Abstract

Veterans Affairs is a specialized form of healthcare as it is dedicated to those who have provided military service and those affiliated with them. The aim of this project is to define three forms of healthcare administration: holistic health, person centered care, and whole health, and identify the practice at the VA. The Donabedian model will be used to analyze the application of the Veterans Affairs administration of health care (Whole Health). This project seeks to identify what stages of the Donabedian Model continued to be assessed at the flagships sites during Covid-19.

Introduction

Holism, termed by Christian Smutz, is the practice of viewing the body as a whole rather than as individual parts. Maintenance of the body is accessed in the form of a patient’s physical, social, mental, and spiritual well-being because ill symptoms are the result of something being off-balance. Patient centered care, first introduced in the 1900’s by Carl Rogers, serves the objective that the patient is the expert in their care and is given the power to choose what is right for them. The goal of patient centered care is that giving a patient the power to choose will increase patient compliance and therefore, increase the patient’s quality of life. Finally, whole health began implementation in 2017 and embodies health in all areas: physical, social, emotional, and spiritual.

Methodology

This project seeks to identify what stages of the Donabedian Model continued to be implemented at the Veterans Affairs locations initially selected to implement Whole Health, termed flagship sites, during Covid-19. The Donabedian model provides a framework for examining health services and evaluating quality of health care through three measures: structure, process, and outcome. The structure measure is the process a facility will implement to provide high-quality care and is the basis for the process measure (what will be done to implement high-quality care) and the outcome measure (the impact the care will have on the patient). A patient coming to the VA for care will be asked to complete a personal health inventory as means of assessing eight areas of self-care identified in the VA’s Circle of Health depicted below. The process of identifying the patient’s desires aligns with the Donabedian’s structure measure.

Results/Discussion

A publication from The Comprehensive Addiction and Recovery Act (CARA) reported there was a correlation between opioid addiction and veterans. This finding stimulated the push for Veterans Affairs to provide more integrated care. Veterans Affairs designated various locations as design sites to develop what would embody a Whole Health model. Across the United States, there are 170 VA facilities. Eighteen of which were dedicated as “flagship” sites to begin implementing Whole Health in 2017.

Conclusion

It is unclear how the VA will follow through with the patient’s personal health inventory to achieve goals and facilitate a better quality of life during the COVID 19 pandemic. More research will need to be done to identify how the process and outcomes will be achieved.

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Comparing Age-Group Trends in COVID-19 Cases Across Virginia Heath Districts

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Center for Public Health Practice & Research (CPHR), Population Health Science Department, Johns Hopkins, Baltimore, MD USA

Background/Purpose
- COVID-19 transmission varies by population characteristics and region.
- Publicly available health department data can help the public understand transmission dynamics in real-time to inform behaviors and public health responses to mitigate the spread.
- This work demonstrates how publicly available COVID-19 case data can be used to explore age-group-specific trends within and across Virginia health districts.

Methods
- Total COVID-19 cases by health district in 15-year age-group increments from 0 to 80 years are publicly available and updated daily on the Virginia Department of Health (VDH) website.
- Calculated weekly total new reported cases by age-group and district.
- Developed an interactive Shiny App to visualize and compare epidemic trends.
- Visualize new reported cases over time by health district, and combinations of health districts and combinations of age groups.

Limitations
- Report data may not reflect infections or symptoms onset.
- Data trends could be impacted by variations in testing and reporting delays.
- Cases are assigned to location based on residence and may not reflect where transmission occurred.
- Age groups may not align with 100% of total patients in VA.

Interactive Web Application: https://wrightrc.shinyapps.io/VHD-COVID-dash/

Acknowledgements:
- Thank you to Dr. R. Wright for assistance developing the Shiny App.
- Thank you to VDH for providing COVID-19 data on their website. For further information, please contact Dr. Silverman at rachel.silverman@jhmi.edu

References:

Number of New Weekly Covid-19 Cases Reported for Select Health Districts

Districts with University Towns

<table>
<thead>
<tr>
<th>Age-groups</th>
<th>10-19</th>
<th>20-29</th>
<th>30-39</th>
<th>40-49</th>
<th>50-59</th>
<th>60+</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary
- Heterogenous transmission dynamics can be visualized & compared across age groups within districts using data exploratory.

