

6th Annual Waldron College Interprofessional Symposium & Expo

April 18, 2019

RADFORD UNIVERSITY

Waldron College of Health and Human Services

Waldron College Center for Interprofessional Education and Practice

Department of Communication Sciences and Disorders | Department of Occupational Therapy

Department of Physical Therapy | School of Nursing | School of Social Work

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Letter from the Dean

On behalf of the Waldron College of Health and Human Services (WCHHS), I want to welcome you to the 6th Annual WCHHS Interprofessional Symposium & Expo. The objective of this event is to develop relationships among the faculty and students in all of the college's programs in the areas of research, scholarship, and service. We are excited to showcase the exceptional research and scholarly work of our faculty and students as well as the service opportunities in which they engage every day. It is our hope that today's event will continue to showcase and promote interprofessional scholarship and service in our college, across the university, and throughout the community.

I would like to thank the following individuals for their support:

- Radford University alumn Sue Payne, '79, for joining us today and providing the keynote address;
- The members of the Waldron College Interprofessional Planning Committee and Peer Review Committee;
- Dr. Corey Cassidy, WCHHS Associate Dean and Director of the Center for Interprofessional Education and Practice, for her passion and energy in promoting and supporting interprofessional education, collaboration, and practice among our faculty, students, and community partners.

Once again, on behalf of Waldron College, I appreciate your participation today. I hope you find our Symposium & Expo to be a rewarding and productive experience.

Best wishes,

Kenneth M. Cox

Kenneth M. Cox, Au.D, M.P.H., CCC-A
Professor and Dean
Waldron College of Health and Human Services
Radford University



Letter from the Associate Dean and Director of the Center for Interprofessional Education and Practice

Dear colleagues and visitors,

On behalf of the Waldron College of Health and Human Services and the Center for Interprofessional Education and Practice, it is my pleasure to welcome you to the Waldron College of Health and Human Services 6th Annual Interprofessional Symposium & Expo. I am excited for today's opportunities to learn about new and unfolding scholarship, to share innovative programs that have been implemented in our college and across campus, and to acknowledge and thank community and clinical partners who work with our students throughout the year.

Our faculty and students have a distinguished track record of disseminating their scholarship and service within venues that involve professional associations with colleagues across the country and within international arenas. Our partnerships with agencies across and beyond the Commonwealth of Virginia ensure that our students experience quality real-world experiences, collaborate across disciplines, and in general, strengthen the identity of Waldron College as a vibrant academic community. Today's program provides us with avenue through which to share and celebrate our college's successful endeavors and partnerships with our colleagues here on campus and across the Commonwealth, including our imminent merger with the Jefferson College of Health Sciences!

The beauty of this event is that it is truly an intra- and inter-professional presentation of projects and programs, providing faculty and students to showcase their work for and with current and future colleagues who may otherwise not have an opportunity to share and collaborate. The themes within and among the presentations span the full programmatic spectrum of the college, across the university, and throughout the community. The subjects also span the globe, as many of the presentations and programs highlight work through which Waldron College's students and faculty have engaged in scholarship and service in a variety of national and international settings. Finally, today's activities serve as a demonstration of the natural collaboration between faculty, students, and community partnerships and how effectively scholarship and service are integrated into the vital commitment to teaching at RU.

As a participant, I am sure you will learn about scholarly opportunities and service endeavors in which you will want to participate while making rewarding new connections for future endeavors at RU. I hope you take advantage of the food, the fun, and the collegiality throughout the day!

Sincerely,

Corey H. Cassidy

Corey H. Cassidy, Ph.D., CCC-SLP
Professor and Associate Dean
Director, Center for Interprofessional Education and Practice
Waldron College of Health and Human Services
Radford University



Keynote address presented by:

Sue Payne, BSN '79, MBA, RN, CHCE

Ms. Sue Payne graduated from Radford University with a Bachelor of Science in Nursing degree in 1979. She went out into the world and served for ten years as a registered nurse on the medical-surgical and critical care floors at Duke Medical Center, Depaul Hospital, and Norfolk General Hospital.



After working for a decade as a bedside nurse, Ms. Payne entered the world of healthcare administration. She first served as an Administrator with American Critical Care Services, followed by the role of Director and eventually Administrative Director for the Bon Secours Richmond Health System. She discovered a distinct interest in serving patients through home care. This passion led to a position as the Vice President of Operations at the corporate headquarters of Life Care Centers of America. While she was with Life Care Centers, Ms. Payne decided to take the next step in her education; in 2008, she earned her Master's degree in Business Administration from the University of Tennessee-Chattanooga.

Her vast education and experience, subsequently, led to positions as Vice President of Home Health with Advanced Home Care, Senior Vice President of Clinical Services at Transpirus, and Vice President of Clinical Services & Innovation at Corridor. Ms. Payne currently serves as the Vice President and Chief Clinical Officer at Corridor, a consulting and outsourcing organization that supports home care and hospice services.

In addition to her impressive employment experience, Ms. Payne has also been extremely active in professional organizations and engaged in volunteer opportunities over the years. She has served as a board member of the Virginia Association of Home Care, committee member on the NAHC-Hospital Home Care Associate of America, and member of the American College of Health Care Executives. Ms. Payne has also been and is currently actively engaged in the Visiting Nurses Association of America; her roles have included chairperson of the Clinical Leaders Interest Group, co-chair of the Education Committee, and as both Board Member and member of the Governance Committee. Ms. Payne was the recipient of the North Carolina Association of Home Care Leader of the Year Award in 2011.

Podium Presentations

[*] at the end of the title indicates session has earned Peer Review designation

A Trio of Teaching Tips for Simulation and Beyond

Christina Keller
Katrina Watson
Stephanie Spangler

School of Nursing
School of Nursing
School of Nursing

Abstract:

The Radford University Clinical Simulation Center is utilizing several new teaching strategies during student clinical rotations. These strategies engage student learners and enhance clinical decision-making skills. Facilitation versus lecturing is a challenge many healthcare educators encounter. Student learner characteristics are changing and evolving with each generation, while flipped classrooms are increasing student driven learning environments. The three methods discussed in this presentation were implemented as a result of enhanced knowledge and growth of facilitators as we constantly strive to meet student focused learning needs in the healthcare disciplines. Comparative thinking exercises help students prioritize patient problems. These exercises take the traditional compare and contrast teaching method to another level that creates an active and engaging discussion that evokes peer learning and a team-based approach to care. Students capture key similarities and differences between identified problems while determining relationships between those problems. The observed result is student use of this visual mind mapping to improve their clinical decision-making skills. Competency driven discussions during the analysis phase of debriefing emphasize the importance of individualized, competent care as students self-identify strengths and areas for improvement during their patient care experiences. In nursing, the Quality and Safety Education for Nurses (QSEN) competencies are incorporated into simulation. However, these competencies are generalizable to other disciplines. Collaborative quizzing is a peer learning strategy that incorporates technology into the summary phase of debriefing. Students participate in lively discussions while providing rationale for their patient care choices before the team decides on the best answer option. Increased knowledge retention has been proven by some recent studies on collaborative quizzing. Each strategy can be used in various settings for both intraprofessional and interprofessional learning experiences.

Barriers and Improvements to Breastfeeding Practices*

Morgan Bishop
Marjorie Young

School of Nursing
School of Nursing

Abstract:

The purpose of this presentation is to discuss the efforts towards promoting breastfeeding at Carilion Roanoke Memorial Hospital (CRMH) and the areas that need improvement in order to increase the rates of exclusive breastfeeding during the patient's stay at the hospital. This project is based on my personal experience as a student nurse extern on the Labor and Delivery unit at CRMH in Summer of 2018. During this experience, I observed how maternity care nurses approach breastfeeding topics with patients. Additionally, lactation consultants and the mother-baby unit director were interviewed, along with attending a breastfeeding staff education session in order to obtain my information. Through my experience, I found that education and support were two major areas of concern in helping to promote breastfeeding at CRMH. These two areas, along with following the Ten Steps to Successful Breastfeeding set by the Baby Friendly Hospital Initiative, are vital in helping improve rates of exclusive breastfeeding at CRMH and other healthcare facilities.

Comparison of Strategies to Increase Influenza Vaccination Rates among Hospital Employees at Carilion Clinic

Megan Barefield

School of Nursing

Abstract:

Influenza is the United States' deadliest vaccine-preventable infection. The Centers for Disease Control reports that receipt of the annual influenza vaccine is the most effective way to combat the illness that affects so many and produced a hospitalization rate of 89.9 per 100,000 (Influenza-Associated Hospitalizations, CDC, 2018). Health care workers are identified as a high-risk population, as they experience increased exposure rates and can serve as unknowing transport mediums for the virus to the most vulnerable populations. Despite repeated support of flu vaccination, hospitals across the country continue to struggle to improve flu vaccination rates among their employees. With an overall compliance rate of 68.8%, Carilion Clinic experienced difficulty vaccinating its health care workers in the 2017-2018 flu season (Oakley, 2019). Carilion Clinic has attempted to incentivize employees to receive a flu vaccination in previous campaigns with little effect. In the 2018-2019 influenza season, the hospital organization is adopting a compulsory policy that requires employees receive the influenza vaccine. This study will present and compare health care workers' flu vaccine compliance rates along with strategies used in flu vaccine campaigns at Carilion Clinic from flu seasons 2016-2017, 2017-2018, and 2018-2019.

Efficacy of Speech-Language Pathology and Music Therapy Collaboration in Treatment of Children with Social Communication/Autism Spectrum Disorder: Case Study*

Robin de Azagra
Corey Cassidy

*Department of Communication Sciences and Disorders
Waldron College of Health and Human Services*

Abstract:

The purpose of this retrospective case study is to investigate the effectiveness of the collaboration between speech-language pathology and music therapy with a young child with a Social Communication Disorder secondary to Autism Spectrum Disorder. The participant in this case is a 4 year, 8-month-old child that presented with a diagnosis of Autism Spectrum Disorder and a Social Communication Disorder. She participated in the Preschool-Language-Lab (PLL) in the summer 2018 through the Radford University Speech, Language, and Hearing Clinic. The PLL has evolved over the past eleven years into an effective, evidenced-based program that integrates both speech-language pathology intervention and music therapy within a collaborative, group-based model. The child attended all eight, 3-hour sessions of the PLL and demonstrated significant improvement in verbalizing to request objects/actions, verbally responding to wh-questions (i.e. who, what, where), and attending to the clinicians when her name was called. Details regarding the child's goals and progress in the areas of expressive language, receptive language, and pragmatic skills will be discussed. Additionally, the contribution of the structure of the program, with a focus on the inclusion of music therapy and the collaboration between speech-language pathology and music therapy clinicians within each structured session will be presented.

