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The First Ten Years: a Descriptive Analysis of Presentation Abstracts of the SSO: USA, 2002 to 2011

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OF PRESENTATION ABSTRSCTS OF THE SSO: USA, 2002 to 2011

By
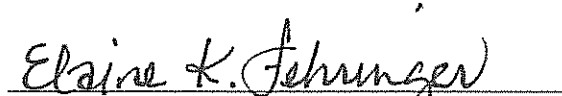
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OF PRESENTATION ABSTRSCTS OF THE SSO: USA, 2002 to 2011

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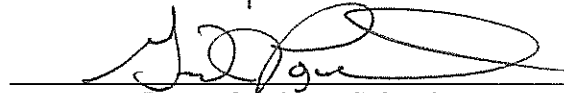Eastern Kentucky University
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"Being busy does not always mean real work. The object of all work is production or accomplishment and to either of these ends there must be forethought, system, planning, intelligence, and honest purpose, as well as perspiration. Seeming to do is not doing."

Thomas A. Edison

ABSTRACT

This mixed methods study of the first ten years of presentations at the Society for the Study of Occupation: USA (SSO: USA) yields important information about the development of occupational science as a disciplinary body of knowledge. A descriptive, quantitative analysis of the abstracts of peer-reviewed presentations at the first ten annual meetings of the SSO:USA was separately and then collaboratively completed by a group of three researchers. This ten-year study used descriptive statistics with an ex-post facto design to portray research trends in occupational science over the first ten years of the Society. Implications of the study for the future of occupational science will be discussed, including gaps in occupational science research, methodological trends and needs, and possible influences on researchers' choices in regard to topics of future research.

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CHAPTER 1

INTRODUCTION

The Society for the Study of Occupation:USA (SSO:USA) has met annually since

2002. This society draws researchers from around the world to contribute to the body of

knowledge and present information related to occupation. The study, *Occupational*

Science: A data-based American Perspective by Pierce, Atler, Baltisberger, Fehringer,

Hunter, Malkawi, & Parr (2010) examined trends in occupational science research by

looking at the data-based abstracts during the first five years (2002-2006) of this

conference. This study uses quantitative descriptive methods, using an ex-post facto

design, to examine the 199 peer-reviewed, data-based abstracts presented at the SO:USA

conference from 2007 to 2011. Following analysis, all ten years of abstracts will be

examined so that patterns of research in occupational science can be identified.

Implications of the study for the future of occupational science will be discussed.

Background and Need

Defined Goals for Occupational Science

The profession of occupational science is young, having just emerged in 1989.

When the discipline was first established, researchers such as Clark et al. conceptualized

that studying occupation would enable occupational therapists to "address the entire

range of phenomena surrounding human occupation" (1991, p. 304). This information

has the potential to reduce the incapacity of people who are considered disabled, as well

as better the common community (Yerxa et al, 1990). Yerxa et al. continues to suggest,

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"the knowledge gained from our science could enable us to develop new and more effective intervention programs for both remediation and prevention of incapacity" (1990, p. 12). They posited that the use of the environment could elicit the drive for competence and result in greater independence and satisfaction in an individual's quality of life (Yerxa et al., 1990).

The first occupational science article was published in the *American Journal of Occupational Therapy* (Clark et al., 1991, Pierce et al., 2010), detailing its potential contributions to society. Now, more than twenty years later, the direction and impacts of the work can begin to be dissected and analyzed. A study by Molke, Laliberte-Rudman, & Polatajko, found that across ten years of occupational science research, four common goals or themes existed: 1) occupational science will explore human occupation 2) occupational science will provide a foundation for occupational therapy 3) occupational science will defend occupational therapy foundations 4) occupational science will achieve widespread well-being through social reform (2004, p. 274; Glover, 2009, p. 93).

Society for the Study of Occupational Science

In 2002 a group of scholars gathered to establish a research society based in the United Stated. The Society for the Study of Occupational Science (SSO): USA states their mission is "to develop the discipline and disseminate its work, to support its researchers, to expand knowledge of occupation and its impacts on humans and their health, and to address the relatedness of occupational science and occupational therapy" (Pierce et al., 2010, p. 205). The society has developed six objectives to support its mission (SSO:USA, n.d.):

1. To form a national community of scholars to engage in the dynamic exchange of ideas to support the global discipline of occupational science.

2. To provide a forum to promote and disseminate research in occupational science to the public.

3. To foster cutting edge theory and research of occupation through the establishment of networks, resources, collaborations, and other identified supports.

4. To explore and expand the knowledge of occupation; the application of occupation to understanding the human condition; and, to foster understanding the fundamental nature of occupation in health and well-being.

5. To study the interrelationship of the discipline of occupational science and the profession of occupational therapy.

6. To address the quality of the occupational experience of participants in its events.

Statement of Purpose

The purpose of this study is to analyze trends of data-based abstracts presented at the SSO: USA annual research conferences. The original study, *Occupational Science: A Data-based American Perspective*, used grounded theory methodology to explore the research presented from 2002-2006 (Pierce et al., 2010). This current study continues those efforts to identify types of abstracts, populations addressed, and perspectives on occupation described in the research at conferences from 2007-2011. The descriptive

results will be compared and contrasted with the results from the previous study. By describing what research is being conducted, occupational scientists can use the information to develop a plan to address the goals of both occupational science and occupational therapy.

Brief Design Description

This study is a descriptive, quantitative analysis that uses an ex-post facto design to continue analysis of research presented during the second five years (2007-2011) of the SSO:USA annual conferences. By using this design, the data across ten years (2002-2011) could be described in a homogenous matter.

Research Questions

1. Looking at the second five years of abstracts presented at the Society for the Study of Occupation:USA, what research foci are being presented?

2. Are there any trends of research across ten years of evidence-based abstracts presented at the Society for the Study of Occupation:USA?

Definition of Terms

Age- The descriptor age is split into age cohorts to describe each abstract. Under 18 refers to those 18 years of age or younger. Adult is defined as anyone aged 18 and up to 65. Older adults refer to anyone over the age of 65.

Disability- Disability is a condition (physical, mental, emotional) that affects participation in occupation (i.e. Alzheimer's Disease).

Disadvantage- Disadvantage refers to when the descriptor addressed is affected in their occupations (i.e. Immigrant).

Individual alone- Research focused on the actions, experiences, or interpretations of meaning by a specific person. Although the person may be engaged in occupations that involve others, the experiences of those others are not studied.

Individual shared- Research focused on the actions, experiences or individual perspectives of occupations within a shared social context.

Shared Group Characteristics- More than one person, not familial, who are observed in a group activity (theatre group, after school group, educational department). They have a shared experience, know each other, and have a relationship as a group.

Shared Group Characteristics at a Population Level- Research describing methods that examine occupation across a group of persons defined by a shared characteristic, such as living in a refugee camp or persons in a certain race or class. Patterns of occupation are explored across persons who were included in that community and who do not meet the interactive and relationship requirements defined in "group"

Co-occupation with a dyad- occupation experience that occurs because of the interaction between two people (i.e feeding a child with a GT tube)

Co-occupation with a group- occupational experience that occurs because of the interaction between three or more persons. The same phenomena may be explored in multiple groups (i.e. family experience of a child with autism)

Co-occupation at a community level- occupational experience that occurs because of the interaction between three or more persons. The research explores a large group of people experiencing the same phenomena (i.e. certain races). An example is exploring an art teaching experience for persons with mental illness.

Occupation- "a subjective event in an individual's perceived temporal, spatial, and sociocultural conditions that is unique to that one-time occurrence. An occupation has a shape, a pace, a beginning, and an ending, a shared or solitary aspect, a cultural meaning to the person, and an infinite number of other perceived contextual qualities. A person interprets his or her occupations before, during, and after they happen. Though an occupation can be observed, interpretation of the meaning or emotional content of an occupation by anyone more than the person experiencing it is necessarily inexact" (Pierce, 2001, p. 139).

Assumptions

1. The most significant assumption that this study makes is that the research presentations at the conference match the information in their corresponding abstracts.

2. Coding for the second five years as determined by the primary researcher is accurate, representing the research.

3. Coding for the first five years is accurate in representing the research.

CHAPTER 2

LITERATURE REVIEW

Service to others has been around for centuries, as people seek to heal those around them in the most effective and efficient manners. Although the use of occupation to promote or restore health can be traced to ancient Egypt, chronicles tend to skip eras and begin with a focus on the Moral Treatment Era that began in the 18th century and persisted into the 19th (Friedland, 1998, p. 374). During this time, there was a renewed focus that a caring environment and work could promote health (Friedland, 1998, p. 374). Over the next 100 years, the profession of occupational therapy emerged is continuously reformed to help improve the quality of life for every person. From this profession, occupational science was developed to support the study of occupation.