DC Area Districts

<table>
<thead>
<tr>
<th>Age-group</th>
<th>0-9</th>
<th>10-19</th>
<th>20-29</th>
<th>30-39</th>
<th>40-49</th>
<th>50-59</th>
<th>60+</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recommendation
- Data made publicly available by other age & demographic groups that affect locality-specifics. Knowledge of contact patterns would assist in public health strategies targeting contact transmission dynamics.

Other Examples

By Neighboring Districts

- Central Virginia
- Richmond
- University of Virginia

By Region

- All Ages combined
- Richmon by Age-group
- By Region (All Ages combined)

Next Steps
- Add additional user interface features for additional flexibility.
- Develop similar tools for other states and counties. Vaccine coverage.
- Can be used to evaluate policies and compare impact between locations.
- Can be used to inform public health responses.
COVID-19 Trends & their Impact on Populations in Portsmouth, VA

Arnell Jackson Jr.

Abstract
The COVID-19 pandemic has significantly impacted the daily activities, health, security and general well-being worldwide. The Portsmouth Health District has placed emphasis on identification of occurrences of health disparities within the city’s population.

Introduction & Purpose
The Portsmouth Health District (PHD) is a compilation of various community initiatives designated to deliver advocacy, health education, and services to its residents. The goal of this project was to identify COVID-19 trends of the residents of Portsmouth, in comparison with other Hampton Roads health districts, and create a health communications plan.

Methods
• Quantitative comparison of Portsmouth and Hampton Roads COVID-19 trend comparisons utilizing the VDH public database by age, sex, race, and vaccine status.

Results

<table>
<thead>
<tr>
<th>Health District</th>
<th>Total</th>
<th>Positivity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portsmouth</td>
<td>12.57</td>
<td></td>
</tr>
<tr>
<td>Chesapeake</td>
<td>11.22</td>
<td></td>
</tr>
<tr>
<td>Va. Beach</td>
<td>8.82</td>
<td></td>
</tr>
<tr>
<td>Norfolk</td>
<td>8.60</td>
<td></td>
</tr>
<tr>
<td>Western Tidewater</td>
<td>10.51</td>
<td></td>
</tr>
<tr>
<td>Peninsula</td>
<td>7.87</td>
<td></td>
</tr>
<tr>
<td>Hampton</td>
<td>9.67</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Completed Vaccination</th>
<th>by Ethnicity</th>
<th>White (5,135)</th>
<th>Black (4,281)</th>
<th>Latino (252)</th>
<th>N. Am (16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>by Sex</td>
<td>Female (8,542)</td>
<td>Male (5,417)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion
The purpose of the project was to determine potential populations facing health disparities due to the COVID-19 pandemic. The PHD plan targeted future COVID-19 interventions and how to best serve the populations at greatest risk. Findings were utilized to tailor the development of a health communication plan and help obtain a grant opportunity that would provide funds to put the plan into action. The health communication plan was developed to increase health literacy concerning the COVID-19 vaccination to counteract larger levels of misconception and mistrust of the vaccine. It important to note that the data does not reflect current COVID-19 trends.

Potential IPE
Direct interactions with other professionals did not occur due to COVID-19 impact. All interactions were via email correspondence. The health communications plan could potentially be utilized by community/outreach workers to distribute and disseminate the importance of receiving COVID-19 vaccinations.

Acknowledgements
Thank you Anna Dumadag MPH, Population Health Planning and Improvement Coordinator, for your guidance and assistance through these trying times and to Dr. Kim Baskette, Ph.D. CHES for a push in the right direction.
Abstract

Purpose: The purpose of this study was to examine whether applicants are developing a trend to nursing schools in the state of Virginia to determine if changes in the application process have been made.