Good Fats? Using a Low Carb, High Fat Diet for Type 2 Diabetes and Weight Loss

Mary Brown
Wendy Downey
Taylor Nugent
Liv Morka

Department of Biology
School of Nursing
School of Nursing
School of Nursing

Abstract:

Type 2 diabetes mellitus (T2DM) is a global epidemic. The majority of those who suffer from T2DM are also obese, which further complicates their condition. Recent studies have shown T2DM patients have better control of blood glucose levels while eating a low carb or ketogenic diet. However, the terms 'low carb' and 'ketogenic' tend to be very broad, and more research will be required with precise definitions before entities such as the American Diabetes Association can recommend these diets to patients. A systematic review of 127 studies was completed to gain a greater understanding of the effects of a low carb, high fat diet on the management of T2DM and weight loss. Statistical analysis of the data has not yet been completed, but the results from the studies reviewed are promising. These results will be presented as part of the podium presentation.

Health Concerns and Health Promotion Practices of Commercial Truck Drivers

Iris Mullins

School of Nursing

Abstract:

Background: According to the Bureau of Labor Statistics, there were approximately 1,871,700 commercial truck drivers with heavy and tractor-trailer jobs in 2016. From 2016-2026 employment of truck drivers is projected to grow 6 percent. Health risks for commercial drivers include sexually transmitted infections, high body mass index, sleep apnea, sleepiness while driving, occupational stressors and mental health, and lung and prostate cancer. Higher health risks were found in truck drivers when compared to the general U. S. population for smoking, obesity, hypertension, and stress. Health risk reduction strategies feasible for the truck driver lifestyle are lacking in many of the health promotion efforts aimed at reducing modifiable health risks. **Aims:** To determine commercial truck drivers: (1) health concerns, (2) health promotion strategies currently utilized, and (3) health risk reduction strategies related to diet, exercise, sleep, and stress reduction that could be used in a health promotion program. **Methods:** For this qualitative phenomenological study, 17 commercial truck drivers were interviewed using face-to-face audiotaped interviews. Data was analyzed using content analysis. **Results:** Drivers were worried about becoming obese and concerned with whether or not they would be able to continue doing their truck driving job as they aged. Interviews revealed ways drivers are incorporating exercise into their work schedules, strategies drivers use for acquiring more healthy diet choices and issues of food insecurity such that drivers may only eat one meal a day due to work schedule, cost, and availability of healthy choices of food. **Conclusion:** There is a need for truck stops and food serving businesses to provide economical healthy food choices. Increased parking at interstate rest areas and truck stops, exercise facilities and safe walking trails would provide more ways drivers could exercise and rest.

Identifying Predictors of 30-day Readmissions After Cardiac Surgery

Samantha Hall
Cathy Jennings
Ellen Rachel Lockhart
Eunyoung Lee

*School of Nursing
Carilion Clinic
Carilion Clinic
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Abstract:

Readmissions after cardiac surgery can have a detrimental impact on patient outcomes and the facility's finances. Identifying patients at risk for 30-day readmission can lead to improved patient outcomes and prevent readmissions through close follow-up and monitoring after discharge. A retrospective, case-controlled research study was conducted at Carilion Roanoke Memorial Hospital to: (1) identify the predictive factors of 30-day readmissions after discharge from cardiac surgery, and (2) investigate effectiveness of the currently used risk-stratification scoring systems such as the LACE plus score, the Society of Thoracic Surgeons (STS) mortality risk score, or the STS predicted morbidity and mortality risk score to predict 30-day readmissions in this population. Of 227 patients in the study, 22 patients (9.69%) were readmitted within 30 days of discharge. Our study observed that female gender ($p=0.04$), history of congestive heart failure (CHF) ($p=0.01$), longer cardiopulmonary bypass (CPB) time ($p=0.05$), lower hematocrit during hospitalization ($p=0.03$), receiving postoperative hemodialysis (HD) together or alone with continuous renal replacement therapy (CRRT) ($p=0.03$ and $p=0.03$, respectively), and need for outpatient HD at time of discharge were associated with 30-day readmissions after cardiac surgery. This study could not discover the predictability of the LACE+ score for 30-day readmissions; however, a higher STS predicted morbidity and mortality score was associated with 30-day readmissions ($p=0.03$). The findings of this study suggest that patients who are female, have longer CPB time, have lower hematocrits or history of CHF, require HD during hospitalization, or need HD at time of discharge may benefit from close monitoring and earlier follow-up with the cardiothoracic provider post discharge after cardiac surgery to further decrease hospital readmissions within 30-days of discharge.

Interdisciplinary Service Learning Trip to Jamaica

Allison Campbell-Doss

Department of Communication Sciences and Disorders

Rebecca Epperly

Department of Communication Sciences and Disorders

Mariah Munroe

Department of Occupational Therapy

Katie Rogers

Department of Occupational Therapy

Kiera Rohan

Department of Occupational Therapy

Sarah Smidl

Department of Occupational Therapy

Emily Speaks

Department of Occupational Therapy

Abstract:

In January 2019, eleven COSD and OT students, professors, and practicing professionals participated in a service learning trip to Blessed Assurance, an orphanage for children and adults with disabilities in Montego Bay, Jamaica. The students will describe the interprofessional collaboration that occurred before and during the trip, as well as the experiences that were most meaningful to their development as future health care practitioners.

Perceived Efficacy of Treatments Versus Medication, and Supplements for Healthcare Conditions in Virginia Chiropractic Patients*

Virginia Weisz
Frank Dane

*School of Nursing
Jefferson College of Health Sciences*

Abstract:

Introduction: The use of complementary health approaches (CHA) by Americans has increased over the past few years with CHA most often used to treat acute and chronic musculoskeletal problems including neck and back pain, joint conditions and arthritis. The literature regarding the efficacy of CHA versus conventional treatments for acute and chronic health conditions is limited. This study investigated the perceived efficacy of these treatments for chiropractic patients across Virginia.

Methods: This secondary analysis of a state-wide study explored the demographics, major reported health problems, and perceived helpfulness of CHA and conventional treatments for these health problems and for wellness. A convenience sample of 312 adult chiropractic patients in eleven offices across Virginia were surveyed.

Results: Data analysis comparing the perceived helpfulness of CHA and conventional treatments versus medication and herb and supplement use is underway. The most commonly used treatments listed by participants in descending order of use were chiropractic manipulation, massage, physical therapy, energy work, acupuncture and counseling.

Study participants reported mostly pain-related issues. Strengths of the study included an adequate sample size, a diverse geographic area, and participants that were health conscious and knowledgeable about healthcare. Limitations included the cross-sectional collection of self-reported data, and a sample that was limited to chiropractic patients.

Discussion: Consistent with national data, participants reported a herb and supplement intake including, fish oil, glucosamine, probiotics, Coenzyme-Q-10, melatonin and chondroitin. They also employed chiropractic and massage therapies for both traditionally chiropractic and primary care conditions. Both therapies and supplements were used for health conditions and for wellness. Although the use of CHA in the US has been explored, knowledge regarding the perceived efficacy of treatments, herbs, supplements and medication for acute and chronic health conditions is limited. This state-wide study will contribute to the knowledge base regarding efficacy of CHA and conventional treatments.

Perceived Patient Satisfaction with Traditional Primary Care and Integrated Behavioral Health Care Delivery

Marshall Wigfall

School of Nursing

Abstract:

The integration of physical and behavioral health treatment improves patients' healthcare outcomes. The purpose of this project is to compare consumer satisfaction from two area health care facilities. There are many forms of health care delivery, but this project reviews the traditional primary care facility versus a facility which provides integrated medical and behavioral health treatment. This paper researches patient satisfaction at two area health care facilities. The surveys were completed by patients who received psychiatric and or medical treatment at Richmond Capital Area Health Network (CAHN). True integration of care is occurring at one of the CAHN facilities by having behavioral health and medical providers working together in the same facility. The survey asked (n=50) patients from the Northside Facility and (n=50) from the Glenwood Facility, who attend CAHN to provide feedback about their health care satisfaction. Patients who participated in this research study were also asked to provide information about barriers to treatment. The survey also asked questions to gauge patients' interest in the integration of care. This paper investigates the research question of "Do patients who receive integrated care at one CAHN facility compared to those who receive traditional care at another CAHN facility report higher levels of treatment satisfaction?"

Pilot Study: The Impact of a Diabetes Mellitus Type II Prevention Program in Prediabetes Patients*

Joshua Tucker

School of Nursing

Abstract:

Type 2 diabetes affects an estimated 30.3 million Americans with many more being undiagnosed (Centers for Disease Control and Prevention [CDC], 2017a). Type 2 diabetes, left unmanaged, can have immediate and long-lasting ramifications for those affected (CDC, 2014). Currently, Prediabetes is estimated to affect one out of three Americans, totaling 84.1 million of the population (CDC, 2017a). Prediabetes is diagnosed when fasting plasma glucose (FPG) is between 100mg/dl and 125mg/dl, or the two-hour plasma glucose 75g Oral glucose tolerance test (OGTT) is from 140mg/dl to 199mg/dl, or when hemoglobin A1c (HbA1c) is 5.7-6.4% (American Diabetes Association [ADA], 2017). Studies have shown that 33% of prediabetic patients develop diabetes within five years (AMA/CDC, 2018, p. 1). Disease prevention is the first intervention in combating type 2 diabetes. Interventions for diabetes prevention can range from lifestyle modification to prophylactic prediabetic medication. Diabetes prevention programs are an effective method in prediabetes management. Previous studies have shown that lifestyle modification is effective for diabetes prevention in the prediabetes population. However, there is little research that addresses the efficacy of diabetes prevention programs in rural areas, specifically in rural Virginia. The Centers for Disease Control and Prevention (2017c) created a diabetes prevention program entitled Prevent T2 for prediabetes based on current evidence. The aim of this pilot study is to evaluate if an abridged version of Prevent T2 (a three-session program conducted over six-weeks) will produce positive outcomes. Outcome measures focused on during this study include body mass index change, changes in risk perception of developing diabetes, fasting plasma glucose change, and weight changes. The results of this pilot study will be used to determine and address the feasibility of the initiation of a full Prevent T2 program (a one-year program) in a rural community.

