# 7<sup>th</sup> Annual Waldron College Interprofessional Symposium & Expo

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### RADFORD UNIVERSITY

Waldron College of Health and Human Services
Waldron College Center for Interprofessional Education and Practice

# RADFORD UNIVERSITY













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# **KEYNOTE ADDRESS**The truth about interprofessional practice: Great teamwork does not just happen

Corey Herd Cassidy, Ph.D. CCC-SLP
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Radford University

Corey Cassidy, Ph.D., CCC-SLP is the Executive Director of the Academic Success Center and a Professor in the Department of Communication Sciences and Disorders at Radford University. Dr. Cassidy also holds a secondary appointment as Professor in the Department of Health Systems and Implementation Science at the Virginia Tech Carilion School of Medicine. As a member of the Highlander community for almost 15 years, she has served in multiple leadership positions at Radford University, including Associate Dean of the Waldron College of Health and Human Services, Founding Director of the Center for Interprofessional Education and Practice, and most recently, as Executive Director of the Academic Success Center. As a licensed speech-language pathologist, Dr. Cassidy has provided services to young children and their families for more than 20 years. She has published and presented extensively, including the two most recent chapters addressing service delivery in early intervention in the textbook, Professional Issues in Speech-Language Pathology and Audiology. She teaches and conducts scholarship in the areas of early speech, language, and communication development and disorders, the relationship between music therapy and speech-language pathology with young children and their families, and interprofessional education, collaboration, and leadership across the healthcare, human services, and higher education arenas. Dr. Cassidy is also now a certified facilitator of The 6 Types of Working Genius, which is a model and tool representing the interdependent steps and comprehensive process for accomplishing work among a team.

### **Podium Presentations**

<sup>\*</sup>indicates session has earned Peer Review designation

# CATCH My Breath® Training- Engaging Future Health Professionals in Adolescent Vaping Prevention

Sallie Beth Johnson Haley Holdren Jessica Nichols Department of Public Health and Healthcare Leadership Department of Public Health and Healthcare Leadership Department of Public Health and Healthcare Leadership

#### **Abstract:**

The Commonwealth of Virginia received a 'F' in the American Lung Association's '2022 State of Tobacco Control' report on programs and policies to eliminate tobacco use. There is a need for more preventive actions, especially related to e-cigarettes and adolescent vaping. This presentation will provide an overview of CATCH My Breath®, an evidence-based nicotine vaping prevention program for ages 11-18, and highlight training activities conducted by faculty and students in the Department of Public Health and Healthcare Leadership at Radford University Carilion for CATCH My Breath® delivery. Based on the Social Cognitive Theory, CATCH My Breath® provides adolescents with the skills to resist peer pressure and media influences to try e-cigarettes. Topics for the facilitator training include youth vaping epidemic, e-cigarette laws and policies, links between vaping, lung health and infectious diseases, curriculum lessons, and interactive learning activities. Health profession students may use the facilitator training to help support CATCH My Breath® outreach and prevention services in their local community.

### The power of Bias: Using Bias to Teach Students About Social Justice\*

Christine Rogerson

School of Social Work

#### **Abstract:**

The social work profession is dedicated to teaching the impact social injustice has on society (CSWE, 2015). Health professionals are tasked with practicing in equitable, just, diverse, and inclusive ways (Wilber et al., 2020). Honest and respectful discussions of bias in the classroom can allow space for social justice to be discussed genuinely and without judgment (Rogerson et al., 2021). Educators can stimulate discussions surrounding bias in the classroom in a way that encourages critical and reflexive thinking (Rogerson et al., 2021). This starts with providing knowledge about implicit and explicit bias, then shifting to opportunities for reflexivity where people can contemplate the influence their own experiences might have on others (Hara, 2010). Educators who model reflexive thinking in the classroom provide opportunities for their students to mimic and practice reflexive thinking of their own. Supporting and proving opportunities for critical personal reflection can be used to support students in affecting change (IFSW, 2018).

This presentation will share tools that educators can use in their classrooms to promote reflexive practice and move towards transformative learning experiences. Activities surrounding opportunities for personal reflection, and applying self-awareness to manage bias (CSWE, 2015), as well as examining potential impacts will be discussed. Activities such as journaling can provide opportunities for transformational learning (Merriam & Bierema, 2014), by encouraging critical self-reflection of personal bias and the effect it can have on decision-making. This, paired with a classroom environment where faculty use purposeful language to facilitate mindfulness, modeling, and a non-judgmental space for discussion, can support students in transitioning conceptual learning into practical application (Crittle & Maddox, 2017). Last, the use of simulation or scenarios with dilemmas in which students must critically examine decision-making opportunities can often lead to the integration of newly acquired skills (Mezirow, 2011).

# Peer Patient Round Table: An innovative approach for evaluating clinical performance of NP students

Marjorie Young Carey Cole Eunyoung Lee School of Nursing School of Nursing School of Nursing

#### Abstract:

Backgrounds: Clinical performance is a crucial part of evaluation in NP education and has traditionally been accomplished through faculty site visits. The evolution of distance learning online programs and recent years of COVID 19 pandemic have further complicated completing site visits, requiring an innovative approach to NP education and student evaluation. 'The Peer Patient Round Table (PPRT)' was developed as an alternative evaluation method of student performance and implemented between May 2020 and May 2021 during the COVID-19 pandemic. In the PPRT method, students were involved in a shared role-play of three roles; a patient, a nurse practitioner student, and a preceptor during individual scenarios. Purpose: This project investigated the virtual PPRT experiences of students and faculty as an evaluation tool for student clinical performance. Methods: Post-intervention survey including qualitative and quantitative questionnaires was utilized among 14 NP students and 4 faculty who participated the PPRT sessions. Results: Both students and faculty reported that the PPRT evaluation method is effective in measuring students' clinical performance, compared to traditional site visits. The following positive aspects of PPRT were highlighted: the dynamic peer interaction, the evolution of thought process through three different viewpoints/roles, challenging themselves to think out of the box, and greater responsibility and independence to complete the patient visit. Additionally, the PPRT process helped in improving clinical knowledge, reasoning, and confidence in making clinical decisions for diagnosis and treatment plans, along with interviewing/communication skills. Future implication: PPRT method can be used in NP education, not only as an evaluation method but also as the education platform along with debriefing sessions. Improvement in utilization of telemedicine devices can make this PPRT method more attractive by minimizing the limitation of evaluation of physical assessment skills.

### **Poster Presentations**

 $[\ensuremath{^{*}}]$  at the end of the title indicates session has earned Peer Review designation

# The Effect of Obstructive Sleep Apnea on Motor Function in Patients' Diagnosed with Parkinson's Disease

Adrian Aron Kara Pohlmeier Ana Catherine Hilton Nikki Turner Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy

#### **Abstract:**

Purpose: The goal of our study was to objectively determine the impact of concomitant diagnosis of Obstructive Sleep Apnea (OSA) and Parkinson's Disease (PD) on motor function.

Methods: Data was collected and analyzed from individuals diagnosed with idiopathic PD recruited within the local community. Each subject underwent physical screening and baseline motor function testing with various outcome measures and then provided an ApneaLink for overnight sleep analysis. Pertinent data recorded included: Apnea-Hypopnea Index (AHI), Oxygen Desaturation Index (ODI), average saturation, lowest desaturation, lowest saturation, number of desaturations related to total time and percentage of sleep time, number of hypopnea events, number of apnea events, and number of snoring events.

Results: Six subjects volunteered, with an average age of 73.5 years old and a Hoehn & Yahr score of 2.5. None of the subjects tested positive for OSA. No correlation was found between mUPDRS, five time sit to stand, mini balance evaluation systems test, Timed up and Go (TUG), TUG cognitive, and 10 meter walk test at self-selected speed against various sleep variables.

Conclusions: Since OSA was not present in this population, the deleterious effects of this disease did not impact the functional outcomes of PD subjects.