Methods: A total of 87 qualified applicants from the state of Virginia were contacted to determine if they have made any changes to their nursing school application process.

Results: The findings indicated that 100% of respondents had made changes to their nursing school application process. The majority of these changes were made to increase their chances of being accepted.

Conclusion: The findings suggest that applicants are becoming more selective in their nursing school application process.
Evaluating the Effects of the COVID-19 Pandemic and Telehealth on University Student Access of Mental Health Resources

Grace Duncan
Graduate Program in Public Health, University of Virginia

Background
- The onset of the COVID-19 pandemic and resulting stay-at-home orders have intensified many concerns about mental health and provision of mental health services.
- In Spring 2020, most colleges required students to move online and restrict in-person services, including university mental health services.
- Early surveys conducted by universities reported significantly higher incidences of anxiety, depression, and other mental health issues among college students.
- Prior to the COVID-19 pandemic, telemedicine had been gaining traction as a solution to numerous health system issues including cost, physical barriers, and provider shortages.
- However, disparities in access were quickly identified, primarily for patients, those with poor internet access, and those in need of more intensive treatment.

Objective
To examine key changes in student and appointment demographics at a large public state university’s Student Health Counseling and Psychological Services program during the COVID-19 pandemic and assess student access in telehealth.

Methods
- The University Student Health and Wellness Center (SHW) is an accredited healthcare facility and the primary provider of health services for the university student population.
- Counseling and Psychological Services (CAPS) is a service of SHW and provides counseling, psychiatry, care management, and support, and mental health outreach services to students.
- Student health data was linked and de-identified using the IRB-approved Student Health Research Database.
- Health data (ICD-9 classification for reasons for visit, date of visit, provider, services rendered, demographics, race, ethnicity, insurance status) and academic information (year, academic program, etc.) were provided in a de-identified dataset.

Analysis
- Chi-squared and two-sample t-tests performed in SAS to evaluate the change in health, demographic, and academic attributes of CAPS patients before and during the pandemic in telehealth.

Results

Conclusion and Recommendations
- CAPS has continued to serve a large student population through telehealth with a shift to solely virtual mental health appointments.
- Early analysis of appointment data indicates that there may be benefits to a virtual appointment model including improved access, ease of attending appointments, and more appointments dedicated to telehealth.
- However, there is a growing concern that some groups are not adequately reached by services that are not provided virtually. Men, younger students, some minority groups, and those in rural areas or on- and off-campus groups who use significant increases in the preparation of visits during the shift to telehealth.

Acknowledgements
Thank you to the University of Virginia Darden Student Health Services team, especially Mr. Christopher Hickson, Brian Vance, and Theresa Begg-Pakala for their contributions to this project.

Presenter: Octavia Goodman, MPH | Advisor: Mariana Szolco-Coxe, MHS, PhD
College of Health Sciences | Old Dominion University, Norfolk, VA

Abstract

Purpose: To review recommendations and interventions designed to physically protect healthcare professionals from acquiring COVID-19 and to mentally protect healthcare professionals from the stress and trauma associated with COVID-19.

Methodology: A search was conducted using PubMed and ScienceDirect from January 1st, 2019 to April 24th, 2020. Of the twelve articles identified, one duplicate article was excluded, and the remaining eleven articles on physical and mental health recommendations and interventions for healthcare personnel were selected for review. Studies included focused on physical and mental health interventions for healthcare professionals in relation to COVID-19. Similar studies focused on patient populations were excluded.

Findings: Measures to combat the physical and mental health consequences of COVID-19 among healthcare personnel included at-home testing and monitoring for patients with COVID-19 and psychological interventions for healthcare personnel.

Summary: Interventions that focused on at-home testing and monitoring of patients with COVID-19, trained healthcare professionals on psychological skills to deal with patients with COVID-19, and provided psychological assistance to healthcare professionals were found to be successful in keeping patients with COVID-19 out of hospitals and protecting the mental health of healthcare professionals.

