

Community Matters

A Community Research Poster Forum



THURSDAY, OCTOBER 12, 2023
6:00-8:00PM
St. Norbert College, Gehl-Mulva Science Center



Welcome from our Campus Dean



I hope you enjoy exploring the scholarly projects that our medical students have completed in partnership with local community organizations.

The student projects link medical education with the resources and needs of Green Bay-area communities to promote health in northeastern Wisconsin. This unique MCW experience is designed to cultivate medical skills and interests, deepen ties to the community, and provide an appreciation for the physician's potential role and impact on local health needs.

I would like to recognize the partner organizations and community mentors who volunteered with our medical students on these projects. You are a critical element to their medical education and we could not have accomplished this work without your support. ■

Welcome from our Pathway Course Director



Welcome to the MCW-Green Bay community research poster forum. Our medical students complete a Community Oriented Primary Care (COPC) scholarly research project, which emphasizes a systematic approach to community and individual health, combining elements of epidemiology, primary care, preventive medicine, and health promotion. Through the Physicians in the Community Pathways Course and other aspects of the curriculum, our students establish relationships with many local organizations directly involved with the health and well-being of our community. Working with our partners, the students identify health needs, design appropriate interventions, and assess the interventions' effects, resulting in a public poster presentation. Our goal is to help students become community-engaged physicians, moving us from the care we have; to the care we need.

We want to thank Chrystal Woller, BSN, RN, St. Norbert College, Senior Director, Health and Wellness Services, for her assistance in working directly with the students to get their projects off the ground. A special thank you goes to Jamie Lynch, Ph.D. associate professor of sociology and director of the Strategic Research Institute at St. Norbert College, for supporting study design and data analysis. We would also like to express our appreciation and gratitude to all our community partners, those represented in the poster presentations, and those who give generously of their time and expertise in countless other ways to help MCW-Green Bay achieve our lofty goals. Please enjoy the surprising variety of community projects on display today. ■

Scholarly Project Presentations

Time Location	Student(s) Project
6:00-6:50pm First Floor Atrium Keefe Science Gallery 1098 and 1099	All Students Scholarly Project Poster Review <i>Engage with the students and their Pathways Posters to learn more about their projects, feel free to ask questions, find out the pros and cons they faced while completing their projects and what path they will take next.</i>
7:00-7:10pm Room 1097	Matthew Barthel <i>Concussions in NCAA versus Recreational College Athletes</i>
7:10-7:20pm Room 1097	Mariah Schultz <i>Patient and Parent Satisfaction of a Transition of Care Program in Adolescents with Congenital Heart Disease</i>
7:20-7:30pm Room 1097	Rebecca Mastey and Logan Pearson <i>Assessing Sleep Quality and Burnout in First Responder Providers</i>
7:30-7:40pm Room 1097	Hannah Mueller-Boysen <i>Assessing Access to Prenatal Care and Maternal-fetal Outcomes in Brown County, Wisconsin</i>
7:40-7:50pm Room 1097	Zachary Bracken and Dalton Shaw <i>Police Officers' Mental Health Needs and Crisis Readiness</i>
7:50-8:00pm Room 1097	Brooke Koehn and Jenna Loefer <i>Analysis of Wisconsin Aging and Disability Resource Center Falls Prevention Programs</i>

THANK YOU!

A special thank you to our many community partners for your time and investment in our students.