### Factors Influencing Secondary Trauma among the Child Welfare Workforce

Olivia Berry

School of Social Work

#### **Abstract:**

This poster will explore the factors that influence secondary trauma among those working within Departments of Social Services. Given the traumatic experiences of clients, child welfare workers are exposed to trauma daily, which can result in high levels of secondary trauma. Addressing secondary trauma is imperative, as it can contribute to burnout, compassion fatigue, and ineffective work with clients in the field. Researchers have found higher levels of secondary trauma in individuals working in child welfare compared to other social work areas of practice. Some of the factors that can contribute to higher levels of secondary trauma are workplace environment, personal factors, and lack of support. With education and training, symptoms of secondary trauma can be reduced. Secondary Traumatic Stress Scale scores among the child welfare workers surveyed appeared to be significantly higher than among the clinical sample upon which the instrument was developed. In treating secondary trauma among child welfare workers, Acceptance and Commitment Therapy (ACT) will be discussed, as informed by the application of Social Cognitive Theory and Organizational Culture Theory. Additionally, connections will be made to the social work value, importance of human relationships. Social work practice and policy implications will also be addressed. By exploring the factors that contribute to secondary trauma among child welfare workers, it is hoped that greater awareness and guidance on how to reduce or avoid symptoms of secondary trauma will ultimately reduce its prevalence among this population.

### **Psychological Resilience in Adolescents**

Eric Clark School of Social Work

#### **Abstract:**

Mental health maintenance is an important part of everyday life, but it's not something that people are inherently born with, you have to develop it, and that is a process. Statistics suggest that about half of all mental illness begins before the age of 14, and the majority by the age of 24, so it would be beneficial to start building resilience around the age of 14; during adolescence. However, why is psychological resilience necessary? Even if mental illness does start that early, why would everyone need to work on resilience? This integrative project will explore the prevalence of mental illness and related issues to express the importance and implications of building resilience and psychological maintenance. . The research I conducted in the Fall of 2021 to determine if there were any personality types that are prone to or protected from burnout evidenced that anyone and everyone can experience it. If everyone is susceptible to mental illness, everyone should be protected from it, and if we know the benefits of building psychological resilience, then there is no reason to hold back on working towards it. There is no downside to building psychological resilience to protect yourself and your mental health, but there are many positive outcomes, and it limits the amount of active daily mental health maintenance required. It can only be helpful to work on it, and it makes maintaining positive mental health more easily and naturally attainable. Using Cognitive Theory and Systems Theory, we can identify some of the variables that impact mental health and ways to reduce the negative impacts. Using Cognitive Behavioral Therapy, we can redirect and reframe negative thought processes to better treat mental illness and promote resilience.

### **Male Victims of Intimate Partner Violence**

Anne Clay

School of Social Work

#### **Abstract:**

Intimate partner violence is a major concern for men and women alike. Previous research has shown the effects of intimate partner violence on an individual can be devastating and seeking help is often difficult. Men, especially face several challenges when seeking help. They often fail to recognize themselves as victims or are faced with stigma when they choose to seek help. In this project, an exploration of the experiences of male victims is attempted. A survey was conducted in which both men and women shared the sources they sought out for help as well as their experiences of helpfulness. It was discovered that in seeking help many of these victims faced adverse consequences. Through the application of Social Learning Theory and Systems theory causes of Intimate partner violence are explored as a learned means for maintaining control and an intergenerational cycle of violence. Cognitive Behavioral Theory is examined as a practice approach with male victims of intimate partner violence in the treatment of common symptoms such as depression and anxiety. This integrative poster offers further exploration of the experiences of male victims of intimate partner violence.

### **Substance Exposed Children and Home Placement Practices**

Patricia Cress

School of Social Work

#### **Abstract:**

Substance exposed children are often removed from biological mom's custody and placed into foster care or other out of home placement. Federal and Virginia state laws dictate that this vulnerable group of substance exposed infants is entitled to protection from child abuse and neglect. This poster seeks to understand the implications of the home placement decision on the development and well-being of the child. The research examined the Early Intervention records of substance exposed infants to determine the developmental rates of those in foster care versus those parented by biological mother. Despite parental use of substances, it appears from the quantitative research that substance exposed infants make greater developmental gains when living with biological parents. Theories of attachment are discussed to explain this unexpected finding. Family systems theory is also examined to explain how the whole family suffers when one member is addicted to alcohol, drugs, or other substances. The survey of stakeholders yielded evidence of the bias that exists against substance-using mothers by professionals who are in the field working with these families daily. Future research should be aimed toward more in-depth studies of development of substance-exposed children based on their home placement location. Additional education is needed for all stakeholders to mitigate the bias that was evident in this study.

# The Effects of Head Mounted Virtual Reality on Trunk Muscle Activation in Healthy Adults\*

Adriel Delacruz Hannah Grasberger Ara McCarty Michael Hall Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy

#### **Abstract:**

Objectives: The purpose of this study was to determine the intensity and duration of trunk muscle activity when participants were playing a commercial head-mounted virtual reality (VR) game.

Methods: 20 participants completed a single session of the VR game Beat Saber (BS) in static sitting, dynamic sitting, and standing postures. Trunk muscle activity (%MVIC and TIZ) was evaluated using surface electromyography (EMG) sensors placed on the rectus abdominus (RA), internal oblique (IO), external oblique (EO), and erector spinae (ES). Processed EMG signals were divided into 200-ms blocks and each block was categorized by its average normalized EMG activity, <59% maximum voluntary isometric contraction (MVIC) or &gt;60% MVIC. The total number of consecutive blocks (MCB) in each category was used to determine truck activity intensity and the maximum number of consecutive blocks &gt;40% MVIC was used to determine the duration of muscle activity or the time in zone (TIZ).

	ANOVA		Mean (SD)			Sig
	F	p	SS	SB	ST	SS
v SB MCB	SS v ST SB v ST					
RA	2.08 (2, 36)	0.14	9.68 (17.71)	1.37 (0.68)	7.68 (16.79)	
ES 0.27	6.72 (2, 36) 0.01 0.01	0.00	37.32 (39.41)	52.05 (77.14)	90.89 (102.70)	
EO	0.55 (2, 36)	0.58	101.84 (94.09)	86.05 (101.76)	, ,	
10	0.67 (2, 36)	0.52	47.32 (66.03)	29.68 (61.15)	36.53 (66.27)	
TIZ						
RA	0.32 (2, 36)	0.73	0.15 (0.44)	0.10 (0.24)	0.17 (0.39)	
ES	2.72 (2, 36)	0.08	1.38 (3.06)	2.43 (6.00)	4.71 (11.42)	
EO 0.05	3.79 (2, 36) 0.07 0.51	0.03	4.00 (5.48)	2.60 (4.14)	2.39 (3.37)	
Ю	0.63 (2, 36)	0.54	0.92 (1.77)	0.54 (1.25)	0.54 (1.24)	

Conclusion: Trunk muscle activity during VR gaming was consistently <40% MVIC with brief periods of &gt;60% MVIC for all muscle groups. There was no significant difference when comparing levels of gameplay or different body positions. The EO and ES muscle groups demonstrated the longest durations of muscle activity regardless of the level of gameplay or body position suggesting these muscles were most utilized during gameplay.

# **Exploring Perceived Stigma Among Former Prisoners Several Years Post-Release: A Social Work Perspective**

Gabriele Druckenmiller

School of Social Work

#### **Abstract:**

Serving time in prison puts a person in their most vulnerable and unprotected position, often for years at a time. Upon release, it is incredibly difficult to switch from survival mode to the citizen mode expected on "the outside." Often, little support is provided post-release, and this results in a revolving door of the criminal justice system. Due to the stigma these individuals experience, they have a very difficult time integrating back into society; this often leads them to conform to the expectations others already have set for them and re-offend. The literature discusses three main themes seen when looking at this population: social labeling theory, gender and race considerations, and community vs. offender perceptions. Results from qualitative semi-structured interviews with former prisoners about perceived stigma will be shared. Information from previous studies and this study align; thoughts, feelings, attitudes, and fears are similar in terms of having difficulties post-release. Some reasons given by respondents for these difficulties include lack of support from families and communities, lack of knowledge of resources, lack of employment and housing opportunities, and being afraid of being stigmatized and having to relive their past. Results showed that offenders report experiencing the most stigma just after being released due to being an ex-con but, after having time within society post-release, offenders began recognizing they were perceiving more stigma than they were actually experiencing. Empowerment Theory and Systems Theory will be used as a backdrop for Narrative Therapy for ex-offenders. Rewriting and telling their stories while empowering individuals to advocate for their needs are powerful mechanisms for change. Social justice, racial justice, and inclusion are just some of the implications touched on in this study. It's important to recognize that offenders can be rehabilitated and functioning members of society, regardless of their criminal history.