History of Occupational Therapy

Industry, war, educational reforms, and the nature of hospital care shaped the need to form the profession of occupational therapy (Peloquin, 1991, p. 354). In 1917, six persons gathered to found the National Society for the Promotion of Occupational Therapy (NSPOT). These included George Edward Barton (architect), Dr. William Rush Dunton, Jr (psychiatrist), Thomas B. Kidner (architect), Isabel G. Newton (Barton's secretary), Susan C. Johnson (teacher of arts and crafts), and Eleanor Clarke Seagle (social worker). Although not present at the original meeting, Dr. Herbert Hall and Susan Elizabeth Tracy (nurse) are considered near founders. Each founder had their perspective of how occupational therapy could help serve the needs of society. These unique

perspectives and specialties contributed to occupational therapy becoming "multifaceted yet rooted in one basic idea" (Peloquin, 1991, p. 354).

Advances in medicine and technology are greatly influenced by societal trends and concerns of the time period. Although tragic, the wars in which the United States participated have consistently been a driving force in evolving rehabilitation (Eldar and Miroslav, 2003). Shortly after the founding of the NSPOT, World World I (WWI) broke out. The onset of WWI was important for occupational therapy because 1) it made the founders articulate the therapy they were providing; 2) the war engaged three of the founders; 3) it validated the success of occupational therapy; 4) it influenced who would provide services and 5) and [the idea of] the patient-therapist relationship became the popular model for treatment (Peloquin, 1991, p. 734). Surgery could save a life, but post-surgery, often the individual struggled to return to society and their previous way of life.

Initially, reconstruction aides, primarily women, were selected to aid soldiers in their recovery. These women were selected if they had normal school and college, were between the age of 25 and 40, with "knowledge and skill in the particular occupation, attractive, forceful personalities, sympathy, tact, judgment, and industry" (1968 as cited in Peloquin, 1991, p. 734). The aides received basic training in the medical field and were trained in teaching arts and crafts, but not as therapists (Peloquin, 1991, p. 734-735). However, due to the generalization of training, some therapists were just teaching the basic art and craft, as opposed to following the principles of occupational therapy. Others, like Ora Ruggles, a reconstruction aide, created activities that allowed even the most disabled to succeed. It was persons like her that shaped occupation as both a means and

the goal of treatment (Peloquin, 1991, p 736). Due to the involved workers of WWI, founder Susan Johnson pushed for a balanced view of occupational therapy as a part medical, part teaching function (Peloquin, 1991, p 740).

To respond to the increased need for disability services, the government passed the Industrial Rehabilitation Act of 1920. This law provided funds to retrain persons with a disability and then place them in suitable jobs (Matheson, Ogden, Violette, and Schultz, 1985). Post-war, there were an increased number of veterans who wanted to return to work, but they needed retraining, sometimes for an entirely different job position (Matheson et al., 1985).

In 1923 NSPOT changed their name to American Occupational Therapy Association (AOTA), with primary goals of addressing the previous stated problem. During this time, AOTA focused on moving occupational therapy into a continuing and significant role in hospitals, as well as hospital-based areas (Peloquin, 1991, p. 740). AOTA also began to work with colleges and universities throughout the United States to create standards for professional-level courses of study to assure a high quality of practitioner in the field. During this time, there was a simultaneous shift in occupational therapy services focusing on medical outcomes, as opposed to the original humanitarian and societal benefits (Friedland, 1998, p. 376).

When World War II (WWII) occurred, there was another rise in the need for occupational therapy and a coexisting shift in delivery (Eldar and Jelic, 2003). Again large numbers of soldiers needed rehabilitation during and after the war. Advances in medicine allowed more soldiers to survive their injuries (Eldar and Jelic, 2003). It was

more cost effective to rehabilitate preexisting soldiers to return to duty, rather than train new ones to replace them (Eldar and Jelic, 2003). During the war, there was also the development of physical therapy physicians (who we currently refer to as psychiatrists), shifting occupational therapy from "occupation as a means of developing or maintaining health to occupation as a means of enhancing medical outcomes" (Friedland, 1998, p. 377). This important shift would drive the profession to follow a medical model for many decades.

Research to Support the Profession

Despite enforcing more rigorous programs after WWI to ensure that an occupational therapist was receiving proper training, there was a question related to measuring and proving that the services delivered were effective. Founder William Dunton realized that more needed to be done besides treatment to include occupational therapy as a science. He hoped that researchers would be attracted to examine the service and to examine unanswered questions (Peloquin, 1991, p 736). Shortly thereafter, research efforts began to emerge to create evidence for the difference occupational therapists make in the lives of those with whom they work (Custard, 1998).

One of the first advocates for research came from Herbert James Hall, a psychiatrist and advocate for occupational therapy (Custard, 1998; Peloquin, 1991). He recognized the need for the profession to support their practice of using occupations as treatment for persons with mental illness (Dunto, 1922 in Custard). In 1922 Hall spoke at the National Society for the Promotion of Occupational Therapy (NSPOT) emphasizing the importance of record keeping to promote the acceptance of occupation as a treatment

method (Custard). Hall himself informally tested the traditional "resting helps you heal" method of treatment against the "work" heals idea (Custard, 1998). However, Hall was not able to isolate the individual effect of occupational therapy from the general treatment (Custard, 1998).

The next year, 1923, Horatio Pollock recognized the benefit of record keeping at the NSPOT conference. He believed that it would aid in both survival of the profession and in professional growth. For instance, habit training was a method used by persons, such as founder Eleanor Slagle, to aid persons in recovery (Peloquin, 1991, p. 737). Due to his presentation, NSPOT appointed a committee to begin recording outcomes data.

Despite the new initiative of NSPOT, there remained those that did not support the role of occupational therapy in the medical field. Physicians were not convinced of documented narratives of advances made due to habit training (Peloquin, 1991, p. 737). There was also William Livingston, assistant medical director of the Montefiore Hospital for Chronic Diseases in New York City, who felt that occupational therapy was not "real therapy". He believed that the arts and crafts were useless and instead the patients should be producing for the hospital. For example, the patient's products should be for use in the hospital or for the hospital to sell for profit, such as paper bags, chart holders, mops, and clothing for staff members. His voice echoed that of many professionals at this time, causing increased pressure to establish the validity and worth of occupational therapy for the patient (Custer, 1998; Peloquin, 1991). Outside of personal opinion, the Great Depression's effect on economic conditions threatened the profession unless they could

prove the value of the services. At this time there was not enough outcome data or formal research findings to objectively support occupation, only the subjective rebuttal.

Although Pollock initiated the need for research, the mere accumulation of information was not sufficient to legitimize occupational therapy (Custer, 1998). However, the push for scientific research in the field of occupational therapy was not significantly revisited until the 1950's. The medical model, developed in the 1950's and 1960's gave occupational therapists a "loftier status" (Friedland, 1998, p. 378). It put therapy into a service that could be more readily understood and it caught the public eye. Understanding, for example, that a person gained more range of motion was more obvious than say, a person with a mental disease learning to organize their day.

Developing Research

Research in occupational therapy was established the same way the profession was - a variety of persons with various backgrounds coming together. A major concern was that therapists AOTA went outside the field to find experts in other fields who were active in research because of the fear that therapists did not understand what research was or how to perform it, as research methodology had not yet been established in occupational therapy. These other professions, although related, were fundamentally different and had a profound effect on introductory research efforts (Custer, 1998). Borrowing from other disciplines, the emphasis was on developing scientific and quantitative methods with specific operationalization and limitation of variables, simple, testable hypothesis, and quantitative analysis. Studies continued to be initiated, but they

also began to be duplicated, which boosts validity of the research (Brandt, 1953, DuVall,1952 as cited in Custer, 1998).

American Occupational Therapy Foundation

The American Occupational Therapy Foundation (AOTF) was established in 1965- a major step in the institutionalization of research in the field as it provides funding to expand the knowledge base and develop and refine theories (Cuter, 1998). In 1976 there was a grand transition, as the majority of researchable areas and topics came from the input of occupational therapists themselves (Custer, 1998). Around this same time accountability to payers reemerged due to the separation of occupational therapy services from the traditional per-diem inclusion of services (Custer, 1998).

Beginning in the 70's economic, political, and theoretical pressures threatened the field of occupational therapy leaders in the field argued that occupational therapy was in danger, partly because it did not possess a unique and clearly articulated scientific research foundation. (Molke, Laliberte-Rudman, & Polatajko, 2004). Pressures for research continued to increase in the 1980's as medical management switched to methods of cost containment, creating a need for accountability. The AOTF created research competencies that every entry-level therapist should be able to "locate, understand, and apply…to practice"(Custer, 1998, p. 680). There was a steady increase in studies using quantitative methods and experimental and quasi-experimental designs because objective research could be more readily understood by government and hospital officials (Custer, 1998). A "measurable" proof of occupational therapy's worth would validate services and result in securing reimbursement.