Abstract #	Partner
1	MCW-Green Bay - David Ferguson, MD; University of Wisconsin – Green Bay - Avery Rochester, MEd, LAT and Jeryn Daggs; Prevea Health - Emily Johnson, MS, LAT
2	Jackie Nitschke Center Faculty and Alumni; MCW-Green Bay - David Ferguson, MD; Brad Wozney, MD; Amy Vang
3	Green Bay Police Department - Behavioral Health Officer Sheila Carlson and Lieutenant Nate Allen; MCW-Green Bay
4	Paul's Pantry - Craig Robinson and Leslie Sharkey
5	Exceptional Equestrians - Carol Klak and Lisa Kafka and Bryn Dahms
6	De Pere Health Department; Brown County Breastfeeding Coalition
7	Brown County Medical Society; MCW-Green Bay - David Ferguson, MD
8	Paul's Pantry
9	Bellin Health - Paul Casey, MD; Bellin Health IRB team led by Mary Ann Sallenbach
10	ADRC of Brown County - Barb Michaels and Amy Staniforth; Winnebago ADRC - Kathi Hegranes; Kenosha ADRC - Haleigh Couch; LaCrosse ADRC - Jade Butler; Door County ADRC - Jenny Fitzgerald
11	De Pere Public Health Department; Brown County Public Health Department; MCW-Green Bay - David Ferguson, MD
12	Green Bay Cerebral Palsy Center
13	De Pere Fire Department
14	Wello - Beth Heller, Director of Strategic Partnerships
15	Family Services of NE Wisconsin; MCW-Green Bay - David Ferguson, MD and Robert Calder, PhD; my family
16	Beaming Inc.; MCW-Green Bay - David Ferguson, MD
17	Children's Hospital of Wisconsin - Fox Valley and Milwaukee - Matt Buelow, MD and CHD team
18	ADRC; Woodside Senior Communities - Residents and Staff
19	Armaan Shaikh, MD; Jenni Campbell and Tayah Hampton

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Concussions in NCAA versus Recreational College Athletes

MATTHEW BARTHEL



Introduction

Concussions are caused by direct or indirect head trauma, resulting in physical, cognitive, emotional, or behavioral symptoms.¹ Up to 50% of the 3.8 million annual concussions occur without medical evaluation.^{2,3} Students who self-diagnose have significantly greater symptoms of depression including suicide ideation and attempts.⁴ Comparing to NCAA peers, students report greater total symptoms and perform worse at complex attention.⁵ The study aims to compare characteristics of concussions between NCAA and recreational college athletes.

Methods

A survey was emailed to students involved in NCAA or intramural sports at a mid-sized public university. The survey explored discrete concussion occurrences, including location, mechanism, diagnosis, and treatment, along with inquiring about associated subjective experiences.

Results

15 students participated and reported a total of 21 concussions, originating in NCAA sports (5), intramurals (4), individual recreation (2), and accident/personal circumstance (10). 100% of concussions sustained during NCAA athletics received a formal medical diagnosis, while 100% from intramural sports were self-diagnosed. Perceived access to appropriate care in NCAA sports was 75% "Yes", 25% "Unsure" versus Intramurals, 50% "Yes", 50% "Unsure". 38% of all participants reported affected academic.

Conclusions

The study highlights differences in concussions amongst college students, with intramural-participating students reporting lower access to care and being more likely self-diagnose when compared to NCAA athletes. Students were more likely to receive a concussion outside of athletics, and, regardless of origin, many feel academics were affected. Future studies should further explore discrepancies of concussions between college subpopulations. ■

Physician Perspective on Drug Addiction

Introduction

Drug addiction is a devastating problem worldwide, as there is no simple solution. Data from the CDC indicate that there were an estimated 100,306 drug overdose deaths in the United States last year, an increase of 28.5% from the previous year. Physicians play a crucial role in the treatment of addiction at all stages, from screening for and having conversations about substance use to actively treating and utilizing community resources for patient referrals.

Methods

Primary Care and Emergency Medicine physicians received an awareness video made with Jackie Nitschke Center along with a pre and post video survey. Additionally, alumni of Jackie Nitschke Center were surveyed to identify discrepancies in care and potential action areas.

Results

Two statements had statistically significant differences from the pre video to post video survey. "Hearing the stories of those who experienced an active addiction helps me empathize with them" had a change from 73% to 88% of physicians surveyed agreeing to this statement ($p = 0.0071$, $\alpha = 0.05$). Additionally, "I feel comfortable talking about drugs and alcohol with my patients" had a change from 78% to 70% of physicians surveyed agreeing to this statement ($p = 0.0073$, $\alpha = 0.05$).