#### Stressors of Parents Who Have a Child with Autism

Odion Edionwele

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#### Abstract:

This integrative project aims to understand stressors of parents who have a child with autism. A qualitative research study was done, and data was analyzed using thematic analysis. Parents did interviews and surveys to determine their parenting styles at home for their child with autism and discuss stressors and support systems. Each question pertained to strategies parents used with their children, the effectiveness of those strategies, and parents' stressors. These questions also determined if a parent is more strict or permissive. The findings reveal that most parents use permissive and authoritative parenting styles. The majority of parents' biggest stressors are the lack of support, limited resources, and handling their autistic child's behavior. Policies addressed in this poster are the Autism Cares Act and Autism Insurance Act of Virginia. Theories used in this this project are family systems theory and stress and coping theory. Both dysfunctional and nonproblematic behaviors are said to be caused, maintained, and perpetuated by patterns of interaction among family members, according to family systems theory. The stress and coping theory examines how people cope with the negative effects of stress. Social workers can utilize Cognitive Behavioral Therapy to teach strategies that parents can apply to their lives in between sessions. Goals for parents of children with autism spectrum disorder can be to manage time, have better focus, change negative thoughts, and learn coping skills.

### The Efficacy of Welfare Policies with Vulnerable Populations

Alexxa Forrester

School of Social Work

#### **Abstract:**

The purpose of this integrative project is to determine which U.S. welfare policies best help vulnerable populations, such as those who are poor, oppressed, disabled etc. Those in vulnerable populations have a greater chance of being dependent on welfare services, because of individual and societal barriers. That is why it is extremely important that welfare policies are effective and easy to navigate. Determining which welfare policies are the most effective and ineffective can emphasis what the needs are and can make it easier to develop specific solutions for welfare policies. The program design used in the research portion of this project looks at how yearly Virginia TANF allocation rates affect the yearly rate of children in the Virginia foster care system. Common themes referenced in the literature review include adverse effects from inadequate welfare services and vulnerable populations being affected the most by inadequate welfare services. Theories used for analysis in this integrative project include conflict theory as macro theory and constructivism as micro theory. These theories help highlight inequalities in welfare policies and call attention to systemic problems in society. The practice model used for analysis in this integrative project was the problem-solving model and variations of the model, such as the financial problemsolving model. Some possible implications for social work practice include promoting social justice and social welfare. A social worker can empower a client to advocate for themselves by highlighting inequalities or oppression in society, which in exchange will promote social justice. Additionally, social workers have an obligation to help those in need and to make sure everyone has equal access to resources and services. Future directions of research include looking at additional welfare policies and comparing how effective each policy is with certain vulnerable populations, to better meet the needs of every vulnerable population.

### **Burnout Among Health Care Workers: A Social Work Perspective**

Kevin Frady

School of Social Work

#### Abstract:

Burnout has always been a major worry for healthcare workers, and the COVID-19 pandemic has only exacerbated this concern. Indeed, in some ways, burnout has reached the level of utter collapse for workers in overwhelmed hospitals, ICU units, and Emergency Departments during the worst weeks of the pandemic. These workers are the foundation of our medical and mental health institutions that provide indispensable services to those in need. Burnout has been linked to retention, mental well-being, and the satisfaction that healthcare workers feel in regard to their roles. Understanding burnout through the lenses of Conflict Theory and Social Exchange Theory will inform policy and individual treatment approaches to burnout among healthcare workers. Social workers have a responsibility to promote a healthy and respectful interdisciplinary environment. There is a further commitment to for social workers to advocate within and outside of the agency for resources to better serve the needs of clients. Addressing burnout for healthcare workers is not just essential for the well-being of the worker; it is necessary for appropriate delivery of services to clients.

### Barriers Veterans Face Resulting in Delayed Reports on Mental Health Diagnosis or Symptoms

Kirstie Gorrell

School of Social Work

#### Abstract:

This integrative project examines the reasons that veterans in the United States delay or avoid reporting mental health symptoms or diagnoses. Military culture is explored as one possible reason that there is such stigma associated with mental health issues. This exploration will begin by looking at the current literature on the topic in addition to perusing topics on policies, ecological systems theory, social learning theory, and cognitive behavior therapy. The literature identified several elements that are instrumental in understanding the topic from the veteran's viewpoint, including Perceived Organization Support (POS) and the risk of veteran suicide. Other important concepts addressed in the literature review are fears veterans have of being viewed differently due to a mental health issue and the military code of conduct. Mental health stigma in the military will be analyzed and discussed in several different sections to address the barriers veterans face regarding their mental health. Cultural competence among social workers is an ethical standard that will be explored to explain the benefits of understanding different cultures, especially the military culture. Social work values such as competence explain why it is important for social workers to continue with research and education as this helps with deciding which interventions to use and what would be the most beneficial for their clients. By reviewing these topics, it will allow greater understanding of the military population's thinking, values, culture and promote social change as well as advocacy for our men and women in the military.

# **Examining the Quality of Relationships between Child Welfare Workers and Foster Parents**

Barbara Hill

School of Social Work

#### Abstract:

This poster examines different aspects of the relationship between the child welfare worker and foster parents. Ensuring the child's safety and security requires effective teamwork and communication between both parties. Recent literature has examined the needs of the foster parents for greater support from their child welfare worker. However, there are limited studies that focus on the aspects of improvement needed for the relationship through the lens of the child welfare worker. Previous literature identified common themes needs from the perspective of foster parents including communication, training needs and access to resources. Qualitative semistructured interviews were conducted on the areas child welfare workers would like to see improve in the relationship they have with foster parents. The results of the study showed child welfare workers would like to improve communication, increased support for foster parents, and more encouragement for foster parents in engaging with biological families. These child welfare workers would also like for foster parents to receive better training and to have a better support system outside of their workers. Family Systems Theory and Conflict Theory will be used to inform traumainformed care in the treatment of children involved in the child welfare system. Two core values of social workers are dignity and worth of the person and importance of human relationships; they play a significant role in working with foster parents. Understanding what an individual is capable of handling and strengthening the relationships are an important goal of social workers within the child welfare system.

### The Disparities in Healthcare Services within Black Women

Shamani Jackson

School of Social Work

#### **Abstract:**

This integrative project analyzes the disparities within the healthcare industry and how it impacts black women. Racism and social inequalities have severely impacted the quality of care provided to those of the minority. Recently literature was analyzed and examined on the prevalence of healthcare disparities, and how they affect black women who are negatively impacted by the practice. The results of the analysis show a significant correlation between the lack of support from the medical industry and the prevalence of health issues among black women. This text contains social work theories such as intersectionality and systems theory, local and state policies, practices, and implications for the field of Social Work. Providing equal healthcare resources for black women is imperative to the growth and development of the black community. As racial inequalities continue to divide the nation, social justice and advocacy for all individuals is essential in the social work profession to promote equality in all institutions.

### **Medical Care for Refugees**

Claudine Katete

School of Social Work

#### **Abstract:**

The United States of America has a remarkable intake of African refugees each year. The majority come through the humanitarian programs and small percentages arrive seeking asylum. This process has resulted in multiple debates, whether refugees deserve the opportunity of migrating to the USA. These have been associated with negative attitudes within the communities where refugees reside. Research has shown that realistic threats and other significant threats are the reasons for the national population's attitude towards African refugees. The social opportunity of interest has also been shown to be an influential reason why nationals express negative attitudes towards African refugees. Even though some nationals have negative attitudes towards African refugees, a reasonable percentage feels positive about refugees' challenges that they experience when adjusting to the US.

This integrated project specifically focuses on medical care for refugees, identifying barriers that prevent refugees to access medical care. The integrated project takes into consideration theories such as ecological systems theory, and family system theory to understand refugee families' dynamics and functioning while learning cultural roles within refugee families and cultural values. The project also demonstrates the implication of family system therapy as the practice model for intervention with African refugee families and elements of how the practice can be used successfully with refugee families.

Furthermore, this integrated project investigates federal and state policies that would have a positive impact on the implementation of effective medical care opportunities for refugees living in the United States. The project navigates different literature reviews that cover information on medical care for refugees with a focus on understanding how refugees transition in their host country as they get a chance to appropriate medical care services.

# Effects of the Therapeutic Alliance on Recovery for Patients with Musculoskeletal Disorders in Physical Therapy

Gina Kihnley Kristen Vogelbein Brittiny Wolfe Will Kolb Radford University Carilion Doctor of Physical Therapy Program Radford University Carilion Doctor of Physical Therapy Program Radford University Carilion Doctor of Physical Therapy Program Radford University Carilion Doctor of Physical Therapy Program

#### **Abstract:**

#### Background:

Physical therapy is a unique health profession, wherein providers can interact with patients on a frequent and routine basis. The very nature of these sessions can lend itself to fostering a working relationship between PT and patient, known as therapeutic alliance (TA). Given the subjective nature of TA in conjunction with the varying personality types at play, the degree to which TA impacts outcomes is not well understood. Therefore, the purpose of this study was to assess how PT personality type and TA can impact patient outcomes in conjunction with traditional therapeutic interventions in an outpatient physical rehab setting.

