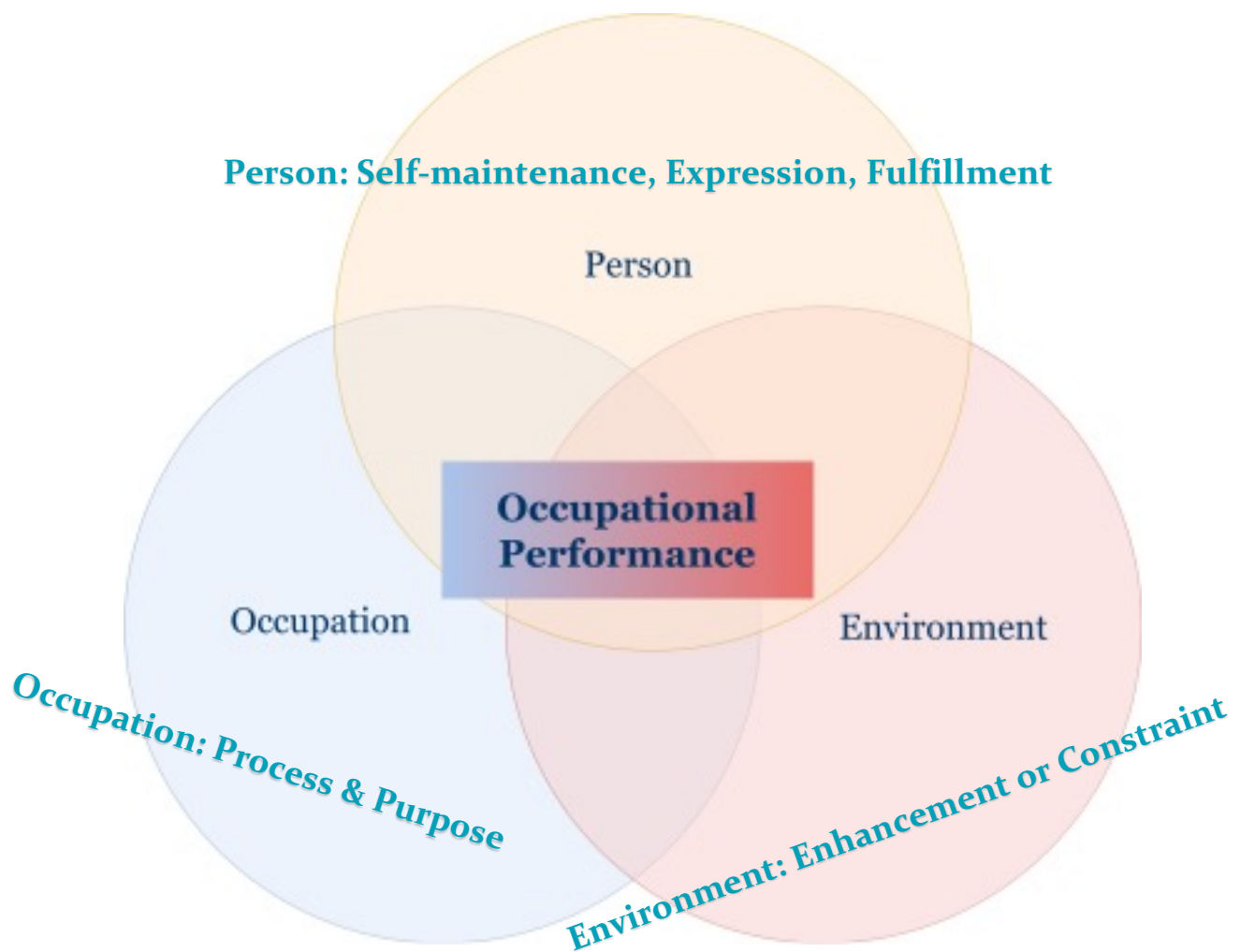
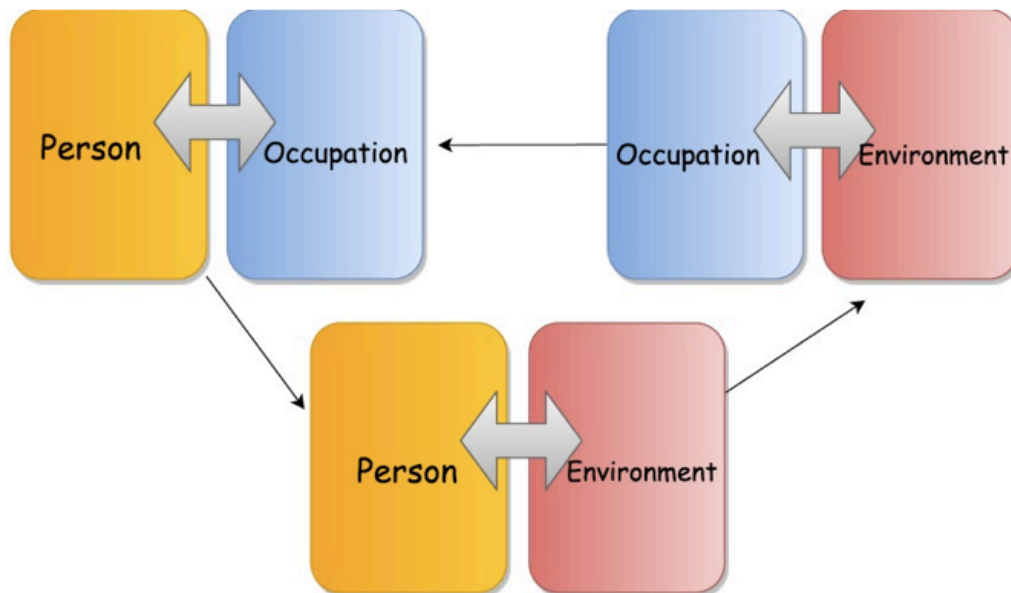