Hospital stays became shorter with more acute illnesses. Resources were directed

toward those with acute illness, as opposed to those with chronic disease and disability

(Yerxa et al, 1990, p 2). Medical technology continued to advance, allowing at-risk

children and infants to survive (Yerxa et al, 1990, p 3). Increased efficiency, curing more

patients with acute illnesses in less time, allowed for more monetary influx for hospitals.

In addition, this pattern contributed to occupational therapy's value as a profession.

Patients were "cured", but had deficits in returning to their previous quality of life.

Refining the Purpose of Research

Although this research positively aided the profession in establishing themselves as a

healing profession, other researchers felt occupational therapy needed to be validated for

more than just securing money (Custer, 1998). Some researchers, such as Gary

Kielhofner, felt that the traditional scientific frames of reference failed to incorporate the

holistic view of person and occupation that is occupational therapy (Custer, 1998). Yerxa

suggested that traditional, experimental research methods were making the therapist a

"machine" and the patient the "product" (1989 as cited in Clark, 1993, p. 1071). The

profession struggled to unite two approaches: how to teach the individual to adapt to his

or her environment, and how to alter the environment to meet the needs of the individual.

Current research methods divided these goals. She suggested that quantitative research

methods be abandoned in favor of qualitative methods (1991 in Custer, 1998). Yerxa her

colleagues "began to explore qualitative research methods that would be appropriate for

study in occupational therapy, including phenomenology, ethnography, systems theory,

life history, naturalistic inquiry, historical research, dramaturgic models, care method,

psychobiographics, and other types of new paradigm research" (Yerxa, 1991 in Custer, 1998, p. 680).

Occupational Science

Prior to 1989, the core concept of "occupation" had not been synthesized because the profession was still relying on the interdisciplinary approach for research, resulting in a less sympathetic consideration on the targeted values and needs of occupational therapy (Clark et al. 1993, 185). This blurred concept remaining 70 years after the inception of occupational therapy was also likely because it is a complex, multidimensional phenomenon (Yerxa et al., 1990, p. 6).

Defining Occupational Science

Deciphering what is "occupation" and what is the role of an occupational therapist began when the occupational therapy doctoral program was initiated at the University of Southern California (Pierce et al., 2010; Pierce, 2012, p. 299). From this program the concept of occupational science was launched in 1989, and is defined as "the study of humans as occupational beings" (Glover, 2009 p. 92). It addresses at a minimum "the substrates, form, function, meaning, and sociocultural and historical contexts of occupations" (Clark et al., 1991, p. 302). Occupational science is interested in how people become independent, adapt to environmental demands, and achieve competency across the lifespan (Clark 1993, p. 1068; Yerxa et al., 1990, p.6). Many articles state that the new field was created to improve the practice of occupational therapy and improve human lives, as well as help persons understand the profession of occupational therapy (Clark et al., 1991, Clark et al., 1993, p 184, Pierce et. al, 2010). Yerxa et al. believed that

occupational science could "provide practitioners with support for what they do, justify the significance of occupational therapy to health, and differentiate occupational therapy from other disciplines" (1990, p 3). Yerxa continued that occupational science will "study individuals in interaction with their environments, not as decontextualized beings" (Yerxa et al., 1990, p. 11).

Despite its support for another discipline, occupational science was developed to stand on its own as a basic science, freeing researchers to pursue scholarly work without the constraint of practical application (Yerxa et al. 1990, p. 4). Florence Clark, one of the founders of occupational science, adds that its foremost reason for existing is to contribute to the "universe of knowledge, and in this way, ultimately help to address societal needs" (2006, p 167). Yerxa warned that the profession will need to stay true to its roots of "preserving human complexity, diversity, and dignity" (Yerxa et. al, 1990, p.11).

Although there were many persons who supported the symbiotic relationship between occupational therapy and occupational science, others believed the two disciplines needed to be separated from each other. In 1992, Mosey proposed that the two professions separate with occupational therapy focusing on the development of frames of reference to guide practice, while occupational science would concentrate on deriving these theories (Clark et. al, 1993, p. 184). She reasoned that a lack of partition between the two disciplines would lead to confusion over the identity of each profession or result in poorly focused research (Clark et al. 1993, p. 186). Researchers, such as Clark and her colleagues quickly responded to Mosey's idea, retorting that by this partition, there would

be a limit put on research, which is not conducive to the development of either profession (p. 184). They supported their opinion with the example of A. Jean Ayres, who without beginning with research on the sensorimotor subsystems perhaps would not have developed the sensory integration frame of reference (Clark et al., 1993, p. 184).

Clark warns that a loss or confusion of occupational science's central paradigm could negatively affect the growth of occupational science (Clark, 2006, p. 169). There are so many definitions of "occupation" with different parameters and focus on each (Rudman et al., 2008). Any profession cannot prohibit itself from intrusion on another's "intellectual turf" (Clark, 2006, p. 170) and a lack of clarity can make this easier (Rudman et al., 2008). In addition, a lack of clarity can lead to a loss of students, which may create a vulnerability that may lead to downsizing or mergers with other disciplines (Clark, 2006, p. 170). In 2013, budget cuts are being made in almost every area, including education. If occupational scientists do not advocate for and support themselves, hypothetically the entire discipline could dissipate.

Growth of Occupational Science

As all things, the discipline was not perfect immediately upon its inception. One of the challenges it faced was "understanding the relationship between engagement in occupation and health" (Yerxa et al., 1990, p. 1). Yerxa et al. juxtaposed that future publications will further refine and expand the disipline with framework, philosophy, and curricular structure (1990, p. 2).

A study by Molke and colleagues (2004) looked at occupational science research from 1990 to 2000. The research found that the study of occupational science had spread

from one country to seven. In addition "the number of publication sources, the countries and the academic disciplines that were involved in the production of occupational science literature was higher in 2000 compared to 1990" (Molke, Laliberte-Rudman, & Polatajko, 2004). Across ten years, the proportion of research-based publications to theoretical-based remains the same (Molke, Laliberte-Rudman, & Polatajko, 2004; Glover, 2009, p 93).

Further expanding on the research by Molke et al, Glover completed a ten-year analysis from 1996 to 2006 to look at trends within the decade. She found that empirical studies, which do seem appropriate to support the study of human experience, comprise the majority of the research, with qualitative methodology being the preferred design for studies, (2004; 2009, p. 99; Pierce, 2012, p. 300). "Most of the research is also being performed with adults aged 18 to 64, with participants who have no acknowledged disability, and with no indication of study funding" (Glover, 2009, p. 98). One of the founders of occupational science, Florence Clark, reflected on the discipline after 16 years of existence. She warns that despite the accomplishments, occupational science researchers need to be wary and not become complacent in their work (Clark, 2006).

Moving Forward: Multidisciplinary Research

In 1990 Yerxa and her colleagues stated that one of the positives to occupational science is that it is interdisciplinary (Yerxa et al, 1990, p. 5), and with intent to also be multidisciplinary (Molke, Laliberte-Rudman, & Polatajko, 2004). However by studying occupational science publications from 1990 to 2000, growth in multidisciplinary research lags behind the growth of the discipline itself. Glover (2009) also found that

from 1996 to 2006, the majority of authors in these publications were occupational scientists. Those that contribute outside the discipline's are often in a social science. This study raises the question as to whether the professions attention to qualitative research methods could impel other disciplines away given their long legacy in quantitative methodologies (2009, p. 99).

A possible reason for the lack of collaboration between disciplines could be due to the perceptions of the basic tenets of occupational science that makes persons in other professions reluctant to make contributions to the discipline (Molke, Laliberte-Rudman, & Polatajko, 2004). While many occupational scientists have background or have explored other disciplines, they maintain common methodological agreement and study in the same academic department. The lack of involvement with other disciplines constrains occupational scientists to "a closed bubble", rehashing topic after topic with an occupational science lens (Clark, 2006, p. 170). Through collaboration the discipline has the potential to add perspectives not yet explored, which will enrich the study of occupation.

Conclusion

Occupational science "provides a holistic approach to studying occupation when the majority of other disciplines cut it into chunks for isolated investigation" (Glover, 2009, p 101). Occupational Science research continues to grow, as the phenomenon of human occupation is infinite and crosses a variety of contexts (Rudman et al., 2008). Ongoing reflexivity on the "methodologies being employed, topics being explored, and

direction" of occupational science, guides the profession's growth and development (Molke, Laliberte-Rudman, & Polatajko, 2004, p. 271; Rudman et al., 2008, p. 136).

However, researchers must not rely on this data to confirm that the discipline is safe. Researchers should be open to ideas from other disciplines to support other realities that may occur outside of occupational therapy (Molke, Laliberte-Rudman, & Polatajko, 2004). A weakness of the discipline of occupational science is that after twenty years, occupational scientists and therapists contribute the majority of the research. In order to increase breadth of knowledge, occupational scientists need to reach out to other disciplines to contribute without a loss of disciplinary identity.

