

*The College Misericordia Occupational
Therapy Department's
Graduate Research Presentations:*

*“Knowledge-Creation”
in Occupational Therapy*

April 16, 2005

*McGowan Room
Bevevino Library*

“A Knowledge Creating System”

“(a) Research ... to create generalizable, theoretical knowledge that transcends the particular situation.

(b) Capacity-building, which aims to enhance practitioners’ and clients’ awareness and capabilities both as individuals and collectively.

(c) Practice innovation, which involves creating new visions of what can be accomplished in practice and going on to create the practical tools and approaches that work in the situation to achieve these visions...

Moving rapidly toward the kind of occupation-based practice that has been envisioned will require concentrated efforts to generate knowledge specifically about doing such occupation-based practice with real life clients in real world contexts. The knowledge we generate needs to add not only to what we know, but also to what we know how to do.” (Kielhofner, 2005)

Program

5:30- Welcome- Dr. Grace Fisher

5:40- 6:00

Title: *PEDI and SP Correlation*

Graduate Student Researchers: *Karen Barbose, Sero Bobb, Krista Mcshea, Tracy Morris, and Jason Woodruff*

Faculty Chair: *Dr. Lalit Shah*

Faculty Reader: *Dr. Ellen McLaughlin*

Abstract: *The purpose of this study was to explore the relationship between length of stay in the Neonatal Intensive Care Unit (NICU) with scores on the Pediatric Evaluation of Disability Inventory (PEDI) and the Sensory Profile (SP). In this study, 54 parent/guardians of children between ages 2 and 3 who had stays in a NICU were interviewed using the two standardized assessments. Participation was voluntary and county service coordinators assisted the researchers in locating potential participants. There was no significant correlation found between length of stay in the NICU and the PEDI and SP scores at the .05 level. There was also no significant correlation at the .05 level between length of stay and the functional performance. This study did not find a strong relationship between the NICU and delays or sensory dysfunction in the children, based on scores on the PEDI and SP.*

6:05- 6:25

Title: *Efficacy of Three Infrared Head-Pointing Devices for Mouse Emulation Tasks*

Graduate Student Researchers: *Amanda Berry, Janine Hoffman, Stacey Hershey, Emily Usinowicz*

Faculty Chair: *Dr. Joseph Cipriani*

Faculty Reader: *Dr. Denis Anson*

Abstract:

Objective- *The purpose of this study was to compare the performance of three currently marketed infrared head-pointing devices: Headmouse Extreme by Origin Instruments, TrackerOne by Madentec, and SmartNav by Natural Point.*

Methods- *This study was a single-subject, successive intervention design. For each participant, the performance on each of the three devices was compared. A balanced order design was used to control for order effects by having each participant use the head-pointing devices in a different order. When the participants finished with all three head-pointing devices, each one completed a short survey, asking which device was preferred and for what reasons.*

Results- *No clear leader was identified. Drawing times were the quickest when using the Natural Point SmartNav and slowest when using Madentec TrackerOne. Four out of the six participants demonstrated a consistent number of errors regardless of the device used. SmartNav was the preferred device among 4 out of 6 subjects.*

Conclusion- *As each product displayed both positive and negative attributes, device selection by a user must balance cost, cosmetics, and functionality for specific working environments.*

6:30- 6:50

Title: *Chubon & Dvorak: A Comparison of Alternative Keyboard Layouts*

Graduate Student Researchers: Jackie Doninetz, Christine Hess, Tara Kelly, Kim Roig

Faculty Chair: Dr. Joe Cipriani

Faculty Reader: Dawn Evans

Abstract: *The objective of this study is to compare the Chubon and Dvorak alternative keyboard layouts to determine which is more efficient for persons requiring alternative typing methods. It is the third in a series of studies, comparing various keyboard layouts, with a similar goal. This study was a single subject, repeated measures design testing ten subjects on their typing speed and accuracy on the alternative keyboard layouts. Subjects were required to type sections of the fairy tale Peter Pan for twenty minute trials until fluency was achieved on each alternative layout. At this point in the data analysis, it has been found that subjects who typed faster using the Chubon, had a typical typing speed 14.2% faster than when using the Dvorak. On the contrary, subjects who typed faster using the Dvorak had a typical typing speed 5.8% faster than the Chubon. Data regarding the error rates for each keyboard have not yet been analyzed.*

Future research is planned and intends to compare the results of this study with the other studies in this series for use in the practice of occupational therapy.

6:55-7:15

Title: *An Investigation of the Bedtime Routines and Sleep Patterns of Children with Autism*

Graduate Student Researchers: Kevin Franco, Ann Marie Histon, Lauren Ortman, Kendall Santarelli, & Nick Wadas.

Faculty Chair: Dr. Ellen McLaughlin

Faculty Reader: Dr. Lalit Shah

Abstract: *Children with autism may have significant sleeping problems, in part due to difficulties with regulating level of arousal and responses to sensory input. The purpose of our study was to describe the bedtime routines and the sleep patterns of children ages three to twelve with autism. Fifty-six families responded to a survey in which they identified their child as either a poor or good sleeper and reported the frequency in which they used various time, activity and environment related factors in their bedtime routine. A descriptive analysis was done using SPSS to explore the types of bedtime routines used for both poor and good sleepers. The most commonly reported time factors were having a consistent bedtime and a consistent wake-up. Giving the child a bath, tucking them in and having a bedtime story were the most commonly reported activity factors. Turning out the lights, having a nightlight and providing background noise were the three most frequent environmental factors incorporated into the bedtime routine. Results were discussed relevant to occupational therapy practice and future research.*

7:20-7:40

Title: *The Use of the Developmental Individual –Differences Relationship-Based Model by Occupational Therapists*