#### Methods:

Subjects were recruited via convenience sampling at 3 privately owned clinics. TA was assessed via CARE tool at the 2nd, and every 4th visit, along with the OSPRO. PT personality was determined through the "Big Five" personality test, taken at the start of the study. These collective outcomes were entered into Qualtrics and analyzed through SPSS.

#### Results:

There were 13 subjects, 7 females and 6 males, included in this study. TA measured by CARE scores exhibited a ceiling effect and was not useful for comparison. Of the 5 subject whose CARE score did not begin at a perfect score (ranged from 41-49), a crosstabulation analysis found that the presence of comorbidities (cardiac conditions, diabetes, obesity, post-surgical, chronic condition and case complexity) had little to no effect on the subjects' change in CARE score, and that females tended to have a lower initial CARE score than males, possibly indicating sex plays a role in establishing early TA. The data obtained in this study also indicates no significance between the subjects' length of treatment and their OSPRO score.

#### Discussion/Conclusion:

Further research is needed to accurately indicate what role TA and personality type does play in rehabilitative outcomes.

### Stigma and Barriers that Prevent Mental Health Help-Seeking in the Black Community

Lakhara Dillard

School of Social Work

#### Abstract:

This integrative poster explores the stigma and barriers that prevent mental health help-seeking in the black community. The topic of mental health in the black community is not openly discussed due to the steeped stigma rooted around mental health for generations. The negative perceptions around mental health have been passed down from generation to generation which has skewed the way individuals in the black community view mental health. Individuals in this community are raised to be strong, especially black men, so it is considered taboo to discuss such a vulnerable topic that highlights a personal weakness. To understand mental health in the black community one must understand all factors from the ingrained misconceptions to the systematic barriers. Literature states that various cultural factors and structural challenges play a role in hesitation towards mental health help-seeking in the black community. This poster will analyze the impact of the discovered stigma and barriers on the current mental health help-seeking behaviors in the black community.

In effort to understand how these factors affect individuals in the black community, ecological systems theory and critical race theory will be used to view this topic form a theoretical perspective. Ecological systems theory will explain how different interactions and influences shape the behavior of individuals in this community. Critical race theory will highlight how racial oppression, discrimination, and inequality found within structural institutions impact this community. Narrative therapy is a practice model approach that will be used explain how understating the stories of individuals in this community will help social workers adequately address mental health concerns. The Pursuing Equity and Mental Health Act and Project BRAVO will also be analyzed to identify the impact policy has on this community. Through these different perspectives social workers can address societal and structural barriers among individuals in this community.

### Radford University Brain Injury (RUBI) Center Needs Assessment

Briana Litton Rebecca Epperly Terri Shelor Communication Sciences and Disorders Communication Sciences and Disorders Communication Sciences and Disorders

#### **Abstract:**

Brain injury survivors present a unique profile of needs following the acute rehabilitation phase which impacts their quality of life. In the last 10 to 15 years post-acute community based brain injury centers have been developed in larger metropolitan areas to address these needs. To assess the needs of brain injury survivors the Quality of Life after Brain Injury (Qolibri) survey was used to gather epidemiological data to guide community services through the Radford University Brain Injury Center (RUBI). Data presented will cover the physical, psychological, daily life, and psychosocial changes of brain injury survivors in the New River and Roanoke Valleys.

# Examining Domestic Violence During the COVID-19 Pandemic in Rural Virginia

Ariana Martinez

School of Social Work

#### Abstract:

For almost two years, the COVID-19 global pandemic has disrupted millions of lives. Mentally and emotionally healthy people felt like the walls were closing in around them. If these people were impacted in such a terrible way, even more those who did not have the support, coping mechanisms, and overall mental, emotional, and physical capacity to carry the weight of the regular stressors the pandemic caused along with perpetual abuse. Stay at home mandates intended to keep individuals free from physical illness, increased the likelihood of harm for those trapped inside a home with an abuser. From the existing literature we know the prevalence of domestic violence has dramatically increased over the course of the pandemic and it always higher due to unreporting. The literature surrounding domestic abuse regarding its prevalence, impact, and service delivery will be further discussed. Results of a qualitative study examining the effectiveness of interventions for individuals who faced domestic violence in rural Virginia over the course of the pandemic will be presented. Attachment Theory and Systems Theory will be used to inform interventions including Mindfulness Based Stress Reduction when working with victims of domestic violence. The core social work values, dignity and worth of a person and importance of human relationships apply directly to this population due to the nature of the situation victims are in as their personal dignity is abused and their worth diminished. Social workers must be continually evaluating their work with survivors and implementing practices and interventions that fit their individual needs and are influenced by all the dynamics of their situation including their environment during the pandemic.

# Increasing Preparedness & Understanding of Mental Health Amongst Law Enforcement in Rural/Suburban Communities\*

Kayla Meade

School of Social Work

#### Abstract:

The purpose of this integrative poster is to gain insight into the preparedness to intervene in crisis and understanding of mental health among law enforcement in rural/suburban communities. Many Americans live with mental health problems; it is vital as first responders that law enforcement officers receive adequate training and education on mental health. The important concepts addressed in the literature review include police/law enforcement, Crisis Intervention Team/Training (CIT), New River Valley VA Police Department officers, rural, suburban officers, and individuals experiencing a mental health crisis. The research found common themes, including a need for training on de-escalation tactics, substance use, mental health disorders, suicide, resources available for officers and individuals in crisis, and funding and resources for local hospitals and mental health services. Conflict Theory is used to explain how power structures influence mental health training. Social Learning Theory analyzes how law enforcement officers learn from each other's behaviors and the benefits of department-wide mental health training. The integrative poster looks at The Crisis Intervention Model and how the steps can be implemented into mental health training for law enforcement officers and utilized with mental health professionals. Federal law, S.1837 - Law Enforcement for Mental Health Crisis Response Act of 2021 and Virginia Law § 9.1-193. Mental health awareness response and community understanding services (Marcus) alert system; law-enforcement protocols are beneficial for law enforcement officers and individuals experiencing mental health problems. Advocating for adequate mental health training aligns with social work values of social justice and the importance of human relationships. Minority populations experience the use of force at high rates; proper training creates safer spaces for all and addresses implicit bias held by officers. Adequate mental health training can create a safer space for everyone and a more inclusive environment.

# The Impact of Adverse Childhood Experiences on Communication Skills in Adulthood

Kaylyn Messenger

School of Social Work

#### **Abstract:**

This poster examines the impact of Adverse Childhood Experiences (ACEs) on communication skills in adulthood. By identifying the negative impact of ACEs on child development of communication skills and other outcomes, it can be seen that the quality of relationships and interactions in childhood is vital to overall health and success throughout one's lifetime. Current literature clearly states that exposure to trauma in childhood has a significant impact on interpersonal functioning into adulthood. Other common themes identified include diminished quality of communication as well as a greater risk for intimate partner violence. Results of a quantitative study measuring participants' Adverse Childhood Experiences as well as their Interpersonal Communication Skills will be discussed. This study received approval from the Radford University IRB. The general findings suggested that higher ACE scores were associated with lower levels of Interpersonal Communication Skills. Ecological Systems Theory and Psychosocial Development Theory are used to inform Narrative Therapy in the treatment of individuals processing trauma experienced during childhood. Continued study of the impact of ACEs on children and adults serves to better inform social work interventions and policies that promote social work values. Addressing the values of dignity and worth of the person and the importance of human relationships in a child's formative years can, in turn, reduce negative outcomes in the future.

### **Community Driving Simulation Program at Radford University**

Laura Miear Noelle Cox Department of Occupational Therapy Department of Occupational Therapy

#### **Abstract:**

Driving is an important occupation that connects individuals to many other occupations. Living in a rural community means that you are often reliant on your ability to drive in order to attend work, go to the grocery store, meet up with friends, and make it to all of your appointments. Individuals who have had a medical event, such as a CVA or TBI, can struggle to regain the ability to get back on the road safely. They often have deficits in reaction times, visual motor skills, and divided attention which are critical to one's ability to safely navigate the roadways. It is also difficult for a physician, PA, or NP to make the decision about when an individual is ready to return to driving. In addition to former drivers, community members with diagnoses such as a learning disability, cerebral palsy, or autism would like to learn to drive for the first time. Parents and caregivers may have some hesitation about getting behind the wheel with them since they are unsure of their ability levels related to driving.

