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ORIGINAL RESEARCH

Obstetrics and Gynecology Resident Physician Experiences with Lesbian, Gay, Bisexual, Transgender and Queer Healthcare Training

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Abstract

Purpose To assess obstetrician-gynecologist (Ob/Gyn) resident experiences with and preferences for lesbian, gay, bisexual, transgender, and queer (LGBTQ) healthcare training.

Methods A cross-sectional, web-based survey was deployed to residents from accredited Illinois Ob/Gyn training programs. The survey included 32 questions on resident demographics, LGBTQ training, and self-perceived preparedness in providing LGBTQ patient care.

Results Of 257 eligible Ob/Gyn residents, 105 (41%) responded. Fifty percent of residents felt unprepared to care for lesbian or bisexual patients and 76% felt unprepared to care for transgender patients. Feeling prepared to provide care for lesbian or bisexual patients was associated with attending a university-based program, working in a hospital without religious affiliation, and year of training. Feeling prepared to provide healthcare for transgender patients correlated with grand rounds focused on LGBTQ health and supervised clinical involvement. Regarding training, 62% and 63% of participants stated their programs dedicate 1–5 h per year to lesbian/bisexual healthcare and transgender healthcare training, respectively. Concurrently, 92% desired more education on how to provide healthcare to LGBTQ patients. Perceived barriers to receiving training in LGBTQ healthcare included curricular crowding (85%) and lack of experienced faculty (91%).

Conclusion Our assessment indicates Illinois Ob/Gyn residents feel inadequately prepared to address healthcare needs of LGBTQ patients. Although barriers exist, residents desire more education and training in providing healthcare to the LGBTQ community. Future work is needed to address this gap through curricular development to ensure that Ob/Gyn residency graduates are prepared care for LGBTQ patients.

Keywords LGBTQ · Education · Residency · Training

Introduction

Lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals are estimated to make up between 4 and 5% of the US population [1]. In Healthy People 2020, the US government set the goal of improving the health, safety, and well-being of LGBTQ individuals, recognizing that LGBTQ individuals experience health disparities stemming from discrimination, societal stigma, and violence [2]. Now in the year 2020, many advances and positive social changes have been made in recognizing the rights of LGBTQ individuals, including the recent Supreme Court ruling prohibiting workplace discrimination based on an individual's sexual orientation and transgender status. Despite these positive changes, due to discriminatory and structural barriers impacting access to care, LGBTQ individuals experience persistent healthcare disparities, including a higher prevalence of certain cancers, chronic diseases, tobacco and substance abuse, and mental illness [2–6]. In the face of these persistent healthcare disparities, we

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must continue to ask what more can the medical field and physicians do to care for and improve the health of LGBTQ patients. Specifically, we seek to examine how well the field of medicine is preparing the next generation of physicians to address these crucial issues.

Obstetrician-gynecologists (Ob/Gyns) are often the first point of contact between LGBTQ patients and the healthcare system. However, LGBTQ patients frequently report having difficulty finding providers who are informed and considerate of their specific needs [7]. Female-to-male (FTM) transgender patients perceive a lack of provider preparedness to address their specific health needs [8]. A perceived lack of access to safe, welcoming health care has important implications, as sexual minority women have been shown to underutilize reproductive health screening leading to an overall decreased likelihood of seeking Pap testing and screening for sexually transmitted infections [9, 10].

From 2011 to 2017, the American College of Obstetricians and Gynecologists (ACOG) published four Committee Opinions that provide guidance on how to create a more supportive healthcare environment for LGBTQ patients [11–14]. ACOG encourages physicians to provide medical management for transgender patients who desire gender transition from FTM or male-to-female (MTF) [11–13]. Although ACOG has emphasized the importance of caring for LGBTQ patients, the Council on Resident Education in Obstetrics and Gynecology (CREOG) provides few specific educational objectives or requirements for LGBTQ healthcare knowledge development. The 11th edition CREOG educational objectives released in 2016 do indicate an expectation that residents will acquire the ability to take a sexual history and demonstrate professionalism with respect to sexual orientation and gender identity. Furthermore, it denotes a sexual health objective suggesting that, by the end of residency, trainees will be able to "use a positive, respectfully inclusive approach to gender systems, gender identity, and sexual preference that supports sexuality, sexual relationships, and pleasurable and safe sexual experiences that are free of coercion, discrimination, and violence." [15]. However, the main focus is on attitudes towards this patient population and less on knowledge goals for mastering evidence-based care.

