Efforts to improve employee health for cardiovascular and metabolic conditions: A systematic review of weight-management outcomes

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ABSTRACT

The objective of this study was to examine weight-management outcomes, specifically weight, physical activity, and nutrition, of employer-sponsored interventions to improve employee health for cardiovascular and metabolic conditions. This study is part of a larger research project regarding employer-sponsored health management programs.

INTRODUCTION

Background: Weight-management is defined as conducting long-term lifestyle changes to maintain a healthy body weight [1]. With approximately 70% of American adults classified as overweight or obese, weight-management could result in positive outcomes [1]. Worksites frequently serve as structured, shared environmental settings [1]. With over 132,000,000 individuals in the United States population employed, worksite wellness programs seeking to improve health behaviors and outcomes related to weight-management could target employee populations [2].
Research Question: Do employer-sponsored interventions to improve employee health for cardiovascular and metabolic conditions have a positive effect on weight-management, specifically weight, physical activity, and nutrition?

METHODOLOGY

Study Design: Systematic review adhering to PRISMA guidelines. Inclusion criteria included English, peer-reviewed articles published in the United States between 2000 to 2021 reporting weight-management outcomes aimed at improving employee cardiovascular and/or metabolic conditions. Included articles were based on randomized or non-randomized controlled trial or a before–after study design.
Data Collection: Searches used PubMed, CINAHL, ABI/Inform, and PsycINFO. 2268 journal articles were retrieved from database searches. After multiple rounds of screening, 22 articles reported weight-management outcomes of interest and were included in this analysis.
Data Analysis: Analysis was based on guidelines established by the Health Enhancement Research Organization (HERO) and Population Health Alliance (PHA). Outcome measures included physical and health behaviors that impact physical, mental, and emotional health. The review also included a quality assessment of research design based on National Heart, Blood, and Lung Institute criteria.

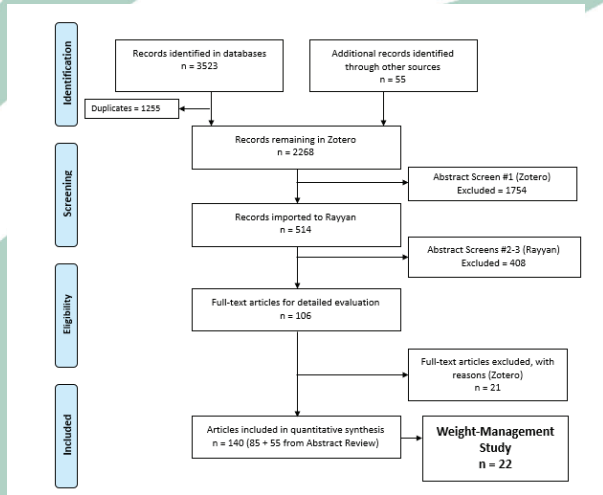

Figure 1. PRISMA flow diagram

RESULTS

All twenty-two studies included at least one weight intervention, with most that involved weight loss and body mass index. Thirteen studies included at least one weight intervention as well as a physical activity or nutrition intervention, several that involved frequency of physical activity. Sixteen studies included at least one weight intervention as well as a physical activity intervention, a few involving increased time spent exercising. Nineteen studies included at least one weight intervention as well as a nutrition intervention, some that consisted of diet alterations. Twenty-one studies had positive weight measurement outcomes, such as decreased body fat percentage and decreased waist circumference.

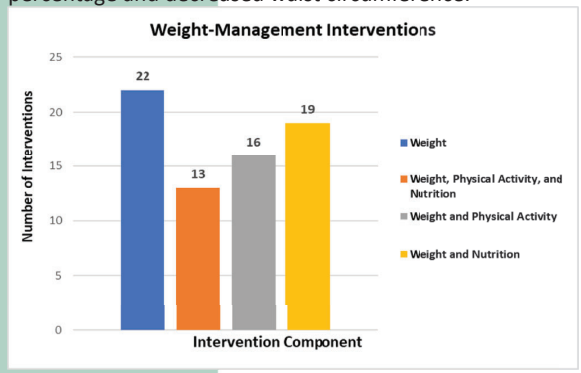

Figure 2. Weight-management interventions and their components

RESULTS (CONT.)

Seventeen studies had positive physical activity measurement outcomes, such as increased daily steps and more vigorous exercise. Nineteen studies had positive nutrition measurement outcomes, such as decreased saturated fat intake and increased fruit and vegetable intake.

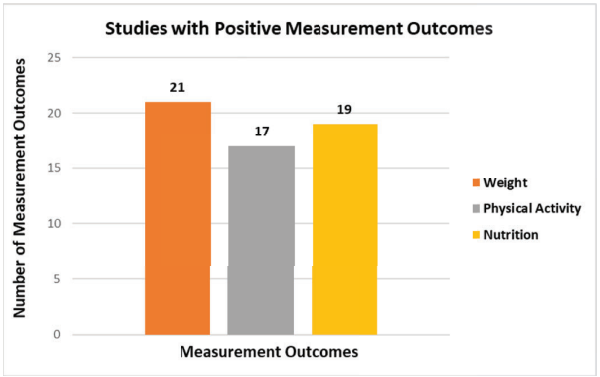

Figure 3. Studies with positive measurement outcomes

CONCLUSIONS AND POLICY IMPLICATIONS

Employee-sponsored health management programs focusing on improving cardiovascular and metabolic conditions may result in positive weight-management, specifically weight, physical activity, and nutrition. Future research could further examine the effect of employee-sponsored health management programs on weight-management, whether on weight, physical activity, nutrition, or another component. Given the COVID-19 pandemic and resulting "Great Resignation," workplaces could serve as an additional channel and support system for those participating in weight-management programs.

