

# Project Proposal

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## Continuing Medical Education for Transgender and Nonbinary Patient Care

Content Development by Elizabeth Shivers

**Abstract**—Every year medical providers are required to participate in Continuing Medical Education (CME) to maintain their licenses. Educational Technology is providing an avenue for delivering CME content effectively and efficiently. At the same time, the need for increased medical provider knowledge regarding both medical and cultural aspects of care for patients who are Transgender or Nonbinary has not been addressed. The goal of this project is to develop Transgender and Nonbinary CME content, utilizing Educational Technology to address a rapidly changing landscape of care for these patients as well as address key cultural knowledge that is often omitted from purely technical areas of education, improving overall provider knowledge and, as a result, quality of care.

### 1 INTRODUCTION

Transgender and Nonbinary patients face stark challenges in receiving healthcare and report encountering medical provider ignorance and bigotry at alarming rates [1][2]. These patients also require unique, specialized medical care to meet their needs in addition to facing high rates of mental health issues and other comorbid conditions such as obesity. Even casual interactions with Transgender and Nonbinary patients may have lasting impact on their well being and undermine trust in their medical providers. For example, misgendering<sup>1</sup> is a very common issue faced often not even recognized by medical providers which may have severe psychological impact on patients [3].

<sup>1</sup> Misgendering is the use of pronouns or other gender signifiers regarding a transgender/nonbinary individual in opposition to their identified gender or pronouns.

To maintain licenses to practice, medical providers are required to receive yearly accredited Continuing Medical Education (CME). While some modern medical curriculums are catching up to the reality of Transgender and Nonbinary patients, most practicing medical providers are not trained in proper care for those patients [4]. As with any developing area of medicine, CME provides the opportunity to deliver this training to providers. (Note: Accreditation is a long-term goal, but not within the scope of the current iteration of this project.)

The goal of this project is to develop content to support the treatment of Transgender and Nonbinary patients from a comprehensive viewpoint that discusses both surrounding cultural/social concerns for those patients as well as in the unique medical knowledge required to both improve treatment outcomes and care quality.

The target audience are any practicing medical providers or others involved in patient care who wish to improve their understanding of transgender and nonbinary. Segments of the content proposed may also have broader implications for more generalized training outside of the medical community, though the focus will be medical provider driven.

Content will begin by providing foundational information on transgender and nonbinary individuals, as well as illustrate some of the challenges faced historically by the community in both medical and broader contexts. The purpose of this is to illustrate the importance of both the rest of the content and to illustrate the potential impact of even simple failures in interaction on the well being of transgender and nonbinary patients, as with misgendering [4]. This portion of the content will also be used to introduce terminology and context required to fully understand the second focus of the content on medical concerns, such as HIV prevention or surgeries. The final section of content will provide information on cultivating a positive environment for transgender and nonbinary patients within a clinical setting, as well as touch upon how to address the issues with colleagues or others who are not informed upon the topic.

## 2 RELATED WORK

### 2.1 Current Options

Several major sources currently offer CME courses in Transgender healthcare, though only one was identified that explicitly discusses Nonbinary individuals as distinct from Transgender. While complete reviews of the content are not possible with the resources of this project, both due to costs and lack of online availability, the following sections discuss what could be identified.

#### 2.1.1 Fenway Institute – *Advancing Excellence in Transgender Health*

Website: <https://www.lgbthealtheducation.org/conferences/advancing-excellence-in-transgender-health-2019/>

The Fenway Institute provides a multi-day conference on Transgender health. Their website lists the following conference topics [5]:

- Gender-Affirmative Health Care: Terminology, Demographics, and Epidemiology
- Gender Identity Development in Children and Adolescents
- Transgender Adults Community Panel
- Family Systems of Transgender Children
- Diagnosis, Treatment, and Prevention of Sexually Transmitted Infections for Transgender People
- Behavioral Health Assessment and Referrals for Gender-Affirming Surgery
- Primary Medical and Preventative Care Needs of Transgender Clients
- Reproductive Options for Transgender Persons
- Gender-Affirming Hormone Therapy
- Behavioral Health Care for Gender-diverse Children and Adolescents
- Transgender Youth Community Panel
- Transgender People and HIV
- PrEP and Transgender Communities: Evidence-Informed Practices
- Gender-Affirming Surgeries
- Collecting Sexual Orientation & Gender Identity Data in EHRs
- Transgender and Gender-diverse People of Color
- Creating a Trans Youth Clinic
- Behavioral Health Care Outside the Binary
- What Health Care Providers Need to Know about Transgender Legal Issues