How well Ob/Gyn residents feel prepared to address healthcare for LGBTQ patients is understudied. Existing research has demonstrated that education about addressing LGBTQ health needs is severely lacking in undergraduate medical education [16]. Further, few studies examine LGBTQ healthcare education in Ob/Gyn residency programs and they often address lesbian and bisexual health separately from transgender health [17, 18]. In one study, 81% of Ob/Gyn attending physicians, fellows, and residents surveyed in Ontario, Canada, reported receiving no formal education surrounding lesbian health in residency [19]. Another survey of Ob/Gyn attending physicians found that 80% of respondents reported receiving no training regarding the treatment of transgender patients [20]. A 2019 survey of a representative sample of Ob/Gyn residency program directors about transgender health education found that 31 of 61 respondents (51%) offered transgender health education in their programs [21].

The aim of this study is to determine how well the emerging Ob/Gyn workforce is prepared to care for LGBTQ patients. To accomplish this goal, we deployed a web-based survey to assess current Ob/Gyn resident physicians' experiences with and preferences for LGBTQ healthcare training and to identify barriers to receiving this training.

Methods

A web-based survey was deployed to residents from all 13 Accreditation Council for Graduate Medical Education (ACGME) accredited Ob/Gyn residency programs in Illinois from May 2018 to November 2018. The University of Chicago's Institutional Review Board deemed this research study to be exempt from review. The Biological Sciences Division's Office of Diversity & Inclusion and the Department of Obstetrics and Gynecology at the University of Chicago supported this study.

The survey consisted of 32 multiple-choice questions over 4 web pages through the Research Electronic Data Capture (REDCap) system. Demographic and training questions were modified from a published survey of Ob/Gyn resident ethics education [22], and knowledge-based questions were modified from a previously published survey regarding Ob/Gyn attending physicians' attitudes and knowledge about caring for LGBTQ patients [12]. Questions focused on participants' demographics, knowledge-base, and perceived barriers to receiving education and training in healthcare for the LGBTQ community. The survey assessed previous experiences with LGBTQ groups and form of modalities in training, if present. The primary outcome, each participant's level of preparedness with caring for lesbian/bisexual and transgender patients, was gauged with question answers such as feeling "very prepared", "somewhat prepared", "somewhat unprepared", and "very unprepared". Secondary outcomes included the level of comfort with providing hormonal treatments and understanding preoperative requirements for gender confirmation surgeries for transgender patients, along with perceived

barriers to LGBTQ training. Level of comfort was assessed using assertive statements of feeling comfortable with both and responses choices included: "strongly agree", "agree", "undecided", "disagree", and "strongly disagree" question choices. Perceived barriers were evaluated with statements and subjective answers were viewed as "not a barrier", "weak barrier", "moderate barrier", and "significant barrier". The end of the survey included an opportunity for participants to express any additional opinions or thoughts. The survey was piloted with a total of 25 University of Chicago Pritzker School of Medicine students who had chosen to pursue residency training in Ob/Gyn and University of Chicago Ob/Gyn fellows (including fellows in Maternal-Fetal Medicine, Gynecologic Oncology, and Family Planning). Feedback from piloting was used to refine survey questions to enhance survey item clarity and comprehensiveness.

An introductory email provided a description of the survey, defined relevant vocabulary, and explained that participating was voluntary and that responses would remain anonymous. Relevant terms that were defined in the introductory email included the following: bisexual, cisgender, gay, gender confirmation surgery, gender identity, lesbian, nonbinary gender, queer, sexual orientation, and transgender. We obtained resident email addresses from 12 of the 13 Ob/Gyn residency programs. Direct email invitations were sent to these residents with an individual link allowing one response per participant. The program director of the 13th training program distributed a public survey link to that program's residents. Three follow-up emails were sent to non-responders. The program director for the final residency program reminded to encourage their residents to participate in our study at the same frequency. Upon completion of the survey, each participant was provided with a $5 Starbucks gift card.