Conclusions

This study demonstrated that sharing the stories of those who have faced addiction is effective in increasing physician empathy and demonstrated an area for improvement in physician education and the possibility for a future partnership with local resources such as Jackie Nitschke Center in the future. ■



Police Officers' Mental Health Needs and Crisis Readiness

ZACHARY BRACKEN



Introduction

The World Health Organization and American Psychologic Association recognizes the rise in mental health and substance use disorders over the last decade. With that said, this study focuses on how well police officers believe they are trained to deal with mental health-related calls and assesses their own mental well-being.

Methods

A confidential Qualtrics survey link was provided via email to the Green Bay police department. The results were analyzed using excel via a diverging stacked bar chart.

Results

- 1) Officers commonly experience critical stress on the job, resulting in lingering or unresolved emotions. However, many are reluctant to seek help and feel the public is unaware of the effect critical stress has on officers.
- 2) Officers believe greater awareness about behavioral health and post-traumatic stress in law enforcement will lead to improved services.
- 3) Officers believe they would benefit from additional behavioral health crisis training.
- 4) Officers feel they are overutilized when it comes to welfare checks and believe this contributes to a possible disconnect between them and the community they serve.

Conclusions

Out of the 38 surveyed police officers, 36 reported experiencing critical stress. Many reported this stress has contributed to lingering emotions and has had an impact on their daily life, though numbers show many are reluctant to seek help. Interestingly, officers believe increased awareness surrounding mental health could lead to improved services to address these concerns. ■

DALTON SHAW



Understanding Barriers to Eating Healthy Among Food Pantry Clients

Introduction

Food insecurity is a pressing issue in the United States. There is a lack of research that aims at identifying the factors that influence eating behaviors among food pantry clients. Food pantries are instrumental in addressing the chronic needs for food by many low-income families each month. A recent study identified nine barriers among food pantry clients in the state of Texas that need to be addressed. The purpose of this study is to study barriers to eating healthy among the Paul's Pantry clientele and use the information collected to identify future interventions and solutions.

Methods

Electronic surveys were administered to clients in the lobby of the food pantry. Survey consisted of three sections: demographics, food insecurity, and barriers to eating healthy. Participation was strictly voluntary and limited to clients who met the following criteria: Paul's Pantry clients and English-speaking.

Results

Results identified that the majority of Paul's Pantry clients were low-income and also met the criteria as having food insecurity. The top 3 barriers identified were financial insecurity, cost of healthy food, and food rationing.

Conclusions

There are specific barriers that are more prevalent among the Paul's Pantry clientele. These barriers can be targeted for future intervention strategies to help clients eat healthier. ■

DEEPAK DAROACH



Efficacy of Equine-assisted Therapy on Stress Reduction

MARISSA DAVIS



Introduction

Incorporating horseback riding into various forms of therapy has gained popularity across the country through subjective reports of the benefits it provides. While studies have confirmed improvement in physical outcomes, there is a lack of understanding regarding the emotional benefits of this therapy.

Exceptional Equestrians is a facility in De Pere, Wisconsin that agreed to partner with hopes of gaining insight into the impact of equine-assisted therapy on stress reduction in children with special needs.

Methods

Fifteen faculty-selected participants completed surveys before and after equine-assisted therapy on three separate occasions. Their guardians completed the identical survey for their perception of the participant's mood state. The surveys were condensed versions of the Profile of Mood States Questionnaire and included visual aids to accommodate the participants. The questionnaire asked how calm, relaxed, content, worried, tense and upset the participant was on a scale of 0-4.

Selection criteria included ability to express emotions and age between 7-18 years.

Results

The participants and guardian's average responses for each emotion pre- and post-therapy were analyzed with a one-tailed, paired t-test ($n=15$, t critical: 1.76 and $p=0.05$).

There was a statistically significant difference for all emotions except participant-reported "content" and "upset." Limitations to this study include small sample size ($n=15$) and the variable understanding of the words used in the standardized survey.