### **2.1.2 Mayo Clinic – Principles in the Care of Transgender and Intersex Patients**

Website: <https://ce.mayo.edu/psychiatry-and-psychology/content/principles-care-transgender-and-intersex-patients-2020>

The Mayo Clinic offers a similar style conference to the Fenway Institute. They have not announced their 2020 schedule, but describe their conference with the following abstract:

“In the last several years, healthcare providers have seen an influx of transgender and intersex people seeking sensitive and appropriate care. This pioneering course will offer cutting-edge perspectives and practical evidence-based principles for working with these patients before, during and after transition. Experts from Mayo’s Transgender and Intersex Multidisciplinary Clinic will instruct attendees in medical, surgical, psychosocial, legal and ethical issues in transgender and intersex care. Participants will leave with the skills to provide progressive and informed care to this emergent patient population.” [6]

Their 2019 schedule is too large to include here or discuss in detail, but can be located at <https://ce.mayo.edu/psychiatry-and-psychology/content/principles-care-transgender-and-intersex-patients-2019#group-tabs-node-course-default2>.

### **2.1.3 UCLA - Comprehensive Medical Care for Transgender and Gender-Nonbinary Patients**

On February 8<sup>th</sup>, 2020, UCLA hosted a one-day conference on this topic. Their schedule listed the following panels [7]:

- Health Disparities in Transgender and Gender Nonbinary People
- Trans 101/Lexicon
- Creating a Welcoming Environment in Your Health System
- Behavioral Health Considerations for Transgender and Gender Diverse Individuals
- Gender Incongruence and Hormone Therapy
- TRANSliterating Current Healthcare Maintenance Guidelines for Disease Prevention in Gender-Diverse Patients
- Transcending Gender: Medical Care for Gender-Diverse Youth
- Fertility Considerations in Transgender and Gender-Nonbinary Patients

- Gynecology
- Genital Gender Affirming Surgery: Update and Overview
- Care of the Transgender Voice (prerecorded)
- Transgender Top Surgery
- Facial Feminization Surgery

## 2.2 A Different Approach

While the above three conferences are not an exhaustive list, they were the only identified CME discussing the topic from a comprehensive approach. Unfortunately, there are a few major areas that these conferences are lacking, which this project will hope to address.

1. **Format** - All three options above were at a single geographic location—Boston, Phoenix, and Los Angeles respectively—over a few specific days, severely limiting access to the material. Access is less likely to providers who are most in need of that education outside of major urban areas. In contrast, this project is intended to be an entirely online comprehensive course, offering accessibility to anyone regardless of geographic location.
2. **Cost** - Cost is another large concern regarding accessibility, as travel and conference expenses are extensive. While the hope is that this project may become accredited, even if a cost is added to support this accreditation, a version of this material will be explicitly provided freely online to remove potential barriers. (This will be considered a nonnegotiable tenant of this project in seeking accreditation, as it is preferable the course is widely available.)
3. **Perspective** - While it is likely individual areas of content are developed by transgender or nonbinary individuals, at no point is this fact advertised. Anecdotally speaking, in my personal experience these sorts of presentations are almost universally developed by cisgender<sup>2</sup> individuals. Another goal of this project is to provide this material directly from transgender and nonbinary voices wherever possible. I believe this is particularly important when discussing the creating of a welcome and affirming environment, a central focus of this project. This can perhaps best be seen by the fact that only one of these conferences has a distinct mention of nonbinary individuals in the subject header, while another leaves discussion of nonbinary identities until the end.

<sup>2</sup> **Cisgender** is defined as having a gender identity that aligns with sex/gender assigned at birth.

The approach seen there cultivates the phenomenon identified during research in which even in otherwise gender affirming spaces will neglect non-binary individuals [8].

4. **Content** – There are certain areas of content that are lacking from the identified conferences which will be addressed as part of this project. This goes hand in hand with perspective. While they touch upon some general cultural concerns, it does not appear that they delve into more contentious topics such as avenues of oppression or historical failures by the medical community, yet I believe these are required areas of education to fully understand how to provide transgender and nonbinary patients the care they require.

### **3 PROPOSED WORK**

#### **3.1 Research Survey**

As previously discussed, a survey has been developed and submitted for IRB approval to solicit experiences from the transgender and nonbinary community in order to identify needed areas of content. As of this proposal, approval is still pending. Should approval not be granted in time to make use of the survey, this should not impact the development of content, but rather potentially the quality of that content, and no fallback plans are required for this phase of development.

#### **3.2 Iterative Design and Development**

This project is conceived as a long-term iterative design process. That is to say, it is fully intended to be carried past the end of this semester of CS6460. The purpose of this design is two-fold. The first is that the nature of the proposed content should always be subject to continued evaluation and revision. Second, as no project team support was procured, there are severe resource limitations within the scope of this course which can reasonably assumed to be barriers to accreditation and reduce content quality.