CHAPTER 3

BACKGROUND

Pierce et. al completed a study to identify patterns of research in the first five years of the SSO conferences because of the society's primary goal to produce research on occupational science. The study looked at the abstracts, rather than the publications themselves to

> "1) offer a perspective based in a community of scholars in ongoing interaction, 2) reflecting the regional perspective of the country of origin of occupational science, and 3) offering analysis of occupational science research prior to the screening effect that the editorial policies of various journals may exert on the degree to which different types of occupational science research easily find a publication venue (Pierce et al., 2010, p. 205)."

They used a grounded theory methodological approach to explore the abstracts, specifically the varied types (data-based vs. non data-based), populations addressed, focus in relation to occupation, and perspectives on occupation (Pierce et. al, 2010).

Study Purpose

The first purpose of this research study was to identify and describe research patterns in the second 5 years (2007-2011) of peer-reviewed presentations at the SSO:USA. The second purpose was to compare the data from the second five years to the results of the previous study conducted by Pierce and colleagues to explore descriptive

trends across ten years. Quantitative descriptive methods were used to examine 199 data-based, peer-reviewed presentation abstracts, from 2007 to 2011. All data used was publicly available on the SSO:USA website. The peer-selected presentations were primarily offered as single papers, although related presentations were sometimes combined into panels, and there were also a few discussion forums that fit the inclusion criterion. Excluded from the research analysis was the Ruth Zemke Lecture in Occupational Science so that the results showed a true representation of research endeavors of occupational scientists presenting at the SSO:USA.

<h3 style="text-align:center">Research Design</h3>

The process began with three individuals meeting to discuss the possible implications of such a research project. It was then discussed if it would be more appropriate to study the second five years separately, study the second five years and compare the information already published on the first five years, or completely set aside the first study and examine all ten years together with a new perspective and methodological approach. It was decided that continuing the second five years, using the information already published would provide a thorough and appropriate data set for comparison and contrast.

The researchers decided to use an ex post facto design for this current study. In ex post facto the phenomena have already occurred and cannot be manipulated (Depoy &Gitlin, 2005, p. 106). The 199 data based abstracts from 2007 to 2011 were coded for methodology, including: qualitative/quantitative/mixed methods and subtypes of research methods. Based on the multidimensional nature of occupation, occupational science

investigation can be focused at the individual, group, community, or global level (Whiteford, 2003, p.44). For a more detailed analysis, theoretical perspectives were reported as: degree of individualism in how occupation was addressed, and in attention to gender, disability, and disadvantage. The degree to which research addressed domestic versus international populations was also coded for examination.

Research Question

1. Looking at the second five years of abstracts presented at the Society for the Study of Occupation:USA, what research foci are being presented?

2. What research trends are evident across ten years of evidence-based abstracts presented at the Society for the Study of Occupation:USA?

Procedure

A team meeting was held in January 2012 to discuss the possibility of continuing the research of *Occupational Science: A data-based American perspective* in analyzing the data-based abstracts from 2007-2011. At the end of the first research study, the authors discussed further questions that could be explored to further synthesize the direction of occupational science, such as "Is occupational science too individualistic, and is it too qualitative? Or, rephrased, is the focus on the experience of the individual a defining characteristic of occupational science that can be traced to many origins? And, are qualitative methods the appropriate response to that disciplinary focus?" (Pierce et al., 2010, p. 212). They then go on to explain, "Answers to these questions can only be provided by analysis of future patterns of occupational science research" (Pierce et al., 2010, p. 212). By continuing the analysis to include the next five years of the SSO data-

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based abstracts, the team is attempting to provide this further analysis.

After consideration of the implications of the research, the team continued to discern the research methodology that would be used for the study of the second five years of abstracts from SSO. It was decided that an ex post facto design would be used because it allows for examination of relationships between specific variables (Depoy & Gitlin, 2005, p. 106). At the end of the meeting, a rough timeline was constructed to guide the research process. *Table 3.1* shows the final timeline of the research project.

Table 3.1 Research Process and Timeline

Month	Research Task	Product	Collaborators
Feb 2012	Code Methodology	4 Coding Schemes	1 Individual
March	Combine Research Methodology through Group Discussion	Team Coding	Team of 3
April	Team focus shifts to Group Discussion on Population Sub-codes	Descriptors Defined	Team of 3
May	Code Population and Perspectives on Occupation	5 Coding Schemes	1 Individual
August	Combine Research Population through Group Discussion	Team Coding	Team of 3
September	Focus shift to trends across ten years	Initial Descriptive Analysis of Codes	1 Individual
October	Team Collaboration and Independent Work	Descriptive Analysis of Codes Finalalized	Team of 3

Analysis

The researchers used an ex post facto design for the analysis of SSO data-based

abstracts from 2007 to 2011. Following this design method, the researchers replicated and

applied the codes that were developed for analysis in the first study to this study, which

permits consistency needed to merge all ten years of data-based abstracts for trend

analysis. The main author completed the majority of the coding, but utilized the team to

calibrate abstract coding. The team deferred to the senior researcher, who also

participated in the previous study, when unable to reach a consensus about a code. *Figure*

3.1 shows the final codes that were developed for analysis of the data.

Research Methodology
      Type of research
      Data collection methods
      Analytical Process
Populations Addressed
      Disability/Disadvantage
      Gender
      Age
      Domestic/International
Perspectives on Occupation
      Individual alone/individual shared context
      Shared group characteristics/population level
      Co-occupation at dyad/group/community level

Figure 3.1 Primary Codes of the Analysis (on data-based abstracts only)

Trustworthiness

Triangulation was used by the research team to increase the trustworthiness of the

study. Four team meetings were scheduled to allow for review, discussion, and

discernment of the data-based abstracts. In the meetings, those abstracts that the lead researcher could not designate under a code were presented to the team members for individual review for their analysis and then discussed to have a mutually agreed upon code.

The definitions for each code were procured from the memos composed in the first study. However, two definitions, community and individual, were not formally defined in the memos. In this case, the team deferred to the senior researcher, who was a leading team member in the previous study. Although the researcher referred to the definitions, reliability in applying the definitions is in question due to human interpretation and bias.

Methodological Assumptions

1. New constructs or categories were not created to describe this study. Instead the team decided to continue the previous study's codes. It was assumed that these codes are sufficient in describing the data from 2007-2011.

2. Descriptive research will provide an analysis sufficient enough to convey trends in data from 2007-2011.

3. Counts in both studies are consistent because of the lead researcher's involvement in the previous study.

4. The abstracts, as found on the public domain "sso-usa.org", were accurate in describing the research that was actually presented at the conference.

Limitations

1. The primary contributor is not yet an experienced occupational scientist researcher and has had little experience in quantitative descriptive methods.

2.   Although definitions were generated and referred to persistently, there was room for varied interpretation due to human bias.

3.   The authors recommend exercising caution when generalizing results as abstracts analyzed were brief, and often unclear or insufficiently descriptive, and the accuracy of the preliminary abstracts in portraying presentations is uncertain.

4.   Many abstracts discussed or studied multiple populations, causing an overlap in data collection.

CHAPTER 4

RESULTS

The following chapter presents descriptive statistics of each code analyzed. The results of the data include a comparison of the first five years and the second five years of abstracts from the SSO:USA.

Methodology

2002-2006. During the first 5 years of the SSO:USA, 108 out of 184 (59%) presentations were based in original data and reported results of research. Of those studies, 91 of 108 (84%) were qualitative, 7 of 108 (7%) were quantitative, and 10 of 108 (9%) employed mixed methods (*See Figure 4.1*). Where qualitative approaches were specifically identified, grounded theory was used in 17 of 91 (19%) of research reports, narrative in 10 of 91 (11%), phenomenology in 6 of 91 (7%), and ethnography in 5 of 91 (6%) (*See Figure 4.2*).