Figure 1.5: Occupational Performance

Transactive Relationship Between PEO

Function-Dysfunction Continuum

Transactive Relationship between PEO



The **transactive relationship** between P, E, and O means that the person, environment, and occupation are interdependent. What a person does cannot be separated from the environment in which behavior occurs (Turpin & Iwama, 2011).

Occupational performance is defined as the outcome of the transaction occurring between the person, environment, and occupation (Turpin & Iwama, 2011).

The Overarching Goal—Enhanced Occupational Fit

This occurs when the interdependent factors of the person, environment, and occupation align to enhance occupational performance (Turpin & Iwama, 2011).

This means, when you are able to perform within activity demands and the surrounding environment is supportive; you will be successful and will feel happy with the outcome and your surroundings.

Occupational performance is the result of the transaction between the person, what they are aiming to do, and where it will be done.

Important factors in determining the transactions between P, E, and O are as follows:

Person: Self-maintenance, Expression, and Fulfillment

Environment: Enhancement or Constraint

Occupation: Process & Purpose

For this activity, reflect upon your results from the previous chapters from the Person, Environment, and Occupation activities. Then, use the questions and diagram as guide to gain insights on the interdependent nature of these factors. The purpose of this activity is to determine person-environment-occupation fit. These forms are not meant to be filled out, but rather to point out the ways that P, E, and O together pose impacts on your occupational performance.

Think about the relationships as they present themselves now, prior to implementation of AAI programming.

1. The person:

- a) How do personal factors influence the things you do and where you do it?
- b) How does what you do and where you do it influence you as a person?

2. The environment:

- a) How is the environment influenced by the person (you) and the occupation (what you are doing)?
- b) How does the environment enhance or constrain occupational performance?

3. The occupation:

- a) What is being done?
- b) Why is it being done?
- c) Where is it being done?

Person

How does what you do meet intrinsic needs?

How do your abilities, perceptions, and experiences impact what you do?

The person has an intrinsic need for self-maintenance, expression, and fulfillment.

Person & **Environment**:

Person & **Occupation**:

How do you impact your environment?

How does the environment influence you?

Occupational Performance

Process of occupation: what is done?

Purpose of occupation: why is it done?

Where is it done?

- Cultural
- Socioeconomic
- Institutional
- Physical
- Social

How do these factors enhance or constrain your occupational performance?

Occupation

How does where you engage in occupation impact how and what you do?

How does what you do impact where you do it?