Predictors of Nursing Student Success*

Jerusalem Walker

School of Nursing

Abstract:

Since 1998, there is a growing deficit of registered nurses (RNs), due to an aging nursing workforce and increased rates of chronic health conditions. Nationwide, RN vacancies are expected to exceed one million within the next five years, growing faster than any other profession. Our community college system continues to play a vital role in educating RNs. Associate degree nursing programs educate approximately 60% of RNs in the United States. Minimizing attrition of nursing students has proved challenging, especially at the associate degree level, where demographic diversity poses unique risks. Many associate degree nursing students are “nontraditional” They tend to be older, have family and/or work responsibilities, and may be academically disadvantaged, all risk factors for attrition. Failure in the first semester of nursing school is a significant risk factor for academic non-persistence in nursing school. This study analyzes associate degree nursing student pre-admission test scores at Virginia Western Community College to determine which aspects of the test best predict successful completion of all first semester nursing courses, and overall GPA, in the crucial first semester of nursing school.

Pupil Dilation as a Measure of Cognitive Processing and Literacy Development in Bilingual Children*

Hyejin Park
Mackenzie Nassar

Department of Communication Sciences and Disorders
Department of Communication Sciences and Disorders

Abstract:

The study of literacy development in children has identified the precursory skills to conventional literacy and has identified a strong correlation between these early literacy skills and later academic success. However, significantly less research has been conducted involving the literacy acquisition of bilingual children. The purpose of this study is to investigate Korean-English bilingual children's cognitive processing during shared book reading. Measures of pupil diameter have been proven a valid indicator of cognitive processing demands (Eckstein et al. 2016).

Three Korean-English bilingual children participated in the study and represented the different stages of literacy acquisition. Participant 1 was within the pre-literacy stage in both languages. Participant 2 was within the emerging state in English and the pre-literacy stage in Korean. Participant 3 was within the established stage in English and emerging stage in Korean. Eye movement and pupil dilation data was obtained via eye-tracking technology while each participant engaged in shared book reading of two Korean and two English children's books on the computer. Both between and within analyses were conducted to compare pupil diameters while looking at pictures and print in both languages.

The participants' pupil diameters associated with print significantly increased with progression through the literacy stages in both languages. There was no significant difference between the two languages when comparing the pupil diameters for print for all participants. This indicates that in order to decode and understand the text, participants 2 and 3 processed the Korean written language in a similar manner as they processed English, even though the literacy skills of participant 2 and 3 were more advanced in English than Korean. Therefore, despite a discrepancy in literacy acquisition between L1 and L2, the manner of processing language is similar, indicating the potential of the stronger language to promote literacy development in the less developed language.

Simulation-based interprofessional education with nursing and physical therapy students: Do numbers matter?*

Cynthia Cunningham
Lisa Foote
Shala Cunningham

School of Nursing
School of Nursing
Department of Physical Therapy

Abstract:

Purpose: The purpose of this study is to explore the influence of participant numbers, during an interprofessional simulation learning experience, on the professional students' perceptions of collaborative patient care

Background: The Framework for Action on Interprofessional Education and Collaborative Practice emphasized the introduction of multidisciplinary teamwork should begin during professional education (WHO, 2010). Simulation has been shown to be an effective method to promote interprofessional collaboration within healthcare teams (Hammick, Freeth, Koppel, Reeves, & Barr, 2007; Palaganas, Epps, & Raemer, 2014). Furthermore, professional healthcare students place similar value on learning experiences as observers and participants in simulation (O'Regan, Malloy, Watterson, & Nestel, 2016, Reime et al., 2017). However, the influence of active participation during simulation on students' perceptions of collaborative practice has not been widely explored.

Methods: The Center of Simulation at Radford University developed an interprofessional acute care simulation which was integrated into the professional schools curriculum over several years. The simulation has been revised based on student feedback. The core change to be investigated is the number of professional students interacting with the simulated patient during the scenario. Participating students from both professional programs perform the Interprofessional Socialization and Valuing Scale (ISVS- 21) prior to and following the simulation experience. Data will be analyzed using frequencies for each question and a Wilcoxon matched pairs test to compare pre- and post- means for each individual question. Further explorations will be made through a comparative analysis of the responses from students from the 2017/18 academic year and 2018/19 year.

The Cost Burden of Textbooks in Social Work Education*

Matthew DeCarlo
Kerry Vandergrift

School of Social Work
School of Social Work

Abstract:

The cost of attaining a degree in social work has never been higher. An important factor in the cost of social work education is textbook price inflation. Textbook costs negatively impact student learning by erecting price barriers to accessing knowledge and required course materials. These detrimental impacts are disproportionately concentrated among historically underserved groups, according to empirical studies of undergraduate students across majors.

The Implementation of a Dysphagia Decision-Making Algorithm in Stroke Patients

Lindsay Collins

School of Nursing

Abstract:

The management of stroke patients experiencing dysphagia presents a unique challenge to the inpatient interdisciplinary team. With limited literature to guide practice, outdated and inefficient practices remain in place. Currently, Dobhoff enteral tubes are utilized for short-term feeding, but are often associated with clinical complications including increased length of stay, increased restraint usage, increased cost, and frequent displacement. A research study was completed to determine the effect of a decision-making algorithm on this population's hospital length of stay, restraint use, and cost. The findings of this study determined that the use of a decision-making algorithm had both statistically and clinically significant reductions in all of the variables studied. The expansion of this study to implement a decision-making algorithm as the standard of care in dysphasic stroke patients was proposed. Implementation of this evidence-based protocol aimed to increase efficiency, contain costs, and improve clinical outcomes. The PICOT question, review of literature, critical evidence appraisal, synthesis of the evidence, and implementation protocol are presented.

Using Maslow's Hierarchy of Needs to Understand the Transition to Graduate School*

Sheila Krajnik
Judith Ismail

Department of Occupational Therapy
Department of Occupational Therapy

Abstract:

Beginning graduate school can be an overwhelming experience dominated by changes in roles, restructuring of routines and habits, and shift in one's balance of daily activities. The researchers employed a phenomenological design to explore perceptions of this experience among 33 graduate students during their first semester of a full-time entry-level Master of Occupational Therapy program. Maslow's hierarchy of needs was applied as a means to understand the barriers and facilitators as students' transitioned into graduate level education. One overarching theme, turbulence and rebalancing, and four superordinate themes emerged: (I) anxiety, (II) contextual stress, (III) social supports, and (IV) self-determination. The stages the participants appeared to go through were cyclical in nature, where students experienced a recurring movement of turbulence and rebalancing, progression and regression, as they moved from undergraduate to graduate education. Across themes, the concept of self-management techniques and re-balancing was used by each participant to move to the next theme, or stage. Self-determination helped the participants rebalance and move through an apparent cycle away from stress and anxiety; yet social, environmental, and faculty barriers steered the students back to stress and anxiety, necessitating the cyclical movement. Recommendations are made for how graduate faculty might facilitate adaptation during the early months of graduate school and throughout, to promote students' academic and subsequent professional success. Graduate level faculty can access varied approaches to facilitate students recognizing their own needs, satisfying them, and achieving a healthier experience during graduate education. This in turn may improve graduate student retention and matriculation.

Poster Presentations

[*] at the end of the title indicates session has earned Peer Review designation

A Novel Evaluation for Sensory Integration of Balance in Individuals with History of Concussion*

Daniel Miner
Brent Harper
Brooklynne McDermott
Ashley Dudding
Ashley Humphries
Sam Lawrence

Department of Physical Therapy
Department of Physical Therapy

Abstract:

Concussions affect neurocognitive function and postural control, increasing injury susceptibility.

Head trauma affects the vestibulospinal tracts, which influence postural tone in the trunk and neck muscles leading to alterations in how the body makes corrections to balance. Sensory integration for postural control relies on the central nervous system's ability to process incoming input in order to adapt to environmental and task conditions. Central sensorimotor integration is disrupted in individuals with mild traumatic brain injury (mTBI) resulting in balance impairments linked with alterations in vestibular and oculomotor function, and postural control.

Examine the reliability and validity of a novel evaluation technique for the sensory integration of balance in individuals with or without a history of concussion utilizing the Biodex BioSway, a more affordable and accessible measurement tool, compared to the gold standard Head Shake Sensory Organization Test (HS-SOT).

The Ohio State University TBI Identification Method is a reliable and valid measure to detect lifetime history of TBI in select populations. The HS-SOT is a more sensitive measure of change in equilibrium scores than the Sensory Organization Test (SOT). The reliability and validity of the Biodex BioSway has not yet been determined.

Sway index measured on the BioSway during the novel evaluation technique of individuals with history of concussion will be reliable and valid compared to the equilibrium score of the HS-SOT.

Computerized dynamic posturography (SOT) represents the gold standard in measuring motor and sensory contributions to postural control, however, it is criticized for its high cost, time required for training and testing, as well as the space required for testing equipment. The development of a novel evaluation technique that is reliable and valid, and more affordable and accessible to patients and clinicians, would be of significant value in the rehabilitation of individuals with history of concussion.

A Social Work Perspective on Family Characteristics that Leads to Truancy

Andrea Strother

School of Social Work

Abstract:

This integrative paper examines the affects family characteristics have on students becoming truant throughout their school years. The purpose of this paper is to identify the different family characteristics that causes truancy and successful interventions that can help combat this problem. Erikson's psychosocial development and social learning theory were used on the micro level, discussing how families and peers can influence a student to become truant. As well as the life challenge the student can face during the adolescent life development. Systems theory was also applied to this research and focuses on the macro level. These theories were then applied to practice interventions such as the Springfield truancy court team. A study was conducted to identify the factors that social workers in the Roanoke Virginia school district believed lead their students to being truant and what interventions they believed would be effective in combating truancy. Policies such as the Virginia Compulsory Education Law, Roanoke County Truancy Law and the Virginia Code of Inducing Children to Absent Themselves were applied to this topic. To conclude this paper, there was a discussion on social workers role and ethics and values as well as social justice and diversity that all can have an effect on truancy.

Keywords: Truancy, family characteristics, interventions to combat truancy

A Social Work Perspective on Resiliency Factors in Children Who Grew Up Surrounded by Substance Use

Kayleigh Spencer

School of Social Work

Abstract:

As a child, living with an adult who uses substances increases the likelihood that a child will struggle with emotional, behavioral, or substance use problems. Resiliency is the ability to adapt during trauma, stress, or threats. (Lander, Howsare, Byrne, 2013). Resiliency factors are crucial to understand prevention programs and help improve prevention programs. Identified resiliency factors are family alcohol and drug behavior and attitudes, poor and inconsistent family management practices, family conflict, low bonding to family, early and persistent problem behaviors, academic failure, low degree of commitment to school, peer rejection, association with drug using peers, early onset of drug use, and rebelliousness (Cleveland, Feinberg, Bontempo, & Greenberg, 2008).