Conclusions & Recommendations: Overall, it is physically and mentally healthy to protect healthcare workers from COVID-19; conclusions based on the systematic review conducted April 2020, were as follows:

1. Adopt more aggressive screening practices
2. Consider the use of at-home testing and monitoring interventions for patients with COVID-19 or exposed to having COVID-19 to decrease the number of infected patients in hospitals and ultimately protect healthcare personnel
3. Design and implement psychological interventions that take the needs of the healthcare staff (e.g., uninterrupted rest, monitoring the care of medical resources, treating psychological distress in work environments) into consideration.

Objective

To review recommendations and interventions from January 1st, 2019 to April 24th, 2020 focused on protecting healthcare professionals from acquiring COVID-19 and to improve the mental health of healthcare personnel.

Methods

- A literature search was conducted using PubMed and ScienceDirect databases.
- The search terms for protecting healthcare workers from COVID-19 included: (hospital OR healthcare worker OR healthcare personnel OR healthcare professionals) AND (COVID-19 OR COVID-19 OR coronavirus).
- The search terms for examining the mental health of healthcare personnel dealing with COVID-19 included: (mental health OR mental OR psychological) AND (healthcare personnel OR healthcare professionals) AND (COVID-19 OR COVID-19 OR coronavirus).

Inclusion Criteria:

- Studies that specifically focused on COVID-19 and not any other associated infectious diseases.
- This limited the search to studies published between January 1st, 2019 and April 24th, 2020.
- Interventions that addressed physical and/or mental health measures that can be taken to protect healthcare workers.

Exclusion Criteria:

- Studies that focused on patients as the population of study.

Results

Records included based on search terms used for article title and abstract review (n=12):

Duplicate records removed (n=1)

Full text articles reviewed for eligibility (n=11):

Articles eligible for inclusion (n=11)

Recommendations

Physical Health Recommendations:

1. More aggressive case detection and changing the focus of screening practices, which includes:
   - Testing patients with symptoms regardless of travel or contact history.
   - Screening all patients for all respiratory illnesses, regardless of symptoms.
2. At-home testing and monitoring to keep patients with COVID-19 out of hospitals.
   - Using paramedics to remotely monitor patients.
3. Restrict healthcare personnel from working if they have any upper respiratory tract symptoms, even if fever is absent.

Mental Health Recommendations:

1. Designing a mental health handbook for healthcare personnel.
2. Designing a psychological intervention program to address the needs of the staff.
   - Designed rest and isolation areas for healthcare staff.
   - Training regarding psychological skills that can be used to deal with uncooperative patients.
   - Providing staff with leisure activities and training on how to de-stress.
   - Having psychologists make regular visits to the hospital to speak with healthcare personnel.
   - Psychological assistance hotlines.

Conclusion

- The healthcare organization that implemented a pilot at-home testing and monitoring intervention for patients with COVID-19 was found to be successful in over 100 patients who were tested for COVID-19.
- The reported psychological intervention where the researchers examined the intervention, interviewed the healthcare personnel on the limitations of the intervention, and then redesigned the intervention based on the needs of the healthcare personnel found to be effective in reducing the psychological stress and pressures on the healthcare staff.
- The psychological intervention program composed of different teams of personnel (e.g., physical and psychological response teams) was found to be successful in providing mental health care to hundreds of healthcare personnel, with plans to expand to other hospitals.

Discussion

This review based on literature through April 2020 highlighted four major recommendations:

1. The need for more aggressive case detection and screening practices.
2. Improvements in our approach to respiratory diseases in the US and likely across the globe.
3. At-home testing and monitoring of patients with or suspected of having COVID-19 should be highly considered to help protect our healthcare workers and patients to keep unnecessary visits to the hospital at a minimum.
4. The design and implementation of psychological interventions in a way that takes the needs of the healthcare staff into consideration.

Additionally:

- Consideration of unique measures such as mental health handbooks, training on how to de-stress, and psychological assistance hotlines.
- Healthcare personnel should make use of online platforms where medical advice is exchanged in efforts to reduce the stress on healthcare personnel.
- Mental health conditions of healthcare personnel should continue to be monitored and supported.