The first iteration of this project will be considered to be what is developed during the course of this semester, along with supporting documentation discussing how to move forward towards future iterations and eventually accreditation. Parts of the content will be developed with this in mind, intended to be refined through an iterative evaluation process. Portions of content which are weakly sourced may also necessitate proposals for future research.

### **3.3 Content to be Developed**

#### **3.3.1 Content Overview**

While some revision may be deemed necessary, there will be seven primary areas of content divided into units, described below that will be developed during the course of this semester. Units may be of varying lengths, though will be targeted to be around 30 minutes each.

1. Introduction and General Information on Transgender and Nonbinary People
  - Unit 1 will provide a brief introduction to need, including the challenges faced historically in seeking medical care by the transgender and nonbinary community. General terminology will be introduced, in particular differentiating the terms transgender and nonbinary, as well as related identities such as genderqueer. Other topics not exclusive to either transgender or nonbinary identities will be discussed here as well.
2. Further Information on Transgender People
  - Unit 2 will delve into more detail on transgender individuals specifically, expanding upon the material introduced in unit 1. Common areas of confusion regarding terminology will be a large focus. Additionally, an introduction will be given to transitional medical care from a very broad perspective along with the challenges often faced. It is important to note that there will be large elements of overlap between this and the following unit, which will be used to highlight that a transgender person may or not identify as nonbinary and a nonbinary person may or may not identify as transgender.
3. Further Information on Nonbinary people
  - Unit 3 will build upon the information introduced in unit 1 as well as build connections with unit 2. The bulk of the content will be explaining the nuances of nonbinary identities using the binary focus of unit 2 as a springboard to understanding.
4. Society and Marginalization
  - Unit 4 will provide a sociological overview with an element of epidemiology involved. Further attention will be paid to some of the historical failures in medicine which are discussed in unit 1, while a broader non-medical specific context will also be provided. In terms of

epidemiology, particular attention will be paid to how marginalization may lead into comorbid conditions such as depression and obesity, connecting the material to the audience's concerns as medical providers.

5. Sexuality and Gender Identities

- Unit 5 will discuss sexuality as it relates to gender identity and provide a backdoor introduction to a few key points of patient care. The opportunity will also be taken to explain common facets of transgender and nonbinary sexuality for the benefit of mental health providers, particularly as it relates to writing letters of care<sup>3</sup>.

6. Medical Concerns of Transgender and Nonbinary Patients

- Unit 6 will provide the general guidelines that providers should know when treating transgender patients, such as common standards of care or potential transitional treatments and surgeries. This will be presented from a primary care perspective, as the resources of this project do not allow for going too deep into care given by specialists.

7. Creating a Positive Clinical Environment

- Unit 7 will be the focal point of the previous material to which everything culminates. The goal here is not to provide raw information but rather to explain how providers may foster a welcoming environment both professionally and personally.

**3.3.2 *Limitations in Content Development***

Transgender and nonbinary care is notoriously under researched. Some areas of content may lack robust scholarly support, even if universally anecdotally accepted—an issue which may not be possible to identify until that portion of content is actually in development. In such cases, the content will still be developed as part of meeting the goals of this project and will be explicitly marked as unsourced with the explicit intention that research will be developed to properly support that content in future iterations of this project.

<sup>3</sup> Under some standards of care, mental health providers are required to provide letters supporting decisions to undergo treatment or surgeries. There are often concerns about this approach as untrained providers can fall prey to assumptions based in gender role stereotypes or transgender community stereotypes [9], and part of the aim of this unit is to address some of that issue.



### **3.3.3 *Medium***

Content will be split between both video presentations and written material. It should be noted that I am not an expert presenter, nor do I possess professional media equipment. While all effort will be made to make high quality video content, due to this limitation any video presentations produced will be considered demonstrative, and this will be a noted area for future iterative development.

### **3.3.4 *Participant Engagement and Evaluation***

Short quizzes will be included within each unit to test understanding. These will not be graded in any fashion and are intended only to improve course participant understanding for this iteration. Future iterations may include more rigorous testing in order to satisfy accreditation requirements.

### **3.3.5 *(Extra) Expert Interviews***

This is an area of development for which I am currently investigating opportunities. As of this proposal I cannot reasonably propose them as a guaranteed work deliverable as they would rely on participation from outside parties.

The hope is that I can secure short interviews with a number of contacts in the Atlanta area who are specialists in the field of transgender and nonbinary care or have experience working with the community socially, such as through charities.

