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COMMENTARY | COVID-19

COVID-19: How Can Doulas Support Pandemic Control?

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ABSTRACT

COVID-19 represents a great threat to public health in the 21st century so far, with the maternal and child (MCH) population being particularly vulnerable. With the healthcare workforce getting overwhelmed by a resurgence of cases, task-shifting approaches are a viable option to address the acute shortage of personnel for epidemic intelligence assignments related to the COVID-19 pandemic. We propose an intensive and short-duration curriculum to train Doulas versed in MCH epidemic intelligence and capable of reducing the burden of COVID-19 and its consequences on the MCH population. The effectiveness of the proposed curriculum will be monitored using a rapid-cycle evaluative approach to ascertain progressive enhancement over time.

Keywords: • COVID-19 • Doulas Training Curriculum • Task Shifting • Epidemic Intelligence • Contact Tracing

1. Introduction

Recent data indicated disproportionate rates of COVID-19 infection with heightened severe morbidity and mortality in marginalized communities of color, particularly African Americans, Native Americans, and Hispanics.[1] Social determinants of health, current and historical inequities in health care access, and structural racism contribute to these disparate outcomes.[1,2] These factors, including poverty, the physical environment, and race or ethnicity contribute to greater-than-expected rates of comorbidities leading to severe illness from COVID-19 in affected individuals.[1-4] Studies have reported that disadvantaged communities bear increased maternal morbidity and mortality,[1,2] and these results represent a clarion call for a more robust global strategy on eliminating racial inequities in healthcare access, quality of care, and preventive approaches.

In the United States (US), the COVID-19 pandemic is overwhelming the healthcare workforce, which might worsen because of the resurgence of cases.[5] There is an increased demand for the healthcare workforce, which also accentuates

their role in gathering epidemic intelligence.[6] Epidemic intelligence is defined as all processes and information gathering activities leading to the prompt detection of potential threats to individual and population health with the primary purpose of instituting effective measures to assure public safety.[6] One potential solution is the idea of task shifting. The World Health Organization (WHO) defines task shifting as "the rational redistribution of tasks among health workforce teams, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health."[5,7]

Task shifting approaches could be used to delegate responsibilities in the MCH population, from clinicians to Doulas. A doula is a healthcare professional trained to provide non-medical support and care through education, guidance, and counseling for pregnant and parenting women and their families.[8] Doulas also facilitate the interactions between families and the maternal and child health (MCH) institutions.[8] We propose a curriculum to train doulas in epidemic intelligence for prompt identification of suspected COVID-19 cases.

2. Methodology

A team of 6 researchers and academics, including MCH epidemiologists and physicians, brainstormed on the core competencies that Doulas must achieve in order to deliver the core services of epidemic intelligence efficiently and effectively. Collaboration and participation of Doulas and a community representative will be sought for input on the training curriculum. The competencies were mapped against the core functions of epidemic intelligence (Table 1). Following this, learning objectives and course contents were developed through a consensus process. Learning objectives were written utilizing Bloom's taxonomy as a framework. This classification method involves the use of action verbs to describe activities that are observable and measurable. The ideal format for implementing the curriculum was also discussed and agreed upon. Curriculum enhancement methods will be applied using a rapid-cycle evaluation approach to ascertain quality improvement over time.[9] Our evaluative approach focuses on the extent to which stated learning objectives result in expected outcomes (outcomes evaluation). A prototype that could be applied for the proposed curriculum is the PDSA (Plan-Do-Study-Act), a useful QI (quality improvement) framework, consisting of iterative problem-solving cycles that foster timely decision-making, efficient utilization of resources, and small but progressive curriculum changes.[10] This means that for each curriculum objective, both processes and outcomes will be measured dynamically throughout the implementation period instead of as separate entities (Project Aims PDSA cycles).