The following integrative paper provides a framework to understand this issue and how it influences social work and social workers. Personal research will be presented to examine the relationship between parental substance use and their child's substance use, resiliency theory, attachment theory, social learning theory, and systems theory will be used, prevention program strategies will be evaluated, and relevant policies will be identified.

A Study on the Spread of Microorganisms on Stethoscopes

Leigha Spangler

School of Nursing

Abstract:

My project administered a survey to healthcare staff to determine their behavior and attitude towards cleaning their stethoscopes. These results were analyzed and interpreted. Additionally, tests were run in the lab on stethoscope with various cleaning methods to determine how the bacteria spreads on a stethoscope and which method of cleaning would present the best results. These results will be obtained by inoculating various bacteria such as E. Coli onto the diaphragm, bell, tubing, and binaural and swabbing for results. Recommendations for the best cleaning methods will be presented to the hospital, as well as, how to best encourage the staff to evaluate these methods.

Adverse Childhood Experience Influence on Youth Incarceration Rates

Essence Turner

School of Social Work

Abstract:

The paper will demonstrate a study aimed to investigate how Adverse Childhood Experience (ACE) influences youth incarceration rates. While acknowledging youth incarceration as a social issue, this paper will, too, touch base on the social injustice amongst minority youth that are incarcerated at a higher rate than Caucasian youth. Through a Systematic Literature Research the study was narrowed to highlight risk factors and protective factors of youth incarceration in the United States. This was done by analyzing twenty-one longitudinal and empirical studies. Results affirmed that black males make up a significant higher percentage of youth incarceration with at least three identified Adverse Childhood Experience (ACE). Parental incarceration and absence of a parent was deemed to be the most detrimental adversity amongst at risk youth. Further research provided significance in implementing practice to support youth and families against youth incarceration. Theory, Policy, and Implication will provide an in-depth knowledge base of youth incarceration and ACE correlations and impact of families.

Keywords: Youth incarceration, adverse childhood experience, social injustice, minority, risk factors, protective factors

After-Care Services for Youth in Residential Care

Samantha Gosling

School of Social Work

Abstract:

The purpose of this study is to look at the after-care services of youth who are being discharged from residential facilities and the recidivism rates of those youth. A child's involvement in the system plays an important role in delinquency. There is limited after-care services that are offered to youth who are being placed back into their communities. This study looks at how important after-care services are to the recidivism rates of youth. This research done surveyed 68 child welfare workers perceptions in order to obtain qualitative and quantitative results. There is a critical literature review to help explain the relevance and background information of the topic that is being examine. This study also thoroughly analyzes systems theory, social development theory, and social learning theory, along with practices correlated to these theories to help better understand residential facilities and the system as a whole. Federal and administrative policies, socioeconomic, and diversity aspects are also discussed to show a better understanding of the research that has been done.

An Analysis of the Impact of Organizational Readiness to Change in Implementing a Recovery Community

Hayleigh Bostic

School of Social Work

Abstract:

This study shows the importance of understanding the level of change that can be made within a community service organizations. The proposed change is a recovery community, which is a place where individuals in recovery from substance use disorders can go to feel safe, connected, and receive support to continue their recovery journey. It is crucial for an organization to understand the relationships between staff and supervisors to determine the level of change that can be made. Understanding the level of readiness toward implementing the proposed change among staff can help ease the transition of the change. Through the use of policies, practices, theories, and research this paper helps contribute to the social work field by providing an understanding of organizations readiness to change levels in implementing a new idea such as a recovery community.

Barriers and Improvements to Breastfeeding Practices

Morgan Bishop
Marjorie Young

School of Nursing
School of Nursing

Abstract:

The purpose of this presentation is to discuss the efforts towards promoting breastfeeding at Carilion Roanoke Memorial Hospital (CRMH) and the areas that need improvement in order to increase the rates of exclusive breastfeeding during the patient's stay at the hospital. This presentation is based on my personal experience as a student nurse extern on the Labor and Delivery unit at CRMH in Summer of 2018. During this experience, I observed how maternity care nurses approach breastfeeding topics with patients. Additionally, lactation consultants and the mother-baby unit director were interviewed, along with attending a breastfeeding staff education session in order to obtain my information. Through my experience, I found that education and support were two major areas of concern in helping to promote breastfeeding at CRMH. These two areas, along with following the Ten Steps to Successful Breastfeeding set by the Baby Friendly Hospital Initiative, are vital in helping improve rates of exclusive breastfeeding at CRMH and other healthcare facilities.

Comparing Concussion History with King-Devick and CTSIB-M Scores in Female High School Soccer Players*

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Ashley Zimmerman
Victoria Repass
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Caitlin Lesko
Garrett Van Nutt
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Department of Physical Therapy
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Abstract:

Concussive and subconcussive events remain prevalent in adolescent athletes, especially female soccer players. Numerous sideline concussion screening assessments have been developed to quickly diagnose players. The purpose of this study was to investigate the effects of prior concussion history on concussion screening metric scores in high school female soccer players.

Previous concussion history was obtained via preseason intake forms on thirty-one female high school soccer players with mean age 16 years ($\hat{A}\pm 1.6$ SD). This was followed by preseason baseline metrics of King-Devick (K-D) and Biodex Biosway Balance Assessment (CTSIB-M). Time without error was the K-D scoring metric. CTSIB-M scores for both sway index and impairment percentage were recorded. Previous concussion history was statistically compared to mean baseline test scores utilizing a Mann-Whitney U Test.

Out of 31 total players, nine had a history of concussion. Mean baseline K-D score was 42.96 seconds ($\hat{A}\pm 7.54$). Mean baseline CTSIB-M % Impairment score was 5.48 ($\hat{A}\pm 17.34$), and mean baseline CTSIB-M composite sway index score was 0.90 ($\hat{A}\pm 0.25$). There were no significant differences when comparing history of concussion to baseline K-D scores ($U = 96.000$; $Z = -0.131$; $p = 0.896$), CTSIB-M % Impairment scores ($U = 81.000$; $Z = -1.136$; $p = 0.256$), and CTSIB-M sway index scores ($U = 86.500$; $Z = -0.544$; $p = 0.586$).

These findings revealed that concussion history in female high school soccer athletes did not correlate with impairments in concussion screening metrics, K-D and CTSIB-M, based on this small sample size.

This study indicates that prior history of concussion may not be relevant to these concussion metric screening tools. However, musculoskeletal and concussion injuries may be primed by pre-existing altered movement patterns from previous injuries, concussive events, or from forces incurred during sports participation. Subconcussive impacts may manifest themselves without signs of obvious deficits in postural stability, vestibulo-ocular function, or balance deficits. Therefore, continual assessment of performance for subtle signs may be the first step in concussion prevention. K-D and CTSIB-M are performance metrics which might be used to identify cumulative performance deficits over the course of an entire soccer season. Further studies are warranted including larger sample size and the inclusion of other health status components, such as headache, neck pain, and dizziness symptoms.

Compassion Fatigue in Nursing from the Social Work Perspective

Anna Sayre

School of Social Work

Abstract:

Compassion fatigue (CF) is a relatively new topic that is growing in popularity. Burnout (BO), secondary traumatic stress (STS), and compassion satisfaction (CS) are the elements that make up CF. Research was conducted at Roanoke Memorial Hospital (RMH) to determine that prevalence of CF within the Emergency Department (ED) and Intensive Care Units (ICU) at the hospital. The results showed that those who took the survey (N= 129) were not considered to have CF. Social learning, cognitive behavioral, and systems theory will be examined to help explain how one may develop CF. Practice techniques will be explained to show how social workers within the hospital setting could help with the treatment and prevention of CF. Policies such as the Registered Nurse Safe Staffing Act of 2015, Workplace Violence Prevention for Healthcare and Social Service Workers Act of 2019, Law Enforcement Mental Health and Wellness Act of 2017, Helping Families in mental health crisis act of 2016, and the Commonwealth Mental Health First Aid Program will be examined. Diversity regarding intersectionality and availability to process trauma will be examined. The National Association of Social Workers code of ethics will be addressed regarding cultural sensitivity and dedication to the workplace. Social injustice will also be addressed with regards to how it could impact the development of CF.

Concussion Education for Athlete Injury Prevention - Changing Attitudes and Behaviors: A Theory Report

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Abstract:

Educational programs based on behavioral and social science theories (BSST) provide a framework to identify inappropriate behaviors, develop interventions, and evaluate intervention successes which have a greater likelihood of success to change attitudes and behaviors.¹⁻³ BSST is used in healthcare research but not widely used for injury prevention research.³⁻⁵ PHENOMENON: Athletes tend to be knowledgeable about concussion;^{6,7} however, they continue to demonstrate unsafe behaviors.⁸⁻¹¹ Appropriate knowledge transfer principles are required to change concussion behaviors and attitudes.¹²⁻¹⁴ The Theory of Planned Behavior (TPB) is one type of BSST proposed for to address the gap in concussion education programs.¹⁵⁻¹⁷ PURPOSE: Develop a TPB concussion education program based on identified specific educational needs to initiate changes in sport culture attitudes and behaviors. EVIDENCE: TPB knowledge transfer strategies should match the knowledge needs of a given population.¹³ The Rosenbaum Concussion Knowledge and Attitudes Survey (RoCKAS)^{18,19} may inform concussion education program development to specifically address the needs of a unique regional sport culture.⁶⁻⁷ Thus far, research has failed to applying survey data towards identifying the specific needs of a regional sport culture when developing a concussion program, which includes the application of TBP to concussion education programs. TESTABLE HYPOTHESIS: TBP has been used for BSST research, ²⁰⁻²⁵ but has not been applied to concussion education or prevention programs.⁴ IMPORTANCE: Multiple factors comprise an athlete's environment which affect their attitudes and behaviors surrounding concussions. These factors, including coaches, parents, fans, and teammates, inform the concussion culture in each region.²⁶ This theory explains the need to identify the specific educational needs of a particular regional sport culture prior to the development of a concussion education program using the RoCKAS to identify gaps, then emphasize changing attitudes and behaviors using a TPB model.

Continued Support for Adults Bereaved as Children

Allyson Lothar

School of Social Work

Abstract:

The death of a parent or sibling during one's childhood can be an isolating and confusing experience that can cause many complex emotions. These complex emotions can continue into adulthood and impact one's emotional well-being. Due to society's view on the appropriate length of time someone should be grieving, there are not many resources or community support for those affected. Depression and anxiety are two common emotions that are felt by those who are bereaved that can impact relationships and future success. By reviewing policy, theory, practice, and research this study will focus on individuals who have experienced childhood loss and why this issue is important within the field of social work.

