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COVID-19 Medical-Religious Partnerships: Implementation of a Just-In-Time COVID-19 Training in Catholic Schools

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Abstract

The concept of Just-In-Time Training (JITT) is to provide critical information specific to a public health crisis, allowing individuals to understand and respond to an urgent situation. The design of the JITT curriculum appropriate for school-aged children during the COVID-19 pandemic is vital, as every individual has a role to play in mitigating the spread of SARS-CoV-2. When working with various communities, considering culture and religion is essential, as aligning values and beliefs with the JITT curriculum's objectives may significantly change the community's behavior toward a public health crisis. In this narrative, we describe how a JITT curriculum for the COVID-19 pandemic, created in Maryland, US, and implemented in a Catholic school system, aligned with core Catholic social teachings. This alignment allowed for implementing and delivering the COVID-19 curriculum in Maryland's Archdiocese Catholic school system, culminating in a medical-religious partnership that serves as a model for future public health crises.

Keywords COVID-19 · Medical-scholastic partnerships · Community engagement

Introduction

Since early 2020, the world has continued to battle the viral pandemic caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), which results in coronavirus disease-2019 (COVID-19) (World Health Organization, 2020). The need to curb the spread of the contagious airborne virus has resulted in an emphasis on adhering to individual hygienic interventions, such as physical distancing, face-mask wearing, and hand hygiene (Infectious Diseases Society of America, 2021).

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From this emphasis grows a desire for the masses to undertake such behavioral changes. Similar to how prior coronavirus public health crises were managed and resolved, efforts to educate communities on implementing these measures are necessary to resolve this crisis (Zhu et al., 2020). Therefore, community engagement activities that disseminate information about COVID-19 interventions and empower individuals to share such messaging are vital to ending the current pandemic (Gilmore et al., 2020).

Community engagement refers to the participation of persons or organizations within a parameter of a social boundary or area of a community in which there is an allowance for decision-making, planning, design, and delivery of services (Barker et al., 2020). In addition, community engagement refers to collaboration with and through groups of people with a shared interest and similar situations to address issues affecting the well-being of those people. Identifying a community for engagement is a priority (Centers for Disease Control and Prevention, 2011). Specifically, identifying a community in which members can reach populations vulnerable to the disease and deliver messaging to prevent disease, in this case, COVID-19, can have a considerable impact. Suppose that community receives Just-In-Time Training (JITT), whereby community persons are given up-to-date information and countermeasures to mitigate the crisis (Cathcart et al., 2018). In that case, these trained persons may convey relevant content to their respective communities efficiently and effectively.

Medical-scholastic partnerships have promoted community engagement and health by implementing a school-based curriculum covering diverse health issues in diverse populations (Galiatsatos et al., 2020; Garrett et al., 2019; Kebede et al., 2020). To ensure acceptance of a school-based curriculum, an understanding of the school's community, culture, and collective beliefs is vital (Gilmore et al., 2020). For instance, implementing a JITT for COVID-19 information with the Catholic school system means messaging around the public health crisis must be tailored to align with and respect religious context and traditions. In practice, this may manifest as anchoring the specific JITT curriculum to particular Catholic social teachings. For example, this could mean shaping the curriculum around the social teachings of commitment to defend human life, or in reaffirmation of the dignity of the human person (Condit, 2016; Pontifical Council for Justice and Peace, 2006). Acknowledging these shared values and molding a medical-scholastic partnership with Catholic schools to implement a JITT COVID-19 curriculum provides an ideal opportunity for evidence-informed productive public health outcomes.

JITT COVID-19 Curriculum

We describe our JITT COVID-19 school-based curriculum implemented in the Maryland Archdiocese Catholic school system. The curriculum focuses on communicating up-to-date COVID-19 information to foster comprehension of the current science and improve science literacy overall. In addition to the scientific focus of the curriculum, each presentation ends with a section of "What can you do for your community?" themed questions and answers, allowing students to think of ways to ameliorate COVID-19's impact on their community. We highlight key elements of the curriculum that align with Catholic values and beliefs taken from the "Compendium of the Social Doctrine of the Church" (Pontifical Council for Justice and Peace, 2006). Finally, we identify factors that allow for successful medical-scholastic collaborations during public health emergencies among diverse communities.