Data remained de-identified and were analyzed using descriptive statistics. Resident training year was dichotomized into either "PGY1 or PGY2" or "PGY3 or PGY4" to explore whether more training years factored into an increased sense of preparedness. Primary and secondary outcomes were not analyzed by individual year of training. Knowledge-based questions to assess preparedness in training were dichotomized into either "prepared" or "unprepared" according to their responses to the statements: "I am familiar with hormonal regimens transgender patients use for gender reassignment and transition" and "I am knowledgeable about therapeutic recommendations for transgender patients prior to undergoing gender confirmation surgeries". Answers were categorized into "prepared" if they answered "strongly agree" or "agree" and into "unprepared" if they answered "undecided", "disagree", or "strongly disagree". Respondents were dichotomized into "prepared to provide healthcare for lesbian or bisexual patients" and "unprepared to provide healthcare for lesbian or bisexual patients" according to their response to the question, "How prepared to do you feel to provide care to lesbian or bisexual patients?" Residents were categorized as "prepared" if they felt either "very

Table 1 Sociodemographic characteristics of survey respondents ($n=105$)

	N (%)
Years of residency	
PGY1 or PGY2	48 (45.7)
PGY3 or PGY4	57 (54.3)
Age (years)	
18–24	0 (0.0)
25–34	99 (94.3)
35–44	6 (5.7)
45–54	0 (0.0)
Gender identity	
Cisgender female	86 (81.9)
Cisgender male	14 (13.3)
Nonbinary gender	1 (1.0)
Transgender female	0 (0.0)
Transgender male	0 (0.0)
None of the above	4 (3.8)
Sexual orientation	
Bisexual	6 (5.7)
Gay	4 (3.8)
Heterosexual	91 (86.7)
Lesbian	3 (2.9)
Queer	0 (0.0)
None of the above	1 (1.0)
Religious affiliation	
No religious affiliation	41 (39.0)
Buddhism	1 (1.0)
Christian, non-Catholic	25 (23.8)
Hinduism	3 (2.9)
Islam	3 (2.9)
Judaism	8 (7.6)
Roman Catholic	23 (21.9)
Other	1 (1.0)
"I have experience outside of medicine working with LGBTQ groups."	
Yes, in a professional capacity (paid)	4 (3.8)
Yes, in a volunteer capacity	15 (14.3)
Yes, in an advocacy capacity	19 (18.1)
Yes, other[a]	4 (3.8)
No	63 (60.0)

[a]Other = lived in co-op for women and transgender people ($n=1$), relationship ($n=1$), previous job ($n=1$), social work in free community health clinic ($n=1$)

Table 2 Program demographics ($n=105$)

	N (%)
Program type	
University	62 (59.0)
Community	43 (41.0)
Institution religious affiliation	
Yes	45 (42.9)
No	60 (57.1)
Religious affiliation	
No affiliation	58 (55.2)
Roman Catholic	37 (35.2)
Christian, non-Catholic	9 (8.6)
Other	1 (1.0)
No. residents per class	
< 3	25 (23.8)
4–6	33 (31.4)
≥ 7	47 (44.8)

prepared" or "somewhat prepared" and as "unprepared" if they felt "somewhat unprepared" or "very unprepared". The same question was asked for providing healthcare for transgender patients. Logistic regression models were used to examine the association between factors and the primary outcome of feeling of preparation for care. R software version 3.3.0 was used for all data analyses.

Results

Of the 257 eligible Ob/Gyn residents, 105 (41%) responded to the survey. Residents were divided into PGY1/2 (46%) and PGY3/4 (54%). A majority of participants was between the ages of 25–34 years (94%; $n=99$), cisgender female (82%; $n=86$), heterosexual (87%; $n=91$), and had personal religious affiliations (61%; $n=64$) (Table 1). Outside of medicine, most participants (60%; $n=63$) lacked experience working with the LGBTQ community (Table 1). Most respondents were from university-based (59%; $n=62$), non-religiously affiliated institutions (57%; $n=60$) (Table 2).

Regarding training, 62% ($n=65$) and 63% ($n=66$) of participants stated their programs dedicated 1–5 h per year to lesbian/bisexual healthcare training and transgender healthcare training, respectively (Table 3). The most common context for education around providing healthcare for LGBTQ patients was through informal discussion with faculty (61%; $n=64$) and grand rounds (49%; $n=51$), with lecture-based didactics (51%; $n=54$) viewed as the most common teaching methodology (Table 3). Few residents had training through supervised clinical involvement in directly caring for LGBTQ patients (15%; $n=16$) (Table 3).