The department of occupational therapy at Radford University offers a driving simulation program to meet some of these needs. We offer driver screenings to determine areas that may be impacted by their medical conditions as well as weekly training sessions using the simulator to work on skills such as reaction times, operation of primary and secondary vehicle controls, maintaining good lane position, handling stressful roadways situations, and divided attention.

### **Understanding Ageism in Health Disparities Among Older Adults**

Samantha Miller

School of Social Work

#### **Abstract:**

This poster examines the impact of ageism and health disparities among the older adult population. While these topics have been greatly covered within the literature, a need exists for supportive legislation and funding to improve opportunities for social and racial justice among diverse populations. Systemic discrimination against minority populations is known to strongly influence health outcomes and create greater risk for severe negative outcomes such as heart disease in later life. Ecological Systems Theory describes how ageism within the health care system greatly increases the likelihood of poor health outcomes and contributes to existing health disparities. How a person ages is directly related to their health and ability to participate in daily activities according to Successful Aging Theory. When working with diverse populations social workers should consider the impact of systems when during practice with clients. Results of a qualitative study will be presented detailing. This study examines the experiences of older adults receiving Medicare and Medicaid via interviews of care coordinators for a Virginia Managed Care Organization. Finally, this paper will discuss the importance of social work involvement in advocating for systemic change within healthcare.

# Combined Neurocognitive and Exercise Tolerance Testing for Individuals with History of Concussion- Preliminary Data\*

Daniel Miner Brent Harper Grant Westbrook Demik Holloway Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy

#### Abstract:

Purpose/Hypothesis: Concussion management clinical practice guidelines advocate exercise tolerance testing for individuals with symptoms of exertional intolerance prior to return to play (RTP). The Buffalo Concussion Treadmill Test (BCTT) is a standard assessment of exercise tolerance. Exercise intolerance is associated with increased post-concussive symptoms, especially with increased cognitive load. One limitation of BCTT is the stop criteria are based on self-reported symptoms. Combining neurocognitive dual-task performance with exercise tolerance testing may allow clinicians to objectively identify those requiring further assessment or rehabilitation before RTP. The purpose of this study was to determine the clinical utility of the BCTT-Cognitive (BCTT-Cog), which adds a neurocognitive assessment battery (e.g., single-and-dual-tasks) to the BCTT, to identify performance deficits based on history of concussion.

Subjects: 6 Male, 6 Female; Age 23.8±0.72; BMI 24.73±2.63; Concussion History (n=5), No Concussion (n=7)

Materials/Methods: Subjects completed the BCTT-Cog at baseline and after the standard BCTT. BCTT-Cog includes the Stroop test and components of the Military Acute Concussion Evaluation-2 (MACE-2) to assess working memory, attention, and information processing speed/accuracy in single-task (seated position) and dual-task conditions (walking on a treadmill at 2.0 miles per hour (mph)). Time to complete each component of the BCTT-Cog was recorded to the nearest millisecond. Paired t-test evaluated baseline vs post-test, effect size (e.g., Cohen's d) was interpreted, and minimum detectable change (MDC95) scores were calculated. Independent Samples T-Test evaluated performance differences based on history of concussion. Statistical analyses completed with IBM SPSS, version 27.

Results: BCTT: Average %HRmax=95.32±5.9%; Average maximum Rating of Perceived Exertion (RPEmax)=18.92±1.0. Significant improvements evident on the following neurocognitive assessments: BCTT-Cog Sitting: Stroop Incongruent (t= 1.8, p= 0.003, d= 2.90, MDC95= 2.32 sec); Concentration-Reverse Digits (t= 2.914, p= 0.014, d= 1.87, MDC95= 1.49 sec); Concentration-Months in Reverse (t= 3.258, p= 0.008, d= 3.59, MDC95= 2.87 sec); Delayed Recall (t= 2.833, p= 0.016, d= 4.14, MDC95= 3.31 sec); BCTT-Cog Treadmill: Concentration-Reverse Digits (t= 2.396, p= 0.035, d= 2.46, MDC95= 1.97 sec); Stroop Congruent (t= 2.438, p= 0.033, d= 1.13, MDC95= 0.9 sec). Though not significant, individuals with history of concussion demonstrated a 3.7 second improvement in the Stroop Incongruent test on the treadmill, while performance was unchanged in those without concussion history.

Conclusions: Following exertional testing with the BCTT-Cog, performance on a battery of neurocognitive assessments improved significantly across multiple domains. Failure to demonstrate improvements in the BCTT-Cog may indicate that individuals may require further evaluation.

Clinical Relevance: Combined assessment of exertional tolerance and dual-task neurocognitive performance may help clinicians identify those at risk for future injury who would benefit from further assessment or intervention before RTP.

### Immediate Effects of Forced Exercise Cycling on Core Outcomes in Individuals with Parkinson's Disease\*

Daniel Miner

Greg Croster

Joseph Joyce

Jane Everett

Madison Noel

Department of Physical Therapy

#### **Abstract:**

Purpose/Hypothesis: Motor fluctuation due to wearing off of carbidopa/levodopa therapy in people with Parkinson's Disease (PwPD) is associated with a "change from mobility to disability," due to worsening of rest tremor, bradykinesia, rigidity, and increased difficulty with mobility and balance. Treatment of motor fluctuations is focused on pharmacologic therapy. Evidence is lacking for non-pharmacologic management of motor fluctuations; however, recent evidence suggests forced exercise cycling (FEC) may improve the motor symptoms of PD to a similar degree as dopaminergic therapy. The purpose of this study was to examine immediate effects of a single bout of FEC on performance on core outcomes in PwPD. It was hypothesized that performance on core outcomes would improve immediately following FEC regardless of "ON-OFF" medication status.

Subjects: 4 males, 4 females; Age 73.1±5.9 years; Years Since PD Diagnosis 6.6±3.2; Hoehn & Yahr 2.5±0.5; "ON" medication (n= 3), "OFF" medication (n=5)

Materials/methods: Baseline Testing: Unified Parkinson's Disease Rating Scale- Motor Score (UPDRS-III), 9 Hole Peg Test (9HPT), miniBESTest (MBT), 10m Walk Test (10mWT)- self-selected speed and fast speed. Intervention: 48 hours later, subjects completed a single FEC session (30 min. (active-assisted cycling at 80 rpm) with a 5 min. warmup/cooldown at 50 rpm) on a Motomed Viva2 Parkinson cycle. Heart rate (HR) and Borg Rating of Perceived Exertion (RPE) were monitored throughout. Post-test: All outcome measures above assessed immediately following FEC intervention. Time of day and time from last dose of levodopa/carbidopa was kept consistent for baseline and post-test to control for differences in performance attributable to medication effects. Dependent t-tests analyzed differences in baseline vs post-test for all outcomes, Cohen's d for effect size was calculated. Independent T-Tests evaluated differences in performance based on "ON" vs "OFF" medication status. Statistical analyses completed with IBM SPSS, version 27.

Results: FE Cycling: RPEmax=  $13.9\pm1.2$ ; %HRmax=  $60.4\pm4.3$ %. Significant improvements (t  $\geq 1.895$ ) were observed in the following outcomes: UPDRS-III (t= 11.8, p= 0.000, d= 5.1); UPDRS-Bradykinesia (t= 11.4, p=0.000, d= 1.5); UPDRS-Tremor (t= 5.287, p= 0.001, d= 2.9); UPDRS-Rigidity (t= 11.906, p= 0.000, d= 1.1); MBT-Total (t= 5.494, p= 0.001, d= 2.2); MBT-Dynamic Gait (t= 2.20, p= 2.20, d= 2.20); UPDRS-Rigidity (t= 2.382, p= 2.20). Cohens d value of 2.88 was interpreted as a large effect size.

Conclusions: A single bout of FEC resulted in immediate improvements in motor symptoms of PD (bradykinesia, rigidity, and tremor) and performance across multiple balance systems, dynamic gait, fast walking speed, and upper extremity coordination. No significant differences were observed based on "ON" vs "OFF" medication status.

#### Clinical relevance

Regardless of medication status, PwPD demonstrate immediate improvements in performance on core outcomes across multiple domains of function following FEC intervention. FEC may be a powerful adjunctive therapy for management of motor symptoms/fluctuations affecting PwPD.