Conclusions

Participant and guardian-reported data indicate that equine-assisted therapy reduced negative feelings of "worry" and "tension" and increased positive feelings of "calmness" and "relaxation" in the participant. ■

Perceptions of Breastfeeding in the Workplace

Introduction

The benefits of breastfeeding, for both mom and baby, are endless. Yet 60% of women stop breastfeeding sooner than they have planned. One of the leading causes for women to stop breastfeeding earlier than planned includes workplace policies and lack of support from their employers. This study aims to investigate workplace perceptions of breastfeeding/pumping at a company with a supportive breastfeeding policy in place.

Methods

The project was conducted with Encompass Early Education and Care center. A poster was placed in the staff break room with a link and QR code to our survey. Employees could voluntarily access our survey where they were asked a series of questions regarding breastfeeding/pumping perceptions at Encompass including time and private space to breastfeed/pump and locations to store milk. Results and data were analyzed.

Results

A total of 18 of the 24 employees participated in our study. None of the employees were actively breastfeeding/pumping at the time of survey distribution. Even though only 59% of employees reported that they knew an employee that had breastfed/pumped at their workplace, all the employees knew of a designated location to breastfeed/pump. The overwhelming majority knew of a place to store breastmilk and felt like employees had time during the workday to breastfeed/pump.

Conclusions

An established company policy for breastfeeding/pumping can lead to positive perceptions regarding breastfeeding for all employees, not just those who previously or actively are breastfeeding/pumping, and can help create positive workplace environments for those breastfeeding. ■

EMMA ELLIS



HEATHER HEYRMAN



HPV Vaccination Recommendation Habits of Pediatric and Family Medicine Physicians in Brown County

KRISTEN FELTMAN



Introduction

HPV vaccination rates in Brown County, WI are below the national average. A national survey found that Family Medicine physicians were less likely than Pediatricians to strongly recommend HPV vaccination to all eligible age groups and that physicians in both specialties were less likely to strongly recommend HPV vaccination to 11–12-year-old patients than to older adolescents. Assessing whether similar differences exist among physicians in Brown County could provide insight on the lagging HPV vaccination rate in Brown County.

Methods

A short survey assessing pediatric and family medicine physician HPV vaccine delivery practices was distributed to members of the Brown County Medical Society via their email directory.

Results

There were 9 responses to the survey. 100% of respondents reported that they “strongly recommend” HPV vaccination to male and female patients of all eligible age groups. All respondents reported experiencing patient/parent/guardian refusal of the vaccine in each age group ranging from “some of the time” to “most of the time”. The highest refusal rate of “most of the time” was reported in male patients 11-16 and in females aged 15-16.

Conclusions

Based on survey responses, the below average HPV vaccination rates in Brown County do not appear to be associated with a lack of provider recommendation. However, due to the low sample size these results are not likely representative of the community’s entire primary care physician population. Therefore, further analysis is warranted. ■

KAILA LONG VOELKNER



Effects of Providing Recipes on Cooking Confidence of Food Pantry Users

Introduction

Studies have shown that the diets of people who use food pantries score lower on the USDA Healthy Eating Index, putting these people at risk of diet related diseases (Simmet et al, 2016). Lack of kitchen equipment, nutritional knowledge, and recipes were some barriers that pantry users listed when it came to eating healthier (Dave et al, 2017). This study is designed to address one of these.

Methods

Subjects completed a pre-survey rating how confident they felt cooking the ingredients they got. The recipe was offered and then they completed the post survey questions rating how confident they feel in cooking after getting the recipe. Data collection took one-week.

Results

After the 53 participants received recipes, there was an increase in average self-reported cooking confidence, although not statistically significant (p value > 0.05). Women had higher baseline confidence but men had a larger increase in average self-reported confidence. People who cook more than 3 days per week had higher baseline confidence but people who cook less than 3 days per week had a larger increase in average self-reported confidence.