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VIRGINIA COMMONWEALTH UNIVERSITY

Impacts On The Quality Of Life for Residents of Long-Term Care Facilities

Jade Craig, Dr. Christine Booker

Abstract

The elderly population should receive the best care possible. Providing for the needs of this group which will increase the quality of life. Research for this project focuses on the factors that effect the care this older adult population living at long-term care facilities in Virginia. This study also examines whether there is a correlation between quality-of-life factors and the facilities ratings. Using the secondary data that I collected, it was concluded that all factors affect the care given to the patient as well as quality of life.. Therefore, there is a correlation between the factors impacting care and quality of life (number of beds, price and/or region) and the ranking of all long-term care facilities in the state of Virginia.

Introduction

Often, elderly people have a difficult time advocating for themselves to make sure they receive the most optimal care for their needs. When it comes time for them to enter long term care facilities someone needs to provide a voice for their safety. To ensure that the aging populations are receiving the best care I researched all 255 long term care facilities in Virginia. My two research questions were as follows: what factors (number of beds, price, and/or region) have an impact on the Quality of Life (QOL) of residents living in long-term care facilities? Also, is there a correlation between factors that impact the QOL of residents living in long-term care facilities and the rating of the facility?

Methodology

First, using the quantitative method I began to gather data each week by researching about 45 facilities. I created an excel sheet with different categories to collect information for each facility. These categories included, location, website accessibility, ranking, number of beds, and price. This research was conducted remotely via the internet. To find the secondary data I primarily used three websites, Virginia Health Information, Family Assets, and Health US News. Using only three websites helped me to ensure that the data was collected objectively due to the consistency of the ranking criteria. After collecting the data for each facility, I organized them based on their ranking from best to worst. I also color coded each place based on their region in Virginia (central, eastern, northern, northwestern, and southwestern).

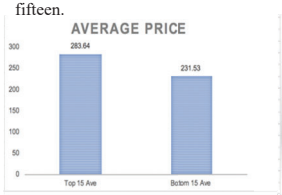
Once I collected all of my data, I began to assess the top fifteen as well as the bottom fifteen facilities. I reviewed the categories based on the cost of facility and their number of beds and locality. Being that I color coded each place I was also able to compare the efficiency of each region's facilities. To do so, I created pivot tables; then I converted these tables to the appropriate charts that would best highlight the data. After carefully reviewing these charts, the data began to answer questions that directly affect the quality of life for patients.

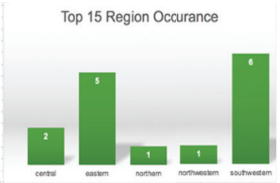
Results/Discussion

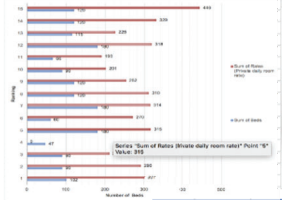
When choosing a place to reside at, older adults should be confident that they will receive the best care available. Often, prices can be a large factor in this decision being that everyone has different economic resources. A bar graph was created to look at the average cost for the top fifteen facilities in Virginia versus the bottom fifteen. The average daily rate for a private room in the top fifteen facilities is $283.64. The average daily rate for a private room in the bottom fifteen facilities is $231.53; this creates a difference of only a $52.11 in the cost on average.

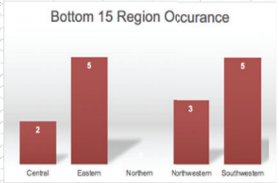
Another major factor to consider is the number of beds in each facility. I compared the daily rate to the number of beds offered at the top fifteen facilities. After reviewing this data, it was clear that on average, as the rating increases, the number of beds decreases. While researching, I noticed that some websites were immensely useful, being that they are user friendly, and the information was listed clearly. However, other websites were difficult to review and locate necessary information which is a concern for consumers. I added a category on website accessibility because I feel that it is important for finding a place to reside in one's later years. Each facility's website was listed as either poor, good, or great on the accessibility chart. Sixteen percent of the websites were poor, fifty-five percent were good, and twenty-nine percent were great.

Lastly, I examined the occurrence of the top fifteen facilities and the bottom fifteen facilities in each region. I thought that this would be a good way to examine which regions are doing well and which are not. The Southwestern region had the highest number of occurrences in the top fifteen. The Northern region did not have any occurrences in the bottom fifteen.









Conclusion

As a result of the data found, it is clear to see that these various factors do affect the rating of the facility which in turn will affect the quality of life for the residents. Initially, the website accessibility helps when finding a facility. The more organized the website is, the easier it is to decide if it is the right place. Next, comparing the average costs showed that on average there is not a large difference in price range. There is a $53 difference in the top fifteen and bottom fifteen places, therefore, on average the price increases when ranking increases. When looking at the number of beds there is better care at the facilities with less beds, based on their ranking. Further research questions arise when thinking about this topic. For example, is there a higher number of staff members at the facilities with more beds? Lastly, when looking at the different region's occurrence in the top and bottom fifteen, it is not cut and dry to draw conclusions. Overall, there are many factors to consider when looking for the best care. There is a correlation between the factors researched and the rating of each facility. Doing well in each factor leads to a positive correlation in the facilities ranking. More research needs to be conducted to determine if trends in Virginia are consistent with regional or national data. If national trends show similar rankings, then more funding may be needed at the federal level to better support the needs of low-income residents and/or facilities.