Does Forced Exercise Improve Postural Control and Functional Mobility in Individuals with Parkinson's Disease?*

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Abstract:

Theory/Significance:

Parkinson's Disease (PD) is a progressive neurological disease characterized by movement disorders which increase postural instability and fall risk.

Phenomenon:

Movement disorders in PD result from progressive loss of dopaminergic neurons in the substantia nigra pars compacta. Medical management of PD movement disorders is criticized for medication side effects and its minimal impact on gait impairments or postural instability. Causes of postural instability in PD are associated with delayed reaction time, impaired sensory integration for balance, decreased amplitude of anticipatory postural adjustments, and global slowing of motor responses. Exercise promotes neuroplastic changes in the brain necessary to improve motor function and control in individuals with PD.

Forced exercise (FE) via motor assisted cycle ergometer enables an individual to pedal faster than their preferred pace, which stimulates peripheral sensory receptors in the lower extremities, increasing afferent outflow to promote release of neurotrophic factors and dopamine. Lower extremity FE interventions have demonstrated global improvements in motor function in individuals with PD.

To determine the impact of FE on sensory organization, limits of stability, anticipatory/reactive postural control and functional mobility in individuals with PD.

Computerized dynamic posturography (CDP) is reliable and valid for quantitative assessment of postural control in individuals with PD. Outcomes of interest include the Sensory Organization Test (SOT), Limits of Stability Test (LOS), and Motor Control Test (MCT). To our knowledge, no studies have investigated the impact of FE on postural control, functional mobility, balance, or fall risk.

Individuals with PD who undergo a treatment protocol of FE will demonstrate greater improvements on the SOT, LOS, MCT, and TUG compared to individuals with PD educated on importance of daily walking for general health and wellness.

Importance:

Exercise interventions, including FE, administered early in the disease process could have significant impact on improving postural control and fall risk in individuals with PD.

Does Type and Variation in Clinic Setting Predict Physical Therapy Licensure Outcomes?*

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Abstract:

Clinical experiences allow students to apply didactic knowledge to practice. Average cohort age, grade point average, and clinical performance have been associated with NPTE passage, yet the effects of clinical setting on NPTE first-time passage remains unclear. NPTE passage is required to practice as a licensed physical therapist. The Commission on Accreditation in Physical Therapy Education governs physical therapy clinical education requirements including the minimum number of clinical education weeks and clinical setting types. The Radford University Doctor of Physical Therapy (RUDPT) program requires students to complete a minimum of three clinical experiences totaling 36 full-time weeks. The purpose of this study was to determine if clinical setting type sequence and variety predict successful first-time passage on the NPTE. This study proposes three hypotheses: (1) the first clinical setting type predicts first-time NPTE passage; (2) the final clinical setting type predicts first-time NPTE passage; and (3) the clinical setting variety predicts first-time NPTE passage. NPTE passage and clinical setting variables from cohorts 2014 to 2018 were accessed via the RUDPT database. Retrospective analysis using SPSS version 24 is in progress to assess for relationships using chi square and binomial logistic regression. The three independent categorical variables were the first, final, and variety of setting types. Clinic settings were categorized as outpatient rehabilitation, inpatient rehabilitation, acute care, skilled nursing facility, and mixed. The bivariate dependent variable was first-time NPTE passage. Demographics and relationships between the variables will be reported. This research can elucidate which order and variation of clinic settings may best prepare students for the NPTE. This study reviews an alternative predictor of program success which may be useful to other health care educational programs whose graduates require license examination passage to practice.

Educating for Permanency

Lindsey White

School of Social Work

Abstract:

Current research has found that trauma impacts children's development in a variety of ways such as attachment, presence of mental illness, behaviors, and physical and emotional maturation. This is especially relevant in practice realm of social service where children are often removed from their biological family and placed into foster placements. Research has found that this removal from the home is traumatic for the child.

As children in this population have experienced significant trauma of both the removal from their home and the trauma of the abuse and neglect that brought them into care, this work analyzes the relationship between childhood trauma and rates of adoption in foster children. Current research and policies were reviewed to determine what policies qualify as trauma, the impacts of trauma on children, and an overview of how trauma impacts this population. Research reviewed consisted of impacts on attachment, behaviors, how mental illness impacts these children. Additionally, adoptions of this population were reviewed to reveal the impacts on families and the results of these adoptions. Using this data, a qualitative study was created to explore if there is a negative correlation between children with trauma and trends in adoption, given the overall impacts of trauma. Research was conducted through qualitative interviews of five Virginia Department of Social Services Foster Care/Adoption workers in Southwestern Virginia. The study conducted found that trauma induced behaviors have impacted foster placements and disrupted adoptive placements and adoptions.

Effectiveness of Cognitive Stimulation Therapy on Older Adults with Dementia

Naomi Hailemeskel

Department of Occupational Therapy

Abstract:

Over 35.6 million people worldwide are living with dementia (WHO, 2017). Dementia is a progressive disorder characterized by the decline of cognitive, behavioral, and psychological functioning (Alzheimer's Association, 2018). The severity of symptoms varies with each individual but ultimately become severe enough to interfere with the participation in meaningful occupations. Amongst the non-pharmacological treatments, Cognitive Stimulation Therapy (CST) is believed to be a viable option. CST is a psychosocial intervention that consists of activities that attempt to promote higher cognitive and social functioning in individuals with mild to moderate dementia ("Cognitive Stimulation Therapy", 2018). The maintenance efforts of CST attempts to delay the progression of dementia to improve QoL, which directly aligns with the theoretical basis of occupational therapy (OT).

Effectiveness of Mirror Therapy for Increasing Motor Function in Activities of Daily Living in Adult's Post-Stroke

Kelly Baker

Department of Occupational Therapy

Abstract:

Around 87% of individuals who have had a stroke have functional impairments that limit or inhibits participation in activities of daily living. As occupational therapists, we are directly concerned with clients achieving independence and safely completing ADLs following a stroke. The purpose of this evidence synthesis is to determine the effectiveness of mirror therapy in improving upper extremity motor function in ADLs in adult's post-stroke. This literature review assesses the effects of mirror therapy by collating 11 research articles with study designs being randomized controlled trials. Based on the outcomes of these studies, mirror therapy is an effective and beneficial approach when used in conjunction with other interventions, such as conventional OT, physical therapy, standard exercises, or functional tasks.

Effects of Self-Guided HPV Educational Brochure Intervention on Parental Knowledge for HPV Vaccination Compliance*

Curtis Hodges

School of Nursing

Abstract:

Introduction: The human papillomavirus (HPV) is a prevalent virus that has infected over 79 million Americans and continues to infect 14 million new Americans each year (Centers for Disease Control and Prevention, 2017a). Adolescents and young adults can contract HPV, which can progress to cause substantial health problems. After reviewing the evidence, a quality improvement project utilizing a self-guided HPV educational brochure is proposed. The purpose of this study is to improve the knowledge of parents and guardians regarding HPV, the HPV vaccine, and their intent to initiate the HPV vaccine for their school-age children or adolescent.

Methods: A literature review was conducted to determine barriers, facilitators, and types of interventions that have been utilized to improve HPV vaccination rates. An unbiased HPV educational brochure was specifically created for use in this study based upon the literature review findings. A convenience sample (N = 35) using a pre-/post intervention study design will be conducted at a pediatrics office in Blacksburg, Virginia. A survey will be utilized to measure the knowledge/awareness of HPV, the HPV vaccine and intent to vaccinate prior to and following the educational intervention. An HPV self-guided educational brochure was the educational intervention used in this study.

Results: Data is currently in the process of being collected. Following completion of the study, descriptive and inferential statistics will be performed utilizing SPSS version 24 statistical software.

Discussion: Despite universal recommendations for the HPV vaccine, there continues to be inadequate initiation and completion of the HPV vaccine (Vollrath, Thul, & Holcombe, 2018). Increasing knowledge and awareness of HPV and the HPV vaccine is needed to help improve vaccination rates. An unbiased and transparent HPV/HPV vaccine educational brochure that seeks to dispel myths and misconceptions associated with HPV and the vaccine can hopefully help accomplish these goals.

Electrical Stimulation for Reducing Spasticity in Adults with Stroke for Improved Performance in Activities of Daily Living

Katie Rogers

Department of Occupational Therapy

Abstract:

Strokes are the primary cause of adult disability and the fifth leading cause of death in the United States. Spasticity is a chronic condition that occurs following a stroke when the signal between the brain and a muscle get disconnected or blocked and results in groups of muscles that become hypertonic, or uncharacteristically tight, cramped, or stiff (National Stroke Association, 2018a). One of the complications of spasticity development is difficulty in completing activities of daily living (ADLs), such as bathing, grooming, toileting, and dressing (Cleveland Clinic, 2018a). Electrical stimulation typically occurs in a clinical setting and combines the physical contraction of muscle fibers with neuroplasticity for the aim of reestablishing the communication between muscle groups and neurons in the brain (Wasielewski, 2010). The goal is to appraise the evidence on the effectiveness of electrical stimulation interventions for reducing spasticity. CINAHL: Cumulative Index and Nursing and Allied Health Literature was the database that yielded the most studies that met inclusion and exclusion criteria. The search results yielded 52 relevant studies, of which 26 were reviewed, and six were chosen for inclusion. Findings from across the studies showed that while all participants who received rehabilitation for stroke improved, the groups that received electrical stimulation had greater improvements in spasticity reduction and motor function. Findings from the evidence suggest that electrical stimulation interventions are useful in stroke rehabilitation, and electrical stimulation has a valid place in occupational therapy practice. Spasticity reduction accompanied by increased motor function in the affected UE was found to be most evident through use of routine electrical stimulation when supplemented with a form of standard stroke rehabilitation (Popovic et al., 2003; Sahin et al., 2011; Tilkici et al., 2017).

Health and Support Needs of Rural Informal Caregivers*

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Abstract:

Introduction: Informal caregivers provide the foundation of care for individuals with chronic disease in the US. Although rewarding, significant costs include mental, physical, and emotional health issues, and even increased risk of caregiver mortality. Rural caregivers are at greater risk due to reduced healthcare access, health literacy, socioeconomic status, and educational levels. The purpose of this study was to investigate health and supportive care needs of rural informal caregivers.

Methods: This was a mixed methods study using cross-sectional self-report surveys. Participants were recruited from the Remote Area Medical event in Wise, Virginia in July 2018. Surveys included demographic data, healthcare use, global health, emotional support, and three open-ended questions. Quantitative data analysis is underway using frequencies, descriptive statistics, correlational analysis, and regression analysis. Qualitative data were reviewed and grouped into themes.