Conclusions

There was an increase in confidence after getting a recipe in all groups to varying degrees. The majority of clients agreed that if they saw more recipes at Paul's Pantry, it would help them cook more. Future research should include translations since many clients did not speak English. ■

MANNAT GILL



Health Characteristic Trends Among COVID-19-Associated Hospitalizations

ISAIAS JAUREGUI



Introduction

Coronavirus disease 2019 (COVID-19) gravely impacted the United States and the world starting in early 2020. In the U.S., hypertension, obesity, chronic lung disease, metabolic disease, and cardiovascular disease were the leading underlying conditions for patients who were hospitalized due to COVID-19 complications. Also, those not vaccinated against SARS-CoV-2 were sixteen times more likely to be hospitalized for COVID-19 compared to those vaccinated. This study aims to explore health characteristics of COVID-19 admissions in a local hospital.

Methods

The project was conducted at the Medical College of Wisconsin – Green Bay in partnership with Bellin Health. Data was gathered and analyzed retrospectively from patients admitted with confirmed COVID-19 from October 1, 2020, to October 31, 2021. Data recorded included patients' age, sex, underlying conditions, and COVID-19 vaccination status. The date range for analyzing vaccine status was from August 1, 2021, to October 31, 2021, which included 254 patients.

Results

A total of 841 patients were included (median age, 68 years). Males encompassed the majority of patients (54.5%) compared to females (45.5%). The most common comorbidities were hypertension (56.6%), hyperlipidemia (47.1%), type 2 diabetes mellitus (32.3%) of which only hyperlipidemia was statistically higher in men ($p < .001$). Patients not vaccinated for COVID-19 comprised most of those hospitalized (68.1%) and there was no statistical difference in vaccination rates between men and women.

Conclusions

This study aligns with previous reports and may suggest a susceptibility for hospitalization due to COVID-19 in patients who are male, have certain underlying conditions, and have not been vaccinated for COVID-19. ■

Analysis of Wisconsin Aging and Disability Resource Centers Falls Prevention Programs

Introduction

Falls are a common occurrence in the aging population, often resulting in devastating consequences. Interventions including home assessment are shown to prevent falls. Despite EMS services receiving calls for thousands of falls yearly, many ADRCs within Wisconsin are unable to successfully connect with individuals who have fallen. This study aims to evaluate five Wisconsin ADRC organizations' referrals and methodologies in place to contact a customer after a fall.

Methods

Contact was initiated with the ADRC of Brown, Winnebago, Kenosha, La Crosse, and Door County. Willing participants with an established falls prevention program were interviewed to obtain 1.) the number of referrals/acceptances and 2.) current practices and perceived barriers to obtaining referrals/ acceptances. Data results were analyzed by comparing the ratio of referrals to acceptances between ADRC organizations as well as discussing perceived barriers in each county to ascertain why these differences may exist.

Results

The results showed Brown County (BC) has significantly higher acceptance rates for ADRC assistance ($p < .05$) in 2022 and an improvement in number of referrals and referral acceptance since 2020. When considering referral rate after a fall, Door County's rate is significantly higher ($p < .05$) than other counties.

Conclusions

BC's higher acceptance rates may be due to new practices implemented over the last year that are unique to BC. This, along with the development of an EMS user friendly online referral form, may explain longitudinal trends in BC. Regarding Door County's high referral rate, researchers suspect this may be due to better community understanding of the ADRC and its' mission. ■

BROOKE KOEHN



JENNA LOEFER



Burnout in Public Health Workers during the Covid-19 Pandemic

AUBRIANNAH LARSON



DYLAN STURTEVANT



Introduction

Public health workers experienced a demanding environment amidst the SARS-CoV-2 pandemic in which they were tasked with enforcing mitigation strategies and establishing community guidelines, while dealing with constant grief associated with pandemic. It is critical that the mental health and wellbeing of public health workers is assessed to implement proper intervention strategies.

Methods

To quantify the psychological stressors the pandemic had on public health employees, validated surveys were sent out to De Pere and Brown County public health departments. Employees who engaged in county wide interventions were asked to complete questionnaires to measure anxiety, depression, burnout, resiliency, among other measures.