Environment

Enhancement:

Constraint:

Function- Dysfunction Continuum

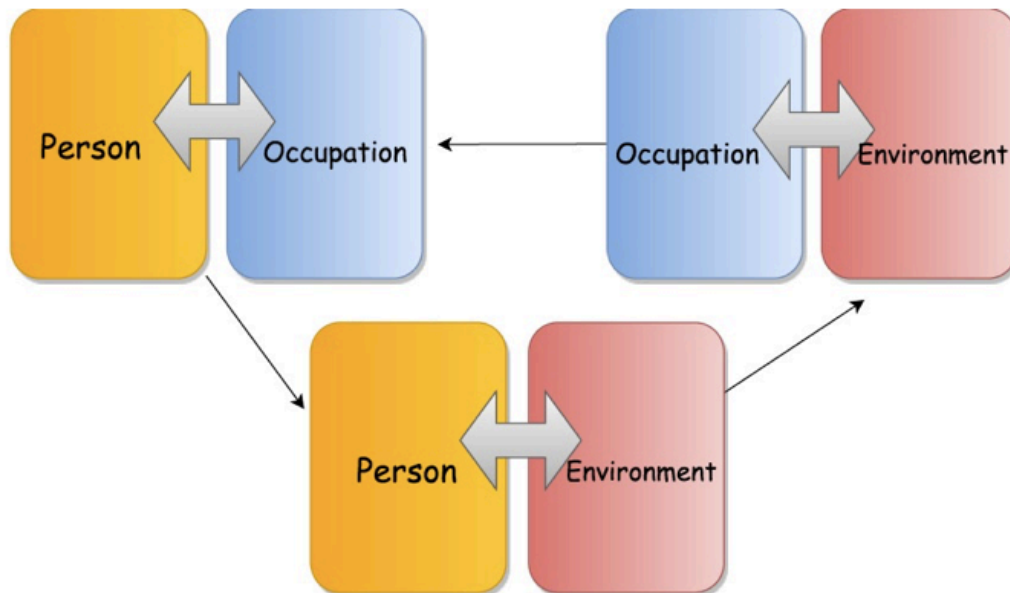
- What degree of congruence exists between the **person** (abilities, perceptions, experiences), the **environment** (cultural, socioeconomic, institutional, physical, and social), and the **occupation** (activities and tasks) that you want and need to perform?

Where does your present level of occupational fit land within this continuum?



- Consider the point on the far end of function as optimal occupational fit and peak occupational performance.
- This means you are able to meet all workplace demands, within your work environment, and you feel successful, fulfilled, and satisfied with your surroundings.

Consider these factors and the transactions between them as they pertain to AAI implementation:



List any discrepancies where factors do not align:

- P & E

- P & O

- O & E

Develop a plan to overcome discrepancies and enhance occupational fit for optimal occupational performance:

| Barrier | Solution | Resources | Timeline |
|----------------|-----------------|------------------|-----------------|
| | | | |
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I.

CONCLUSION

Summary

The aim of this program was to provide occupational therapists with the resources they need to implement an AAI program that benefits both the clients and themselves. Occupational stress is high among healthcare professionals and has been linked to increased physician errors, decreases in positive client outcomes, and decreased job satisfaction of the healthcare professional (Branch & Klinkenberg, 2015; Chen et al., 2013; Khamisa et al., 2014). Therefore, it is important to ensure positive impacts on the therapist to increase positive outcomes overall.

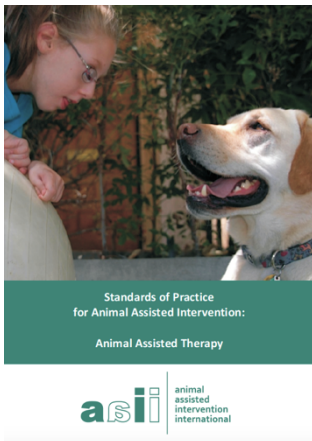
Guidance and training is a key component to this product to increase safety and successful AAI sessions. Literature highlighting the benefits of AAI, health and safety, and work culture provided the needed information to create the training modules. The authors created the activities, tip sheets, and worksheets to increase awareness of self, the environment, and the occupation as it pertains to AAI. This was accomplished with the use of the PEO model. PEO was essential to

this product and gave clear guidelines to increase efficiency in the information provided.

It is the intent of the product developers that this resource be utilized to increase safe and effective implementation of AAI within a wide array of facilities. This product was also designed to highlight many relevant features one should consider before choosing to implement such programs. Exploration of and reflection on factors of the person, environment, and occupation were developed to increase self-determination on how AAI programming can enhance occupational fit for occupational therapists.

RESOURCES

There are various resources used to put this product together. They will be helpful with implementation and further research. They are as follows:



Animal Assisted Intervention International.