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Substance Use and Rapid Access to Firearm Among College Freshmen

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INTRODUCTION

In 2019, one-third of college students binge drank within the past 30-days, and more than one in five reported current marijuana use. This is concerning as previous studies have found positive associations between alcohol use and gun access, ownership, and possession. Cannabis use has also been associated with suicide, which often occurs by firearm among young people. While prior research have measured for firearm in terms of ownership, carrying, or having a gun at home, this study assesses how quickly students could access a firearm.

Objective: The purpose of this study was to examine rapid access to firearm among college students and potential associations with current binge drinking and marijuana use.

METHODS

- Cross-sectional data from first-year college students aged 18 to 24 (n=183) were obtained from the spring 2019 wave of the *Mason: Health Starts Here* cohort study at George Mason University in Fairfax, Virginia.
- A dichotomous measure was created for rapid access to a gun to distinguish students who could get and shoot a gun within 15-minutes.
- Multivariable logistic regression models evaluated rapid access to a firearm in relation to binge drinking (≥4 drinks for females and ≥5 for males per occasion, past 30 days), marijuana use (any, past 30 days), age, sex, and race.

MASON Health Starts Here! Research Study

RESULTS

Table 1. Multivariable logistic regression models of factors associated with rapid access to a firearm

	All participants (n = 183) 15-minute access			18-year-old participants (n = 161) 15-minute access			All participants (n = 183) 30-minute access			All participants (n = 183) 60-minute access		
	AOR	95% CI	*p*-value	AOR	95% CI	*p*-value	AOR	95% CI	*p*-value	AOR	95% CI	*p*-value
Past 30-day binge drinking	**6.4**	**2.1, 19.7**	**0.001**	**6.2**	**1.7, 22.0**	**0.005**	**4.8**	**1.6, 14.0**	**0.004**	2.9	1.0, 8.2	0.051
Past 30-day marijuana use	0.3	0.1, 1.9	0.226	0.2	0.02, 2.0	0.166	0.3	0.1, 1.8	0.192	0.3	0.0, 1.4	0.115
Non-Hispanic White only	**4.1**	**1.3, 12.7**	**0.016**	**5.6**	**1.5, 21.9**	**0.012**	**4.1**	**1.5, 11.7**	**0.008**	**7.0**	**2.5, 19.2**	**<0.001**
Age (19+ vs. 18 years)	1.9	0.5, 7.9	0.354	--	--	--	1.6	0.4, 6.4	0.473	2.3	0.6, 8.3	0.217
Male (versus female)	1.0	0.3, 3.2	0.994	0.6	0.2, 2.5	0.50	1.0	0.3, 3.0	0.980	0.6	0.2, 1.9	0.415
	Pseudo R-squared = 0.18			Pseudo R-squared = 0.20			Pseudo R-squared = 0.15			Pseudo R-squared = 0.18		

The comparison group for the race/ethnicity variable was Hispanic and/or non-White. Bolded text indicates $p < 0.05$.

- 88% of students were 18 years old, and 72% were female. 11% reported past 30-day marijuana use. 18% were past 30-day binge drinkers. 10% could access a gun within 15-minutes.
- **Past 30-day binge drinkers had more than six times the odds of being able to access a gun within 15-minutes compared to students, who did not binge drink in the last month.**
- Age, sex, and past 30-day marijuana were not associated with rapid access to firearm.

DISCUSSION

- Firearm safety programs may benefit from targeting heavy drinkers.
- Policies limiting alcohol access on campus may be an important step as an environmental-level strategy to reduce gun violence.
- More research and similar surveillance data are needed to prevent shootings and related casualties on U.S. college campuses.

Scan for References

Addressing Child Abuse and Neglect: Empowering Medical Students to be Part of the Solution Through Clinical and Community Engagement

Angela Liu, Diana Tran, Sravya Uppalapati, Rachel Schendzielos, Erica Johnson, Dr. Robin Foster

Virginia Commonwealth University School of Medicine

Introduction

- Child abuse and neglect is a significant public health concern.
- Medical professionals frequently encounter maltreated children, but lack of training leads to under-identifying and underreporting cases.
- A virtual, two-week Child Abuse and Neglect elective was offered to students at Virginia Commonwealth University (VCU) School of Medicine during the COVID-19 pandemic

Two-Week, Virtual Elective Format:
Online lectures, cases, and readings on following topics:

- Intro to Child Abuse and Reporting
- Burns, Bruises, Bites
- Chest and Abdominal Trauma
- Fractures
- Abusive Head Trauma
- Medical and Nutritional Neglect
- Substance Exposure
- Suffocation, Strangulation, Drowning
- Unsafe Sleep
- Sexual Abuse
- Child Trafficking
- Pediatric Radiology

Objective

Outline the expansion of a virtual, two-week Child Abuse and Neglect elective into a permanent, in-person, four-week elective for fourth-year students at VCU School of Medicine

Methods

STEP 1: Assessment

- Involved obtaining feedback from students in the virtual elective (N=22). Key interests included:
  - Direct clinical experiences
  - Engagement with social workers and community partners
  - Clarification of the Child Protective Services reporting process
  - An expanded, four-week elective

Methods

STEP 2: Curriculum Design

- Involved creating new educational activities and collaborating with interdisciplinary partners
- Elective Learning Objectives:
  - Identify cases of child abuse and neglect
  - Understand the process of reporting a case and the steps after a report is made
  - Work collaboratively with social workers to connect patients and caregivers to appropriate community-based resources
  - Recognize the impact of adverse childhood events, identify trauma-associated behaviors, and provide trauma-informed care.