Table 3 LGBTQ health care training/education ($n=105$)

	N (%)
Hours spent per year on training to provide health care to lesbians, bisexual population	
None	30 (28.6)
1–5	65 (61.9)
6–10	6 (5.7)
11–15	0 (0.0)
> 15	4 (3.8)
Hours spent per year on training to provide health care to transgender population	
None	34 (32.4)
1–5	66 (62.9)
6–10	4 (3.8)
11–15	1 (1.0)
> 15	0 (0.0)
Form of education to provide health care for LGBTQ patients	
Core curriculum material	21 (20.0)
Grand rounds	51 (48.6)
Supervised clinical involvement	16 (15.2)
Informal discussion with faculty	64 (61.0)
Resident conference	20 (19.0)
A specific rotation	1 (1.0)
Other	4 (3.8)
Not at all	18 (17.1)
Methodology of health care education for LGBTQ patients	
Lecture-based didactics	54 (51.4)
Case-based learning	15 (14.3)
Standardized patients or stimulation	0 (0.0)
Integrated case-based and lecture instruction	6 (5.7)
Other	6 (5.7)
Not applicable	24 (22.9)

A majority of respondents lacked familiarity with hormonal regimens for transgender patients (85%; $n=89$) or with the therapeutic recommendations prior to undergoing gender confirmation surgeries (77%; $n=81$) (Table 4). Concurrently, almost all (92%; $n=97$) desired more education on how to provide healthcare to LGBTQ patients (Table 4). Perceived barriers to receiving more training in LGBTQ healthcare included crowding in the curriculum (85%; $n=89$) and a lack of experienced faculty (91%; $n=96$) (Table 4).

Further, half ($n=52$) of respondents felt unprepared to provide healthcare for lesbian or bisexual patients and 76% ($n=80$) felt unprepared to provide healthcare for transgender patients (Table 5). Feeling prepared to provide healthcare for lesbian or bisexual patients was associated with attending a University-based program ($p=0.00$), working in a hospital with no religious affiliation ($p=0.01$), and year of residency ($p=0.04$) (Table 5). Feeling prepared to provide healthcare

Table 4 Respondent experience, barriers, and preparedness of LGBTQ health care curricula ($n = 105$)

	N (%)
"I have provided hormonal therapy for a transgender patient during residency."	
Yes, for male-to-female patient	0 (0.0)
Yes, for female-to-male patient	0 (0.0)
Yes, for both male-to-female and female-to-male patients	0 (0.0)
I do not know	2 (1.9)
No	103 (98.1)
"I am familiar with hormonal regimens transgender patients use for gender reassignment and transition."	
Strongly agree	1 (1.0)
Agree	9 (8.6)
Undecided	6 (5.7)
Disagree	50 (47.6)
Strongly disagree	39 (37.1)
"I am knowledgeable about the therapeutic recommendations for transgender patients prior to undergoing gender confirmation surgeries."	
Strongly agree	0 (0.0)
Agree	17 (16.2)
Undecided	7 (6.7)
Disagree	39 (37.1)
Strongly disagree	42 (40.0)
"During new patient visits or annual health maintenance visits, I ask my patients about their sexual preferences."	
Always	39 (37.1)
Usually	36 (34.3)
About half the time	16 (15.2)
Seldom	14 (13.3)
Never	0 (0.0)
Level of preparedness to provide health care for lesbian or bisexual patients	
Very prepared	12 (11.4)
Somewhat prepared	41 (39.0)
Somewhat unprepared	37 (35.2)
Very unprepared	15 (14.3)
Level of preparedness to provide health care for transgender patients	
Very prepared	2 (1.9)
Somewhat prepared	23 (21.9)
Somewhat unprepared	41 (39.0)
Very unprepared	39 (37.1)
Barriers to LGBTQ health care training/education	
Curriculum crowding	89 (84.8)
Limited faculty with LGBTQ health care expertise	96 (91.4)
Lack of resident interest	41 (39.0)
Lack of departmental support	67 (63.8)
Lack of institutional support	65 (61.9)
"Would you like to have more or less education about how to provide health care to LGBTQ patients?"	
A lot more	43 (41.0)
More	54 (51.4)
Same as current	6 (5.7)
Less	2 (1.9)
A lot less	0 (0.0)

