Depression Screening in Primary Care: A Quality Improvement Project

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Introduction

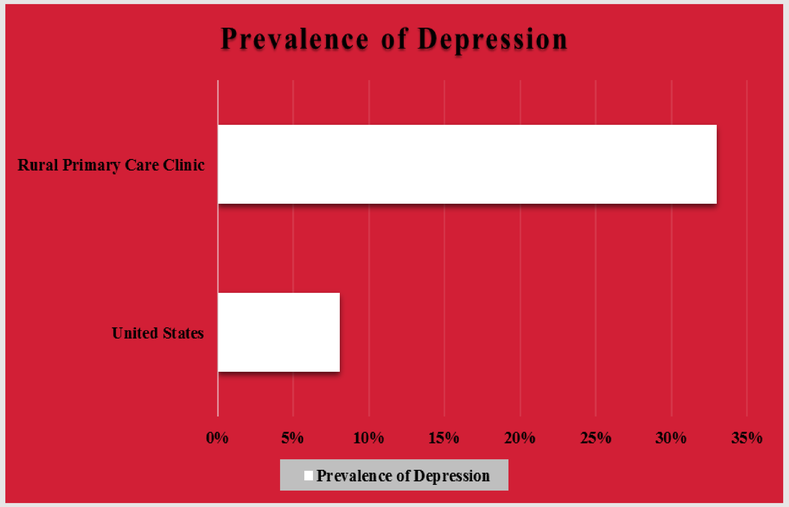
•8.1% of Americans suffer from depression.

•Depression negatively impacts work, home, social activities, and societal costs.

•Patients are hesitant to report mental health concerns due to stigma of mental illness.

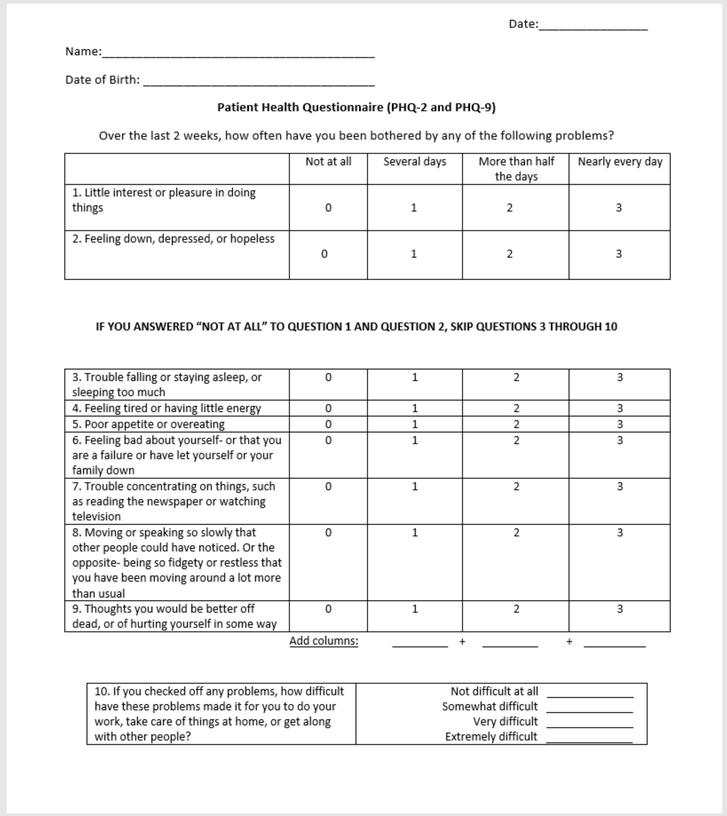
•Depression screening occurs in 4.2% of primary care clinics (1).

•Routine screening with a validated tool such as the (PHQ) of all adult patients can lead to early identification with resultant improvement in quality of life and decreased incidence of suicide.



Clinical Question

In adult primary care patients ages 18-64, does the routine use of a depression screening tool lead to more diagnosis and treatment of those with depression compared to an objective measurement?



Date:_____

Name:_____

Date of Birth: _____

Patient Health Questionnaire (PHQ-2 and PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3

IF YOU ANSWERED "NOT AT ALL" TO QUESTION 1 AND QUESTION 2, SKIP QUESTIONS 3 THROUGH 10

3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself- or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite- being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts you would be better off dead, or of hurting yourself in some way	0	1	2	3
	Add columns:	_____ +	_____ +	_____

10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all _____ Somewhat difficult _____ Very difficult _____ Extremely difficult _____