Expanded Four-Week, In-Person Elective Format:

- Asynchronous recorded lectures and readings from the online elective
- A high-yield slide deck, with an expanded section on reporting cases
- In-person clinical rotations at following sites:

Week A	VCU Children's Hospital of Richmond (CHoR) Child Protection Team – Inpatient
Week B	VCU (CHoR) Child Protection Team – Outpatient
Week C	VCU CHoR social workers
Week D	Local Child Advocacy Center (SCAN)

STEP 3: Implementation

- The new elective proposal was submitted and approved by the Curriculum Council in November 2021
- The elective was first offered February 21- March 18, 2022 to four students
- Students received a detailed syllabus, email introduction, and group chat with Elective Leaders

Children's Hospital of Richmond at VCU

greater richmond SCAN Stop child abuse now

Results

STEP 4: Evaluation

- Average pre and post-elective survey data (on a scale of 1 - 5)

	Pre	Post
I feel comfortable **identifying cases** of child abuse and neglect.	2.5	4.7
I feel comfortable **reporting cases** of child abuse and neglect.	2.0	4.7
I feel comfortable **identifying trauma-associated behaviors** in children and **providing trauma-informed care.**	1.8	4.0
I understand the **forensic interview process** for reported child abuse and neglect cases.	1.3	4.3
I understand the **role of social workers** for suspected child abuse and neglect cases.	2.0	5.0
I understand the **role of Child Advocacy Centers** for suspected child abuse and neglect cases.	1.5	4.3
I **will report a case** of child abuse and neglect if I suspect it.	4.3	5.0
I believe **this Child Abuse and Neglect elective addresses an important gap** in medical education.	N/A	5.0

- Other evaluation methods include a quiz on lecture materials, a written reflection, and a quality improvement project

Discussion

- Future directions include electing new Child Abuse and Neglect Elective Student Leaders to ensure course sustainability
- To our knowledge, this is the first student-led maltreatment curriculum to include structured time with social workers and community partners.
- This process can inspire other students to partner with multidisciplinary teams to address child maltreatment through a public health lens.

Acknowledgements

We would like to thank the CHoR Child Protection Team, CHoR social workers, the Greater Richmond SCAN, and the students who participated in the elective.

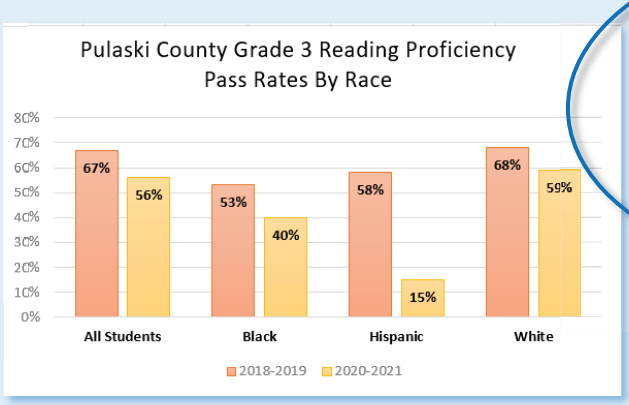
"I See Me" Reading Challenge: Spotlight on Diversity Literature for Elementary School Students in Pulaski County, VA

Program Coordinator: Meagan Graham, MPH Candidate, Virginia Tech

Why a Reading Challenge?

Pass rate differentials range from 19 - 44% across races in a single school year.

Source: https://schoolquality.virginia.gov/



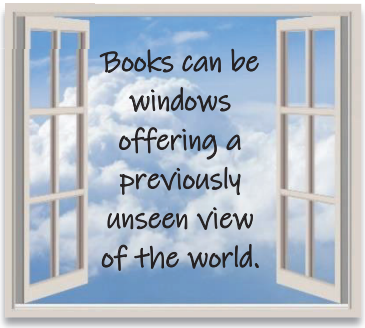
Elementary school students of color in Pulaski County show an apparent deficit in reading scores that is likely to continue through the middle and high school years.

What's the Good News?

Introducing diversity literature helps create a sense of identity and belonging that is crucial to the enhancement of reading engagement and comprehension!

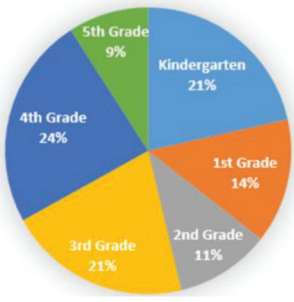
According to the NIH, 95% of struggling readers can be brought to grade level with sufficient support.

Books can be mirrors reflecting human experiences back to the reader.



What Were the Results of the Challenge?

% Participation by Grade



I See Me
Reading Challenge
January 1, 2022-February 28, 2022
Grades K-5

152 Student Participants County-wide from 4 out of 5 (80%) Pulaski County Elementary Schools!

6.6 books, on average, read per child
or
1,009 Reading Sessions!

End-of-Challenge Celebration Party with over 100 attendees!

What's Next?

- Seek funding to support and continue "I See Me" on an annual basis
- Appeal to Pulaski County School Board for funding to embed diversity literature into structured curriculum across ALL grade levels
- Mobilize local community groups to expand future "I See Me" initiatives and reach more readers

Therapeutic Interventions to Improve Gross Motor Function in Children with Spastic Cerebral Palsy

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James Madison University, Harrisonburg, VA

Introduction & Background

- Cerebral Palsy (CP): A developmental condition that affects three out of every 1,000 children in the United States and is the most common motor disability for children. Spastic CP is the most common form of CP and accounts for 80% of all cases.
- CP is an incurable disease, but most people grow up and live fully functioning adult lives when they are properly treated at an early age.
- Gross motor function (GMF) is the movement of large muscles - arms, legs, and torso - and is learned at an early age. These smaller movements are crucial to whole body movements, like climbing and jumping, and completion of activities of daily living (ADLs).
  - Without being able to complete ADLs, comorbidities can arise such as dental disease, eating disorders, sleep disorders, learning difficulties, and more.
- **Hippotherapy** uses horses, alongside physical and occupational therapists and speech language pathologists, to provide motor and sensory input for an individual.
- **Equine therapy**, also frequently called horse therapy, is focused on treating both physical and mental side-effects that go along with a diagnosis. This form of therapy is frequently used to treat a variety of mental and physical disabilities, such as autism spectrum disorder, Down Syndrome, spina bifida, scoliosis, cerebral palsy, and more.
- **Strength training** is seen to have a positive effect on children with spastic CP, specifically diplegic, which means paralysis in both lower limbs.
- **Electric stimulation therapy** is another form of intervention that is commonly seen as a treatment for children with spastic CP. This form of therapy can see improvements in balance, posture, and gait.