The COVID-19 Curriculum and Community Collaboration

To confirm the Archdiocese school leadership accepted our JITT COVID-19 curriculum, the Archdiocese's personnel joined us for meetings discussing our lecture content. These meetings assured that the curriculum's pedagogy was appropriate for students from kindergarten to high school, whereby each theme was tailored for students depending on their respective grade levels. Table 1 lists the themes and objectives taught at the schools. Each live, virtual session's duration was 30–45 min, with each session outlined as follows: 3 min of introductions and a recap of the previous lesson, 15–20 min of current theme presentation, followed by a hands-on activity and closing with participant questions. If there were questions that could not be answered during the live session, these would be handled by the JITT COVID-19 curriculum supervising faculty. Further information on the curriculum can be found on jhuheat.flywheelsites.com.

The Archdiocese leadership discussed what factors were important for our COVID-19 instructors (the individuals who would teach the curriculum to the schools) to ensure these instructors were aware of cultural and religious sensitivities. For example, if the curriculum instruction occurred at the beginning or end of the

Theme	Objective	
COVID-19 Biology	To understand the basic biology of COVID-19	
Mathematical Models	To understand what variables are essential for a virus to infect humans and what factors are in our control that allow us to mitigate the spread of the virus	
Physics Behind a Face-Mask	To understand how a facemask stops the spread of airborne microbes	
Chemistry of Hand Hygiene	To provide students with insight into how handwashing and sanitizer impact microbes	
Vaccines	To understand how vaccines work and how the COVID-19 vaccine arrived in time to manage the pandemic	
Myth Busters	To provide insight into understanding causality, which is often a challenge in science outcomes during infectious crises which result in myths	
Mental Health & Wellness (Parts I and II)	Divided over two lessons, these themes provide an under- standing of mental health challenges during the pandemic faced by youth and adults	

 Table 1 Description of themes of the JITT COVID-19 Curriculum

Each topic was taught for 30-45 min: 15-20 min of presentation, along with 15-20 min of hands-on activities and questions-and-answers

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school day, the classrooms may start with a prayer. At the end of the discussions, the Archdiocese leadership identified several themes that they felt were in accordance with Catholic values and achieved through the JITT COVID-19 curriculum for their students and teachers during the pandemic. These themes included "responsibility of everyone for a common good," "goods and the preferential option for the poor," and "participation with entities in an effort to help others."

These themes and their relationship with the JITT COVID-19 curriculum are further discussed.

Theme: Responsibility of Everyone for the Common Good

"The common good therefore involves all members of society, no one is exempt from cooperating, according to each one's possibilities, in attaining it and developing it." (Pontifical Council for Justice and Peace, 2006).

In this viral pandemic, the common good is evident in how individuals attempt to prevent COVID-19 and promote health by stopping the spread of SARS-CoV-2. The responsibility of this common good may be considered for persons of any age, as all humans can transmit SARS-CoV-2. In this regard, teaching school-aged children about COVID-19, from an explanation of viral biology, to efforts that mitigate its spread, aligns with this Catholic principle. Representative of the need to teach youth about COVID-19 during the pandemic is the understanding that many have concerns regarding healthy behaviors and practices (Jones et al., 2020). Therefore, access to up-to-date information, centered on the common good of attenuating the impact of COVID-19, aligns with Catholic principles practiced in Catholic schools and allows their respective students to feel they have some role in serving the common good throughout the pandemic.

Theme: The Universal Destination of Goods and the Preferential Option for the Poor

"Putting the principle of the universal destination of goods into concrete practice, according to the different cultural and social contexts, means that methods, limits and objects must be precisely defined." (Pontifical Council for Justice and Peace, 2006).

This principle focuses on those individuals whose living conditions fail to meet their basic needs and interfere with adequate quality of life. While the principle's initial implementation was for non-pandemic times, aiming for dissemination to socioeconomically disadvantaged individuals needing an allocation of information and resources, the principle holds during the pandemic. Specifically, the stay-at-home policies and individual hygienic interventions requested by medical institutions and public health agencies have affected various populations' adherence differently and disproportionately (Gold et al., 2020; Haynes et al., 2020). With our COVID-19 curriculum, implemented at various Catholic schools throughout Maryland, our instructors communicate with students, teachers, and families in real-time, sharing information as well as hearing concerns. As each lesson concludes with actions each student can take to help their community, the curriculum has allowed this Catholic principle to become directly actionable, with resulting measures driven by students directed to mitigate COVID-19's impact in surrounding communities. Through this medical-scholastic partnership with the Catholic schools, we have seen a distribution of resources, from information on food access to face masks—with one school even creating facemasks and providing them to shelters for unhoused people. The preferential option for those that are low-income, as emphasized by this principle, may take on a different population regarding its vulnerability toward SARS-CoV-2; however, the principle can still be actualized if given the proper guidance, as reaf-firmed by our COVID-19 curriculum.