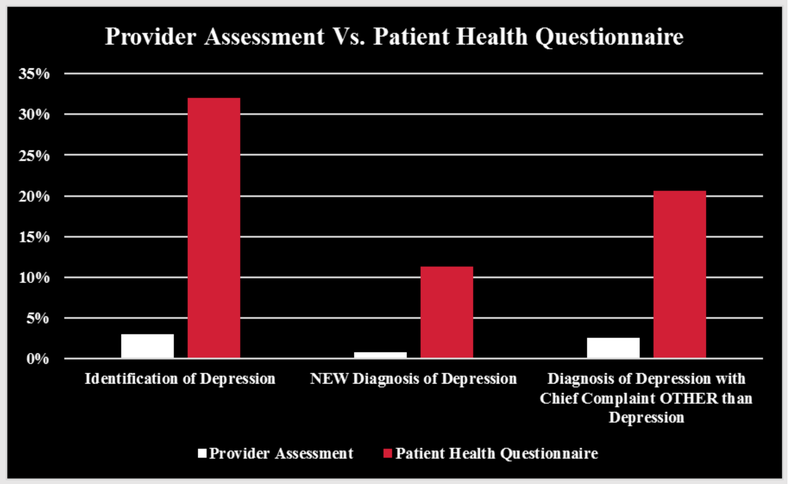
Methods

•Mixed method study design with 336 adult participants.

•Conducted in a family practice clinic in Spring 2020.

•Exclusion criteria: antepartum and postpartum, children, and geriatric individuals.

•Overall prevalence of individuals with a history of depression was 33%.



Findings

•32% of patients screened positive for depression with use of the PHQ versus 3% of people who the provider identified with traditional assessment techniques.

•Due to electronic health record limitations, only 17.5% of patients were officially diagnosed with depression. That is a 14.5% difference instead of going off the total PHQ-9 score of 5 to diagnose.

•11.3% of patients had a NEW diagnosis of depression with the PHQ versus 0.8% with the provider's assessment.

•28.8% of participants found depressive symptoms caused at least some difficulty with work, home, or getting along with other people.

•Depression identified in patients with complaints OTHER than depression occurred in 20.6% of individuals with use of the PHQ tool versus 2.5% of patients identified by the provider.

Outcomes

•Use of the PHQ is a thorough and effective way to screen for depression.

•Improved screening techniques can lead to more identification and treatment with resultant lowered incidence of suicide.

•Primary care practice is the ideal location for health care screening.

Acknowledgements

Thank you for the contributions that were useful and added to the success of this project from Shelly Wells, PhD, APRN-CNS, Wayne McMillin, PhD, Laura Hofferber, APRN-CNP, and Lindsay Garinger, APRN-CNP.

References

References upon request.

Detox for Families: A Structural Family Therapy for Addiction Treatment

Christina Erford

Northwestern Oklahoma State University

Introduction

Substance use disorder (SUD) is widespread in the United States (U.S.). There were approximately 21 million people in need of substance use treatment in the U.S. in 2017, which equates to 1 in 13 Americans over the age of 12 with a substance use disorder (Substance Abuse and Mental Health Services Administration, 2018). However, substance use disorder is a family disease with a negative impact on the emotional and physical well-being of all adults and children in the family unit through intrapersonal relationship distress and unhealthy family functioning (Shumway, Schonian, Bradshaw, & Hays, 2017). The far-reaching effects of SUD far surpass the 21 million people in need of treatment.

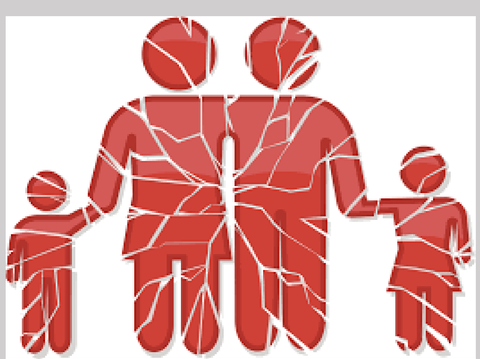
Addiction is worsening throughout the rural areas of America. Rural America has become plagued with higher rates of alcohol, methamphetamine, and heroin use, as well as prescription drug abuse, than most inner-city areas (Meit et al., 2014). Additionally, these areas have limited addiction treatment centers compared to urban areas where there is a broader array of options to meet the needs of the clients (Pullen & Oser, 2014). Building reliable social support systems for rural Americans is necessary to support long-term recovery in rural dwellers.

Objectives

- The objective of Detox for Families project is to offer an alternative family support and therapy program to strengthen the social capital for substance users.
- Decrease the financial and travel burden for rural population to participate in addiction treatment and family therapy sessions

Research Question

Does participation in a one-day seminar increase readiness to change of substance users and family members while decreasing family dysfunction?



Materials and Methods

Participants attended a one-day family therapy seminar consisting of 4 modules. Pre and Post Assessments were collected for data analysis.

Module 1
- Introductions and description of daily schedule
- Discussed concepts of family as a system, homeostasis, and generational transmission
- Ended with participants creating a genogram with a focus on family and emotional relationships

Module 2
- Discussion of the Stages of Change (precontemplation, contemplation, preparation, action, and maintenance)
- Sessions ended with an activity for participants to identify their stage of change and discuss what is necessary to advance to the next stage.