2007-2011. During the second five years, 199 out of 289 presentations were based in original data and reported results of research. Of those studies, 148 of 199 (75%) were qualitative, 19 of 199 (10%) were quantitative, and 30 of 199 (15%) employed mixed methods (*See Figure 4.1*). Where qualitative approaches were specifically identified, grounded theory was used in 28 of 148 (19%) of research reports, narrative in 8 of 148 (5%), phenomenology in 32 of 148 (22%), and ethnography in 25 of 148 (17%) *(See Figure 4.2)*.
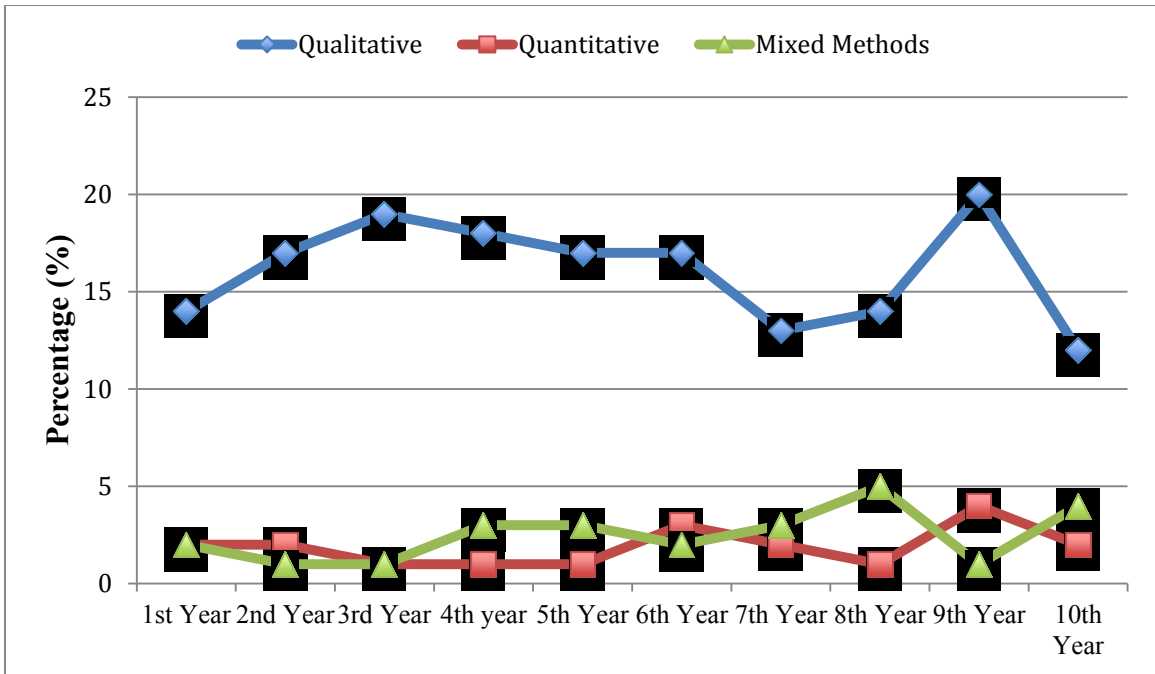
Figure 4.1 Data Methodology Comparison Across Ten Years (2002-2011)

84% Qualitative   7% Quantitative 9% Mixed Methods   *75% Qualitative 10% Quantitative 15% Mixed Methods*
1st Five Years   *2nd Five Years*
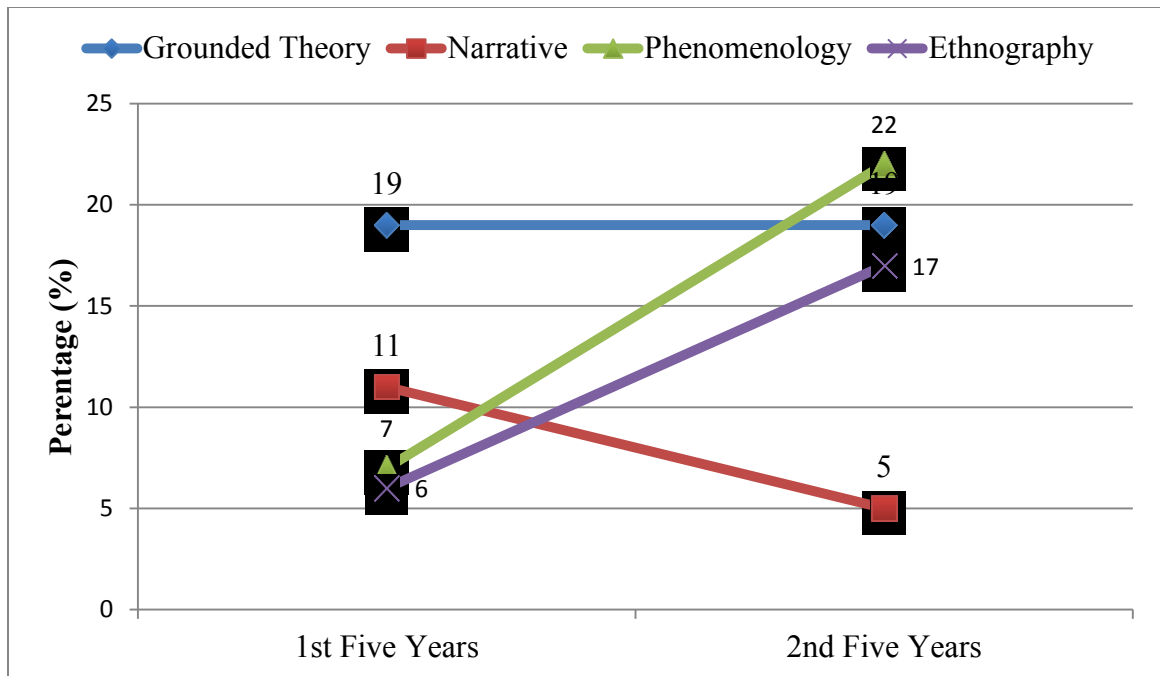
Figure 4.2 Comparison of Qualitative Methodology

<center>**Population**</center>

The 199 data-based abstracts from 2007-2011 were analyzed in terms of

populations studied, specifically gender, age, whether describing a disability or

disadvantage, and location of the research study.

Gender

2002-2006. Gender was not explicitly stated in 42 of 108 (39%) of the data-based

abstracts. When gender was clearly specified in 66 of 108 (61%) abstracts, 28 of 66

(42%) mentioned women, 8 of 66 (13%) mentioned males, and 3 of 66 (4%) mentioned

non-heterosexual individuals *(See Figure 4.3)*.

2007-2011. Gender was not explicitly stated in 6 of 199 (6%) of the data-based

abstracts. When gender was specified in 94 of 199 (94%) abstracts, 51 of 94 (48%)

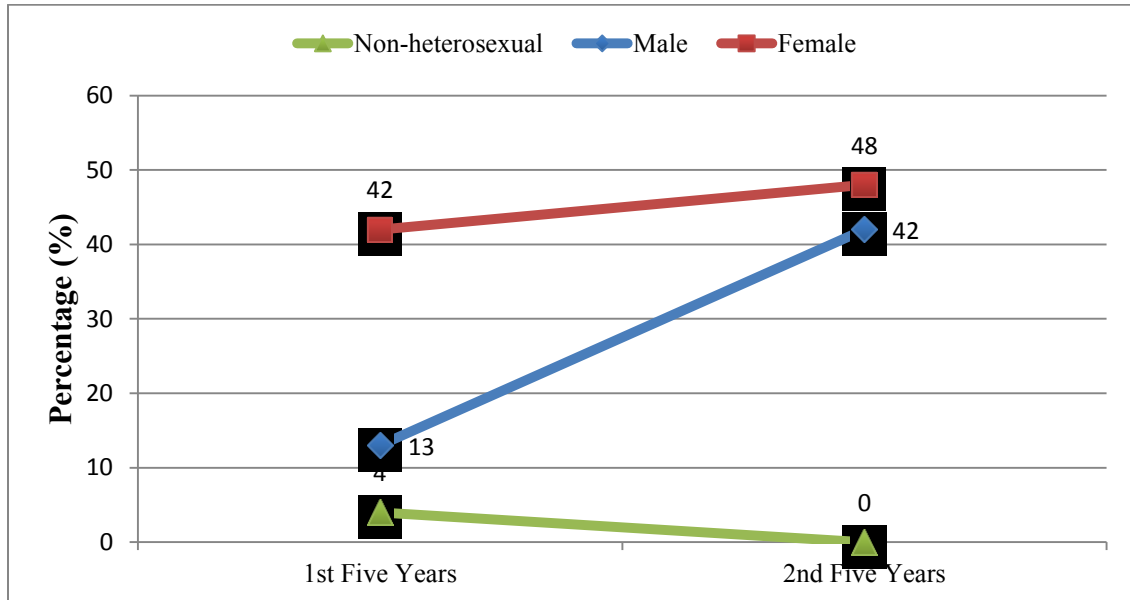discussed females, 44 of 94 (42%) discussed males *(See Figure 4.3)*.

Figure 4.3 Gender

Age

 2002-2006. Age was described in 93 of 108 (86%) of the data-based abstracts.

Adult was the age group most studied, making up 56 of 93 (59%) of the data-based

abstracts. Older adults were studied in 35 of 93 (38%) of the time and people under the

age of 18 constituted 26 of 93 (28%) of research presentations *(See Figure 4.4)*.

 2007-2011. Age was described in 180 of 199 (90%) of the data-based abstracts.