Results: Quantitative results pending. Qualitative findings indicated three major themes: type of care provided, barriers to care, and facilitators of care. Caregivers reported the following activities: managing appointments, preparing food, bathing, administering medicine, checking blood sugar, wound care, housework, driving, positioning client, and emotional support. Barriers to care included: own poor personal health, heavy lifting, lack of financial resources, transportation, lack of time for own family, difficulty understanding client/loved one, and resistance of client to outside help. Facilitators of care included: access to time, money, supplies, lift assistance, breaks, prepared meals, client appreciation, information from doctors, love for client, and faith.

Discussion: This study addressed an overlooked, but important population. Rural informal caregivers experience greater vulnerability with few resources. Caregivers noted their importance in providing needed care. Consistent with current research, participants noted barriers including limited transportation, resources, and financial pressures. Healthcare providers and community planners can support informal caregivers in the rural setting by assessing client and caregiver needs, communicating with caregivers, and providing information about available resources.

Honduras Medical Mission

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Abstract:

We traveled to Tegucigalpa, Honduras for a week with VCOM-Carolinas and Radford Nursing. The population in Honduras is approximately 9.5 million, and the population of Tegucigalpa is 1.15 million. Each day, we traveled to a new village and set up clinic for the day. Overall, 546 patients were treated. The villages we traveled to are Campamento (55 patients), Cantarranas (111 patients), El Diamante (136 patients), Talanga (106 patients), and Guajire (87 patients) as well as participating in the OB/GYN clinic at Baxter Institute (51 patients).

It is the second poorest country in Central America, with a majority of the population living on under a dollar a day. Due to the poverty and vast majority of people living in rural areas, it is hard for them to travel to the local hospitals or clinics to receive medical and preventative care. We traveled anywhere from 40 minutes to 2 hours to get to the villages. The urban areas of Tegucigalpa have 3 main hospitals located in the main area of town and at Valley of the Angels.

How Occupational Therapy Practitioners Trained in the CarFit Program Utilize the CarFit 1:1 Model*

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Department of Occupational Therapy
Department of Occupational Therapy

Abstract:

The CarFit educational program is a community based event where OT practitioners and other individuals trained in CarFit educate older adults on the "œfit" of their personal vehicles. Additionally an individualized CarFit 1:1 model may be used. This model has been highly underutilized and/or underreported by CarFit technicians and event coordinators. CarFit continues to advertise and offer online trainings for this model, yet use of this model is low across the nation. This study helped PIs understand how CarFit trained OT practitioners participate in CarFit events and/or use the 1:1 model in practice, and to recognize perceived benefits and barriers of both models. A descriptive survey administered online and by paper format were used. Content validity was established by a panel of subject matter experts prior to surveys and piloted in a separate study. Subjects were purposefully selected from a group of approximately 6,000 OT practitioners trained as CarFit technicians, event coordinators, and/or instructors from the CarFit website. Subjects were informed of the study via email, the 2018 CarFit Newsletter, and flyers at the AOTA expo. Prospective subjects received an email invitation to participate in an online survey or paper survey at the 2018 AOTA Expo. The study took place from February-August 2018 with 268 respondents. Multiple choice and open-ended questions were used to gather information. SPSS was used to analyze preliminary data and open-ended questions were analyzed through coding. Respondents reported that they were extremely likely to participate in a CarFit event within the next year, however consistent with the findings by the CarFit organization, the 1:1 model will likely be underutilized as the majority of respondents were extremely unlikely to conduct a 1:1 session in the future due to lack of time and no reimbursement.

Influence of Aerobic versus Resistance Exercises on Cognitive Performance of Individuals with Mild Cognitive Impairment*

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Abstract:

Dementia is one of the leading causes for decline in quality of life in older adults that increases the burden of care and healthcare costs. Mild cognitive impairment (MCI) is a term used to describe early cognitive changes that are noticeable in individuals, but are not severe enough to interfere with independent functioning in daily life. However, individuals with MCI are more likely to develop various types of dementia, it is considered a precursor to clinical dementia.

Current research tends to suggest that physical exercise might be helpful in improving cognitive abilities in older adults with mild levels of dementia. However, the evidence is still conflicted and inconclusive on whether exercise has a definite effect on improving cognition or slowing down the progression of dementia. While many studies have reported benefits, several others did not find any effects. Moreover, while some have studied the effects of aerobic exercises, others have looked into the effects of resistance exercises, and reported conflicting outcomes. Additionally, these studies have reported on different domains of cognition function, like memory, attention, executive function, making it harder to compare and make general conclusions. In our study we will attempt to further elucidate the benefits of two types of exercise training, aerobic (AE) and resistance (RT), on various types of cognitive domains in older individuals with MCI. Here we will have 2 groups perform matching volumes of aerobic versus resistance exercises for 2-3 times a day for 12 weeks and a control group (C) will not undergo any exercise training. We will then compare changes in cognitive abilities between the 3 groups. We will use a battery of tests to assess different types of cognitive function, including Digit Span (for memory), Stroop Color Word (for inhibitory control), Trail-Making (for executive function) and Clock Drawing (attention and visuospatial comprehension).

Interprofessional Opportunities within Remote Area Medical Volunteer Clinic

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Kaylyn Morton

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Abstract:

The Waldron College of Health and Human Services at Radford University facilitates student learning in nursing, occupational therapy, physical therapy, social work, and communication sciences and disorders. As a college of Interprofessional health disciplines, opportunities for growth and development of professional skills, as well as intentional Interprofessional Collaborations (IPC) are vital in producing well-rounded health care providers with a team based mindset. Volunteer opportunities that present themselves and generate opportunities for IPC can be beneficial for students; these collaborative opportunities can be instrumental in developing a team based mindset and can be beneficial to communities. Radford University nursing students participated in an experience that led to the maturation and awareness of the importance of IPC and team based practice. This experience was in Wise County Virginia with the Remote Area Medical (RAM) clinic. RAM offers free healthcare services to underserved areas where healthcare is not easily accessible. By traveling to remote areas, RAM is able to reach a portion of the population where even the simplest of care is out of reach. In Southwest Virginia, RAM offers an array of services that include but are not limited to: Dental, Obstetrics and Ophthalmology. In addition to the numerous specialty health care services available, other assistance was provided free of charge. These include: health education tents, clothing and supply donation tents, meals throughout the day, Narcan training and even massages. The most recent annual report for RAM costs is from 2017, which included: cost per person served was \$90, value of care per person was \$322, overall free care provided was \$13,573,420, amount of children served was \$4,108, amount of adults served was 37,709, and amount of volunteers was 17,126. The purpose of this presentation is to provide insight, education, and opportunity for benevolent growth within the Waldron College Interprofessional community.

Investigating Disparities in Autism Spectrum Disorder Diagnostic Tools

Molly McClusky

School of Social Work

Abstract:

This integrative project aims to analyze and dissect the tools used to diagnose Autism Spectrum Disorder (ASD). Specific factors have been known to prolong a diagnosis and inhibit the ability to receive helpful services. These factors include, socioeconomic status, race, ethnicity, gender, and geographic location, whether the person is from an urban or a rural setting, and other correlating aspects. Autism Spectrum Disorder characterizes a group of neurodevelopmental disorders typically demonstrated by impairments in both verbal and non-verbal communication, stereotypical behaviors, social withdraw, self-injurious behaviors as well as other neurological comorbidities, according to the DSM-IV (Mohamed, Zaky, Youssef, Elhossiny, Zahra, Khalaf, 2016).

Furthermore, there are specific factors that contribute to barriers in diagnosis and in services for affected families and individuals (Antezana, Scarpa, Valdespino, Andrew, Albright, and Richey, 2017). This review aims to highlight the most recent research conducted globally to analyze the most common tools used to diagnose ASD, and whether or not they are culturally competent or not.

Mental Health vs. Popular College Demands

Bryttany Wright

School of Social Work

Abstract:

This integrative paper looks at the affect college has on a student's mental health. The purpose of this paper is to identify areas of growth within the college system and the services provided to students that focus on mental health. This paper also focuses on providing education to students who may be facing higher levels of anxiety and depression. Systems theory with a concentration on family systems and the ecological systems the students are involved in was used for the micro and macro level application. Social construction theory and social development theory are also applied to this research and focus on the mezzo, and macro level. These theories are then applied to practice techniques such as magical thinking and meditation. A critical literature review was conducted to better understand the topic based on previous research. There was a study conducted to identify levels of anxiety and depression at a high stress time in college and compared this to a less stressful time. Once the levels of anxiety and depression were identified there was a correlation to identify how this influences their physical health and identifying coping mechanisms. Policies such as the Americans Disabilities Act, Helping Families in Mental Health Crisis Act, and Mental Health and Safe Community Act were applied to this topic. To end this integrative paper there is discussion about implications such as social work ethics and values, diversity, and social justice.

Keywords: Anxiety, College, Depression, Diversity, Literature, Policy, Practice, Research, Social Justice, Social Work, Students, Theory

Neurologic and Structural Defects in Wheelchair Basketball Athletes: Possible Impacts on King-Devick Scores*

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Abstract:

The King-Devick (KD) test is a screening tool used to determine the presence of nervous system dysfunction and the possibility of a concussive injury. It evaluates various areas of brain function including those involved with ocular movement, attention and language function. In particular, the KD test requires use of saccadic eye movements, which are the rapid, lateral fine-motor movements of the eyes that are acutely affected after a concussive incident. Little research is available regarding wheelchair athletes and the KD test. Wheelchair athletes present with multiple underlying pathologies that might affect KD test scores. During recent testing at the National Wheelchair Basketball Association Tournament (April, 2018) athletes were baseline tested on the KD. Of the athletes tested, three primary underlying conditions were identified: spina bifida, multiple sclerosis, and cerebral palsy. In an effort to understand the possible physiological and/or anatomical implications of these conditions on KD scores, a literature review was conducted. Multiple databases were searched with the following search parameters: (1) peer-reviewed; (2) spina bifida, multiple sclerosis, or cerebral palsy; and (3) ocular movement, cognitive abilities. Exclusion criteria included any article published before the year 2000. After reading the literature, several key factors that might impact KD score were identified including cognitive and fine motor functioning and subnormal vision. The purpose of this presentation is to summarize these findings in relation to the various pathologies. This project is important because it gives a new perspective of these conditions in the context of adaptive athletics and the specificity of concussion screening tools, like the KD test.

