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Family Medicine

BRIEF REPORT

Improving Family Medicine Residents' Provision of Gender-Affirming Care

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ABSTRACT

Background and Objectives: Family physicians are uniquely poised to provide gender-affirming care (GAC) to transgender and nonbinary patients, but current undergraduate and graduate medical education in this field is lacking. Little is known about the impact of various GAC curricula on the clinical care provided by resident physicians. We aimed to assess the efficacy of a multimodal educational framework on the quality of GAC provided by residents at a large academic family medicine program.

Methods: This pilot study used chart review to assess the impact of a multifaceted educational intervention around GAC in an academic family medicine practice. Components included faculty-specific didactics, resident feedback and didactics, standardized note templates, and compiled resources. We completed pre- and postintervention analysis of resident-led GAC encounters using a novel rubric based on standards of care and compared these results using descriptive statistics.

Results: Following a multimodal educational intervention, residents demonstrated improvement in multiple domains of gender-affirming care, including documenting informed consent, counseling on pregnancy and contraception, and laboratory monitoring for patients initiating gender-affirming hormone therapy.

Conclusions: This widespread improvement suggested that a multimodal approach to resident and faculty education may help enhance the quality of GAC provided by family medicine residents. Chart review offers a feasible and effective method for identifying gaps in resident knowledge and documentation in GAC. Further research should specifically explore faculty development in this area and expanded patient-centered quality metrics and outcomes that encompass GAC.

INTRODUCTION

Transgender and nonbinary (TGNB) individuals experience marked health disparities compared to the general population, reflecting a complex network of extrinsic factors including discrimination, chronic traumatic stress, and limited health care access.[1–3] Multiple studies have demonstrated that gender-affirming care (GAC) improves TGNB patients' physical and mental health.[4] As practitioners of comprehensive, lifelong care across diverse settings, family physicians are uniquely poised to expand access and promote equity by providing GAC within their communities.[5]

Like any medical treatment, GAC may introduce clinical and psychosocial harm if provided without adequate training; training is particularly critical given the layers of marginalization faced by TGNB individuals.[1,3] Because of the long-standing exclusion of TGNB experiences from medical education,[6] both new and experienced providers may lack the necessary skills to provide GAC safely, effectively, and confidently.[7,8]

Medical education has begun addressing these gaps. A 2022 review identified 36 medical education studies on sexual and gender minority health, with six exclusive to resident education.[9] In 2020, more than half of family medicine residency program directors reported including GAC in their curricula, typically via didactic sessions.[10] However, little data exist on the scope and efficacy of these curricula, such as correlation between performance on postdidactic knowledge assessments and quality of care provided. Furthermore, while lack of faculty expertise is recognized as a barrier to resident education in GAC, research on faculty development is lacking.[9] To that end, a 2022 study at a family medicine residency used retrospective chart review to assess providers' adherence to GAC guidelines during clinical encounters with TGNB patients.[11] This technique enabled the authors not only to assess GAC as a clinical competency but also to measure the effectiveness of their intervention.

While a growing number of our program's residents have elected to provide GAC for adult patients in their continuity panels, relatively few of our faculty currently provide GAC. This discrepancy presents a critical opportunity to pilot and assess a multimodal educational intervention for improving provision of GAC among family medicine residents. Building on the work of Urlich et al,[11] we developed a novel pre- and postintervention chart review rubric to directly evaluate our intervention's impact on quality of care and documentation within resident-led GAC encounters.

METHODS

This pilot study was conducted at a large, university-affiliated family medicine residency program and comprised the development and implementation of a multifaceted GAC educational intervention, along with pre- and postintervention chart review.

Educational Intervention

Between January and May 2023, a small group of residents and faculty with professional GAC experience and lived experience within the LGBTQ+ community (including one TGNB-identifying provider) implemented an original, multifaceted GAC educational intervention (Table 1). Faculty attended a mandatory 90-minute didactic consisting of a lecture and case-based discussions. All residents, who had participated in a mandatory 2-hour GAC didactic earlier in the year, received an e-mail with compiled feedback on gaps identified during preintervention chart review. We also held two optional educational sessions for residents and faculty covering more advanced GAC topics and an optional 1-hour presentation on creating an affirming clinic environment.

Additionally, we developed and distributed multiple documentation templates for GAC visits, including suggested questions for new patients, standard language for hormone counseling and informed consent, and reminders about contraception, monitoring labs, medication dosing, and follow-up intervals. Lastly, we compiled dosing guidelines, counseling guides, and educational handouts into a physical binder in the residents' workspace as well as distributed this information electronically to all resident/faculty providers.