<https://aai-int.org>

It is also recommended that you seek resources regarding your facility or organizational guidelines.

Additional resources regarding best practice, anecdotal reports of therapy success, and AOTA publications regarding AAI are also available.

**** This guide is intended to explore components of the person, environment, and occupation that are relevant in beneficial implementation of AAI, and should be used in conjunction with other resources****

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Chapter V

Summary

Purpose

This scholarly project explored the literature regarding Animal-Assisted Interventions (AAI) and possible impacts on healthcare professionals. The problem was that there has been limited evaluation of the benefits and challenges that having an AAI program, in the healthcare system, may have on healthcare professionals (i.e. therapists, nurses, physicians).

The human-animal bond has been extensively researched and has shown mutual benefits to both the animal and the person (Tannenbaum, 1995; Russow, 2002; & Beck, 1999 as cited in Fine & Beck, 2015). Additional literature indicated the value of involving animals in the workplace to decrease stress in healthcare professionals (Abrahamson et. al., 2016; Bibbo, 2013). While the benefits relating to the client involved in therapy have surfaced, the lack of information for healthcare professionals, as well as clear guidelines on training requirements, policies, and procedures have been discovered as an area of need.

The literature review identified best practices that were used as the foundation in the development of a clinical guide titled: *Animal-Assisted Intervention for Healthcare Professionals; An Occupational Therapy Facilitated Program*. The program is organized into seven sections: introduction; person; environment; occupation; occupational performance/occupational fit; conclusion and resources/references. The Person-Environment-Occupation (PEO) Model of Occupational Performance that was utilized to structure this clinical guide. The emphasis of this model is the conceptualization of the transactional relationship

between the person, environment, and occupation as a way of understanding occupational performance (Turpin & Iwama, 2011).

Strengths

One of the strengths of this product is that it does provide a guide, which will increase benefits that extend to the healthcare professional. Examples of benefits include but are not limited to: increased social interactions and rapport building with patients, decreases in stress, increases in mood, and increases in workplace satisfaction. The product supplies a needs assessment to be provided to healthcare facilities and professionals to evaluate the need for AAI interactions in the facility. The guide provides clear examples and is formatted for ease of use and implementation. Additionally, the product supplies activities for each outlined section to increase education and knowledge regarding AAI, assess the needs of the professional and facility, and assess the fit of an AAI program within the facility. Lastly, select activities were formatted to be completed at various times during implementation of AAI programs (i.e. prior, immediately after, 3 months, etc.). This will provide outcome data to assess efficiency and benefits of the program.

Limitations

1. The product has not yet been implemented and evaluated for outcomes.
2. Dearth of literature on OT's implementing an AAI program.
3. Decrease of quantitative data

Implementation

When implementing this product, it is important to note that the needs assessment should be completed prior to implementation. This will be the most efficient start and will preserve resources for other requirements. For best use and outcomes, the guide should be read through

and completed sequentially. Additionally, there are activities that direct the learner to complete at various stages of implementation. This will provide outcomes regarding the benefits and effectiveness of use. When beginning this project, special emphasis should be placed on adherence to the facility procedures and regulations, as well as state and local regulations regarding programming and implementation.

It is a hope that the developers will have the opportunity to implement this product at future employment facilities. A goal of the developers is to be a handler and train an animal assisted therapy dog in the future. Therefore, this guide will be more effortless, as the individuals already have the necessary background and be comfortable with the information. Additionally, any data collected can be used to evaluate the usefulness of this product.

Recommendations

1. OTs interested in this program need to do a needs assessment to determine if the program can play a role at the facility.
2. Develop outcome measures that are both formative and summative for each facility based on the needs assessment.
3. Strictly adhere to all regulations.

Conclusion

As interest in AAI increases, it is important to provide a product to guide implementation of related programming. The various benefits of animals have been documented and researched. This product was developed in order to structure the research and documentation into a resource for occupational therapists to determine best practices of AAI within their setting. This product provides an extension of knowledge published regarding use of animals in healthcare facilities and amplifies the benefits on the provider using AAI. The activities focus on relevant areas of the person, environment, and occupation, with a section detailing the transaction between these

factors. It is the intent of the product developers that this resource can be utilized to increase safe and effective implementation of AAI within a wide array of facilities. This product was also designed to highlight many relevant features one should consider before choosing to implement such programs. Exploration of and reflection on factors of the person, environment, and occupation were developed to increase self-determination on how AAI programming can enhance occupational fit for occupational therapists.