### Barriers and facilitators to advance financial care planning among diverse older adults\*

Mingyang Zheng

School of Social Work

#### Abstract:

Introduction: One of the smartest ways to prepare for declines in financial decision making capacity is to appoint an agent under power of attorney for finances and to share important financial information and preferences with trusted family or friends. Yet only 12% of older Americans with children think that they'll need help with their finances as they age, and more than half are uncomfortable talking about their finances with children.

Method: We conducted four in-depth interviews with older adults and four focus groups with Black, Latino, low income, and low-middle income adults aged 65 and older. An average of 9 participants were in each 2-hour focus group.

Results: Barriers included lack of awareness, denial of future changes in capacity, lack of trustworthy surrogate decision-makers, shame about one's financial situation, desire for privacy, fear of being a burden, and resistance to overtures by children. Barriers differed by ethnicity and socioeconomic status, with lower income older adults having less knowledge of advance planning and Powers of Attorney.

Implications: Significant education is needed around Powers of Attorney and how to begin the advance planning process. Study findings informed the Thinking Ahead Roadmap, a guide to facilitate planning and communication around future money management. The Roadmap uses an empowerment framework to motivate individuals to appoint trusted financial advocates and prepare them for a smooth transition in money management, thereby reducing risk of exploitation, costly mistakes, and family conflict.

# Coronavirus Pandemic Impact on Injury Incidence in Female Artistic Gymnasts\*

AnneRussell Moore Adrian Aron Doctor of Physical Therapy Program
Doctor of Physical Therapy Program

#### **Abstract:**

#### **ABSTRACT**

Objective: To evaluate injury incidence in female gymnasts caused by Covid-19 pandemic training interruption.

Design: Cross-sectional survey.

Setting: Private gymnastic clubs in Virginia and Texas.

Participants: Coaches of seven groups of competitive gymnasts from levels 5 to 10.

Interventions: The participants completed a questionnaire regarding demographics, injuries, training time, and competition information for competitive seasons 2019-2020 and 2020-2021.

Main Outcome Measures: Acute injury incidence, injury location, injury type, age, and competitive level. Chi-square testing was used to compare demographic and gymnastics-specific variables.

Results: Participants reported 3 injuries during the 2019-2020 season and 16 injuries during the 2020-2021 season, p<0.05. The most commonly sustained injury type during the 2019-2020 and 2020-2021 seasons, was ligament tear or sprain, with 66.7% and 68.75% respectively. The most common injury location during the 2020-2021 season was the ankle followed by the foot at 37.5% and 31.25% respectively.

Conclusions: There were significantly more injuries following the interruption of formal gymnastics practice due to initial emergence of Covid-19.

### Refugees and Immigrants Adjustment in the US

Asira Nimukuze

School of Social Work

#### **Abstract:**

This integrated project is exploring the difficulties that refugees and immigrants face when trying to adjust to American or state life, such as refugees in Roanoke Valley. Refugees, immigrants, and refugees families particularly in Roanoke Valley have expectations before coming to America. The majority of the refugees have no idea how their expectations will be met. The integrated project will explore the different processes that refugees and immigrants go through to adjust to the United States.

The integrated project will analyze current studies on how different approaches help refugees or immigrants adjust in their local state and America at large. The project will also look at how refugees and immigrants in Roanoke Valley adjust in their community and how they benefit from local agencies that help them adjust successfully. Furthermore, the integrated project will investigate resettlement policies, language barriers, employment, and education challenges that refugees and immigrants go through. Also, the integrated project will look at federal and state policies, interventions strategies, research, and positive implementations adjustments for refugees and immigrants in the USA, local states, and in Roanoke Valley.

In addition, the integrated project will demonstrate information from different literature reviews on how local agencies working with refugee and immigration populations in the United States help refugees and immigrants adjust to their new communities. Only a small minority of immigrants and refugees from Africa report English to be their first language. The integrated paper will explore implications of social work application perspectives on they can help refugees and immigrants access resources that would help them adjust successfully in their new communities. The implications will also take a look at how social workers can work together with other professionals to assist refugee families to get access to resources while accommodating their cultural values and roles.

# An Integrative Project on the Impact of the COVID 19 Pandemic on Practicing Social Workers\*

Ja'Monda Nowlin

School of Social Work

### **Abstract:**

This integrative project examines the impact of the COVID 19 pandemic on practicing social workers and social work practice as a whole. There is a fair amount of literature on this topic that is discussed throughout this project. As social workers adapted to the many changes brought forth by the pandemic, research has shown an increase in the utilization of telework and having to be creative and flexible to maintain service connections for their clients as major themes. This project also explores the application of the Social Cognitive and Systems theory that provide interesting insight into the intricacies of the pandemic's effects. One of the major implications of the effects of the pandemic for practicing social workers were higher rates of stress and burnout, so much though that amendments to the NASW Code of Ethics were made to include selfcare. Also, as a means to promote coping and wellbeing among social workers, Acceptance and Commitment therapy is discussed. In addition, policies affecting social work practice including the international policy: Requirement for Proof of Negative COVID-19 Test or Recovery from COVID-19 for All Air Passengers Arriving in the United States, mask mandates, and vaccinations are discussed, as well as implications, and diversity considerations regarding the impact of the COVID 19 Pandemic on practicing social workers and social work practice. Though the pandemic is said to be coming to an end, social work practice will be forever impacted.

# An Integrative Project on the Impact of the COVID 19 Pandemic on Practicing Social Workers

Kevin Parcetich Adriel Delacruz Hannah Grasberger McCarty Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy

### **Abstract:**

# Utilizing Transcranial Magnetic Stimulation to Assess Connections from Brain to Target Muscles in Healthy Individuals\*

Arco Paul Lucas Blakenship Hannah Giorno Lindsay Graham Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy

### **Abstract:**

### Background

The brain's control over the human skeletal muscle relies on the strength and integrity of the connecting neural pathways through a top-down manner. Repetitive, specific, and sufficiently intense exercise have been well-established means to improve strength, coordination, and connectivity of targeted neural pathways. Transcranial magnetic stimulation (TMS) in combination with electromyography (EMG) represents a promising yet under-researched method for measuring and tracking changes in these descending neural pathways in response to exercise.

### Purpose

The purpose of this study is to determine the utility of TMS-EMG parameters as a non-invasive method for tracking improvements in neuromuscular connections over the course of a specific hand exercise regime.

### Methods

Nine healthy young adults underwent a five-week course of hand exercises on their non-dominant hand (ND) only while the dominant hand (DD) served as a control. Motor-evoked potential (MEP) amplitude and motor latency (ML) were tracked using TMS-EMG testing one time per week. Physical outcome measures of gross hand strength and coordination were also tracked using hand-held dynamometry and the Nine-Hole Peg Test (9HPT).

### Results

Statistical analysis using repeated measures ANOVA for MEP amplitude, ML and physical outcome measures revealed no significant changes for the ND side compared to the DD side except for the 9HPT for the DD side.

### Conclusion and Implications for Practice

The lack of significant change may be attributed to several parameters of the exercise program, such as compliance, specificity, inter-trial variability due to external influence on cortical excitability, and other characteristics of the study as a whole. TMS remains an intriguing and under-studied approach for assessing changes in neural connectivity in response to exercise training. High-quality, controlled studies examining the diagnostic utility of TMS-EMG parameters for assessing effects of exercise and physical rehabilitation could serve as a promising avenue for future research.

# Utility of Activities-Specific Balance Confidence Scale for Fall-Risk Screening in Ambulatory Older Adults Living Independently\*

Arco Paul Kevin Parcetich Daniel Miner Department of Physical Therapy Department of Physical Therapy Department of Physical Therapy

#### **Abstract:**

### Purpose:

Activities-Specific Balance Confidence (ABC) scale is a validated self-reported measure for screening fall-risk in older adults. However, ABC fall-risk cut-off scores vary widely (58-67%), and are reported on populations with mixed ambulatory and living situations. This makes it difficult to determine a cut-off value for a specific category of older population. The purpose of this study was to investigate the diagnostic utility of ABC scale in ambulatory older adults residing specifically in independent senior living community (ISLC).

### Subjects:

33 older adults from a local ISLC, 66-93 years age (79.45+7.64 years).

#### Methods:

Subjects were asked to report falls in the past year and to complete the ABC scale. ABC scores were recorded as 0-100%. Utility was determined by its ability to discriminate between the 2 groups of older adults, with (F) and without (NF) history of falls, using a cut-off score. Independent t-test and Receiver Operating Characteristic (ROC) curve were used for data analysis.