Module 3
- Discussion of the function of family in substance misuse treatment
- Family role and coping strategies were identified
- Healthy and unhealthy boundary setting
- Session ended with participants discussing their role within the family and setting limitations and healthy boundary

Module 4
- The topics of hope, healthy coping, achievement, relationships, choice, and unique identity development
- Participants discussed what their life would look like without addiction
- Encouraged participants to continue family and individual therapy

Tools

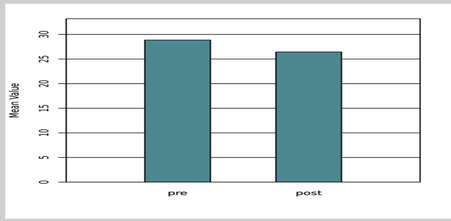
Family Assessment Device- General Functioning Scale
- Assesses problematic family functioning and family cohesiveness through structural, organizational, and transactional characteristics of families.
- Higher scores indicate more dysfunction

Modified Parental Motivation Inventory
- Measures Readiness to change in family members

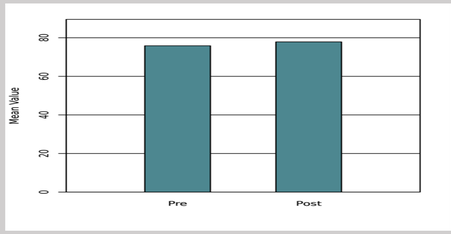
Socrates 8A and 8D
- Measures Readiness to change in substance users
- Measures in three categories- Ambivalence, recognizing need for change, and taking steps

Results

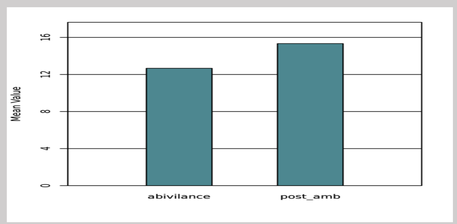
Family Assessment Device- General Functioning Scale



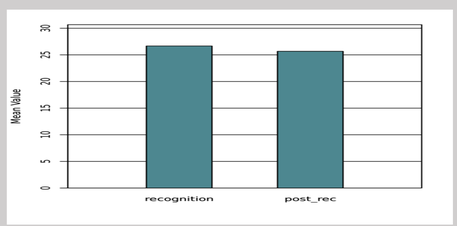
Modified Parental Motivation Inventory



Socrates 8A and 8D



- Ambivalence



- Recognizing Need for Change

- Taking Steps

Discussion

- The results of the study show that Structural Family Therapy can reduce the dysfunction in families with addiction. The intervention's focus on communication, identity, family cohesion, and hope prepared families to identify their strengths and weaknesses better and allow healthy boundary setting to occur. The Family assessment device results showed that participants were more likely to discuss feelings with one another, although they recognized that there were unhealthy feelings in the family. Family members also felt more accepted for their unique position in the family. These improvements in communication and identity lead to a more exceptional ability for the family to make decisions and solve problems.
- Readiness to Change for families members revealed a modest change but did not produce significant results
- Readiness to change for substance users showed an increase in ambivalence but little to no change in recognition and taking steps.

Conclusion

The Family members can be an excellent resource for substance users during the recovery process. Unfortunately, due to the timing in conjunction with Covid-19, this study will need to be repeated to establish the full effectiveness of structural family therapy in combination with addiction treatment. There are currently plans to expand the research and include a six-week group in the metropolitan area and compare the results to a one-day seminar at a time when COVID-19 has less of an impact on the results.

Acknowledgments and contact information

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Special Thanks to Mason Phillips and Scott Brewer for their time and effort in the completion of this project

Development of Clinical Education and Diabetes Self Management Strategies for Diabetes in Rural Health

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Abstract

Problem statement: The prevalence and cost of diabetes in the United States is steadily rising. American Diabetes Association guidelines state that patients with diabetes should receive self-management education. Availability of diabetes education in rural communities is nonexistant. Due to time constraints, primary care providers are unable to provide quality diabetic education in the clinic setting.

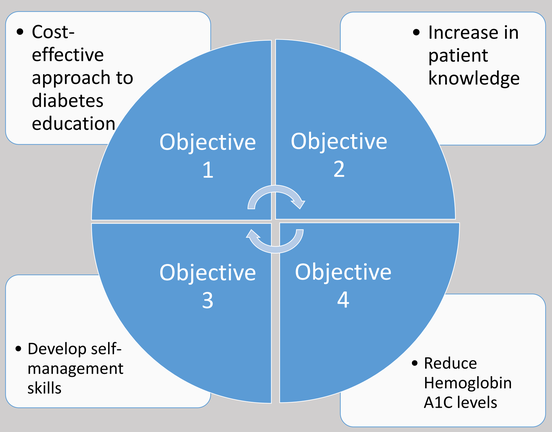
Purpose: The purpose of this project is to determine if diabetes education provided by a trained Registered Nurse (RN) in a clinic setting would be a cost-effective means of delivering self-management education in a rural health clinic.