Directions for Future Research

- Future research regarding COVID-19 among healthcare professionals should focus on designing and implementing interventions that address the physical and mental health consequences of COVID-19 among healthcare personnel in the U.S. and abroad.
- Future studies should review updated emergency preparedness measures to better protect healthcare personnel in the U.S. and abroad from future health crises.

References
Shifting from In-Person to Virtual Program Delivery: Lessons Learned from the COVID-19 Pandemic

Cara Tonn (MPH student), Mya Achike, MPH, Michele Kekeh, Ph.D., Muge Axpinar-Elci, MD, MPH
Old Dominion University, Center for Global Health

Introduction

The Global Health Heroes program:
- Beginning in 2016, to teach children positive health behaviors through the lens that the kids will use.
- The program is designed to increase children's awareness of healthy lifestyles and behaviors.
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Starting in September 2020, the Center began adapting the Global Health Heroes program in response to the changes in daily routines brought on by the COVID-19 pandemic:
- In December 2020, the Center for Global Health successfully launched its first-ever virtual Global Health Heroes program, via Zoom, piloted with 20 students from the Roseland Uni Boys and Girls Club.
- The virtual program's objective is to promote healthy habits that reduce the spread of germs by reinforcing the importance of social distancing, wearing a mask, and hand hygiene.
- To enhance the virtual session's theme, an e-book accessible on the Center's website, is available to promote healthy eating and increase access.

Process

The Center used this opportunity to reinforce the Centers for Disease Control guidance on reducing COVID-19 spread. The virtual lesson consists of:
- A discussion on the meaning and importance of Global Health.
- Engagement with the children on reducing the spread of germs by sharing existing knowledge.
- Side series with videos:
  - A choice of activity exploring the importance of hygiene, social distancing, or wearing a mask.
  - A presentation on how to make a face mask.
  - An opportunity to complete a virtual scavenger hunt.
- Opportunities for children to present and receive feedback from the facilitators.

Perspective

The Center for Global Health piloted the virtual program with 20 students from the Boys and Girls Club. While the program's implementation was a success, the Center learned valuable lessons to create robust, dynamic, and interactive future presentations:
- Compared to the previous face-to-face program format, asynchronous teachable moments are absent.
- The virtual program benefits from an on-site facilitator to assist in the lessons flow and provide redirection.
- Engagement and buy-in from community partners are essential to have a successful virtual program. It is the driving force for site participation and program information dissemination to their target audience.
- Facilitators and developers will need to continue to develop skills and interest in advancing technology to provide a more interactive and engaging experience for the children.
- Additional presentation software (Prizm and Visme).
- Clarification on tools.
- Poling software.

Conclusion

The Global Health Heroes program's purpose is to promote healthy behaviors and educate children on the positive outcomes associated with those behaviors, not just for themselves, but also for their friends, loved ones, and the community. The translation of the Global Health Heroes program to an online platform during the COVID-19 pandemic reflects the Center's mission and vision of positively impacting health and well-being by using its members' unique strengths to address community needs. Utilizing the information and lessons learned with the pilot program's implementation, the Center is motivated to continue to develop the virtual Global Health Heroes program.
COVID-19 has affected the way universities admissions across the country are conducting prospective applicants. The graduate admissions process for Master of Health Administration and Master of Business Administration programs has altered their requirements for standardized testing and the-admission interview. This paper seeks to assess the number of programs that do not require standardized tests for applicants to their programs. Data is collected by using a questionnaire approach based on the given information. A total of 150 MHA and MBA programs are analyzed by selecting data regarding curriculum and admission from the programs website. Thirty percent of programs expect to conduct an admissions interview and that half of the programs have changed the admissions interview. Since COVID-19, 35% of programs required standardized testing as a part of their admission criteria. As the pandemic continues, the requirement has decreased to 45%. Requirement varies per university guidelines.