The two primary groups that I have spoke with previously which will be approached to participate are Lost-n-Found Youth and QueerMed. Lost-n-Found is a charity providing services such as transitional housing for homeless LGBTQ youth with which I have done extensive volunteer work. QueerMed is both an in-person and telemedicine provider for transgender patients in the southeast created to help improve access to Hormone Replacement Therapy (HRT) and other medical services.

## **3.4 *Summary***

For the sake of clarity, I will provide a list of proposed work deliverables below, including class deliverables. This list will be further subdivided in the task sheet.

- Class Related Deliverables.
- Course Content.

- At least one video and one accompanying text-based lesson material per unit. Videos may be segmented into multiple pieces within a unit. Videos will be 10-15 minutes long in total for a unit, with units intended to take a total of 30-45 minutes.
  - At least one quiz per unit to test engagement and knowledge.
- Supporting Design Documentation (separate from similar class deliverables).
  - First iteration design considerations, such as the pending survey.
  - Future iteration considerations, such as areas of content weakness, proposed future research, or evaluation material.
- (Extra) Expert Interviews.
  - If they can be obtained, these will be provided as supplementary material to related units.

### **3.5 Tools**

The course will be developed on the CS6460 OpenEdX instance. Video recording will be performed using external cameras when required, while narrated slide show style content videos will be produced using Microsoft PowerPoint. The final version of the course will be exported to the Common Cartridge LMS format.

(Note: As of this proposal, the OpenEdX platform is suffering technical issues. This will be updated appropriately if required.)

## **4 TASKS**

Note: As they are not able to be guaranteed, tasks such as the desired expert interviews will not be included in this list. If they are produced it will be in excess of the required minimum hours for the project development.

### **4.1 Task Explanations and Time Allotments**

“Content Development” does not include video recording but will include script development where appropriate. For units 1 through 3 which provide introductory material, 6 hours is allotted. For units 4 through 6, which require more depth and additional research, 10 hours will be allotted. Unit 7 will be allotted 6 hours. This includes additional research and development of visual material such as slides to be used during unit video presentations.

“External Resource Procurement” is focused on obtaining permission for materials from groups such as the Georgia Tech LGBTQ Resource Center, such as existing charts or graphics. This will be a highly unpredictable time investment, and it is likely that it will wind up being split up over the course of the project.

“Contents Review and Reorganization” will be a specific point in development where the completed contents will be tested for cohesiveness and structure prior to the recording of videos. This is intended to be a comprehensive review of the content in order to determine if all requirements were addressed and if everything is logically ordered and grouped. 4 hours is allotted to this with the assumption that is how long it will take to perform the review itself and does not include the time that may be required for reorganization efforts. If reorganization is required, this will be performed in excess of the allotted schedule.

#### **4.2 Milestone 1**

Milestone 1 will be focused on setup and introductory content development. This will document continued areas of research identified, provide an interim report on the project survey if approved, and provide the written version of content for units 1, 2, and 3, including video scripts and supplementary graphical material such as slides.

#### **4.3 Milestone 2**

Milestone 2 will showcase development for 3 of the 4 remaining areas of content, units 4, 5, and 6, including video scripts and supplementary graphical material such as slides.

#### **4.4 Final Project Deliverable**

The project will be delivered through supporting documentation and text-based content developed throughout the project, showcased as a complete course within the CS6460 OpenEdX instance. Deliverables will likely include the following:

- Project Paper
- Project Presentation
- Provided link to Course
- Development Documents (scripts or written course material)
- Supporting Project Documentation (evaluation surveys and other project documentation not explicitly part of the CS6460 Project Paper)

#### 4.5 Task Chart

Week #	Task #	Task Description	Estimated Time (Hours)
8	1	Complete "Table of Contents"	2
8	2	Setup and Learn Development Environment	3
8	3	External Resource Procurement	3
8	4a	Begin Content Development for Unit 1	2
9	4b	Complete Content Development for Unit 1	4
9	5	Content Development for Unit 2	6
10	6	Content Development for Unit 3	6
10	7	Milestone 1 Preparation	4
<b>INTERMEDIATE MILESTONE 1 DUE</b>			
11	8	Content Development for Unit 4	10
12	9	Content Development for Unit 5	10
13	10	Content Development for Unit 6	10
13	11	Milestone 2 Preparation	4
<b>INTERMEDIATE MILESTONE 2 DUE</b>			
14	12	Content Development for Unit 7	6
14	13	Contents Review and Reorganization	4
15	14	Unit Video Production	8
15	15	Evaluation Development	2
16	16	Final Project Documentation	10
16	17	Final Project Presentation	5
<b>FINAL PROJECT DUE</b>			

#### 5 REFERENCES

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