For the abstracts that described age, 180 (90%), 27 (14%) discussed those under 18, 51%

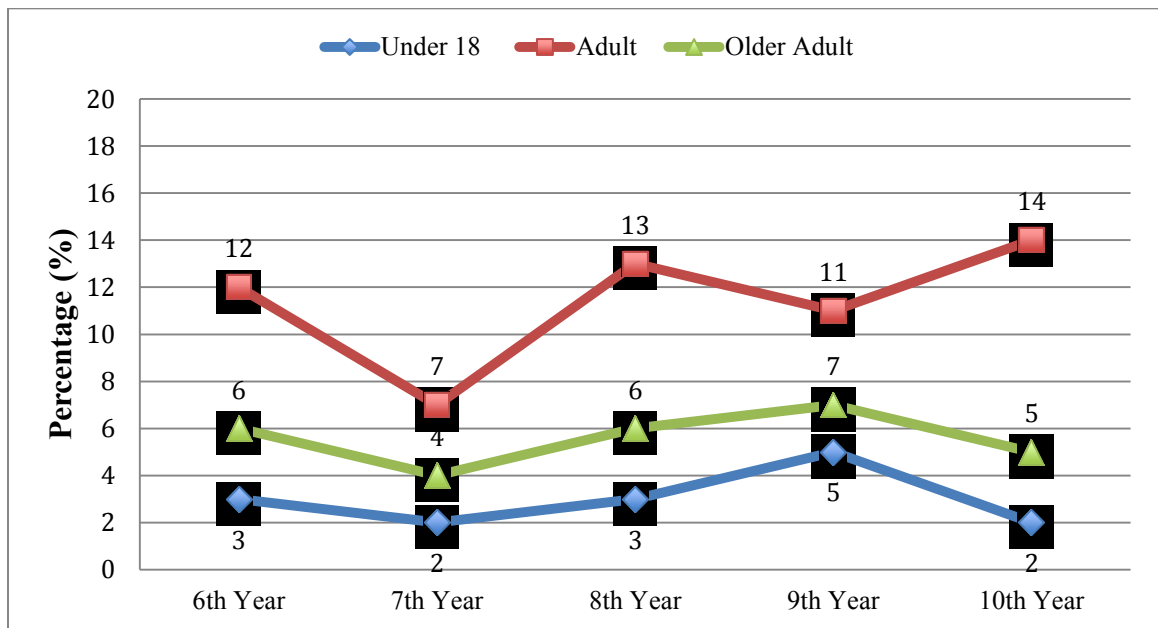discussed adults, and 26% discussed older adults *(See Figure 4.4)*.

Figure 4.4 Age

	1st Five Years			2nd Five Years	
Under 18 (28%)	Adult (59%)	Older Adult (38%)	Under 18 (15%)	Adult (57%)	Older Adult (28%)

Disability/Disadvantage

      2002-2006. Of the data-based presentations, 35 of 108 (32%) addressed persons with disabilities. However, 15 of 108 (14%) of studies examined occupations in persons who, although they were not disabled, could be considered disadvantaged (i.e. victims of racism, prisoners). In combination, 50 of 108 (46%) of the data-based abstracts focused on participants with a disability or a clear disadvantage. Some overlap resulted from studies comparing groups with and without disabilities or disadvantages (*See Figure 4.5)*.

      2007-2011. Of the data-based abstracts, 59 of 199 (29%) discussed a disability (i.e. Alzheimer's), 32 of 199 (16%) of the studies focused more on disadvantage, which includes those that might not have a disability, but could be considered disadvantaged (i.e. immigrants) and 110 of the 199 (55%) of the abstracts did not fit into either category. Some overlap resulted from studies comparing groups with and without disabilities or disadvantages *(See Figure 4.5).*
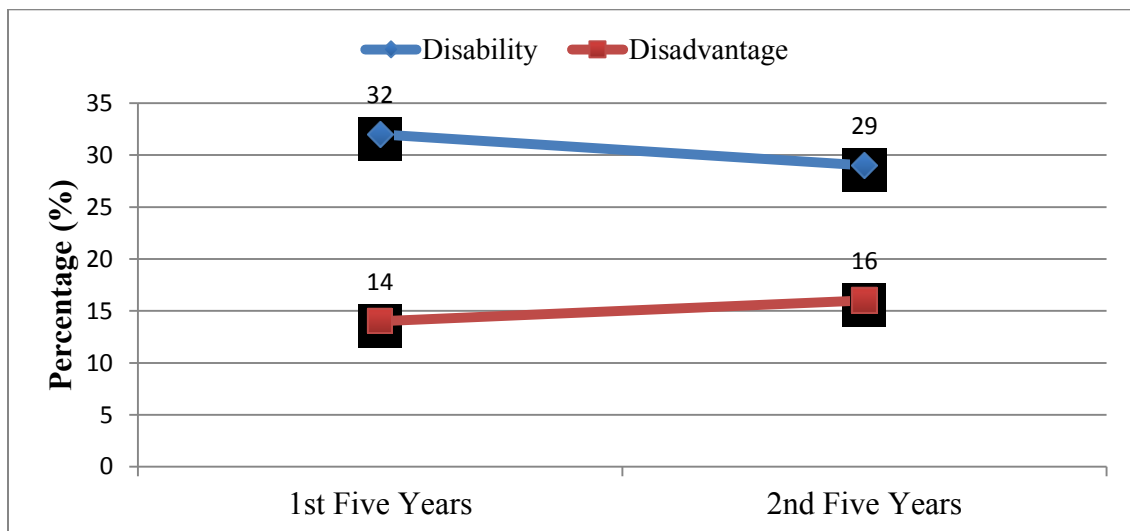

Figure 4.5 Disability/Disadvantage

Domestic/International

2002-2006. Eighty-seven of 108 (81%) of the data-based abstracts focused on US populations, and 21 of 108 (19%) on international. In 2005, when the meeting was held on the east coast, there was a spike to 7 of 17 (40%) of data-based abstracts focused on international populations. Studies of international populations were primarily conducted in countries beyond the United States (e.g. in Japan by Japanese researchers)

When the context of the research setting was specifically identified, 16 of 87 (19%) of studies occurred in a home, 13 of 87 (15%) in the community, 13 of 87 (15%) in a clinic or healthcare setting, 11 of 87 (13%) in schools, 3 of 87 (4%) in urban settings and 6 of 87 (7%) in rural settings *(See Figure 4.6)*.
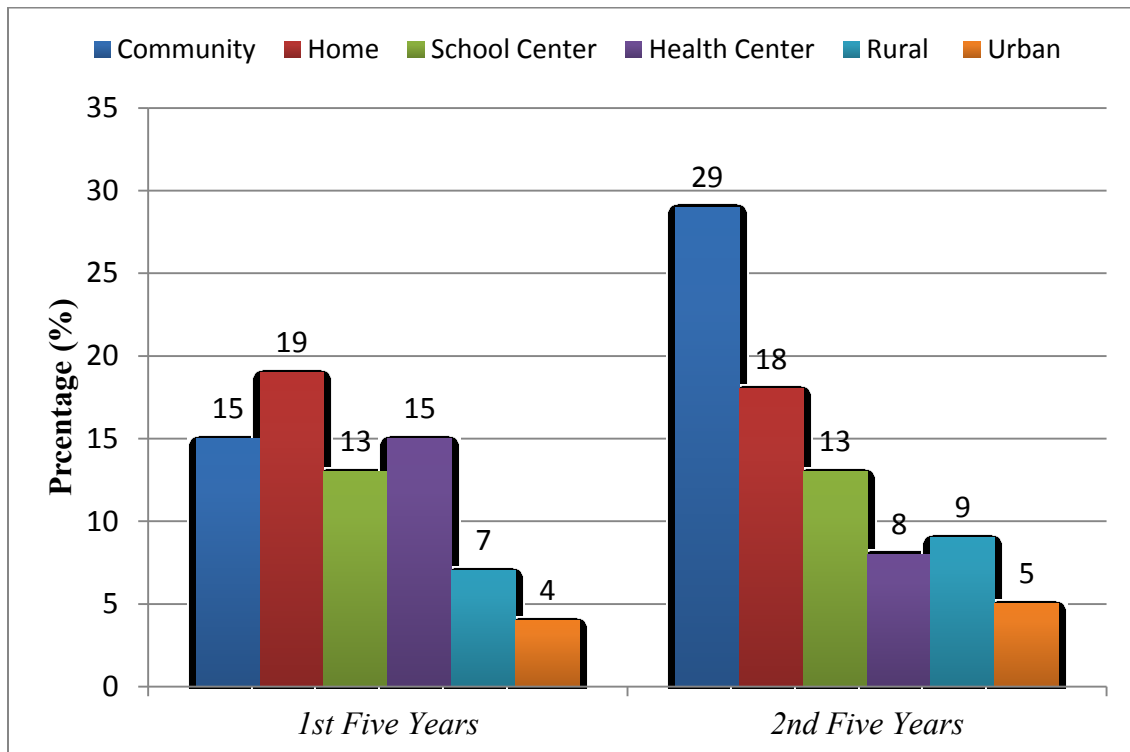

Figure 4.6 Location of Research

2007-2011. 130 of 199 (60%) of the data-based abstracts were authored by domestic researchers or were focused on domestic populations. 57 of 199 (29%) of the data-based abstracts were authored by international researchers or were focused on international populations. Some overlap existed because researchers chose to focus on both international and domestic populations. 11% of the abstracts were not specified as to where the researcher was from or the location of the population they studied. From 2007 to 2011 the majority of abstracts focus was on domestic persons, with one exception. In 2010 there was a joint conference between SSO:USA and CSOS (Canadian Society of Occupational Scientists), which took place in London, Ontario. During this year more abstracts were international (30), than domestic (18).