Purpose

The purpose of this systematic review was to identify therapeutic interventions to improve gross motor function (GMF) for children with spastic cerebral palsy (CP). This study specifically looked at strength training, electric stimulation therapy, hippotherapy, and equine therapy.

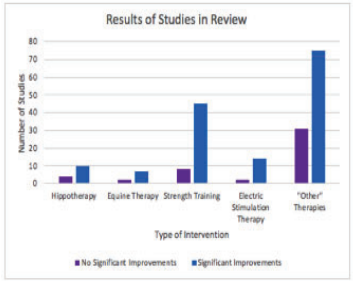

Figure 1. Significance of the results in the reviewed studies.

Methods

- A systematic review was conducted following Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines.
- PubMed was used to conduct this systematic review.
- Articles inclusion criteria:
  1. Full articles, written in English, peer-reviewed, and published within the last 10 years.
  2. Studies on children with CP between the ages of 0 and 18 years old.
  3. Therapeutic interventions in which the child took active participation in the form of therapy.
  4. Discussed the effectiveness of the intervention on treating gross motor function using a form of the Gross Motor Function Measure (GMFM) or other measurements looking at gross motor function.
- Articles exclusion criteria:
  1. Surgical interventions or invasive interventions.
  2. Medicinal interventions.
  3. Looked at movements that do not qualify as gross motor function (GMF).

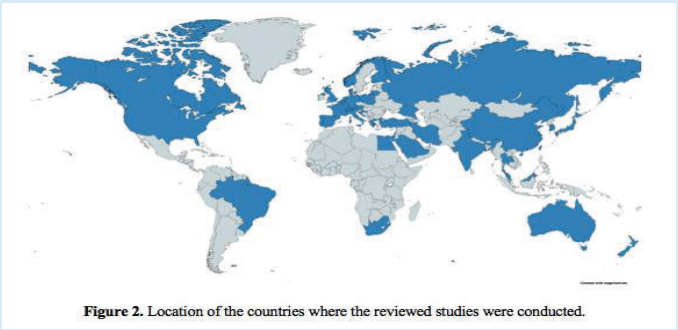

Figure 2. Location of the countries where the reviewed studies were conducted.

Results

- 376 articles and studies were found during the initial search. After duplicates were removed, inclusion/exclusion criteria was applied, 198 studies were selected for literature review.
- 147 studies reported significant improvements in different areas of GMFM and 51 reported nonsignificant improvements, did not find definite results, or were literature reviews that did not address significance levels (Figure 1).
- Strength training: 52 total studies met the criteria for review. The following common interventions were seen: resistance training (*n=13*), muscle strength training (n=11), treadmill training (*n=6*), robot-guided therapy (*n=5*), vibration therapy (*n=3*), cycling (*n=3*), and high intensity circuit training (HICT) (*n=2*). Improvements were seen for muscle strength and gait.
- Electric stimulation therapy: 15 total studies met the criteria for review. The following forms of therapy were seen: neuromuscular electric stimulation (NMES), transcutaneous electrical acupoint stimulation (TEAS), functional electric stimulation (FES), transcranial direct current stimulation (tDCS), transcranial pulsed current stimulation (tPCS), transcutaneous electrical nerve stimulation (TENS), transcutaneous spinal cord stimulation (TSCS), functional electrical stimulation (FES), neuroprosthesis, and anodal and transcranial direct current stimulation. Improvements were seen for gait, lower extremity movements, and posture.
- Hippotherapy and equine therapy: Often mentioned in overlapping manner by the studies (n=30), total of which 24 met the criteria for review. Improvements were seen for postural control and balance.

Discussion & Conclusion

- Only 2% *(n=4)* of studies were longitudinal and looked at the long-term effects of these therapies. Future studies should look at how these therapies affect and benefit the patients long term.
- Most studies were conducted in European countries and the United states; there needs to be more variety in where studies are conducted because a large portion of the population is not being treated/ not included in research (Figure 2).
- Most studies looked at children between the ages of 6 and 11 years old (Figure 3). This is known as middle childhood, and this is when children are able to gain a sense of independence and understand goal setting. Goal setting, making independent choices, and having free will is crucial to participation and success in therapeutic interventions.
- Postural control was seen to improve the most with hippotherapy and equine therapy due to the children having to hold themselves upright on a moving horse. With the unpredictability of a horse's movements, core strength is crucial to remaining upright on the horse.
- Gait improvements were seen to improve with both strength training and electric stimulation therapy.
- Electric stimulation therapy also saw improvements in other lower extremity movements, step length and speed, and some upper extremity movements.
- Other therapies were identified during this study and saw significant results but were not included in the study itself. These include: acupuncture, aquatic therapy, modified constraint-induced movement therapy (mCIMT), reflexology, and virtual reality/video game therapy.
  - Not enough research has been conducted on these studies and therefore, more research on these is recommended for future research.
- More research needs to be conducted on both younger age groups, and older age groups – in order to determine the best course of treatment for children in those groups.