Results

24 public health employees from De Pere and Brown County were surveyed with a completion rate of 83%. 42% reported a worsening of their physical and mental health throughout the pandemic and forgoing medical appointments. 40% endorsed symptoms of anxiety with nearly 55% experiencing depressive symptoms. Occupational exhaustion was measured, revealing 42% of Public Health employees experienced a severe degree of burnout amidst the pandemic.

Conclusions

Though the results of this study cannot be generalized to the experience of all Public Health employees, the data can be understood as a gateway into conceptualizing the mental health and wellbeing of individuals in this profession. Increased rates of burnout, anxiety and depression were found to be prevalent throughout this cohort. Moreover, this study helps elucidate the overwhelming impact the pandemic had on the public health employees of northeast Wisconsin. ■

Covid-19 Impacts on Green Bay Cerebral Palsy Center

Introduction

This study aimed to assess the impact of the COVID-19 pandemic and the temporary closure of the Green Bay Cerebral Palsy (CP) Center on the well-being and goal attainment of its clients. Cerebral palsy is a group of conditions characterized by permanent motor dysfunction resulting from brain abnormalities, and it disproportionately affects individuals born prematurely or with low birth weight. Our investigation involved surveying various aspects of physical, mental, and social well-being, as well as changes in goal achievement among CP Center clients during the pandemic

Methods

Our findings revealed that the pandemic and the subsequent suspension of physical and social programs had adverse effects on CP Center clients. Mobility significantly worsened during the closure, but there was a moderate recovery upon reopening. The ability to reach set goals also decreased during the closure, with an increase observed post-closure. The most substantial impact was on social interaction, which saw a drastic decline during the closure and an increase afterward.

Results

This data, though subjective, highlights the challenges CP Center clients faced during the pandemic, particularly the loss of essential social interactions. To address these issues in the future, we recommend the implementation of online classes to foster virtual interactions and provide resources to help clients maintain their goals during potential facility lockdowns.

Conclusions

The results of this study can inform the Green Bay CP Center and similar services on how to better support their clients and prepare for unforeseen closures, ultimately enhancing the well-being of individuals with cerebral palsy in challenging circumstances. ■

MAX MALLOY



JAMES MENTING



Assessing Sleep Quality and Burnout in First Responder Providers

REBECCA MASTEY



Introduction

Physically and mentally demanding work environments, such as those in firefighting and EMS, often involve 24-hour shifts, raising concerns about sleep adequacy, performance, and burnout. We designed a study to explore burnout, subjective sleep measures, and objective sleep data among emergency responders.

Methods

18 DPFRE employees wore Fitbit devices for 6 shifts to obtain objective sleep data. Daily Questionnaires assessed sleep perception and shift characteristics after each shift. A Burnout Assessment Tool questionnaire measured burnout risk after the final shift.

Results

Participants inaccurately estimated sleep on shift with high variation, underestimating it by an average of 29 minutes. Average sleep duration per shift was 346 minutes (SD 90). Burnout was observed: 18.8% severely, 37.5% less severely, and 43.8% not burned out. Mental distance showed the highest burnout, followed by cognitive impairment. Problems with protocol compliance, attrition, and electronic failure resulted in inconsistent data.

Conclusions

Accurate estimation of sleep quantity on shift varied, necessitating measures for adequate rest. This study confirms high burnout risk among firefighters and EMS personnel, emphasizing the need for burnout prevention strategies. Tailored interventions are essential due to varying burnout presentations. Future research should address compliance and device limitations to further investigate sleep-burnout relationships. ■

LOGAN PEARSON



Food Salvaging and Redistribution in Brown County, Wisconsin

Introduction

Nearly 38.3 million people are food-insecure nationwide. Food insecurity has been associated with diabetes, hypertension, obesity, arthritis, asthma, and decreased mental health. Despite food insecurity, nearly 35% of all grown food goes unsold or unconsumed, ~130 billion meals and up to \$285 billion annual losses. Redistribution programs can alleviate hunger and provide tax benefits to donors. This study sought to investigate challenges and successes of Brown County food sectors regarding food waste, redistribution, and salvaging. Educational resources were provided to interested donors.