When the context of the research setting was specifically identified, the majority of the abstracts focused on the community environment (29%), followed by home (18%), school (13%), health center (8%), urban (9%), and in a rural setting (5%) *(See Figure 4.6)*. The location or focus of the research setting was not specified in 43% of data-based abstracts. Similar to the age category, there was overlap as many abstracts could focus on multiple settings.

<center>**Perspectives on Occupation**</center>

Individual alone/individual shared context

  2002-2006. Only 13 of the 108 (12%) abstracts of reported research focused on
individual experience, including purely individual interpretations of occupation, 4 of 108
(4%), as well as clearly individual perspectives on occupations within a shared social
context, 9 of 108 (8%) *(See Figure 4.7)*.

  2007-2011. Only 27 of the 199 (14%) abstracts of reported research focused on
individual experience, including purely individual interpretations of occupation, 9 of 199
(5%), as well as clearly individual perspectives on occupations within a shared social
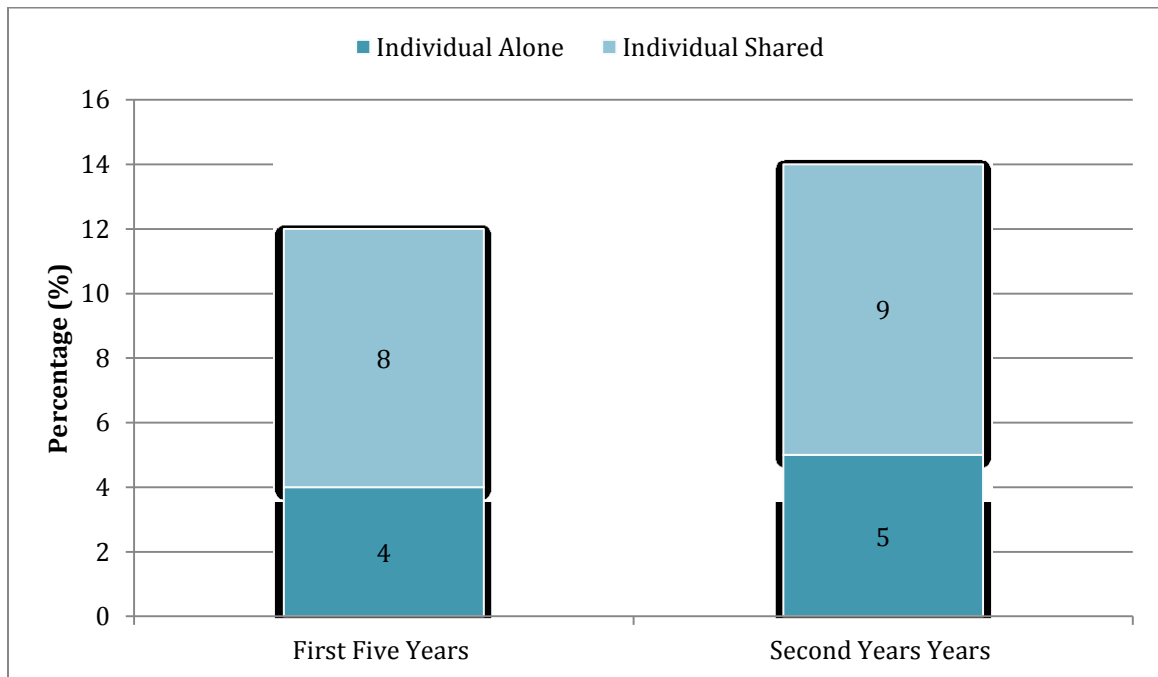context, 18 of 199 (9%) *(See Figure 4.7)*.

Figure 4.7 Occupational Experience: Individual

Shared group characteristics/population level

2002-2006. The second and largest type of data-based abstracts in terms of perspective on occupation, 72 of 108 (67%), included studies that examined occupation from the perspectives of like individuals: primarily studies of individuals with shared group characteristics, 71 of 108 (66%), and 1 of 108 (1%) was a study at the population level. *(See Figure 4.8)*

2007-2011. The second and largest type of data-based abstracts in terms of perspective on occupation, 146 of 199 (73%), included studies that examined occupation from the perspectives of like individuals: primarily studies of individuals with shared group characteristics, 140 of 199 (70%), and 6 of 199 (3%) was a study at the population level *(See Figure 4.8)*.
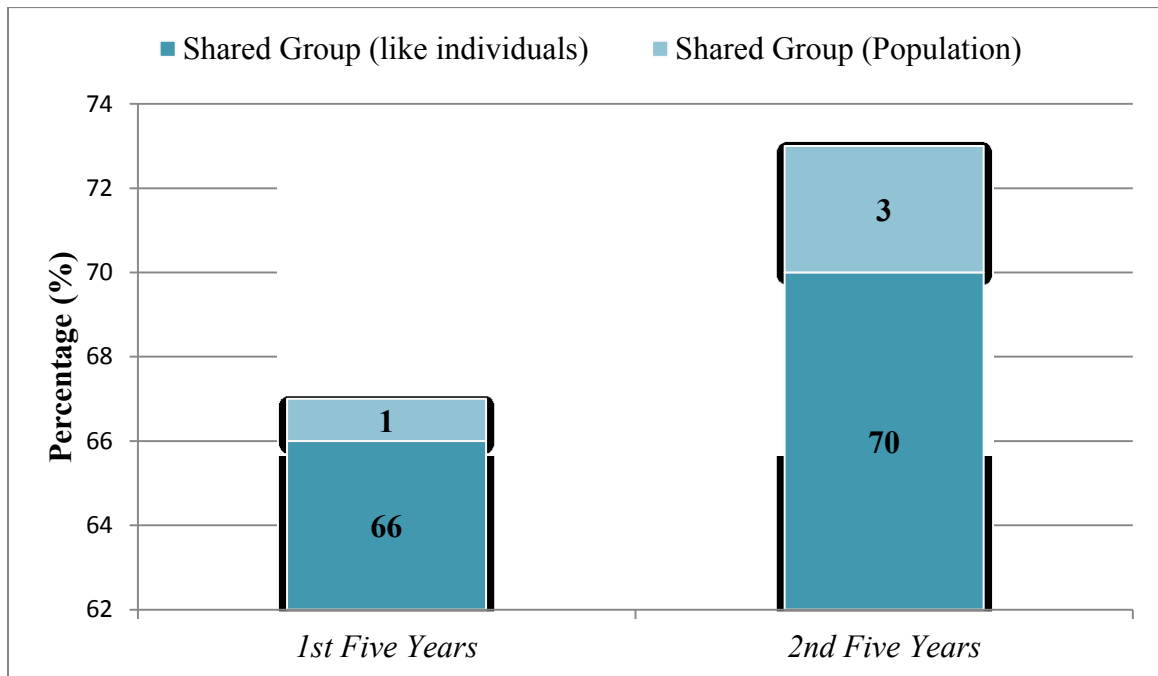

Figure 4.8 Occupational Experience: Shared Group

Co-occupation at dyad/group/community level

2002-2006. The third type addressed occupation as it was interactively experienced by multiple individuals in 23 of 108 (21%) abstracts, including co-occupation within a dyad, 8 of 108 (7%), in an ongoing group with established relationships, 13 of 108 (12%), and at a community level, 2 of 108 (2%). *(See Figure 4.9)*