Table 5 Factors associated with feeling prepared to care for lesbian and bisexual patients and transgender patients

		Prepared to care for lesbian or bisexual patients		Prepared to care for transgender patients	
		OR (95% CI)	*p* value	OR (95% CI)	*p* value
Year of residency	PGY3 or PGY4 *Ref = PGY1 or PGY2*	2.26 (1.04–5.01)	0.04	1.69 (0.68–4.42)	0.27
Sexual orientation	LGBQ and none *Ref = Heterosexual*	2.79 (0.86–10.77)	0.10	0.86 (0.18–3.04)	0.82
Gender identity	Cisgender male Others[a] *Ref = Cisgender female*	2.62 (0.81–10.14) 0.26 (0.01–1.86)	0.13 0.23	1.24 (0.31–4.14) N/A	0.74
Personal religious affiliation	Others[b] *Ref = no affiliation*	0.95 (0.43–2.09)	0.90	1.90 (0.74–5.36)	0.20
Program type	Community based *Ref = university based*	0.28 (0.12–0.64)	0.00	0.61 (0.22–1.53)	0.30
Hospital religious affiliation	Others[b] *Ref = no affiliation*	0.35 (0.15–0.76)	0.01	0.49 (0.18–1.25)	0.15
Hours spent on training to provide care for LGBTQ patients	≥1 hour *Ref = no training*	1.24 (0.53–2.92)	0.62	1.82 (0.65–5.95)	0.28
Form of education to provide health care for LGBTQ patients	Core Curriculum Grand Rounds Supervised clinical involvement Informal discussion Resident conference Other Not at all	3.03 (1.11–9.19) 1.93 (0.89–4.23) 3.51 (1.13–13.33) 2.53 (1.14–5.78) 1.25 (0.47–3.40) 0.31 (0.02–2.55) 0.31 (0.09–0.91)	0.04 0.10 0.04 0.02 0.65 0.32 0.04	2.43 (0.84–6.75) 2.88 (1.14–7.78) 5.87 (1.92–18.78) 2.46 (0.93–7.36) 1.49 (0.47–4.28) N/A 0.15 (0.01–0.82)	0.09 0.03 0.00 0.08 0.47 0.08
"I have experience outside of medicine working with LGBTQ groups."	No *Ref = yes*	0.54 (0.24–1.19)	0.13	0.65 (0.26–1.62)	0.35

[a]Other = non-binary gender, transgender female, transgender male, none of the above

[b]Other = Roman Catholic, Christian, non-Catholic, and other

for transgender patients correlated with grand rounds focused on LGBTQ health are training/education ($p = 0.03$) and supervised clinical involvement ($p = 0.00$) (Table 5).

Discussion

Ob/Gyns are often the first point of contact between LGBTQ patients and the healthcare system and yet receive anecdotally little training regarding how to optimally care for this patient population [12–14]. We sought to ascertain Ob/Gyn resident physicians' educational experiences and level of knowledge and preparedness around addressing LGBTQ patients' healthcare needs. We found that Ob/Gyn residents in Illinois receive inadequate education on treatment of LGBTQ health. Our findings were consistent with prior literature demonstrating lack of LGBTQ training across multiple sub-specialties including emergency medicine [23], plastic surgery [20], and urology [20] whose trainees often only receive 1 h or less of didactic LGBTQ training or education. Given that the vast majority of participants reported < 5 h lesbian, bisexual, and transgender healthcare education and nearly one-third of residents reported no training in the past year, it is not surprising that the majority of respondents endorsed a perceived lack of preparedness in caring for lesbian, bisexual, and transgender patients. Of note, previous experience working with LGBTQ groups outside of medicine did not increase preparedness, which emphasizes the need for training specifically in the medical curriculum. Furthermore, over 90% ($n = 97$) of participants expressed a desire for "more" or "a lot more" education on this topic. The findings of this study demonstrated that like many practicing physicians, the next generation of Ob/Gyns is not prepared to care for LBGTQ patients and highlight the need for curricular changes focused on LGBTQ healthcare competency.