Methods: A pre-test and post-test questionnaire will be used. Hemoglobin A1C levels will be obtained at the beginning of the project and in three months.

Analysis: Student t-tests will be utilized to evaluale the pre- and post-test questionnaires. Hemoglobin A1C levels will be compared. A cost analysis will be performed to determine sustainability of the project.

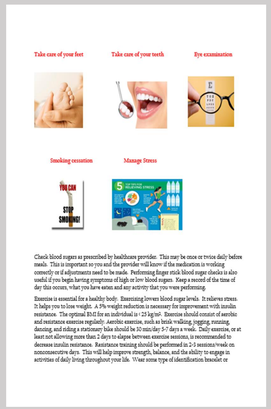
Implication for Practice: Educating diabetic patients provide tool and strategies to self-manage their disease. This project would be useful in implementing with all three family providers in the rural health clinic.

Objectives



Materials/Methods

- **Materials:**A pamphlet was developed by the Principal Investigator (PI). The following self-management skills were explained: blood glucose monitoring, exercise, recommended meal plans, medications, foot care, dental care, eye care, smoking cessagtion and stress reduction. The remaining educational material was purchased from the American Diabetes Association which consisted of Choose Your Foods, Plan Your Meals, a Plan Your Portions Placemat, a Blood Glucose Log Book, and Where do I Begin information booklet. Plan Your Meals, Choose Your Foods and Where do I Begin is also available in Spanish version.



- The RN was employed full-time by the Critical Access Hopsital (CAH). Since the Rural Health Clinic is physicially attached to the CAH, the RN could be called to the clinic to the deliver education.
- **Participants:** 15 adult patients with Type 2 diabetes of a rural health clinic in a community of approximately 5,000 residents.
- **Questionnaires:** Pre-test and Post-test questionnaires were developed by the PI and tested for face validity. The reading level was considered during development.

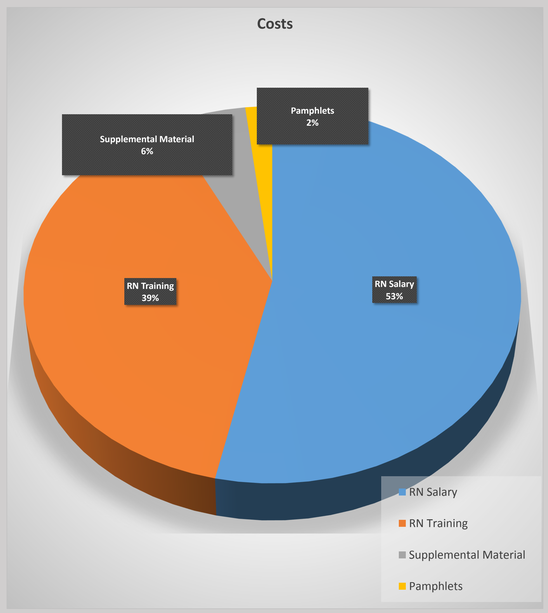
Methods: A needs analysis revealed that almost all of the diabetic patients in the RHC have not been able to participate in a formal diabetes education program. Most cited reasons were lack of a Certified Diabetic Educator (CDE) within 100 miles of the clinic

Results

This project was to begin in March, 2020. Due to the current pandemic, results of the study could not be conducted. However, for the evaluation plan, data would have been gathered in June, 2020. The data would have been analyzed with SPSS using the Student t-test to determine statistical significance. The statistical analysis would be used to determine if there was a positive relationship between a nursing educational intervention and a decrease in Hemoglobin A1C levels.

The next evaluation would be performed on the Registered Nurse delivering the intervention. Communication should be clear, concise, and nonthreatening. The Registered Nurse must be knowledgeable in the content area and allow open communication with the patients. The Interprofessional Collaborator Assessment Rubric will be used to evaluate the Registered Nurse. This assessment measures respectful communication and communication strategies.

A cost analysis of the intervention would have been completed to determine if the program was sustainable.



Conclusions

- Project would show this is a cost-effective educational strategy to delivering diabetes education. The largest incurred expense would be the Registered Nurse's salary and training if she decided to continue her education and become a Certified Diabetic Educator (CDE).
- The results of the pre-test/post-test questionnaires would show an increase in knowledge after the three-month period of the project.
- This project would help decrease healthcare costs and improve the quality of life for diabetes in rural areas.

Acknowledgements or Contact

Thank you for all the support and contributions that made this project successful.