2007-2011. The third type addressed occupation as it was interactively experienced by multiple individuals in 25 of 199 (13%) abstracts, including co-occupation within a dyad, 14 of 199 (7%), in an ongoing group with established relationships, 10 of 199 (5%), and at a community level, 2 of 199 (1%) *(See Figure 4.9)*.
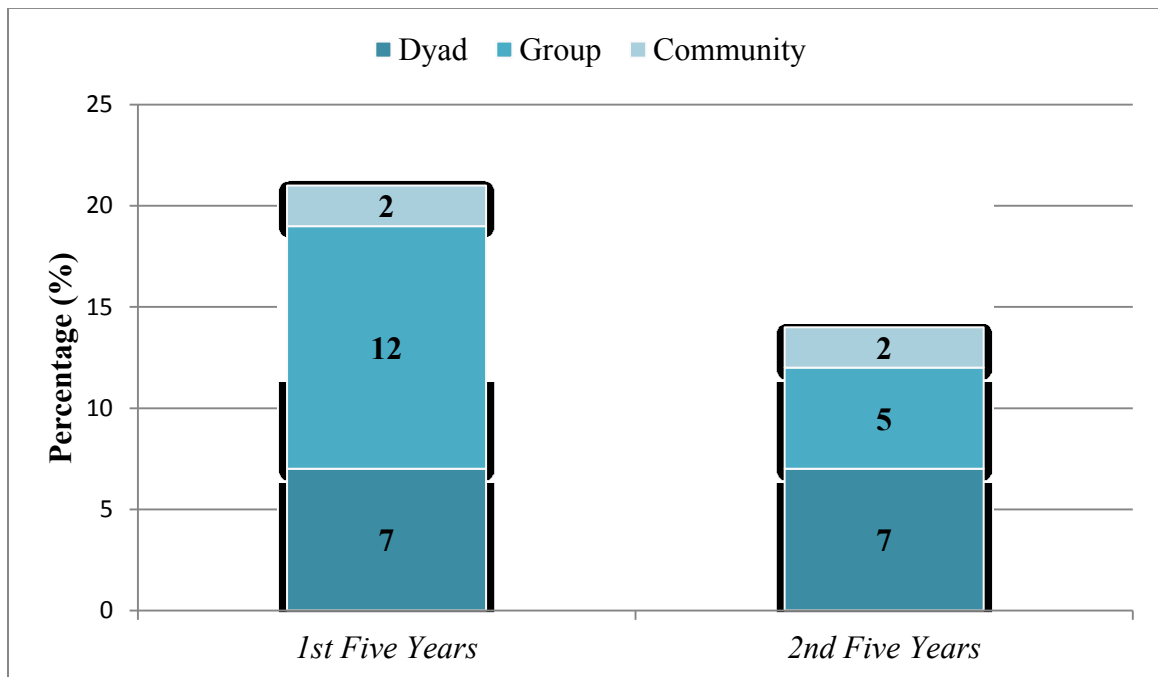

Figure 4.9 Occupational Experience: Co-occupation

CHAPTER 5

DISCUSSION

Trends in regional perspectives of occupational science scholars emerge in the research abstracts presented at the SSO conference. By looking at research presented at SSO: USA across ten years, more descriptive trends can be exposed. Molke et al. proposed, "In order to gain a deeper and more complex understanding of the status of occupational science, a systematic examination of its international growth and development is necessary" (2004, p. 271).

Given that there is debate for occupational science research focusing on the individual, as well as Western epistemology, it is important to include scholars from a variety of geographical and cultural locations to expand how it is conceptualized and studied, thus increasing the societal impacts (Rudman et al., 2008). Though SSO:USA is primarily targeted towards research in the United States of America, the society does not limit itself to this geographical area. Data across ten years shows that there is increasing input from other cultures and regions of the world. Rudman et al. suggested that an international approach can, "expand on existing theories, raise awareness of the assumptions underpinning existing concepts, and help guard against assumptions of universality" (2001, 1999, as cited in Rudman et al. 2008). Occupation is a worldwide concept and limiting the scope can hinder the discipline's growth and development.

 SSO:USA is growing, given the rise in the number of data-based abstracts over the second five years when compared to the first five years. During the joint SSO:USA

and CSOS conference, more abstracts were included, which is likely what caused the jump in the number of data-based abstracts for that year. Due to this rise, the data collected in this study is represented in percentages to more clearly compare the first five years to the second, as opposed to using solely a numerical count.

Methods

Qualitative studies continue to be the most employed method of presenting research across the ten-year span, although there is a slight decrease in this methodology over the second five years, giving room to a slight growth trend in mixed methods and quantitative research. When comparing qualitative methodology across ten years, grounded theory continues to be the most common means for collecting data. There has been a decrease in narrative research, but a rise in phenomenology and ethnography. Although qualitative is the most popular method, as it allows for control of "nuisance variables" in traditional experimental procedures, there is debate considering the reliability and validity of qualitative measures (Custer, 1998). Given the majority of SSO research is qualitative, debate surrounds the reliability and validity of the data for clearly representing the study of occupational science. Mentioning the reliability of qualitative measures as a concern would support the government and hospital officials' demand/desire/need for quantitative research. This concern drives government and hospital officials' demand for quantitative research. SSO researchers are increasingly choosing research methods containing a quantitative component. Although the exact reason for this change cannot be verified at this time, it can be juxtaposed that researchers

are moving more to research that will be recognized by research professionals with an appeal to government personnel as well.

Population

In terms of population studied, some categories were more varied from the first five years to the second five years, while other categories remained more consistent across the entire ten years.

Gender

More researchers in the second five years are clarifying the gender addressed in the study, allowing for a more equitable amount of research considering both male and female populations. Given the increased news and discussion considering gay/lesbian/bisexual/transgender persons, it is interesting that there were no reports in the second five years considering this gender group. Perhaps, this group was included in non-data based abstracts or it was not part of a research project because of the sensitivity of the topic within the American culture.

Age

There remains an unclear definition of age in the abstracts. All ages mentioned in the study are counted, which means one abstract can have up to three ages (under 18, Adult, Older Adult). This decline is supported by the rise in more studies focusing on one target age group or describing a research measure (i.e communal prayer, research on a model). It is interesting to note that despite a rise in the number of "Baby Boomers" reaching retirement age, there was no significant increase in the amount of research on older adults.

Disability/Disadvantage

There was a decline in the overall number of studies describing a disability and a slight increase in studies looking at disadvantaged persons. These results may not be reliable, given that a study can discuss both a disability and a disadvantage. More researchers are focusing on others without disabilities (i.e. experiences of freshman college students). This perspective can aid occupational scientists in a more complete study of occupation, as the intent of the discipline is to study occupations of all kind, hindered or not.

Domestic/International

The data reveals that from the first five years to the second five years, there was a strong increase in the number of international-based research. Within each group, there was one year (2005 and 2009) contributing to an increase in the rise of international research. Across the years, research shifted with a primary focus on studies in the community environment with a decrease of research conducted in a health center. The remaining contexts did not significantly change from the first five years to the second five years (home, schools, urban, and rural settings). Often location of the research was not specified within the abstract. As with other categories, an abstract could discuss multiple settings, which could produce a skewed depiction.

Perspectives on occupation

These perspectives remained fairly consistent across the ten years of data-based research. Occupational experiences on an individual level, both "shared" and "alone" only increased slightly in the second five years. As "community" is a top location across

ten years that was specified or described in data-based abstracts, it is not surprising that "shared occupations" continue to be the largest category for describing occupational perspectives. Although the percentage of abstracts discussing co-occupation in a dyad or community remained the same across ten years, there was a decrease in the number of abstracts discussing co-occupation in a group setting.

By describing research patterns, occupational scientists can process their past impact and develop goals for the future. Such questions as:

Is the discipline recognized by the greater society and policy makers? Are occupational scientists embracing a multidisciplinary approach to spread to capitalize on the body of knowledge? Are there issues that are being rehashed that aren't moving forward to benefit the society-at-large?

Help researchers more clearly identify areas of need in occupational science research. Related to societal meetings, researchers can use this information to more clearly identify their research intention in their abstract to prevent the reader from a cloudy interpretation. Clarity only alludes to a more global view, giving occupational science a more positive impact among all research disciplines, among governments, and among all human beings.

Implications for Occupational Therapy

Given that occupational science seeks to enhance human lives and address societal needs**,** occupational therapy needs the support of this research to "remain responsive to societal needs and be valued by third-party payers, consumers, the government, and the general public (Clark, 2006, p. 173). Occupational Science is "empowered by the values of occupational therapy (Clark et al., 1991, p. 307). Likewise,

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occupational therapy needs the support of occupational science research as a means to objectively support the value of occupation (Clark et al., 1991, p. 307).

Recommendations

1. Upon examining abstracts, researchers were often vague in many descriptors of their study, which may be due to their lack of research and or results at the time of the abstract submission deadline. However, authors should provide as much specific information as possible before submission deadlines. In addition, to ensure consistency of the research within each abstract, authors should aim to state at a bare minimum: purpose of the study, research methodology, population, gender, and age group (if studied). Although not necessary to this study, I did find it helpful to have some discussion and the implications of the research to enrich my understanding of what was being studied and presented. The last two descriptors are also enjoyable when attending a research conference to provide more information prior to the actual research presentation.

2. This study is an initial description and preliminary comparison between data-based abstracts presented at the SSO: USA from 2002-2011.

2. The use of quantitative methodology limited the nature of results that could be found. While providing a robust analysis of specific trends, the analysis did not address issues such as shifts in occupational science's organizing constructs, which would require more in-depth qualitative analysis. For example, examination of this same body of literature using discourse analysis, such as that

provided by Molke et al. (2004) in an earlier study would enable a more detailed characterization of theoretical developments and trajectories within the discipline.

3. Additionally, the coding used provided only broad descriptors of the study sample. Future analysis with greater differentiation in some of the categories would afford deeper understanding of the status and growth of the discipline (Glover, 2009, p. 101).

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