#### Results:

Mean ABC score of group F (65.53+21.53) was significantly lower than group NF (82.48+15.09), p=0.014. The ROC area under the curve (AUC) was 0.754, p=0.013. The most optimal cut-off score was 74.69%, with sensitivity 64.7% and specificity 81.2%.

### Conclusions:

The AUC indicated that ABC scale is an acceptable tool for distinguishing fallers from non-fallers in this older population, but it is not a very sensitive tool. The cut-off score was also higher than values reported by previous studies.

### Clinical Relevance:

Although useful, clinicians should be cautious when using ABC for screening fall-risk in ambulatory older adults residing in ISLCs. A higher cut-off score may be more appropriate for this population. ABC scale may not be very sensitive, but could be specific enough for screening out individuals with low fall-risk, thus helping direct limited healthcare resources to those in need of more comprehensive fall-risk management programs.

### **Challenges Incarcerated African American Men Face During Reentry**

Nadia Ragin School of Social Work

### **Abstract:**

This poster will explore how formerly incarcerated African American men perceive their challenges when they reenter their communities, how they make sense of those challenges, and how they overcome barriers in relation to reentry. Based on the literature review, the likelihood of reentry being successful relies heavily on whether the individual has social support, employment upon reentry, and substantial housing. The literature review also details the different barriers inmates face when transitioning into the community and how the conditions while being imprisoned play a major role in reentry. Results of semi-structured interviews with formerly incarcerated African American men will be discussed. Social Learning Theory and Strain Theory will be examined in terms of their relevance to Solution-Focused Brief Therapy in the practice of helping come up with clear goals and concrete plans upon reentry. Connections to the social work values dignity and worth of a person and social justice will be discussed.

# **Custodial Grandmother Well-Being: An Examination of Protective Factors and Positive Outcomes**

Sarah Rakes

School of Social Work

#### **Abstract:**

Background and Purpose: Custodial grandmothers play a critical role in families, particularly in the Southeast United States, where there are estimated to be twice as many custodial grandmothers as compared with other regions (Phillips & Alexander-Eitzman, 2016). The purpose of this study is to examine the psychological well-being of custodial grandmothers compared to their non-caregiving peers and to understand the factors that contribute to positive well-being. Methods: In this study I examined the well-being of custodial grandmothers compared to their non-caregiving peers using data from the 2014 wave of the Health and Retirement Study (HRS) (N=4,408). Results: There were not significant differences between custodial grandmothers' and their non-caregiving peers positive affect or life satisfaction after controlling for demographic variables, adaptive traits, and external resources. Custodial grandmothers experienced higher negative affect than their caregiving peers (b=.14, p<.05) and diminished purpose in life (b=-.19, p<.05). There was a statistically significant interaction between caregiving and social support such that social support buffered the impact of custodial caregiving on negative affect (p<.01). Conclusions and Implications: Overall, custodial grandmothers experience positive affect and life satisfaction similar to their peers. While negative affect is higher for caregivers, perceived social support is an important resource that buffers this relationship. This topic should also be considered when developing intervention approaches for grandparent caregivers that emphasize enhancing social support to reduce negative outcomes.

### Biomechanics Student Research in Health and Human Performance

David Sallee Laura Newsome Health and Human Performance Health and Human Performance

#### Abstract:

Student research is a key component in the development of Allied Health Science Students in the Department of Health and Human Performance. We encourage students to explore human movement through the use of force-plates, accelerometers, electromyography, high-speed and infra-red camera systems. Undergraduate students develop a hypothesis with the assistance of Drs. Sallee and Newsome. They investigate that hypothesis in the Peters Hall Biomechanics Lab in partnership with their faculty mentors. The poster session will describe Dr. Newsome and Salle's experience in working with students in this setting and examples of projects that have been completed over the past three years.

### Perceptions of Online Learning During COVID-19 Among College Students

Samantha Cahoon

School of Social Work

#### **Abstract:**

This poster presents results of a survey of college students' perceptions of online learning in Fall 2021 compared to the peak of the COVID epidemic, based on retrospective recall. The many difficulties related to online learning are familiar to all, including lack of reliable Internet access for some students, students not being as engaged with online learning as with in-person learning, and difficulties unique to online learning for students with disabilities. Some ideas discussed in the literature include online exams, Internet access, student engagement, and interaction with the instructor. These all shape college students' perceptions of, and attitudes towards, online learning. Social Learning Theory and Critical Theory will be used to inform Solution-Focused Therapy in the treatment of social phobia and depression among young adults having difficulty returning to inperson learning full-time. Implications for social work values and ethics, including the importance of human relationships and maintaining the right to privacy, in online learning will be discussed.

# **Educational equity and engagement: Open educational resources in teaching social work research**

Susan Schoppelrey School of Social Work

Matthew DeCarlo La Salle University, Department of Social Work

### **Abstract:**

Open educational resources (OER) are commonly used to lower the cost of academic success for students. Across disciplines, students achieve similar learning outcomes with OER as with commercial textbooks. Courses that switch to OER show improved retention and persistence with improved or equivalent student performance. This study expands on previous research by studying graduate students and focusing on affective engagement with research methods, which social work students generally approach with anxiety.

Participants (n=64) were drawn from students in an introductory MSW research methods course in the traditional Radford program and in the hybrid RHEC program. Quantitative measures included course grades and Secret and colleagues' (2017) social work Research Knowledge Assessment (RKA). Focus groups were planned, facilitated, and analyzed with the help of graduate student researchers. Instructors used a commercial textbook (Rubin & Babbie, 2016) the first year and an open textbook (DeCarlo, 2018) the following year.

The sample was 86% female, 60% white, 31% African-American, and mostly born after 1990. The groups were largely comparable except for prior research education. Researchers found no significant differences in three quantitative analyses outcomes. During focus groups, students emphasized the negative impact of textbook costs and illuminated the importance of the professor's teaching style on the impact of open textbooks. Hybrid students relied more heavily on the textbook because of less face-to-face instruction and, through greater affective engagement with the textbook, reported reduced negative perceptions of research.

Open education is based on the principle that knowledge should be accessible to all. Understanding knowledge through a social equity lens highlights how inequitable access to information replicates and exacerbates privilege. No significant impact was found on learning outcomes for courses redesigned to use OER. The qualitative results indicate that OER can improve engagement and attitudes towards social work research methods.

## The Need for Effective Therapeutic Interventions for Children and Families with an Incarcerated Parent

Kayla Shaw

School of Social Work

### **Abstract:**

This presentation will examine children and families affected by parental incarceration by analyzing effective therapeutic interventions used by mental health professionals when working with this population. Four themes will be identified based on previous literature surrounding this population: conceptual frameworks guiding interventions with this population, coping with parental incarceration among affected children, involvement of the caregiver or non-offending parent in treatment, and interventions used for the family unit that includes the incarcerated parent.

A quantitative survey was designed and distributed to a variety of mental health practitioners and settings. Although several practitioners attempted to take the survey, only one met the inclusion criteria of having provided treatment to a child or family with an incarcerated parent in the past ten years. The use of Social Learning Theory and Ecological Systems Theory to inform Trauma-Focused Cognitive Behavioral Therapy for families with an incarcerated parent will be discussed. Significant implications for social work practice and additional research are also addressed. This is a social justice issue that affects a vulnerable population, and more research on this group and identifying effective interventions are needed. Social workers must support families with an incarcerated parent and confront the social and economic disparities, mental health concerns, and other negative impacts incarceration has on the family unit. Social workers are called to advocate for populations at a social disadvantage and assist with issues at both a micro and macro level. This includes providing mental health services to families with an incarcerated parent, referring this population to resources that could best serve them, and acting to rescind unjust policies.