Patient Perceptions of Well-being in Aquatic vs. Traditional Physical Therapy*

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Department of Health and Human Performance

Abstract:

Chronic pain is defined by symptoms lasting longer than 6 months and can be one of two types, nociceptive (firing of nociceptors due to underlying disease process) and neuropathic (abnormality of neurons). During physical therapy, the focus is on the entire patient (emotional, psychological and physical) with the recognition that a positive outlook on behalf of the patient is needed in order to see improvement. The addition of aquatic physical therapy to traditional physical therapy may increase a patient's outlook since it allows individuals who are non-weight bearing on land to perform strengthening and gait-correcting activities due to the buoyancy of water. This can give these individuals a sense of accomplishment, independence, as well as a sense of well-being. The purpose of this study is to compare the well-being of patients, as measured by the Well-Being Questionnaire 12 questions (WBQ12) between two groups. This study will involve the use of patients who are currently receiving physical therapy treatment for chronic pain. One group will be receiving traditional physical therapy interventions and the second group will be receiving a combination of traditional and aquatic physical therapy. The subject population will be recruited from patients being seen by physical therapists at a local rehabilitation clinic. The patients will complete a survey and survey responses will be analyzed by group. A t-test will be used to determine whether patients receiving a combination of aquatic and traditional physical therapy have a higher well-being score compared to patients receiving traditional physical therapy only.

Perceived Needs and Barriers to Success for Incarcerated Men and Women in VA State Prisons

Sarah Smidl

Department of Occupational Therapy

Abstract:

Incarcerated men who take part in occupational therapy groups at Bland Correctional Center express the desire to improve their relationships and communication with others, gain education and job skills, and develop strategies that will help them improve their self-awareness and anger management skills. They report that a lack of life skills, decreased support systems, and a lack of treatment for substance abuse and mental health disorders all contribute to their fear about the future and lack of success. They suffer from stressful living conditions and occupational deprivation, with a lack of meaningful activities to fill their time. Despite this anecdotal evidence, and despite numerous programs in prisons, there is minimal research in the United States that assesses the perceived needs of these incarcerated individuals and what they personally feel they need to be successful. Research that does exist focuses primarily on researchers' perceptions of programs that were developed without the offenders' input. This research project aims to collect survey data from male and female offenders about their perceived needs and barriers to success, with the intent of using the results to inform those in charge of funding and program development in VA State prisons, especially in the Western region.

Physical Therapist and Occupational Therapists' Management of Patient Compliance Issues

Joshua Howard
Angela Mickle

Department of Health and Human Performance
Department of Health and Human Performance

Abstract:

Ensuring full patient participation in rehabilitative exercise programs is often a challenge for both professionals and their clients. Non-compliance to exercise programs can reach as high as 70% and tends to drop after prolonged periods of rehabilitation, especially once contact with the health care provider has ceased. Key reasons identified in the literature for patient noncompliance include financial, social, and economic barriers to therapy, comorbidity with injury, longer treatment duration, and lack of positive feedback. The success of an exercise regime often depends largely on home exercise, because direct contact with the health care provider is limited. Although there is already a considerable amount of research on patient compliance and motivation, little has been done directly comparing the different approaches of various health professions. The purpose of this research is to compare the types of non-compliance as perceived by occupational and physical therapists. Furthermore, it will identify common techniques used by each profession to overcome non-compliance by patients. Data will come from Interviews which will be conducted with 5 physical therapists and 5 occupational therapists to record their experience with patient compliance and the methods they use to maintain motivation and encourage effective behavior patterns. The content of the interviews will be transcribed, and common themes will be identified.

Pilot Study: The Impact of a Diabetes Mellitus Type II Prevention Program in Prediabetes Patients

Joshua Tucker

School of Nursing

Abstract:

Type 2 diabetes affects an estimated 30.3 million Americans with many more being undiagnosed (Centers for Disease Control and Prevention [CDC], 2017a). Type 2 diabetes, left unmanaged, can have immediate and long-lasting ramifications for those affected (CDC, 2014). Currently, Prediabetes is estimated to affect one out of three Americans, totaling 84.1 million of the population (CDC, 2017a). Prediabetes is diagnosed when fasting plasma glucose (FPG) is between 100mg/dl and 125mg/dl, or the two-hour plasma glucose 75g Oral glucose tolerance test (OGTT) is from 140mg/dl to 199mg/dl, or when hemoglobin A1c (HbA1c) is 5.7-6.4% (American Diabetes Association [ADA], 2017). Studies have shown that 33% of prediabetic patients develop diabetes within five years (AMA/CDC, 2018, p. 1). Disease prevention is the first intervention in combating type 2 diabetes. Interventions for diabetes prevention can range from lifestyle modification to prophylactic prediabetic medication. Diabetes prevention programs are an effective method in prediabetes management. Previous studies have shown that lifestyle modification is effective for diabetes prevention in the prediabetes population. However, there is little research that addresses the efficacy of diabetes prevention programs in rural areas, specifically in rural Virginia. The Centers for Disease Control and Prevention (2017c) created a diabetes prevention program entitled Prevent T2 for prediabetes based on current evidence. The aim of this pilot study is to evaluate if an abridged version of Prevent T2 (a three-session program conducted over six-weeks) will produce positive outcomes. Outcome measures focused on during this study include body mass index change, changes in risk perception of developing diabetes, fasting plasma glucose change, and weight changes. The results of this pilot study will be used to determine and address the feasibility of the initiation of a full Prevent T2 program (a one-year program) in a rural community.

Predictors of 30-day Readmissions After Cardiac Surgery*

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Abstract:

Readmissions after cardiac surgery can have a detrimental impact on patient outcomes and the facility's finances. Identifying patients at risk for 30-day readmission can lead to improved patient outcomes and prevent readmissions through close follow-up and monitoring after discharge. A retrospective, case-controlled research study was conducted at Carilion Roanoke Memorial Hospital to: (1) identify the predictive factors of 30-day readmissions after discharge from cardiac surgery, and (2) investigate effectiveness of the currently used risk-stratification scoring systems such as the LACE plus score, the Society of Thoracic Surgeons (STS) mortality risk score, or the STS predicted morbidity and mortality risk score to predict 30-day readmissions in this population. Of 227 patients in the study, 22 patients (9.69%) were readmitted within 30 days of discharge. Our study observed that female gender ($p=0.04$), history of congestive heart failure (CHF) ($p=0.01$), longer cardiopulmonary bypass (CPB) time ($p=0.05$), lower hematocrit during hospitalization ($p=0.03$), receiving postoperative hemodialysis (HD) together or alone with continuous renal replacement therapy (CRRT) ($p=0.03$ and $p=0.03$, respectively), and need for outpatient HD at time of discharge were associated with 30-day readmissions after cardiac surgery. This study could not discover the predictability of the LACE+ score for 30-day readmissions; however, a higher STS predicted morbidity and mortality score was associated with 30-day readmissions ($p=0.03$). The findings of this study suggest that patients who are female, have longer CPB time, have lower hematocrits or history of CHF, require HD during hospitalization, or need HD at time of discharge may benefit from close monitoring and earlier follow-up with the cardiothoracic provider post discharge after cardiac surgery to further decrease hospital readmissions within 30-days of discharge.

Reentry Programs for Ex-offenders

Hannah Haymes

Department of Occupational Therapy

Abstract:

The United States has the highest incarceration rate in the world. Nearly all of America's prisoners, also referred to as offenders, will be released back into the community. Upon release, ex-offenders face difficulties with community reintegration due to a multitude of factors including a high prevalence of mental illness, unemployment, and lack of education and skills. Reintegration programs strive to provide offenders with the knowledge and skills needed to overcome these difficulties in order to establish and maintain successful community reentry. The goal of this poster presentation is to appraise the evidence on the effectiveness of reentry programs for ex-offenders reentering the community. Searches for relevant articles were performed using SAGE Journals and ProQuest Criminal Justice databases. A total of 92 articles were located, 54 were reviewed, and nine were selected for inclusion. The reentry programs examined in the studies focused on offender education, employment, substance abuse, yoga, or mindfulness. There were consistent findings across the research about the effectiveness of reintegration programs for ex-offenders returning to the community. The evidence revealed that many of the ex-offenders who participated in reentry programs experienced successful community reintegration as demonstrated by improvements in at least one of the following measures: recidivism, earnings, employment, health, and mindfulness. None of the programs examined for this synthesis included occupational therapy services. However, areas for occupational therapy intervention concerning offender community reintegration include employment, education, health and wellness, home establishment, financial management, and leisure pursuits. While the current research reveals that reentry programs have a positive impact on successful community reintegration for many ex-offenders, there is a need for more effective reentry programs. Such programs should include comprehensive occupational therapy interventions that are evidence-based, client-centered, and focused on the occupations and skills necessary for ex-offenders to successfully return to living in the community.

Serving Children with Autism Using Discrete Trial Therapy and Educating Parents

Melissa Gibson

Diane Millar

Department of Communication Sciences and Disorders

Department of Communication Sciences and Disorders

Abstract:

The client is two and a half-year-old boy who was born at 37 weeks. The client presented with feeding difficulties at birth and was later diagnosed with Tracheomalacia. At this time the client eats baby food and other soft foods such as yogurt. In the case history the parents reported their son does not talk. He will typically reach for what he wants and scream. The client has received Early Intervention services for speech and most recently underwent Autism testing at Carilion Children's Child Development where he received an Autism Spectrum Disorder (ASD) diagnosis. Parents report, since the diagnosis the client will receive more services and also stated they were waiting for information about ABA therapy. The parents contacted Dr. Diane Millar at the Radford University Speech Language and Hearing Clinic to obtain information on how they can help their child. During our first visit the parents expressed how they wanted to learn to interact with their child and learn how they can help grow their son's language skills. The American Speech Language and Hearing Association suggests supporting and teaching families will benefit them in being able to learn new skills and in turn use these new skills with their family member with ASD. This appeared to be a very important aspect in this case. The initial therapy plan was a traditional approach in hopes to address and ultimately grow the client's receptive and expressive language as well as address feeding concerns. Skills were initially addressed during play-based language therapy. Areas targeted included requesting, rejecting, and labeling. However, with this approach our client was not making gains and we adjusted our plan. At the current time we are using a more structured therapy approach and the client is making steady gains.

Suicide Prevention Within the School System

Sarah Slaydon

School of Social Work

Abstract:

This paper looks at the relationship between teacher's knowledge of suicide prevention strategies and the likelihood of being able to utilize those strategies to intervene in a suicidal situation with a child. Youth suicide is a growing problem in today's society. With the majority of the time spent by youth today being within the walls of a school building, teachers need to be very aware of how to intervene in a suicidal situation, or even to be able to prevent those thoughts all together. This paper will discuss how theory, such as psychodynamic, rational choice, and systems theories can be utilized to help understand at-risk youth as well as shape our prevention practices. Research, and policy will also be discussed to show the effectiveness of suicide prevention strategies, how the strategies came to be, and how those strategies can be utilized within a school setting.