Theme: Participation and Democracy

"Participation can be achieved in all the different relationships between the citizen and institutions: to this end, particular attention must be given to the historical and social contexts in which such participation can truly be brought about." (Pontifical Council for Justice and Peace, 2006).

This principle emphasizes that participation in community life is a great aspiration of a citizen, and one of the pillars of all democratic orders. With this medicalreligious partnership, we believe this is where our COVID-19 curriculum is of great value to Catholic schools. While these courses emphasize the students' comprehension of empirical information regarding COVID-19, we finish these lessons with sections dedicated to community engagement, specifically for upper-grade levels (9th through 12th grade). Our classes conclude by assuring participants that they can mitigate the spread of misinformation, assist in overcoming stigma, promote science and health without judgment, and continue to learn new information to share by utilizing valid online databases. At the end of these sessions, we ask the schools how they intend to influence their communities.

JITT COVID-19 Curriculum Results

Since creating the curriculum and meeting with the leadership of Maryland's Archdiocese Catholic school system, we have implemented our JITT COVID-19 school-based curriculum in 32 Catholic schools, grades kindergarten to 12th grade, reaching over 10,000 Maryland students. Table 2 lists insight into the counties and cities the JITT COVID-19 curriculum was implemented in, along with the COVID-19 cases of each respective geographic region. As evident by the region rankings, many of the schools resided in areas of Maryland with the highest rates of COVID-19 cases; thereby, reaffirming the potential need for such public health messaging in real time. We continue to receive feedback emphasizing the effect of the curriculum, from immediate impact (e.g., improving facemask adherence) to disseminating resources by students to the community, to requests to regroup with students' families in virtual town hall meeting settings. Further, knowing how to curate a curriculum rooted in Catholic principles,

Maryland county	Number of schools	Grade levels	Cases of COVID-19 infections (County Rank- ing)
Anne Arundel	5	Elementary & Middle: 5 High School: 0	41,842 (5th)
Baltimore	8	Elementary & Middle: 4 High School: 4	59,333 (3rd)
Baltimore City	4	Elementary & Middle: 2 High School: 2	49,799 (4th)
Carroll	2	Elementary & Middle: 1 High School: 1	7,379 (11th)
Frederick	2	Elementary & Middle: 2 High School: 0	16,443 (6th)
Harford	7	Elementary & Middle: 4 High School: 3	13,282 (8th)
Howard	3	Elementary & Middle: 2 High School: 1	15,983 (7th)
Prince George's	1	Elementary & Middle: 0 High School: 1	79,211 (1st)

 Table 2
 Information on each of the 32 schools is provided regarding county and/or city location and grade level in the state of Maryland

Each region's state's COVID-19 cases and ranking are listed, with information from the State of Maryland's COVID-19 webpage at the time of implementing the curriculum (coronavirus.maryland.gov)

principles promoted within their school system, creates a basis for future medical-religious partnerships in other diverse school systems during this, and potentially future, public health crises.

There are two limitations to consider with creating a JITT COVID-19 curriculum when implementing it for a medical-religious collaboration. First, we were unable to fully explore behavioral changes regarding the COVID-19 public health information we provided. We recognize that the need to implement the curriculum efficiently was a priority for the school system. However, this came at an expense to our understanding of the full impact of the curriculum for the academic community, a limitation known of the JITT curriculum as these initiatives are a growing focus of research (Cathcart et al., 2018). Second, assuring the curriculum was up-to-date with COVID-19 outcomes, research, and public health adaptations was a limitation. We ensured our COVID-19 instructors stayed up-to-date with such information through assigned readings and weekly meetings to discuss new information in an effort to mitigate such a limitation. Such engagements in the question-and-answer segments guaranteed our JITT COVID-19 curriculum could adapt instantaneously.

Conclusion

In conclusion, aligning medical and public health goals with community-specific principles and collective beliefs, confirms the ability to implement Just-In-Time Training aimed at mitigating the devastating impact of COVID-19. The medical-religious partnership emphasized here with the Catholic school system in Maryland provides a blueprint of how to align public health objectives with specific cultural and religious beliefs of specific communities and, therefore, allows for acceptance, trust, and implementation. Future community partnerships should provide similar frameworks between medical institutions and communities, allowing for population health strategies to be understood and accepted in a manner that prioritizes a community's identity and principles. We can attribute the success of our JITT curriculum to both its ability to adapt in real time and its ability to align with a faith-based community's values and identity.

Declarations

Conflicts of interest The authors have no conflicts of interest and no have no competing interests to declare.

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