Introduction

University admissions across the country have altered their application criteria due to the on-going COVID-19 pandemic. Initially, on-campus interviews held before COVID-19 restrictions were implemented were conducted face-to-face. Admissions officers have had to move their interviews online due to safety concerns and the potential of virus transmission. Since COVID-19, institutions have been required to adapt university admission processes that were previously in-person interviews. The Graduate Record Examination (GRE) and the Graduate Management Admission Test (GMAT) have become common examinations for graduate admissions criteria to fulfill the requirement per universities. As a result, graduate admissions processes are undergoing changes in their applications.

Methodology

In this research, an online, questionnaire survey was used to identify the program’s admission process. Specifically, this method is used when gathering and collecting data that is necessary from a large number of sources and is not easily available. The questionnaire used in this study was distributed to all universities where the graduate admissions process was evaluated. The survey questions included in the questionnaire covered the following: the requirements for admission, the format of the interview, the importance of standardized test scores, and the changes made to the admission interview due to COVID-19.

Conclusion

This project was aimed to find the number of programs that require an exam of standardized test scores which are considered fundamental in the 150 programs. Data on standardized test scores are collected for programs in which they were offered. 75% of graduate programs required applicants to submit their testing scores prior to COVID-19. A significant number of programs required standardized testing as a part of the admission criteria. In addition to standardized testing, 35% of graduate programs require applicants to conduct an interview with the admissions committee. Admissions interviews are in-person or conducted over the phone due to the ongoing pandemic. The requirements for standardized testing and interview scores have been reduced since COVID-19.

Acknowledgements

I would like to express my special thanks of gratitude to Dr. Christina Brooks who gave me the opportunity of this research project on the changes made to the 2021-2022 graduate admissions process. I came to know about so many different subjects and I am thankful for her mentorship.

Works Cited

# Utilizing Community Health Worker Learning Modules to Increase Preventive Services During the COVID-19 Pandemic

**Alexa Gallagher BSN, RN, Doctor of Nursing Practice Candidate**  
**Rebecca Sutter DNP, FNP-BC**  
**School of Nursing, George Mason University**

## BACKGROUND
- The beginning of the COVID-19 Pandemic led to a 60% decrease in ambulatory services.  
- The drop in ambulatory and preventive services may lead to future adverse health outcomes, particularly in vulnerable populations.  
- Literature shows that vulnerable populations have increased rates of D&AD and mental health disorders after disasters and increased community support leads to better health outcomes.

## PROJECT PURPOSE
- Reduce the burden of disease resulting from the COVID-19 Pandemic by increasing social support and access to preventive services in the community.  
- Utilize targeted learning modules to educate community health workers (CHWs) on topics relevant to health concerns during the pandemic.  
- Increase community support through CHW education.

## METHODOLOGY
- Disseminated to VA CHWs through the Institute for Public Health Innovation and the Virginia Certification Board.  
- Completion survey with modified USE Questionnaire and three qualitative questions. Data collected over four weeks, n=19 respondents.

### RESULTS
- 100% responded positively that the program increased their knowledge and helped respondents be more effective in their work.  
- COVID-19 and community resource modules were the most useful.  
- Respondent comments: “Great program, user friendly, informative, and easy to follow;” “CHWs can benefit from more of this training program;” “Make all trainings this easy to do.”  
- Respondents would like more links to resources and applicable educational resources.

## RECOMMENDATIONS
- Educational interventions during COVID-19 should be targeted and succinct.  
- Provide resources for CHWs regarding community resources and COVID-19.  
- Consider utilizing a similar format for additional trainings in the future.  
- Consider utilizing evidence from previous natural disasters when addressing challenges during the COVID-19 Pandemic.

## ACKNOWLEDGEMENTS
Thank you to the Institute of Public Health Innovation and the Virginia Certification Board for their assistance and support during this project.

Thank you to Dr. Rebecca Sutter for her guidance and expertise.

## REFERENCES

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[Image of Community Health Worker COVID-19 Learning Modules]

[QR Code for reference information]