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Appendices

Appendix A

| TABLE 1. Diseases Transmitted by Dogs | |
|---------------------------------------|--|
| Transmission Route | Selected Diseases |
| Direct Contact (Bites) | Rabies <i>Capnocytophaga canimorsus</i> infection Pasteurellosis (<i>Pasteurella</i> spp.) <i>Staphylococcus aureus</i> , including methicillin-resistant strains <i>Streptococcus</i> spp. Infection |
| Direct or Indirect Contact | Flea bites, mites Fungal infection <ul style="list-style-type: none"> · <i>Malassezia pachydermitis</i> · <i>Microsporum canis</i> · <i>Trichophyton mentagrophytes</i> <i>Staphylococcus aureus</i> infection Mites <ul style="list-style-type: none"> · <i>Cheyletiellidae</i> · <i>Sarcoptidae</i> |
| Fecal-Oral | Compylobactereriosis Paratyphoid Giardiasis Salmonellosis |
| Droplet | <i>Chlamydophila psittaci</i> |
| Vector-borne | Ticks (Passively carried to humans; no direct transmission) <ul style="list-style-type: none"> · Rocky Mountain spotted fever (<i>Rickettsia rickettsii</i>) · Ehrlichiosis (<i>Ehrlichia</i> spp.) Fleas <ul style="list-style-type: none"> · <i>Dipylidium caninum</i> · <i>Bartonella henselae</i> |

(Adapted from: Murthy et. al., 2015. Animals in healthcare facilities: Recommendations to minimize potential risks.)

Appendix B

Guidelines for AAT

I. Overview of management of an animal-assisted therapy program within a healthcare facility

- A. Facilities should develop a written policy for AAT.
- B. An AAT visit liaison should be designated to provide support and facilitate animal-assisted activities visits. Often these visits are managed by the facility's Volunteer Office or Department.
- C. Only dogs should be used (i.e., exclude cats and other animals). Cats should be excluded because they cannot be trained to reliably provide safe interactions with patients in the healthcare setting.
- D. Animals and handlers should be formally trained and evaluated. Facilities should consider use of certification by organizations that provide relevant formal training programs (e.g., Pet Partners, Therapy Dogs Incorporated, Therapy Dogs International). Alternatively, facilities should designate responsibility for the program elements to an internal department (e.g., volunteer department) to verify all elements (see section III).
- E. Animals and animal handlers should be screened prior to being accepted into a facility animal-assisted activities program (see section II).
- F. The IPC should be consulted regarding which locations are appropriate for animals interacting with patients.
- G. All clinical staff should be educated about the AAT program, its governance, and its policies.

II. Training and management of AAT handlers. Facilities should do the following:

- A. Ensure that animal-assisted activities handlers have been informed of the facility's IPC and human resource policies (similar to volunteers) and have signed an agreement to comply with these policies.
- B. Confirm that AAT handlers have been offered all immunizations recommended for healthcare providers (HCP) within that facility (e.g., measles, mumps, and rubella, varicella, pertussis, influenza). If immunization is required of HCP, it should be required for AAT handlers.
- C. Require the animal-assisted activities handler to escort the animal to the destination as arranged by the facility's AAT liaison and following hospital policy.
- D. Instruct the AAT handler to restrict contact of his or her animal to the client(s) being visited and to avoid casual contact of their animal with other clients, staff or the public.
- E. Limit visits to 1 animal per handler.
- F. Require that every AAT handler participate in a formal training program and provide a certificate confirming the training, which includes modules on the following:
 - 1. Zoonotic Diseases
 - 2. Training on standard precautions including hand hygiene before and after client contact
 - 3. Proper cleaning and disinfection of surfaces contaminated by animal waste (urine or feces)
 - 4. Proper disposal of animal waste
 - 5. Visual inspection for ectoparasites
 - 6. Reading of an animal's body language to identify signs of physical discomfort, stress, fear, or aggression
 - 7. Identification of appropriate contacts in the event of an accident or injury
- G. Require that a handler use particular care in directing the visit to prevent clients from touching the animal in inappropriate body sites (e.g., mouth, nose, perianal region) or handling the animal in a manner that might increase the likelihood of frightening or harming the animal or the animal accidentally or intentionally harming the client.