3. Expectations

The proposed training curriculum for doulas in epidemic intelligence consists of core competencies, learning objectives, and course contents (Table 1). A total of 8 competencies were identified, and they include EI preparedness, data management, and critical thinking. For safety purposes and to aid learning, a combination of education delivery methods will be ideal, encompassing synchronous and asynchronous approaches. The duration of the training will be short but intensive, ranging from one to two weeks. The learning objectives mirror the knowledge and skill-set expectation of a trained epidemic intelligence personnel within the context of the current COVID-19 pandemic: include critical thinking and synthesis of diverse products of thought processes; acquisition of skills in the application of data gathering processes with emphasis on the unique terrain of COVID-19 ecology; familiarity with various approaches in outbreak investigation with attention to protection and safety of personnel; ability to synthesize data coherently so that alert patterns are easily identifiable; acquisition of expertise in the objective interpretation and communication of synthesized data in various forms adapted to a targeted audience; and application of findings in real-world situations including how to overcome existing and emergent challenges suitable for a variety of scenarios. Improvement in the quality of curriculum components (resulting from iterative process evaluations) is anticipated by incorporating iterative testing of appropriate changes. Continuous improvement of the intervention (multi-program)

Table 1: Proposed Curriculum to Train Doulas in Epidemic Intelligence

Core Competencies	Learning Objectives	Course Contents
Epidemic Intelligence (EI) Preparedness	Explain the importance of the importance and process of EI	Simplified lectures on EI, COVID-19 Training on contact tracing and reporting, and personal protective equipment (PPE)
	Describe the symptomatology of COVID-19	
	Describe the steps of contact tracing and the procedures for reporting information	
	Apply acquired EI knowledge to real-life situations	
	Describe appropriate PPE and demonstrate its use	
Data Management	Conduct data entry and management using a select database	Lectures and demonstrations on data entry and management
Multidisciplinary Teamwork	Coordinate and collaborate with other team members for prompt case reporting	Training on effective teamwork and team building
	Implement a multidisciplinary EI communication plan	
Communication	Apply methods of data collection: face to face interviews, phones, mails	Training on interviewing
	Collect accurate data on COVID-19 symptomatology and out pre-existing conditions	
	Apply language and tone in oral communications tailored to the target audience	
	Identify key messages for written communication	
	Report EI data orally and in writing	
Professionalism	Displays professional demeanor in all situations	Real-time training on communicating with target audience and professionalism
Ethical Practices	Apply ethical principles and professional rules of conduct when dealing with clients	Lecture and videos on principles on research ethics
	Exemplify integrity in interactions and activities	
Cultural Awareness	Apply cultural awareness and cultural competency principles when interacting with clients	Training on cultural awareness and competence
Critical Thinking	Apply critical thinking to develop effective and practical solutions to problems	Case studies on real-life challenges in epidemic intelligence

and iterative assessments will result in quicker learning and acquisition and demonstration of competencies. The anticipated end-product is the creation of a cadre of doulas versed in MCH epidemic intelligence and capable of reducing the burden of COVID-19 and its consequences on the MCH population.

4. Conclusion and Implications for Translation

Trained doulas can be considered as social capital during the COVID-19 pandemic. The proposed curriculum will provide learning objectives, course contents, and competencies intended to help ensure well-trained and prepared Doulas who can assist the MCH workforce in epidemic intelligence during periods of public crisis. Proper implementation of the curriculum will directly impact the quality of surveillance work required for early identification of COVID-19 cases, contact tracing, and ensuring compliance with control measures such as quarantine. It is anticipated that through epidemic intelligence task shifting to Doulas, the proposed curriculum will help establish a robust pandemic surveillance system for the MCH population, reduce health disparity, and protect the public's health. For countries globally, to make more efficient use of the available and overwhelmed human resources during the ongoing or future pandemic, there is a need to shift

the role of epidemic intelligence to health workers with shorter training.

Compliance with Ethical Standards

Conflicts of Interest: *The authors have no conflicts of interest to report.* ***Financial Disclosure:*** *The authors have no financial disclosures.* ***Funding/Support:*** *None.* ***Ethics Approval:*** *Not applicable.* ***Acknowledgments:*** *None.* ***Disclaimer:*** *None.*

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