Dr. Patricia Thompson, DNP, MSN, APRN-CNP, FNP-C,
Dr. Mary Brune, EdD, MS, RN, CNE,
Dr. Gwyneth Holderby, DNP, APRN, FNP-C,
Dr. Wayne McMillin, PhD, and
Mary Rose, RN

PI: Kim Trekell, BSN, RN, DNP Candidate

Educating College Males to Increase HPV Vaccination

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Introduction

Most common sexually transmitted infection (STI) in the United States

Approximately 79 million Americans in their late teens and early 20s are infected

Over 150 different types of HPV strains

HPV is spread by having vaginal, oral or anal sex and by skin to skin touching during sexual activity

HPV causes genital warts and cervical, vaginal, penile, anal, and oropharyngeal (throat, oral) cancers.

Oral cancer is the most prevalent cancer caused by HPV in the U.S.

Over 53,260 cases of HPV related oral cancer annually and twice as common in men than women.

Problem Statement

College aged males are lacking in knowledge about HPV and the benefits of HPV vaccination

.

48% of adults aged 18-24 are enrolled in college (Kellogg et al., 2019)

22 million students in the 2018/19 (Elflein, 2020)

At increased risk for HPV infection, priority group for catchup

Risky sexual behavior

Autonomous from parents

Help lead to herd immunity

Oral cancer surpassing cervical cancer, more prevalent in males (Cancer.net, 2020)

By focusing on the college age male self-efficacy bypasses parental hesitancy


HPV and Men - CDC Fact Sheet

Nearly all sexually active people will get human papillomavirus (HPV) at some time in their life if they don't get the HPV vaccine. Although most HPV infections go away on their own without causing problems, HPV can cause genital warts, or cancer. Getting vaccinated against HPV can help prevent these health problems.

What is HPV?

HPV is a very common virus that can be spread from one person to another person through anal, vaginal, or oral sex, or through other close skin-to-skin touching during sexual activity. 79 million Americans, most in their late teens and early 20s, are infected with HPV. Nearly all sexually active people who do not get the HPV vaccine get infected with HPV at some point in their lives. It is important to understand that getting HPV is not the same thing as getting HIV or HSV (herpes).

How do men get HPV?

You can get HPV by having sex with someone who is infected with HPV. This disease is spread easily during anal or vaginal sex, and it can also be spread through oral sex or other close skin-to-skin touching during sex. HPV can be spread even when an infected person has no visible signs or symptoms.

Will HPV cause health problems for me?

Most HPV infections go away on their own and don't cause any health problems. However, if an infection does not go away, it is possible to develop HPV symptoms months or years after getting infected. This makes it hard to know exactly when you became infected. Lasting HPV infection can cause genital warts or certain kinds of cancer. It is not known why some people develop health problems from HPV and others do not.

What are the symptoms of HPV?

Most men who get HPV never develop symptoms and the infection usually goes away completely by itself. However, if HPV does not go away, it can cause genital warts or certain kinds of cancer.

See your healthcare provider if you have questions about anything new or unusual such as warts, or unusual growths, lumps, or sores on your penis, scrotum, anus, mouth, or throat.

National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention
Division of STD Prevention

CDC

CS280191F

Methods

Quantitative study

Quasi-experimental with pre and post survey

To take place in a college fraternity

Pre-survey with informed consent : demographic information, HPV knowledge information, and information on sexual experience

Lecture and supplemental information

Vaccines offered

Post-survey one month later: HPV knowledge, intentions toward getting HPV vaccination, seeking further information on HPV , changing sexual behavior

Sustainability and Implications

University Health Centers on most campuses

Fraternities-29 at local university, 2900 members

Decrease the occurrence of oral, anal cancers and genital warts

Increase their quality of life

Decrease hospital costs and medical expenses, $200,000 first two years after diagnosis of oral cancer

Manuscript and Journal Selection

Journal of American College Health

Journal read by professors, college health professionals: administrators, health educators, nurses, nurse practitioners, physicians, physician assistants, psychologists and peer educators.

They print preventive and clinical medicine and health promotion and education among many other health related subjects

Viewpoint article: Contains my viewpoint on how student health centers can be utilized to increase HPV education and promote vaccination

Ideas for Student Health Centers

Keep web pages current

Educate all staff members in the office

Have links on your web page

Dedicated emails

Advertise throughout campus

Utilize social media and mobile apps

Attend big Greek events

Create a Health Center Student Ambassador's program

Acknowledgements

Thank you for the useful contributions from

Shelly Wells, PhD, APRN-CNS, Julia Atiles ,PhD.,

Pamela Stokes MHCA, DNP, Elizabeth Babler-Schrader Ed.D, MSN, ARNP

References upon request

Maximizing Early Recognition of Infection for Better Patient Outcomes in Long-Term Care Facilities