### **Substance Use Disorders in Rural Populations**

Katherine Shirah

School of Social Work

### **Abstract:**

Substance use disorders and overdose deaths have increased steadily since 1999. The study used county-level and city-level data from Virginia to determine whether overdose deaths increased between the years 2019 and 2020, and if so, by how much. Data on race, ethnicity, poverty, education, and other predictor variables for each county and city within Virginia were analyzed. Virginia saw an increase in overdose deaths of 43% from 2019 to 2020. After controlling for the number of overdose deaths in 2019, the number of violent crimes reported per locality had a statistically significant impact on the results. Intersectionality can help to explain how the different identities of people with substance use disorders in rural areas intersect leading to them experiencing discrimination and internalized stigma. Systems theory and the life model help to explain the interactions between a person and the various systems and environments within their life. Client-centered therapy incorporates the social work ethical principle of respecting the dignity and worth of a person which empowers them to create positive changes in their life. Policies like 42 C.F.R. Part 2 and the Virginia Medicaid Addiction and Recovery Treatment Services (ARTS) program remove barriers to treatment that people with substance use disorders face by providing extra protections for confidentiality or expanding Medicaid coverage to a wider array of treatment options. While a person from any socioeconomic status can experience substance use disorders, those who live in low-income communities are exposed to hazardous job conditions and low wages. Low-income communities may also live closer to hazardous conditions due to their proximity to factories, which can lead to polluted air and water.

# Master of Occupational Therapy Students' Perceptions of an 8-Week Mindfulness Group: Focus Group Analysis

Sarah Smidl Viki Neurauter Sarah Garrison Carma Sample Department of Occupational Therapy Department of Occupational Therapy Department of Occupational Therapy Department of Occupational Therapy

#### Abstract:

This poster presents focus group analysis from a pilot study of Master of Occupational Therapy students' perceptions of an 8-week mindfulness group offered by Radford University faculty during the spring 2021 semester. It provides an introduction, details study objectives and design, and presents a weekly program for mindfulness activities and meditation. Researchers present analysis of qualitative themes derived from pre and post study focus groups along with implications for students, educators, and occupational therapy practitioners.

### Return to Baseball Throwing Following Ulnar Collateral Ligament Reconstruction: Distance-based Versus Velocity-based Throwing Protocol

Sally Sroge Jake Wright Christy Braziel William Kolb Doctor of Physical Therapy Department Doctor of Physical Therapy Department Doctor of Physical Therapy Department Doctor of Physical Therapy Department

### **Abstract:**

Background: Return to play protocols following ulnar collateral ligament (UCL) surgical repair use a progressive increase of distance to gradually re-load the repairs. However, there are gaps in research on the thrower's effort and effects on elbows forces with distance-based programs versus the use of velocity measurements and elbow forces as an alternative method to progress return to throwing following repair.

Purpose: The purpose of this study was to compare medial elbow forces with throwing at specific distance-based progressions to specific velocity-based progressions and secondarily determine whether physical characteristics such as height, arm length, elbow size, range of motion and strength of the shoulder and trunk regions affect elbow forces during throwing.

Study Design: Prospective Cohort Study

Methods: 14 male baseball athletes participated in this study. Measures of physical characteristics, range of motion, strength, and power of the shoulder and trunk region were collected. Throws were completed under distance-based and velocity-based conditions with trials of using a small crow hop and pivot pick. Throw velocity, elbow torque, arm slot and arm speed were collected using the MOTUS ( $^{\text{TM}}$ ) arm sleeve sensor. Statistical significance was set at P &It; 0.05 and statistical tests were ran using SPSS software.

Results: 14 male baseball players with the average age of  $19.0 \pm 3.39$  participated. Average medial elbow torque increased in both distance-based and velocity-based protocols. Body composition, weight, ER strength, and left scoop was significantly correlated with medial elbow torque using a crow hop at 45ft, 90ft, and 150ft.

Conclusion: This study evaluated velocity-based and distance-based return to throw protocols to determine significant factors that contribute to medial elbow torque. Body composition and ball velocity were the most significant contributors to medial elbow torque in this sample. Monitoring ball velocity and medial elbow torque in return to throw protocols will improve UCL rehabilitation.

# Reducing Barriers, Expanding Education, and Impacting the Future of Early Intervention

Danielle Steven

School of Social Work

### **Abstract:**

This paper is about the perceived barriers to providing education, increasing referral rates, and creating future impact in Early Intervention in Southwest Virginia, and how it connects to social work practices, policy, and theory. The research shows that families in poverty and of low socioeconomic status are barriers to referring children to services. The research also reveals that referrals are made to outpatient services due to physicians' lack of knowledge on what the program is about and what it can offer families. To best understand the child, it is important to look at how the environment around them influences their development. Systems theory and Erikson's theory on psychosocial development both look at these different interactions. When looking at the environment it may indicate additional services or resources the family could benefit from. Using a clinical case management lens to address these concerns benefits the whole family. Providing a blanket of needs will increase the chances of long-term success for the child by decreasing environmental stressors. How these needs are met and addressed is covered by the policies used to guide the early intervention program. These policies specifically address the services that are to be covered through Part C and the role of the Service Coordinator, however, it also provides a guide to increase awareness and knowledge of early intervention. Additional expansion of the knowledge of the program to pediatricians and physicians in the area to pass along to patients may increase referral rates and resources to families of these vulnerable and at-risk children. Empowering these families to advocate for their children and allowing them the right to self-determination, encourage their participation in the program. This participation influences the achievements and success of the child for the future.

## Self-Care in Social Work and Child Welfare in Departments of Social Services

Sierra Thompson

School of Social Work

### **Abstract:**

This poster will explore the importance of self-care for social workers and child welfare workers who are employed by Departments of Social Services. This topic is important because self-care is imperative for those who have jobs that are emotionally and intellectually demanding. If an individual does not engage in self-care regularly, they are not taking care of their physical and mental needs properly. To be competent and provide quality services, child welfare workers need to feel their best and take care of themselves. By completing self-care, child welfare workers will be better equipped to provide quality services; feel better mentally, physically, and psychologically; and have reduced risks of burnout and turnover.

Popular themes in the literature related to self-care were burnout, self-care barriers, and mindfulness, although all authors echoed the need for more research. Results of a qualitative study about child welfare workers' self-care routines will be discussed, including respondents' most common self-care barriers and the degree to which respondents reported valuing and engaging in self-care. Important theories relating to self-care are Ecological Systems Theory and Existential Theory. Connections will be made to the social work value dignity and worth of a person, the NASW Code of Ethics, social work practice and policy, and diversity and inclusion.

### **Challenges Older Youth Face When Aging Out of the Foster Care System**

**Courtney Underwood** 

School of Social Work

### Abstract:

During their time in foster care, older youth experience multiple traumas, instability, and a lack of social support that negatively impacts their transition into young adulthood. These challenges impact their behavior and development, creating heightened risks of adverse adult outcomes. The literature shows that former foster care youth struggle with maintaining employment, have increased involvement with the criminal justice system, poorer academic achievement, higher levels of mental health concerns, are at higher risk of homelessness, have higher levels of substance abuse, and are more likely to engage in risky sexual behaviors than other youth. Even though there are programs in place to support the older foster care youth, many decide to not stay in care. They have a desire to be more independent and to change their own circumstances. They also express frustrations with the restrictions associated with staying in care. Results of a survey of Family Service Specialists within local Departments of Social Services about their perceptions of the challenges former foster care youth face when transitioning into young adulthood will be discussed. Ecological Systems Theory and Social Learning Theory will support an argument for providing Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) to older foster care youth to address trauma-related diagnoses such as Post-Traumatic Stress Disorder (PTSD). Foster care workers honor the social work value of the importance of human relationships as they serve older foster care youth, working to enhance their well-being and allow for a more positive transition into young adulthood. Foster care workers engage in social work policy to advocate for social and economic justice for older foster care youth.

# Perceived Bias Related to Student Socioeconomic Status Within Educational Settings: A Social Work Response

Anna Wyatt

School of Social Work

#### **Abstract:**

This poster will explore factors contributing to the academic achievement gap for low-income students and identify strategies for addressing this gap through social work practice and policy. There is currently a large academic achievement gap for students dealing with socioeconomic barriers. Access to a quality education is a basic right for all children regardless of their socioeconomic background or any other demographic. The issue at hand should be considered a serious threat to social justice.

Existing literature suggests there are a variety of factors contributing to the disparity in educational quality for low socioeconomic-status students. The results of several recent studies point to the use of academic reward systems, teacher behavior, and student self-perception as vital concepts in understanding the achievement gap. Results of a quantitative study in which participants were asked about experiences of discrimination due to socioeconomic status within academic settings will be presented. Additionally, the use of Narrative Therapy in the treatment of students experiencing poverty will be viewed through the lens of Rational Choice Theory and Contingency Theory.

The exploration of this topic is vital to not only the field of social work but also to social justice because it interacts with broader systemic inequities. For example, there is a large body of research revealing the disproportionate exposure to poverty in minority racial and ethnic groups. If quality of education and socioeconomic status are linked, these minority groups are also being disproportionately affected by inequities in the educational system.

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