Methods

Electronic surveys were distributed via email or social media to 479 potential donors, including K-12 schools, colleges, restaurants, and more. Data was collected and analyzed via Qualtrics.

Results

Results (n=31) showed that although most donors expressed food sustainability concerns, many have no or low familiarity with food redistribution/salvaging. Further, >50% of donors have reduction efforts in place; however, only 40% have efforts specific to redistribution. On average, 5.84% of inventory goes unused each month; prepared foods comprise 50.29% of disposed foods, followed by baked goods and fresh produce each at ~15%. Finally, only 23% and 35% expressed knowledge of tax benefits and legal protections, respectively.

Conclusions

Although statistical significance was not attained, this study demonstrated potential for donors to alter food practices, providing donations to those in need. Additionally, there are significant opportunities for education on redistribution logistics and benefits. Future directions include outreach to additional donors, dissemination of information on tax advantages and legal protections, and small-scale pilot studies. ■



Assessing Access to Prenatal Care and Maternal-fetal Outcomes in Brown County, Wisconsin

HANNAH MUELLER-BOYSEN



Introduction

Prenatal care (PNC) is critical in maintaining a healthy pregnancy and improving maternal and infant health. Mothers who receive at least one PNC visit before delivery experienced significantly decreased risk for preterm births and low infant birth weight(1). Despite the importance of prenatal care, not all expectant mothers have access to it. It is worthwhile for communities to identify and compare their PNC clinic locations to actual population density. This study aims to do that in Brown County, Wisconsin.

Methods

Birth data from January 2018-December 2021 was separated by maternal zip-code, with sociodemographic information, adverse maternal-fetal outcomes, zip-code boundary, and mothers who received late PNC (after 20 weeks' gestation) recorded. PNC locations in Brown County and maternal zip-code were mapped using GIS software. Chi-square tests of independence were used to determine significance.

Results

8 census tracts with over 5000 people/mi² were identified. Each of these areas were within zip-code boundaries of 54301, 54302, or 54303 (inner-city Green Bay). Of 8 PNC locations identified, 5 were within these zip-codes. Maternal zip-code was associated with differences in receiving late PNC ($p < 0.005$), with no differences amongst NICU admissions. The average distance from each zip-code to the nearest PNC location was 5.4 ± 4.6 miles.

Conclusions

Inner-city zip-codes had a larger-than-expected proportion of mothers who received late PNC, despite similar distances to PNC clinics. NICU admissions were not associated with maternal zip-code. PNC clinics appeared to correspond well to population density. However, alternative resources, such as telehealth visits, should be explored to increase inner-city PNC(5). ■

Effects of Equine Assisted Services and Therapies on the Physical Health of Patients with Mild to Moderate Stages of Alzheimer's and Forms of Dementia

Introduction

Dementia affects all facets of life for patients and caregivers. A worrisome aspect is the lack of cure for the disease; therefore, treatments aim to improve and maintain the social, emotional, and physical health of patients. Equine therapy has proven to be a useful tool in the improvement of emotional and cognitive well-being of people from varying circumstances. This study aims to determine the physical effects of equine therapy on persons with mild to moderate dementia.

Methods

This project was conducted at Beaming Inc. with assistance from their Riding in the Moment program coordinators. Surveys assessing physical changes over the duration of 4 months, with scheduled sessions approximately once weekly, were completed at the beginning and at the end of this time period. Results and data were analyzed.

Results

The results showed that equine therapy improved patients' weekly active hours and days exercised with no significant difference in falls or fear of falling, completion of activities of daily living, or need for assistive ambulation device.

Conclusions

Overall, equine therapy appears to have an effect on physical health of persons with mild to moderate dementia improving motivation and activity levels but may not have an impact on coordination and balance. It would be of interest to see if a longer duration of therapy would have a greater effect, although the progressive nature of the disease could interfere. ■

BREANNA SCHARA



Patient and Parent Satisfaction of a Transition of Care Program in Adolescents with Congenital Heart Disease

MARIAH SCHULTZ



Introduction

With medical advances, over 90% of children with congenital heart disease (CHD) survive into adulthood. Transition programs, aiding progression from adolescent to adult CHD care, correlate with reduced unplanned cardiac hospitalizations. However, Reid et al found only 47% of individuals with CHD successfully transitioned care. Another study showed less than 30% of ACHD patients had an appropriate provider.