Abigail Degan, BSN, RN

Northwestern Oklahoma State University

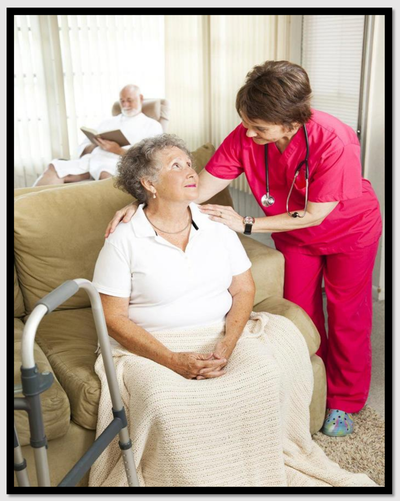
Wisdom Family Foundation Doctoral Program in Rural Nursing Practice

PURPOSE

- This project attempted to determine whether a long-term care (LTC) staff educational intervention targeting infection and sepsis prevention and early identification decreased rates of infection and associated emergency department and hospital admissions in LTC residents, thereby improving patient quality-of-life.

BACKGROUND

- Sepsis and other preventable infections contribute significantly to increased rates of morbidity and mortality within the geriatric population.
- There are an estimated 1.3 million LTC residents within the United States.
- Infections may often be difficult to detect in the geriatric population.
- Common LTC infections: urinary tract infections, gastroenteritis, Clostridium difficile, pressure ulcers, diabetic wounds, and cellulitis.
- Education focused on prevention and early identification of infection will decrease infection rates in LTC facilities and improve quality of life.



OBJECTIVES

- Educational interventions, aimed at reducing infection through prevention and early identification techniques, will reduce infection rates.
- By improving infection rates, LTC residents will experience greater quality of life, reduced healthcare costs, and staff will feel more confident in their care.

METHODS

- Educational interventions, aimed at reducing infection through prevention and early identification techniques, will reduce infection rates.
- By improving infection rates, LTC residents will experience greater quality of life, reduced healthcare costs, and staff will feel more confident in their care.

RESULTS

- Paired t-test to evaluate the difference between the combined pre- and post-intervention tests at each facility.
- Chart review of April and May 2019 were to be completed in each facility. Every documented infection that occurred within this timeframe will be included in the analysis.
- Long-term care residents were to be tracked post-intervention during the months of April and May 2020.
- A paired t-test to evaluate the difference between the two data sets and evaluate whether the identified LTC facilities have incorporated the education intervention into their practice, contributing to decreased rates of infection.
- One-way ANOVA to evaluate differences between pre-test results between each identified LTC facility, post-test results will also be analyzed.
- Post-intervention infection rates of each identified LTC facility also utilizing one-way ANOVA.

GERIATRIC NURSING JOURNAL

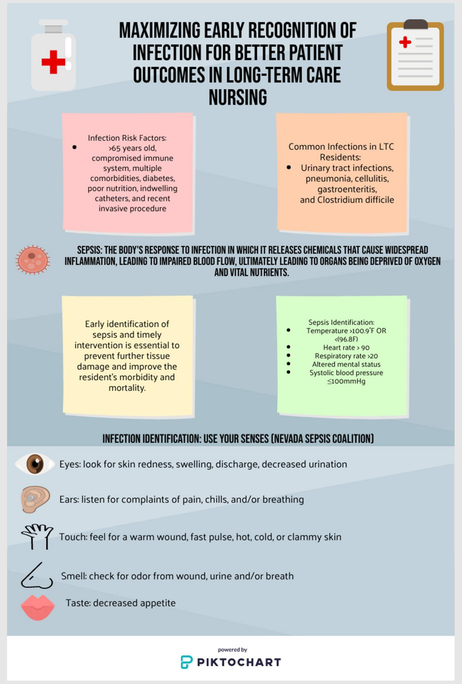
- Due to COVID-19 pandemic, this project was unable to be implemented due to LTC facilities not allowing non-essential persons into their facilities.
- Article focusing on the need to periodically educate LTC staff to assure the safety of residents as well as positive outcomes as it is related to infection recognition and prevention will be submitted to the *Geriatric Nursing Journal.*

IMPLICATIONS FOR PRACTICE

- Importance of regular staff infection control education.
- Recognition that infection control is multi-faceted.
- Improved quality of life.
- Improved staff confidence in their care.
- Lower healthcare costs.

REFERENCES

- References available upon request.