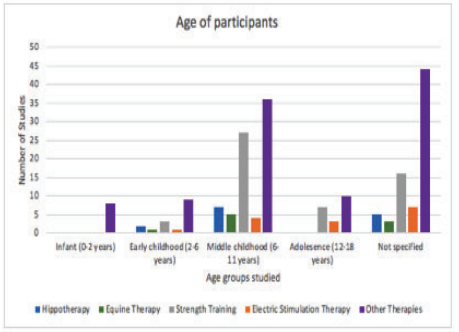

Figure 3. Age of participants in reviewed studies based on Erik Eriksons stages of development.

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JAMES MADISON UNIVERSITY.

People with active opioid use disorder as first responders to overdoses: Improving implementation intentions to administer naloxone

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Background

- In 2021, over **100,000** Americans died from an opioid overdose.[1]
- Naloxone, an antidote for the effects of an opioid overdose, is widely available from community-based training programs, syringe exchange programs, and community pharmacies across the United States.[2,3]
- Recent behavioral research and a meta-analysis indicate people who use opioids (PWUO), are not likely to take or carry naloxone.[4,5,6]

- A just-in-time adaptive intervention could improve PWUOs taking and carriage of naloxone.[7]
- The Action, Actor, Context, Target, Time (AACTT) framework (outlined in Methods) is an adaptive, low-cost planning intervention.[8,9]
- **Our research question is:** Can we increase naloxone use by using an adaptive, low-cost planning intervention?
  - *Obtaining naloxone* from local sources (e.g., syringe exchange program, community pharmacy, or from peers)
  - *Carrying naloxone* to locations 'street products' are used
  - *Discussing the use of naloxone* with peers
  - *Administering naloxone* to an opioid overdose victim

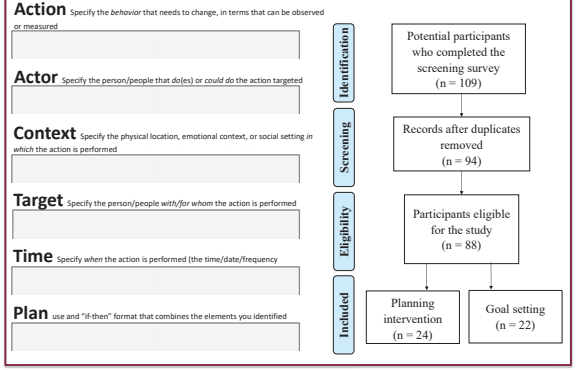
Methods

Recruitment and Eligibility

- Researchers distribute flyers at authorized syringe exchange programs in the Commonwealth of Virginia. Individuals self-screen for active opioid use disorder (≥ 3 active symptoms from the Drug Abuse Screening Tool[10]) and are ≥ 18 years of age.

Randomization, Baseline Assessment, and Follow-up

- Longitudinal design with baseline randomization to naloxone planning intervention (experimental group) or naloxone goal setting (control group)
- 7-point Likert scale of attitudes (20 items), subjective norms (4 items), perceived behavioral control (12 items), and intentions (4 items)[11,12]
- Quantitative survey of naloxone use at baseline, 3-months, and 6-months
- 15-to-30-minute interview to establish plans or goals for naloxone use
- Participants receive $25 compensation (additional $25 after 6-month follow-up) for their time.



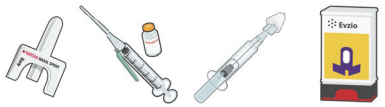
Results

Demographics

Table 1. Target population

	Experimental	Control
Sample size	**24**	**22**
Gender (% Female)	63%	55%
Ethnicity (% Hispanic)	4%	9%
Race (% White)	88%	91%
Age (Average)	40	38
Naloxone training		
Yes (%)	54%	73%
Location	Community-based	Peer provided
Overdoses treated	13	8
Overdoses witnessed	16	15

- Participants' demographics are relatively similar between groups.
- Fewer participants in the experimental group are trained in naloxone administration.
- More participants in the control group received naloxone administration training from peers.
- Participants in the experimental group have treated more overdoses with Narcan® or intramuscular naloxone.



Attitudes, Subjective Norms, Perceived Behavioral Control (PBC), and Intentions

Table 2. Average (SD) responses to 7-point Likert scale

	Experimental	Control
Attitudes		
Obtain	6.77 (0.53)	6.48 (1.09)
Carry	6.54 (0.80)	6.56 (0.64)
Discuss	6.36 (0.79)	6.41 (1.01)
Administer	6.78 (0.51)	6.64 (0.71)
Subjective Norms		
Obtain	6.29 (1.00)	5.95 (1.50)
Carry	6.12 (1.23)	6.05 (1.17)
Discuss	6.00 (1.06)	5.77 (1.48)
Administer	6.25 (1.03)	5.86 (1.64)

Table 2. continued

	Experimental	Control
PBC		
Obtain	6.47 (0.71)	6.47 (1.07)
Carry	6.49 (0.90)	6.52 (0.95)
Discuss	6.36 (0.95)	6.21 (1.14)
Administer	6.56 (0.90)	6.39 (0.82)
Intentions		
Obtain	6.71 (0.46)	6.45 (0.91)
Carry	6.58 (0.58)	6.41 (1.10)
Discuss	6.29 (0.86)	6.18 (1.18)
Administer	6.54 (0.78)	6.68 (0.72)

Cronbach's Alpha (α): Attitudes towards 'Obtain', α = 0.63 [0.32, 0.85]; 'Carry', α = 0.91 [0.81, 0.96]; 'Discuss', α = 0.94 [0.90, 0.97], 'Administer', α = 0.87 [0.67, 0.94]; Subjective norms, α = 0.83 [0.65, 0.93]; Perceived behavioral control towards 'Obtain', α = 0.91 [0.73, 0.95]; 'Carry', α = 0.81 [0.49, 0.94]; 'Discuss', α = 0.86 [0.73, 0.92], 'Administer', α = 0.78 [0.45, 0.94]; Intentions, α = 0.81 [0.72, 0.87].