H. Restrict visiting sessions to a maximum of 1 hour to reduce the risk of adverse events associated with animal fatigue.

1. Handlers must observe the animal for signs of fatigue, stress, thirst, overheating, or urges to urinate or defecate.
 - a. If taking a short break (or taking the animal outside to relieve it) does not ease the animal's signs of discomfort, then the session should be terminated for that day.
2. Handlers must comply with facility-defined restrictions for client visits and be familiar with facility-specific signage regarding restricted areas or rooms.

I. Require that all animal handlers observe standard occupational health practices.

Specifically, they should self-screen for symptoms of communicable disease and refrain from providing AAT services while ill. Such symptoms include, but are not limited to the following:

1. New or worsening respiratory symptoms (i.e., cough, sneezing, nasal discharge)
2. Fever (temperature > 38°C)
3. Diarrhea or vomiting
4. Conjunctivitis
5. Rash or non-intact skin on face or hands

J. Require that handlers keep control of the animal at all times while on the premises, including the following:

1. Keeping a dog leashed at all times unless transported within the facility by a carrier (as may be the case with smaller breeds).
2. Refraining from using cell phones or participating in other activities that may divert his/her attention away from the animal.

K. Require all handlers to manage their animal as follows:

1. Approach clients from the side that is free of any invasive devices (e.g., intravenous catheters) and prevent the animal from having contact with any catheter insertion sites, medical devices, breaks in the skin, bandage materials, or other compromised body site.

2. Before entering an elevator with an animal, ask the other passengers for permission, and do not enter if any passenger expresses reluctance or appears apprehensive.
3. Require that everyone who wishes to touch the animal practice hand hygiene before and after contact.
4. Do not permit a client to eat or drink while interacting with the animal
5. Restrict the animal from client lavatories.
6. In the case of an animal's urinary or fecal accident, immediately terminate the visit and take appropriate measures to prevent recurrence during future visits.
 - a. If submissive urination was involved, this will require suspending the animal's visiting privileges, having the handler address the underlying cause, and then formally reevaluating the animal's suitability before visiting privileges are restored.
 - b. If repeated incidents of this nature occur, permanently withdraw the animal's visiting privileges.
 - c. In the case of vomiting or diarrhea, terminate the visit immediately and withdraw the animal from visitation for a minimum of 1 week.
7. Report any scratches, bites, or any other inappropriate animal behavior to healthcare staff immediately so that wounds can be cleaned and treated promptly. Report any injuries to the AAT liaison as soon as possible and to public health or animal control authorities, as required by local laws.
 - a. The visit should be immediately terminated after any bite or scratch.
 - b. In the case of bites, intentional scratches, or other serious, inappropriate behavior, permanently withdraw the animal's visiting privileges.
 - c. In the case of accidental scratches, consider the circumstances that contributed to the injury and take appropriate measures to prevent similar injuries from occurring in the future. If measures cannot be taken to reduce the risk of recurrence, then visitation privileges should be withdrawn.

- d. If it is determined that the handler's behavior was instrumental in the incident, then the handler's visitation privileges should be terminated until the AAT program manager has addressed the situation.
 - e. Report any inappropriate client behavior (e.g., inappropriate handling, refusal to follow instructions) to the animal visit liaison.
- L. Facilities should maintain a log of all AAT visits that includes rooms and persons visited for potential contact tracing.

III. Requirements of acceptable animals for AAT programs

- A. Allow only domestic companion dogs to serve as AAT animals. Cats are not included in the recommendation due to concerns for increased potential allergenicity, potential increased risk of bites and scratches, and lack of data demonstrating advantages over dogs.
- 1. Allow only adult dogs (i.e., dogs of at least 1 year but ideally at least 2 years of age, the age of social maturity).
 - 2. Deny the entry of dogs directly from an animal shelter or similar facility.
 - 3. Require that dogs be in a permanent home for at least 6 months prior to enrolling in the program.
 - 4. Admit a dog only if it is a member of a formal AAT program and is present exclusively for the purposes of AAT.
- B. Require that every dog pass a temperament evaluation specifically designed to evaluate it under conditions that might be encountered when in the healthcare facility. Such an evaluation should be performed by a designated evaluator.
- 1. Typically, this evaluation will assess, among other factors, reactions toward strangers, loud and/or novel stimuli, angry voices and potentially threatening gestures, being crowded, being patted in a vigorous or clumsy manner, reaction to a restraining hug, interactions with other animals, and the ability to obey handler's commands.