Graduate Student Researchers: *Gretchen Fish; Carissa Peppard, Amanda Perry, & Elizabeth Richardi.*

Faculty Chair: *Dr. Ellen McLaughlin*

Faculty Readers: *Dr. Lalit Shah & Dr. Beth Pfeiffer*

Abstract: *The purpose of this study was to explore the use of the Developmental Individual –Differences Relationship-Based Model (Greenspan & Weider, 1998) by pediatric occupational therapists. In-depth qualitative interviews were conducted face to face and by phone with occupational therapists who had a strong commitment to and foundation in the use of the model. Open ended questions tended to evolve around the areas of applicability of the model to the occupational therapy process, benefits and limitations of the model, and integration of the model with other approaches. The constant comparative method was used to develop categories and themes. Results will be discussed in regard to suggestions for future research and implications for practice.*

7:40-8:00 Break

8:00- 8:20

Title: *Paradigm of Life: A Grounded Theory of Occupational Renewal in Persons with Chronic Pain*

Graduate Student Researchers: *Lindsay Albright, Jacky Finelli, Lauren Levine, Colleen Rooney, & Jen Zanghi*

Faculty Chair: *Dr. Grace Fisher*

Faculty Reader: *Dr. Gwen Bartolacci*

Abstract: *The purpose of this study was to explore the daily routines of persons with chronic pain, to analyze the role of occupations in the chronic pain experience, and to develop a grounded theory on the role of occupation in the lives of people with chronic pain. The participants were ten individuals with chronic pain who lived in four northeastern states. Data collection tools included demographic sheets, one open-ended question, the Assessment of Occupational Function (AOF), an occupational configuration, the Rand Quality of Life assessment, and the Mankowski Pain Scale. The data was first reduced into ten separate case studies. The case studies were then analyzed via closed and open coding. Closed coding was conducted according to four occupational risk factors (Cronin-Davis, Lang, & Molineux, 2004). A grounded theory emerged from this coding process. The researchers named this emergent theory the Paradigm of Life. The Paradigm of Life clarifies the relationship between occupation and pain. It also shows how occupational engagement can enhance quality of life in persons who live with chronic pain.*

8:25-8:45

Title: *Chronic Pain and Occupation: An Exploration of the Lived Experience*

Graduate Student Researchers: *Linda Emerson, Camille Firpo, Jan Ptak, and Jennifer Wonn, Faculty Chair:* Dr. Grace Fisher

Faculty Reader: *Dr. Gwen Bartolacci*

Abstract: *Chronic pain affects every facet of an individual's occupational experience. Limited research has been conducted regarding the relationship between chronic pain and occupation. This study explored this relationship, and the lived experience of people with chronic pain, utilizing a qualitative phenomenological design. Participants included 13 individuals with various types of pain. Thematic analysis yielded one main theme: chronic pain is life changing. Four sub-themes also emerged. They were: (a) chronic pain triggers emotional distress, (b) chronic pain reveals the depth of relationships, (c) chronic pain and occupation are reciprocally related, and (d) chronic pain elicits adaptive responses. This study reflects the interaction of occupation and chronic pain and the therapeutic potential of occupation.*

8:50- 9:10

Title: *A Field Test of the Cougar Home Safety Assessment for Older Persons Version 1.0 – Inter-rater Reliability and Study Findings*

Graduate Student Researchers: *Kristen Coolbaugh and Christin Rhodes*

Faculty Chair: *Dr. Grace Fisher*

Faculty Reader: *Dr. Molly Mika*

Abstract: *After reviewing the literature on environmental safety and existing home safety evaluation tools, the researchers developed the Cougar Home Safety Assessment Version 1.0. This assessment is a 56 item assessment tool for identifying environmental safety hazards in the homes of older persons. The first purpose of this study was to field test the Cougar Home Safety Assessment Version 1.0 to determine its inter-rater reliability. Secondly, the Cougar was used to identify specific environmental safety hazards in the residences of older persons during the field test. Three graduate occupational therapy students administered the Cougar 1.0 in the homes of 14 older persons within one county of northeastern Pennsylvania. The participants were then asked to complete a survey pertaining to the assessment process. A survey was also administered to occupational therapy home safety specialists to validate the assessment for content and user friendly format. Using Cohen's Kappa and percent agreement, the Cougar 1.0 was found to have a moderate level of reliability. Some of the most commonly found unsafe areas in the homes of older persons were a lack of grab bars near toilet, no emergency numbers posted near phone, and the presence of non-grip throw rugs. Participant feedback on the assessment regarding the validity and usefulness was positive. Specialists gave much constructive feedback regarding the validity and usefulness of the assessment. The use of the Cougar 1.0 by occupational therapists to identify environmental hazards may potentially increase the home safety of older persons living in the community.*

9:15- 9:35

Title: *Environmental Home Assessment for Older Persons Living Alone*

Graduate Student Researchers: *Alison Baker, Dana Koval, Christine Lishok, Emily Stine, Faculty Chair: Dr. Grace S. Fisher*

Faculty Reader: *Dr. Joseph Cipriani*

Abstract: *The Cougar Home Safety Assessment 2.0 (Cougar 2.0), which was developed for this study, is a 52-item checklist intended for use by occupational therapy practitioners. This assessment addresses fire hazards, carbon monoxide detection, electrical and water safety, emergency readiness, and environmental characteristics in common living areas in and around the home. It was field tested in the residences of 44 adults living alone age 65 and older. As part of the data analysis, the safety criteria were categorized into three primary areas: fire risk, physical injury risk, and medical response. Results indicate an overall mean safety score of 89%, and the fire risk category was found to have the most unsafe criteria. The Cougar is presented in full as an appendix to the paper.*

9:35 Closing Remarks- *Dr. Ellen McLaughlin*