Furthermore, inadequate transition of care (TOC) correlates with increased adverse outcomes, lower quality of life, and greater mortality.

Methods

A follow-up survey was sent to the same medical students a year after the initial study. The survey consisted of Likert-scale questions and qualitative questions to be completed on a voluntary basis. Our goal was to assess continuity of the original topics and allow reflection on the students' continued learning about implicit bias as they progressed through their second year in medical school.

Results

The 40 surveys indicated satisfaction with TOC visits, with 98% quoting the visit as helpful/important, covered appropriate topics, and was an adequate length of time. 65% of participants indicated TOC readiness, while 30% cited hesitancy, primarily reluctant to leave their current doctor. Heart health confidence and TOC readiness was highest in 17-year-olds at FV. Patients with a history of cardiac surgery had higher TOC hesitancy. There was no relationship between race, age, or gender and readiness.

Conclusions

Transition visits provide an avenue for education on lifelong cardiac care. Based on survey outcomes, the program at CHW is providing patients and caregivers tools to transition smoothly to adult care. ■

Narrative Foreclosure and Resilience Among Older Adults

Introduction

Some older adults experience stagnation in their quest for meaning in life. To combat this one may look to narrative gerontology, a field which posits that successful aging is achieved through crafting and maintaining a personal life story. One attribute of successful aging is “resilience”. This study uses resilience to measure the impact of a life story-telling intervention in a group of older adults.

Methods

Seven participants were invited to partake in five sessions. Each reported a subjective health status from 1 - 5; resilience was measured on a 15-question scale adapted from Yang et. al. 2021 during the 1st and 5th sessions; and at each session, participants assessed their mood before and after sharing stories and provided subjective feedback on the individual meaning of the session’s content.

Results

An 8% increase in resilience score was recorded among participants ($p=0.1$). There was no significant correlation found between participants’ self-reported health status and change in resilience score. Mood before and after sessions increased by an average of 4% ($p=0.2$). Significant themes from participants’ comments on the session include interest in listening to how others solved problems, hearing about other’s different life stages and it being meaningful to have a chance to gather. The most common causes of impaired mood among participants were difficulty with family plans/health, technology, and obstacles with personal health.

Conclusions

Though the change in scores was not statistically significant, such an intervention may hold clinical significance. Small sample size limited statistical analysis and should be repeated with a greater number of participants. ■

ALLISON SEDMAK



Building a Healthier Community Through Improving Education on Routine Physical Activity

JOSHUA WIESNER



Introduction

Cardiovascular disease is the number one cause of mortality in the United States, with nearly 700,000 deaths in 2020. Exercise is a powerful nonpharmalogical tool for primary and secondary prevention of heart disease given its ability to improve several of the modifiable risks for cardiovascular disease including blood pressure control, weight, and fasting glucose. There also is evidence supporting nterventions to increase physical activity for reducing one's cardiovascular risk.

Methods

The study was conducted at the YMCA of Greater Menominee Marinette in Menominee, MI. An initial survey gathered baseline data of the participants regarding current physical activities levels and cardiovascular risk factors. After the presentation a survey was collected regarding the effectiveness of the presentation. A follow-up survey was completed three months later to evaluate progress at that time.

Results

There were small improvements in attitudes surrounding planning and maintaining a routine exercise routine. Also, a small improvement in the relationship between exercise and cardiovascular health. Only three followup responses were obtained which showed a decrease in these except for knowledge of exercise and relationship to cardiovascular health.

Conclusions

This study would benefit from increasing the size of the population in the study and researching mechanism to increase turnout and follow-up rate. Looking into ways to find participants with lower understanding would also be beneficial for future work. ■



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