This study identified key barriers to effecting such curricular changes, namely, crowding in curriculum and lack of experienced faculty to facilitate learning sessions on the topic of LGBTQ health. A systematic review of transgender medical education research demonstrated both of these barriers were persistently portrayed [21]. Furthermore, Vinekar et al. found that Ob/Gyn residency program

directors, whose programs currently lack transgender education for their residents, also perceived the lack of faculty expertise as a barrier to doing so [14]. Therefore, this study calls attention to the need for prioritizing the integration of LGBTQ health education into evolving curricula.

Residency and medical school programs across the nation have started to build LGBTQ health education curricula which can serve as a platform for creating Ob/Gyn standard curricula. The "Caring for LGBTQ Patients' curriculum, well received by family medicine residents and faculty, is a case-based small group curricula that includes interactive activities to evaluate baseline stereotypes and address barriers to care with goal of molding more empathetic healthcare providers [24]. The University of Louisville LGBT Health Certificate Program was created for medical students consisting of noon time lecture series with pre- and post-surveys and showed increases in participant health knowledge and general attitudes around the LGBT community [25]. Other published research demonstrated the benefit of having LGBTQ community members help design and facilitate training [26, 27]. Collaborative work between the University of Pittsburgh School of Medicine and a physician-led group (including experts in LGBTQ health) created a case-based interactive discussion curriculum which demonstrated improved attitudes and knowledge of residents. This project simultaneously improved faculty knowledge on LGBTQ health as they received learning materials serving as facilitators for the planned discussions [27]. This demonstrated that standardized curricula and materials can be created by experts and then taught by non-expert faculty members [27]. These are all stepping stones to provide standardized curricula to Ob/Gyn.

This study describes a deficit in Ob/Gyn training in LGBTQ health; however, generalizability of the findings may be limited by the response rate of 41% ($n=105$) despite multiple efforts to contact non-responders. Also, geographic distribution of residents was restricted to programs in Illinois. However, the responses that were obtained included residents in both university and community-based programs, a diverse range of religious backgrounds, and a balanced number from the various PGY levels. Thus, we believe that our results represent a broad range of perspectives and allow our findings to be generalizable. An additional limitation of the study is that 82% ($n=86$) of participants identified as cisgender female and 87% ($n=91$) identified as heterosexual. As a result, non-response and self-selection bias must be considered when interpreting survey results. Further, while certain demographic and background training information were obtained from survey respondents, the survey did not include any questions on personal bias toward the LGBTQ population. Future studies should include a measure of bias and explore the implications of inherent bias on preparedness.

The findings of this study raise the concern that Ob/Gyn residents are not prepared to care for LGBTQ patients and demonstrate a clear need to integrate more teaching on LGTBQ health in residency training. These findings compliment studies indicating that patients similarly desire additional training for their healthcare providers [6, 7]. Therefore, it is evident that both providers and patients alike are abundantly aware of this insufficiency in residency training. Barriers in LGBTQ healthcare training include perceived scarcity of time and curricular space for the topic as well as the lack of trained providers. Future work would ideally aim to design standardized, concise curricula that could be shared among Ob/Gyn residency programs, thereby facilitating the integration of teaching even in the setting of lack of experienced providers. Only by making time in the current Ob/Gyn training curriculum will we rectify the lack of experienced providers in LGBTQ health and be prepared as a profession to provide a level of healthcare that matches the hard fought advances in other areas of LGBTQ rights.

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Author Contribution Rebecca Muscanell, Karla Daniela Guerrero-Hall, and Julie Chor conceived of the presented idea and designed the survey. Rebecca Muscanell and Karla Daniela Guerrero-Hall administered the survey and contacted the survey sites. Rebecca Muscanell, Karla Daniela Guerrero-Hall, Sang Mee Lee, and Julie Chor performed the calculations and analyzed the data. Rebecca Muscanell, Karla Daniela Guerrero-Hall, Iris Romero and Namrata Garg, Sang Mee Lee, and Julie Chor contributed to the interpretation of the results. All authors contributed to writing the manuscript, provided critical feedback to help shape the final manuscript, and approved this version for submission.

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Declarations

Ethics Approval The study was deemed exempt by the University of Chicago Institutional Review Board on 10/25/2017 (IRB17-1506).

Informed Consent The University of Chicago Institutional Review Board waived the need for informed consent for this project, given the minimal risk and exempt status.

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