Supportive Programming and Mental Health Professionals: A Collaboration

Hillary Greer

School of Social Work

Abstract:

Mental health symptoms in children and adolescents can sometimes begin at an early onset and could predict acute psychiatric hospitalizations. To reduce psychiatric hospitalizations, social workers must understand the risk and protective factors that influence mental health symptoms to better support children and adolescents in crisis. Supportive programs aim to rebuild and maintain personal ability to manage stress and/or prevent repetitive acute psychiatric hospitalizations. The purpose of this study is to examine how beneficial supportive programs are in reducing repetitive psychiatric hospitalizations in children and adolescents, according to mental health professionals. This qualitative study focuses on the opinions of 30 mental health professionals, and addresses four main areas: discharge planning without supportive programs, discharge planning with supportive programs in place, challenges without supportive programs and strengths in utilizing supportive programs. According to this study, participation in supportive programs have many benefits to child and adolescent mental health. These benefits include professional support, self-identification of stressors and development of individual coping strategies.

Teenage Incarceration

Tyron Pouncey

School of Social Work

Abstract:

This paper will be an integrative paper that talks about the role that social workers could play in decreasing teenage incarceration. This integrative paper will include a critical literature review that discusses the topic I am investigating and why, why is this topic important to the social work profession, and this paper will include evidence base practice that explains the role that social workers play in preventing teenage incarceration. The paper will explain two micro theories and one macro theory, those theories are Systems Theory, Persons Environment Theory, and Community Organization Theory. The paper will also integrate concepts from my research study that I conducted during the previous semester. The integrative paper will include a discussion about two policies and how they relate towards my topic. This integrative paper include a section about how does my topic relate towards social work practice from a micro perspective and macro perspective. Finally, this paper will include a section that talked about how a social worker role in preventing teenage incarceration relates to the social work core values and ethics.

The Battle of Racial Trauma vs. African American College Students

Qourtasia Watson

School of Social Work

Abstract:

For many African-American students, being in an environment where most people do not look like themselves can be a challenging and new experience. Students of color who attend predominantly white universities often have a difficult time connecting with both their peers and faculty. The underlying factor of racism, discrimination, and oppression are often identified. This paper explores how the roles of theory, policy, and research are intertwined to discuss mental health amongst African-American college students who attend predominately white institutions, and how the symptoms of racial trauma are ignored. Previous research was conducted utilizing a qualitative study, that focused on students of color and their post reactions of racist experiences at Radford University. The questions were selected from the Race-Based Traumatic Stress Symptom Scale (RBTSSS). As a result, many students expressed that they experienced feelings such as depression, repression, isolation, and avoidance. The goal of this study is to identify how mental health practitioners, counselors, social workers, and faculty can successfully work with students of color who may undergo symptoms of racial trauma. This paper will propose new adjustments to current educational policies, implement diversified interventions and preventions to work with this population, raise racial awareness to the mental health profession, and reinforcing social work standards to better equip current, and future social workers.

The Effects of Prehabilitative Exercise on Functional Recovery Following Total Knee Arthroplasty

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Abstract:

Purpose: Manual therapy and Exercise (MT+EX) has shown mixed benefits for patients with end stage osteoarthritis (OA) before and after Total Knee Arthroplasty (TKA). The purpose of this case series was to determine if an individualized prehabilitation program with MT+EX will improve tolerance to activity and function for patients before and after a TKA compared to a standardized, unsupervised home exercise program (HEP). Subjects: 39 subjects; 16 subjects in control group and 23 subjects in treatment group. Methods: For the treatment group, interventions included a standardized exercise program with weekly progressions and MT techniques designed to improve weight bearing activity. Measures were taken at pre-intervention (T1), one week pre-surgery (T2), one month after surgery (T3) and three months after surgery (T4) and included the Knee injury and Osteoarthritis Outcome Score (KOOS), 6 Minute Walk Test (6MWT), and Relative Knee Extension Strength (KES) of surgical limb. Results: Data was analyzed between groups over time showing no statistical difference between control and treatment in the 30STS ($p=0.139$), knee extension strength of the affected limb ($p=0.202$), KOOS Symptoms ($p = 0.058$), or Quality of Life ($p = 0.201$). However, significance was found in KOOS ADL between groups across time ($p<0.05$). The 6MWT, KOOS Pain and KOOS Sports showed statistical significance in each group independent of one another ($p<0.05$) (See Table 2). Additionally, a minimal detectable change (MDC) was found during the 6MWT for the control group, during 30STS for both groups and for all KOOS subscales for both groups between T1 and T2. Conclusions: Knee OA can severely impact a person's functional capacity, therefore impairing their ability to perform activities of daily living and reducing quality of life. Preliminary data suggest a beneficial trend for combining manual therapy and prehabilitation which improve function and perceptions of health and disability following surgery.

The Impact of Parental Substance Use on Children and Adolescents in Appalachia

Brianna Wilde

School of Social Work

Abstract:

This integrative project seeks to explore the impact of parental substance use disorders on children and adolescents in Appalachia. Some impacts that have been found through use of research include parentification, negative internalizing and externalizing behaviors, as well as increased rate of mental health diagnoses, co-occurring substance use disorders and involvement in the child welfare system. This project examines these impacts through strengths-based and community-based approaches using social learning theory, family systems theory, and psychodynamic theory. This project includes a critical literature review of previous studies, as well as my own research that contributes to the area of exploration and identifies need for further research on the topic. Additionally, these theories and research findings are applied to policy and best practice for working with families affected by substance use disorders in Appalachia, as well as implications for social work practice.

Therapeutic Dry Cupping in Conjunction with Targeted Movement in Treatment of Low Back Pain*

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Abstract:

Chronic low back pain (CLBP) is a common chief complaint. Dry cupping (DC) creates negative pressure, which has been shown to increase blood flow, influence the nervous system, and decrease pain. Research has demonstrated combined interventions provide the greatest changes in pain and motion. Currently, no studies combining DC and movement have been conducted. The purpose of this study was to compare changes in pain, perceived disability using Oswestry Disability Index (ODI), and passive straight leg raise (PSLR) in individuals with CLBP pre/post DC and exercise intervention. Fourteen volunteers (25.46+/-4.98; 7 females) were randomly assigned into two groups: control (CG) and intervention (IG). Over four days, both groups received three treatments with final testing on the fourth visit. Each group completed NPRS pre-and-post each treatment. PSLR and ODI was assessed at baseline and on the fourth visit. In a static position, both groups received four cups to standardized locations on the lower back for 10 minutes. Both groups performed two sets of ten reps of exercises, consisting of long arc quads (LAQ) and active SLR (ASLR). IG performed exercises with 4 cups applied to quadriceps during LAQs and 4 cups to hamstrings during ASLR. CG performed exercises without cup application. Using IBM SPSS Statistics 22 software, CG demonstrated significant improvement in NPRS pre-vs-post treatment 3 ($t(5)=2.712, p=0.042$). A significant improvement was identified for the IG in L and R PSLR ($t(6)=-3.882, p=0.008$ and $t(6)=-2.842, p=0.029$ respectively) and NPRS pre-vs-post treatments 2 and 3 ($Z=-2.410, p=0.016, Z=-2.333, p=0.020$ respectively). ODI improved in both CG and TG ($t(5)=5.966, p=0.002$ and $t(6)=4.583, p=0.004$ respectively). These findings are consistent with the hypothesis that DC with movement decreases reported LBP, perceived disability, and improves PSLR. The IG subjects reported decreased LBP after two treatments sessions, compared to CG, which required three before significant pain improvement.

Using Cooperative Learning in the Radford University Nursing Department

Kellie Quesada

Bethel University School of Nursing

Abstract:

Cooperative learning is an instructional method that utilizes the completion of group tasks with the instructor as an authority figure (Bastable, 2014). During the Fall of 2018 and Spring of 2019 semesters, undergraduate nursing courses were observed to identify innovative teaching styles and the use of technology in nursing education. In classroom observations of NURS 340, NURS 364 and NURS 360, a commonality was observed in the teaching methods used. All three courses included the integration of cooperative learning. As an active learning strategy, cooperative learning can be used to increase student engagement. The discussing, explaining and sharing of knowledge helps promote student learning in a way that passive learning does not (Hanson and Carpenter, 2011). Educators at Radford University use cooperative learning in various ways including team test taking, group tasks, test reviews and gaming. Cooperative learning offers more flexibility than team-based learning and is easier to integrate into traditional teaching techniques than other strategies such as flipping the classroom. While content and overarching pedagogies vary, the use of cooperative learning shows classroom innovation in action in the baccalaureate nursing program at Radford University.

Who, What, How: Writing and Motivation in School-Age Children with Literacy Deficits*

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Department of Communication Sciences and Disorders
Department of Communication Sciences and Disorders

Abstract:

Adolescents with Developmental Language Disorder (DLD) are limited in their lexicon, use of verbs, and syntactic structures as compared to their peers (Dockrell, Lindsay, and Connelly, 2009; Norbury, Bishop & Briscoe, 2001). These limitations are manifested in their generation of written text, resulting in poorly constructed written products (Dockrell et al., 2009). Negative attitudes towards writing may emerge (Dockrell, Lindsay, and Connelly, 2009) and with this in mind, motivation should be an integral component of writing instruction (Brouwer, 2012). Despite the established knowledge of the intersection of reading and writing, little research has occurred on writing intervention with DLD, nor on motivation as a component of writing instruction.

Self-Regulated Strategy Development (SRSD) is an evidence-based intervention focused on written products as well as student motivation, teaching students until they understand strategies and how to implement them independently (Graham, Harris, and Mason, 2005; Mason, Meadan, Hedin, and Cramer, 2012). The current study assesses student writing motivation and the effectiveness of SRSD. Thirteen children ages 9-11, identified as having language deficits, completed a graduate summer clinic for 3-weeks, working individually and in small groups with graduate clinicians.

Written language samples were collected pre- and post-intervention using "Frog, Where Are You?" by Mercer Mayer, a wordless picture book frequently used in collecting narrative samples from children. A likert scale was created to rate the writing samples in order to identify changes pre- and post- intervention. Students were also given a motivation self-rating questionnaire pre- and post- intervention to determine the effectiveness SRSD had on his/her motivation toward writing.

Analysis of data is in progress and will be completed March 2019 in time to share findings at WCIPSE. Analysis will focus on a comparison of pre- and post- motivation rating and utilizing the likert scale scores to measure changes in writing samples.

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