Promoting Reading Aloud to Infants

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Wisdom Family Foundation Doctoral Program in Rural Nursing Practice

Northwestern Oklahoma State University

Introduction

Reading aloud to infants:
- Stimulates cognitive development
- Builds early literacy skills
- Promotes school readiness
- Improves child-parent relationship

Charge from the American Academy of Pediatrics:
- Literacy promotion at every well-child exam
- Begin during infancy
- Use a variety of options to encourage parents to create daily routines

Barriers to Literacy Promotion:
- Time Constraints
- Overhead Costs
- Many families are not currently engaged in literacy rich activities

Identified need:

An effective, efficient and cost-effective method of literacy promotion

Objectives

Use a educational video to enhance literacy promotion at well-child visits

Improve parent attitudes about reading aloud
- Importance of reading
- Benefit of reading

Increase the likelihood of reading aloud
- Commit to weekly/daily planned reading time

Material and Methods

Experimental Design consisting of 3 groups:

Control	Intervention	Acute Care
• Parents participate in a traditional well-child check • Receive traditional anticipatory guidance only	• Parents access a video about reading aloud before a well-child check • Video plus traditional anticipatory guidance	• Parents access a video about reading aloud before a sick child visit • No traditional anticipatory guidance

Sampling Procedure:

Convenience Sample
- Parents of children one week to 12 months
- English speaking

Systematic Sampling
- Alternating assignment between control and intervention
- Parents with a sick child appointment assigned to acute care group

Final Sample
- Control - 17 parents
- Intervention - 18 parents
- Acute Care - 12 parents

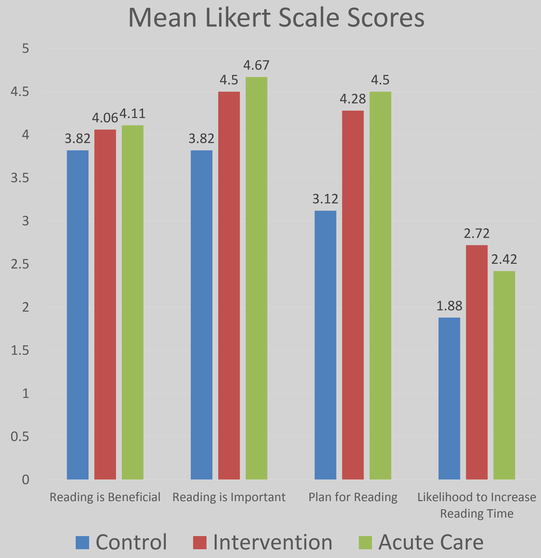
Measurement:

Parent Survey
- 11 items (demographics, attitude, future reading plans)
- Likert scale responses
- Completed after clinic visit

Analysis
- ANOVA with post-hoc testing
- Pearson correlations

Results

The video intervention had a positive impact on study objectives:



Demographics
- No significant correlation between demographic data and objectives

Attitude toward Reading Aloud
- ANOVA found a significant difference between groups in reading importance, p=.01
- Video intervention resulted in a significant improvement in parent attitudes for acute care group, p=.007 after post-hoc testing

Commitment to Planned Reading Time
- ANOVA found a significant difference between groups, p=.0001
- Post-hoc testing showed the intervention group, p=.0006 and the acute care group, p=.0002 had significantly higher mean scores for planned reading

Likelihood to Increase Reading
- ANOVA found a significant difference between groups
- Post-hoc testing showed the intervention group, p=.00 had a significantly higher mean score for likelihood to increase reading time

Conclusions

An educational video that reviews the benefits of reading aloud to infants and demonstrates reading aloud techniques, compared to a traditional well-child visit alone, improves parental attitudes and increases the likelihood of increasing future reading time.

The intervention video approach is:

Effective
- Improves parent attitudes
- Improves likelihood to increase reading time

Efficient
- Easy access to video with a QR code and smartphone
- Viewed in exam the room without prolonging the visit

Cost Effective
- Does not require a financial investment
- No additional human resources needed

Limitations
- Self reported data
- No data of actual reading time
- Video content only viewed at one visit
- COVID-19 limited sample size

Extensions
- Utilize the intervention during the prenatal period
- Create a series of videos to be viewed during each well-child visit during infancy

For additional information contact Rebecca Reilly at rhrelly20@gmail.com

Urine Culture Contamination Improvement

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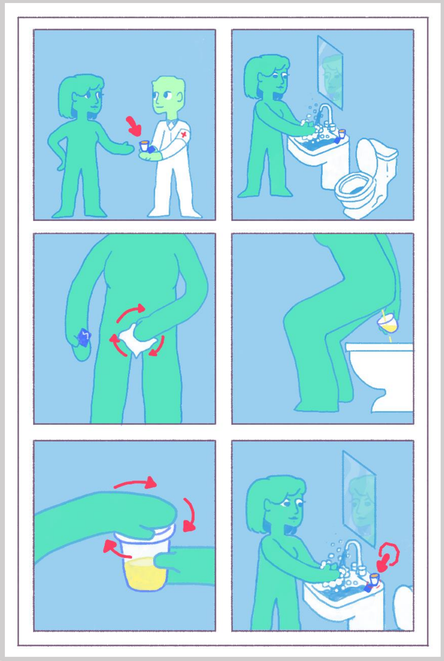
Abstract

Within this project, the research question remains inconclusive that a picture aid infographic reduces the amount of urine culture contamination. A nonsignificant statistical result was found using a Chi-Square analysis with an additional Yates correction. Participants were convenience sampled (N=60) over the course of five months and urine cultures were collected at the providers discretion. The results agree with the literature that additional instruction when leaving a urine sample did not improve contamination rate. The literature also reflected that an infographic is an advantageous way to relay difficult concepts and improve learning, however, this was not the primary focus of this study. Future implications for this research could benefit other medical facilities including emergency rooms, clinician offices, urgent cares, and health departments. An infographic remains a valuable teaching tool in healthcare and future research on this subject would improve overall specimen collection practices.