- C. Require all evaluators (either at facility or at the formal certification program) to successfully complete a course or certification process in evaluating temperament and to have experience in assessing animal behavior and level of training.
1. Require all evaluators to have experience with animal visiting programs or, at the very least, appreciate the types of challenges that animals may encounter in the healthcare environment (e.g., startling noises, crowding, rough handling).
 2. If several animals need to be evaluated for behaviors other than reactions to other animals, require that the temperament evaluator assess each animal separately, rather than assessing several animals simultaneously.
- D. Recommend that animal-handler teams be observed by an AAT program liaison at least once in a healthcare setting before being granted final approval to visit.
- E. Recommend that each animal be reevaluated at least every 3 years.
- F. Require that any animal be formally reevaluated before returning to AAT after an absence of > 3 months.
- G. Require that a handler suspend visits and have his or her animal formally reevaluated whenever he or she notices or is apprised (either directly or through the animal visit liaison) that the animal has demonstrated any of the following:
1. A negative behavioral change since the time it was last temperament tested
 2. Aggressive behavior outside the healthcare setting
 3. Fearful behavior during visitations
 4. Loss of sight or hearing and, consequently, an overt inclination to startle and react in an adverse manner
- H. Health screening of animals
1. Basic requirements for all animals
 - a. Require that dogs be vaccinated against rabies as dictated by local laws and vaccine label recommendations. Serologic testing for rabies antibody concentration should not be used as a substitute for appropriate vaccination.
 - b. Exclude animals with known or suspected communicable diseases.

- c. Animals with other concerning medical conditions should be excluded from visitation until clinically normal (or the condition is managed such that the veterinarian feels that it poses no increased risk to clients) and have received a written veterinary health clearance. Examples include episodes of vomiting or diarrhea; urinary or fecal incontinence; episodes of sneezing or coughing of unknown or suspected infectious origin; animals currently on treatment with non-topical antimicrobials or with any immunosuppressive medications; infestation by fleas, ticks, or other ectoparasites; open wounds; ear infections; skin infections or “hot spots” (i.e., superficial folliculitis or pyoderma); and orthopedic or other conditions that, in the opinion of the animal’s veterinarian, could result in pain or distress to the animal during handling and/or when maneuvering within the facility.
 - d. Exclude animals demonstrating signs of heat (estrus) during this time period.
2. Scheduled health screening of AAT animals.
 - a. Require that every animal receive a health evaluation by a licensed veterinarian at least once (optimally, twice) per year.
 - i. Defer to the animal’s veterinarian regarding an appropriate flea, tick, and enteric parasite control program, which should be designed to consider the risks of the animal acquiring these parasites specific to its geographic location and living conditions.
 - ii. Routine screening for specific, potentially zoonotic microorganisms, including group A streptococci, *Clostridium difficile*, VRE, and MRSA, is not recommended.
 - b. Special testing may be indicated in situations where the animal has physically interacted with a known human carrier, either in the hospital or in the community, or when epidemiologic evidence

suggests that the animal might be involved in transmission. Testing should be performed by the animal's veterinarian in conjunction with appropriate infection prevention and control and veterinary infectious disease personnel, if required.

- c. Special testing may be indicated if the animal-assisted activities animal is epidemiologically linked to an outbreak of infectious disease known to have zoonotic transmission potential. Suspension of visitation pending results is recommended in these situations.

3. Dietary guidelines for all animals

- a. Exclude any animal that has been fed within the past 90 days any raw or dehydrated (but otherwise raw) foods, chews, or treats of animal origin, excluding those that are high-pressure pasteurized or γ irradiated.

IV. Preparing animals for visits:

A. Require that every handler do the following:

1. Brush or comb the animal's hair coat before a visit to remove as much loose hair, dander, and other debris as possible.
2. Keep the animal's nails short and free of sharp edges.
3. If the animal is malodorous or visibly soiled, bathe it with a mild, unscented (if possible), hypoallergenic shampoo and allow the animal's coat to dry before leaving for the healthcare facility.
4. Visually inspect the animal for fleas and ticks.
5. Clean the animal carrier.
6. Maintain animal leashes, harnesses, and collars visibly clean and odor-free.
7. Use only leashes that are non-retractable and 1.3 to 2 m (4 to 6 feet) or less in length.
8. Not use choke chains or prong collars, which may trap and injure clients' fingers.