Plans and Baseline Levels of Obtaining, Carrying, Discussing, and Administering Naloxone

Implementation intentions versus goals for naloxone use:

If I go to the [syringe exchange programs' mobile unit] between 1-4pm, then (Context / Time)
I will obtain naloxone for myself and others. **[Male, 28 years old]** (Actor / Action / Target)

If I leave the house, then I will carry naloxone in my purse in case (Time / Actor / Action / Context)
I overdose or someone else does. **[Female, 53 years old]** (Target)

If I am in a bedroom getting ready to get high, then I will (Context / Time / Actor)
discuss the use of naloxone with others. **[Female, 33 years old]** (Action / Target)

If I'm in my bedroom and I notice someone's not breathing, then I'll administer (Context / Time / Actor / Action)
naloxone to the person experiencing the overdose. **[Female, 33 years of age]** (Target)

Find more rides to [syringe exchange programs' mobile unit].
[Male, 22 years old]

Keep some [Narcan] in a bookbag I carry or in the car. **[Male, 39 years old]**

I will make sure all peers have a basic understanding of naloxone and how to use it - and a small supply. **[Male, 27 years old]**

Recognize unresponsiveness, skin color of victim, and loss of breathing.
[Male, 63 years of age]

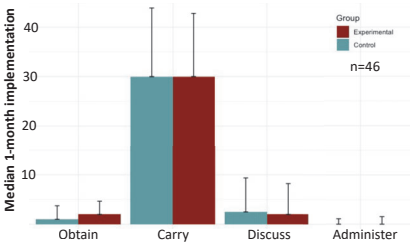


Figure 1. Baseline naloxone implementation

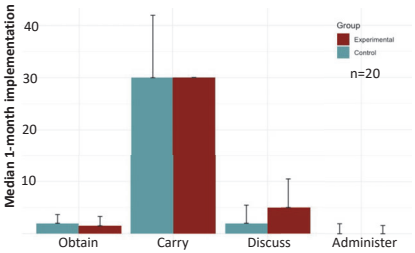


Figure 2. 3-month follow-up naloxone implementation

Conclusion

- Participants' motivation to perform overdose prevention behaviors, including obtaining, carrying, discussing, and administering naloxone are similar.
- '*Discuss the use of naloxone with peers*' is consistently lower on the 7-point Likert scale compared to other behaviors.
- Participants' baseline levels of naloxone implementation are similar over the course of 1-month.
- Possible difference in participants' 3-month follow-up levels for the '*Discuss*' behavior.

Current Work

- Continue recruitment (no more than 80 PWUO) and expand to other authorized syringe exchange programs in the Commonwealth of Virginia.
- Utilize adapted codebook to score participants' plans and goals for specificity and completeness.[9] Two raters will score participants' plans and perform inter-rater reliability analyses.
- Continue 3- and 6-month follow-ups with enrolled participants according to their respective date of consent.
- Utilize authorized syringe exchange programs' data collection system to supplement naloxone distribution and overdose reversal data.

Acknowledgements

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- Recruitment and distribution of flyers is supported by Lisa Via, Manager of the Drop-in Center North (syringe exchange program in Roanoke City).
- Contact information: **gfedward@vt.edu**

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Clip art: https://www1.nyc.gov/site/doh/health/health-topics/naloxone-reversal-form.page

PERCEPTIONS OF WORKERS IN THE FAST-FOOD INDUSTRY: A QUALITATIVE STUDY

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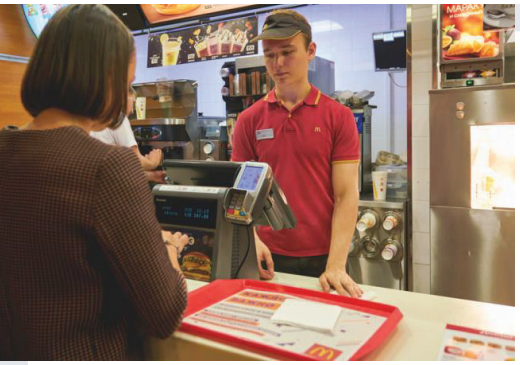
March 2022



Background

- Food & beverage industry, including fast-food restaurants scored top three most unhealthy workplaces 2017 United States (U.S).
- Individuals working in fast-food ⇧ workplace stress, panic attacks, depression & sleep disturbances.
- ⇧ Alcohol abuse/ illicit drug use.
- Fast-food workers ⇧ risk physical injuries on job but many lack adequate health insurance / paid sick leave.
- Very limited research


A Day in the Life of a Fast Food Worker
Operate cash register
Serve customers
Prepare and cook food
Provide excellent customer care