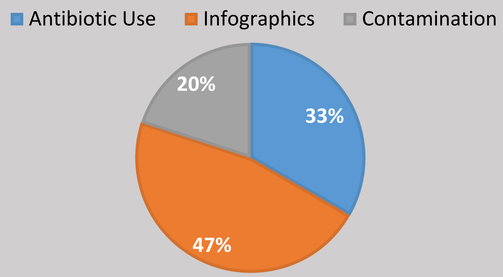
Research Question

Can an infographic intervention reduce the rate of urine culture contamination from a clean catch sample?

Female Infographic



Literature

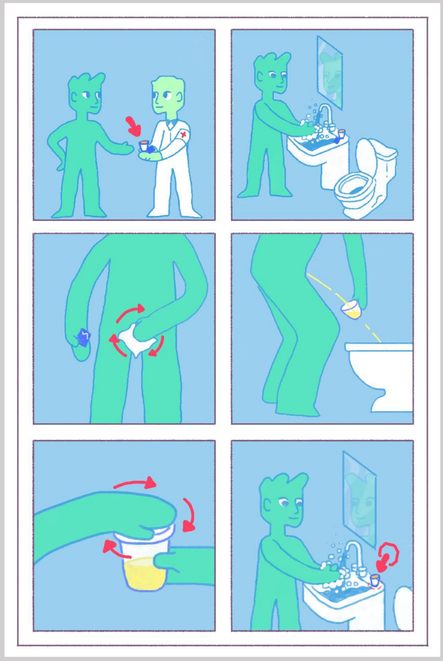


Antibiotic Use – In the literature there is current overuse of antibiotics with increased resistant bacteria and the need for better stewardship.

Infographics – Were shown useful in teaching and communicating health science and difficult material, and better comprehension than words alone

Contamination – Urine culture contamination rates have stayed consistent through different uses of written and verbal instructions with little evidence supporting infographics.

Male Infographic



Methods

Design – Multi-center, prospective cohort interventional study with convenience sampling.

Midwestern private owned clinic.

- Primary care, walk-in, pain management, identical clinics.

Control group (February 1, 2020 – April 30, 2020) (N=29)

- Independent of the intervention, unbiased.

Experimental group (May 1, 2020 – June 25, 2020) (N=31)

- Intervention used during this timeframe.

Data Analysis

A **chi-square** test of independence was performed to examine the relationship between urine cultures and contamination rates with the use of an infographic intervention. The relationship between these variables was not significant.

X^2 (1, N=60) = 0.7418, p = .389069, alpha (p< 0.05) (df=1).

Because of the small sample size and low column values in a 2x2 analysis a chi-square statistic with Yates correction was also performed, the relationship between variables remained nonsignificant.

X^2(1, N=60) = 0.2317, p = .63029, alpha (p<0.05) (df=1).
Yates Correction

	Old Cultures	New Cultures (Posters)	Total
Contaminated	5 (17%)	3 (10%)	8 (13%)
Non-contaminated	24 (83%)	28 (90%)	52 (87%)
Total	29	31	60

P = .389, >0.05 Statistically nonsignificant
P = .630, >0.05 Statistically nonsignificant

Results

There was no association between the two groups.

The infographics used in this project were shown to have a statistically nonsignificant **(P > 0.05)** impact on the rates of urine culture contamination during a clean catch urine sample.

Conclusion

Inconclusive – a picture aid infographic reduces the amount of urine culture contaminations.

Statistics – **The Chi Square** and **Yates** correction had P values of > 0.05.

Literature – Consistent with current literature.

Limitations – Sample Size, COVID-19, Timeframe.

Future direction
-Infographics in healthcare (disabilities, illiteracy, language barriers).

-Reduction in specimen contamination.

-Reduced cost and inconvenience for patients and healthcare facilities.

2 Year significance

	Old Cultures	New Cultures (Posters)	Total
Contaminated	30	18	48
Non-contaminated	144	168	312
Total	174	186	360

The chi-square statistic is 4.4511. The *p*-value is **.034879.** Significant at $p < .05$.

This $20 Intervention can save the clinic and patient up to $3,600 a year in repeat culture, lab, and labor costs.