9. Make an animal belonging to an AAT program identifiable with a clean scarf, collar, harness or leash, tag or other special identifier readily recognizable by staff.
10. Provide a dog with an opportunity to urinate and defecate immediately before entering the healthcare facility. Dispose of any feces according to the policy of the healthcare facility and practice hand hygiene immediately afterward.

V. *Managing appropriate contact between animals and people during visits*

- A. Obtain oral or written consent from the client or his or her agent for the visit and preferably from the attending physician as well. Consider documenting consent in the client's medical record.
- B. The handler should notify caregiver (e.g., nurse or physician) of the animal visitation.
- C. The handler should be required to obtain oral permission from other individuals in the room (or their agents) before entering for visitation.
- D. All visiting animals should be restricted from entering the following clinical areas at all times, in addition to nonclinical areas outlined below and in Service Animals section IV.E.2.:
 1. Intensive care units; isolation rooms; neonatal and newborn nurseries; areas of client treatment where the nature of the treatment (e.g., resulting in pain for the patient) may cause the animal distress; and other areas identified specifically by the healthcare facility (e.g., rooms of immunocompromised clients).
 2. Section IV.E.2 of Service Animals:
 - a. Food and medication preparation areas where appropriate hygiene is required, including but not limited to kitchen, infant formula preparation room, and central and satellite pharmacies.
 - b. Invasive procedure areas where sterility is required, including but not limited to the operating rooms, recovery rooms, cardiac catheterization suites, and endoscopy suites.
 - c. Patient units where a patient is immunocompromised or deemed at particularly high risk for infection, or in isolation for respiratory (droplet or

airborne) contact, or compromised host precautions, unless in a particular circumstance a service animal does not pose a direct threat and the presence of the service animal would not require a fundamental alteration in the hospitals' policies, practices, or procedures.

- d. Areas where the service animal or equipment may be harmed by exposure (e.g., metal is not allowed in a magnetic resonance imaging (MRI) room, and a dog may have metal on a collar or in a surgical implant), after consultation with the client or his/her authorized representative. When there is potential harm to the service animal (e.g., animal present in room during radiation therapy), the client should be advised of the potential harm and assumes full responsibility for any harm to the service animal.
- E. Require the handler to prevent the animal from coming into contact with sites of invasive devices, open or bandaged wounds, surgical incisions, or other breaches in the skin, or medical equipment.
- F. If the client or agent requests that an animal be placed on the bed, require that the handler do the following:
 1. Check for visible soiling of bed linens first.
 2. Place a disposable, impermeable barrier between the animal and the bed; throw the barrier away after each animal visit.
 3. If a disposable barrier is not available, a pillowcase, towel, or extra bed sheet can be used. Place such an item in the laundry immediately after use and never use it for multiple clients.
- G. Instruct the handler to discourage clients and HCP from shaking the animal's paw. If the dog is trained to shake hands with a client and this contact is allowed by facility, ensure that the client performs hand hygiene before and after shaking the animal's paw.
- H. Require the handler to prevent the animal from licking clients and HCP
- I. Prohibit feeding of treats to animals by HCP; however, if the act is believed to have a significant therapeutic benefit for a particular client, then require that the handler:
 1. Ensure that the animal has been trained to take treats gently.

2. Provide the person with appropriate treats to give, avoiding unsterilized bones, rawhides and pig ears, and other dehydrated and unsterilized foods or chews of animal origin.
3. Ensure that the person practices hand hygiene before and after presenting the treat to the animal.
4. Instruct the person to present the treat with a flattened palm.

VI. Contact tracing

- A. The facility should develop a system of contact tracing that at a minimum requires animal handlers to sign in when visiting and ideally provides a permanent record of areas and/or room numbers where the animal has interacted with clients. (See pg.81)

VII. Environmental cleaning

- A. Practice routine cleaning and disinfection of environmental surfaces after visits. Clean and disinfect all areas (e.g., floors, chairs) with an EPA-registered hospital disinfectant.
- B. It is recommended that clean additional bed sheet be used to cover the bed if the animal has contact with surface of the bed, and this should be removed and laundered after the animal visit. If a separate sheet is not used, replace any bedding that might be contaminated.

(Adapted from: Murthy et. al., 2015. Animals in healthcare facilities: Recommendations to minimize potential risks.)