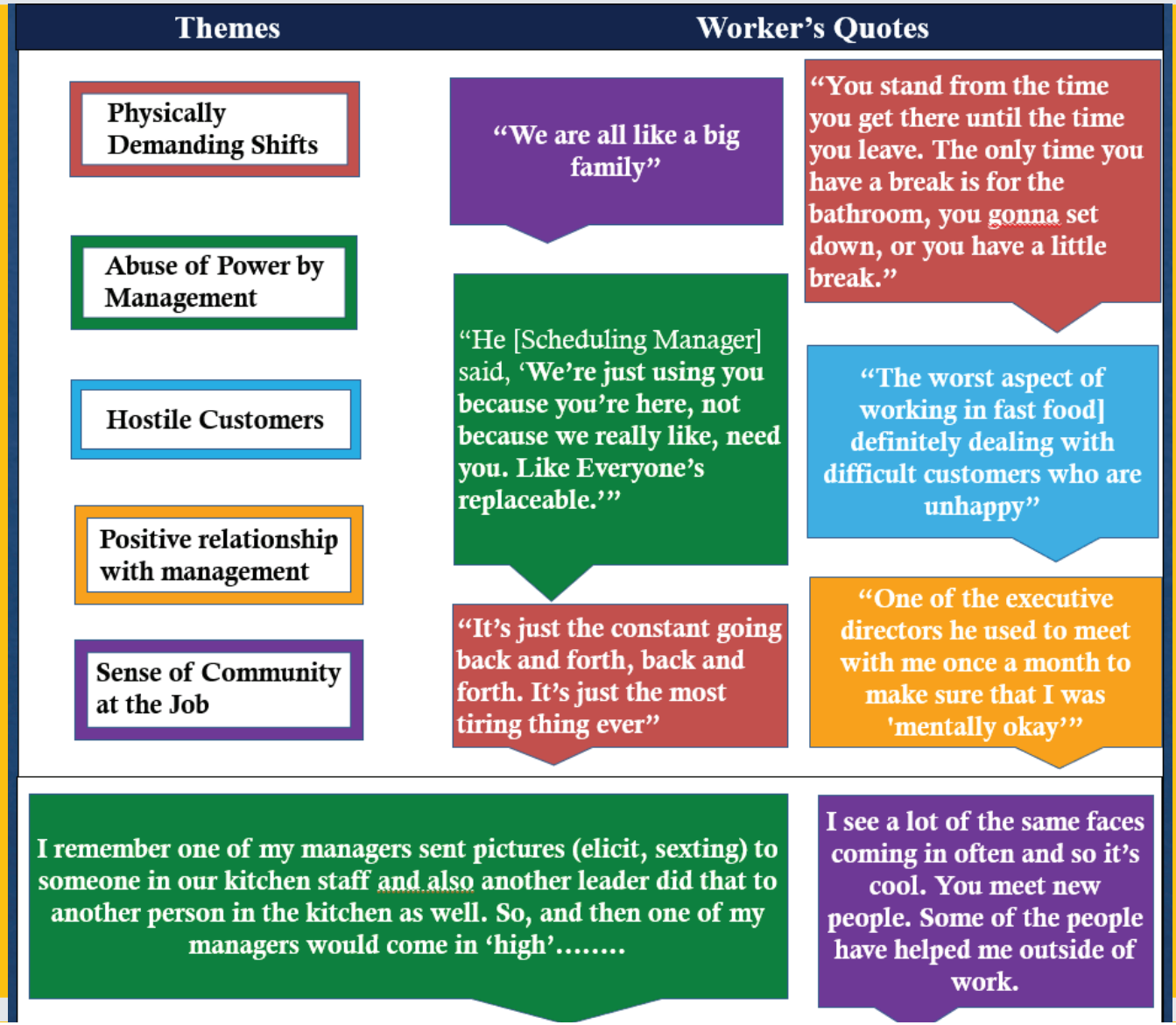
What are the perceptions and experiences of fast-food workers in Central Virginia?

Methods

- Recruited 7 fast-food workers, Central Virginia worked 20 hrs. /week & employed ≥ one month in a fast-food restaurant.
- Semi-structured qualitative interviews
- Interviews audio recorded via Microsoft Teams, transcribed verbatim/ thematic analysis.
- Demographic/ health hx.
- Restaurants: Taco Bell, Hardees, Chick-Fil-A , Wendy's & Captain D's.

Demographic Data

Age (years)	Race/Ethnicity	Sex	Education	Job Title	Work Full-Time or Part-Time
20	White	Female	Some College	Cashier	Full-Time
21	White	Female	Some College	Cashier	Full-Time
22	Black	Male	High School	Cashier	Part-Time
21	Black	Male	Some College	Cashier	Part-Time
70	Black	Female	Some College	Food Prep	Part-Time
23	Hispanic	Female	Some College	Manager/Cashier	Part-Time
22	White	Male	Some College	Manager/Cashier	Part-Time


Themes
Worker's Quotes
Physically Demanding Shifts
Abuse of Power by Management
Hostile Customers
Positive relationship with management
Sense of Community at the Job
"We are all like a big family"
"He [Scheduling Manager] said, 'We're just using you because you're here, not because we really like, need you. Like Everyone's replaceable.'"
"It's just the constant going back and forth, back and forth. It's just the most tiring thing ever"
"You stand from the time you get there until the time you leave. The only time you have a break is for the bathroom, you gonna set down, or you have a little break."
"The worst aspect of working in fast food] definitely dealing with difficult customers who are unhappy"
"One of the executive directors he used to meet with me once a month to make sure that I was 'mentally okay'"
I remember one of my managers sent pictures (elicit, sexting) to someone in our kitchen staff and also another leader did that to another person in the kitchen as well. So, and then one of my managers would come in 'high'……..
I see a lot of the same faces coming in often and so it's cool. You meet new people. Some of the people have helped me outside of work.

Qualitative data yielded several themes:

- Stress on the job was aggravated by physically demanding shift work
- Abuse of power by management
- Hostile customers
- Workplace created a sense of community

Results: Demographic Intake Form

- Three subjects reported anxiety disorders and/or chronic sleep problems.

Conclusion

- Larger quantitative studies are needed on health issues / stresses experienced by Americans in fast-food industry.
- Future research interventions might consider workers' access to healthcare & resources to address social stress at work.

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