Pre- and Postintervention Chart Review

We reviewed all resident-led GAC encounters at our central resident clinic site from January 2023 (preintervention) and May 2023 (postintervention) using an Epic (Epic Systems Corp) report of all visits associated with gender dysphoria and related diagnoses (ICD F64.0). For each January encounter, we also evaluated any other GAC encounters between that same resident and patient dating back to July 2022. We reviewed a total of 32 charts preintervention and 25 postintervention, from a total of 12 residents.

We developed a rubric to assess each encounter against GAC standards from the World Professional Association for Transgender Health and the University of California at San Francisco.[12,13] Rubric components included documentation of informed consent, gender dysphoria criteria, chosen name/pronouns, pregnancy risk and/or contraception (for patients assigned female at birth [AFAB]), appropriate lab orders, medication dosing, health maintenance, and timing of follow-up visits. Given our small number of participants, we compared pre- and postintervention data for each component using only descriptive statistics. Because we conducted this study as a quality improvement project, our institution's Institutional Review Board (IRB) determined that IRB approval was not necessary.

RESULTS

Preintervention chart review revealed several knowledge and documentation gaps. Only three of 17 new patient encounters documented verbal or written consent prior to hormone initiation (17.6%; Figure 1). For AFAB patients, less than half of encounters (45%, n=20) included documentation of pregnancy risk and/or contraception use. Additionally, more than half of patients received unnecessary labs prior to initiation of testosterone (55%, n=11) and estrogen (60%, n=5; Figure 2).

Postintervention chart review demonstrated improvement across nearly all domains. All postintervention encounters appropriately documented patient name (n=25), pronouns (n=25), and informed consent prior to hormone initiation (n=7). Documentation of pregnancy risk and/or contraception for AFAB patients improved from 45% to 82%. Collection of appropriate baseline labs improved from 60% to 100% for Estradiol-associated encounters and from 45% to 75% for testosterone. Collection of appropriate follow-up labs remained consistent at 100% for Estradiol and improved from 70% to 89% for testosterone. The percentage of lab results within an appropriate range was consistently high pre- and postintervention.

DISCUSSION, LIMITATIONS, AND NEXT STEPS

Unlike traditional knowledge assessments, chart review may objectively assess how residents translate knowledge into practice. Our documentation templates were likely a major driver of improvement in appropriate medication dosing, lab monitoring, consent documentation, and other rubric domains by reinforcing knowledge from prior didactics. With this said, we acknowledge that quality of documentation does not always reflect quality of care, particularly when using prewritten templates. Furthermore, our evaluation approach does not assess interpersonal communication, physical exam techniques, or other skills requiring direct observation.

Additionally, our study population constituted a self-selected subgroup of residents who choose to provide GAC within their continuity clinic, limiting generalizability to all family medicine residents. This limitation reflects the practical reality that until GAC is mandatory within family medicine training, it will be provided predominantly by those with a special interest in this care. We have withheld demographic information regarding our 12 resident participants to preserve confidentiality given our small number of participants.

TABLE 1. Spring 2023 GAC Educational Interventions for Residents and Faculty

Educational intervention	Format	Content
Faculty didactic	Ninety-minute didactic exclusively for faculty during a required monthly faculty education session	• Areas of growth identified during preintervention chart review; emphasis on areas residents could use additional supervision from faculty • Overview of GAC, including hormone therapy. • Case discussion • Resident/preceptor role play
Resident feedback	Written, distributed to all residents in consolidated format	• Areas of growth identified during January chart review
Resident didactic	Two-hour didactic for all residents during intern year (Note: This didactic occurs annually in the fall and took place prior to the study.)	• Basics of GAC, including hormone therapy • Example timeline for initiation of hormones, follow-up, and lab monitoring • Case-based discussion • Institutional resources
Advanced GAC didactics	Two optional sessions, each 90 minutes long; open to faculty and residents; predominantly case-based small-group discussion	• Adolescent GAC, including puberty blockers and gender-affirming hormones • GAC for more medically complex adults; emphasis on venous thromboembolism and cardiovascular disease
Standard note templates	Templates created in electronic medical record (Epic SmartPhrases) and distributed to all providers	• New patient and follow-up visits for GAC • Assessment and plan with documentation of consent, recommended lab monitoring, and recommended medication dosing • Recommended questions to ask patients • Sample script for counseling on hormones and timeline for physical changes
Physical and electronically compiled resources	Binder in resident workroom, electronic version available to all providers	• Medication dosing guides • Suggestions for lab monitoring and timeline for follow-up • Discussion guide/consent forms • Patient education handouts • Community resources

Abbreviation: GAC, gender-affirming care

FIGURE 1. Comparing Resident Documentation of Essential Components of Gender Affirming Care Pre- and Postintervention

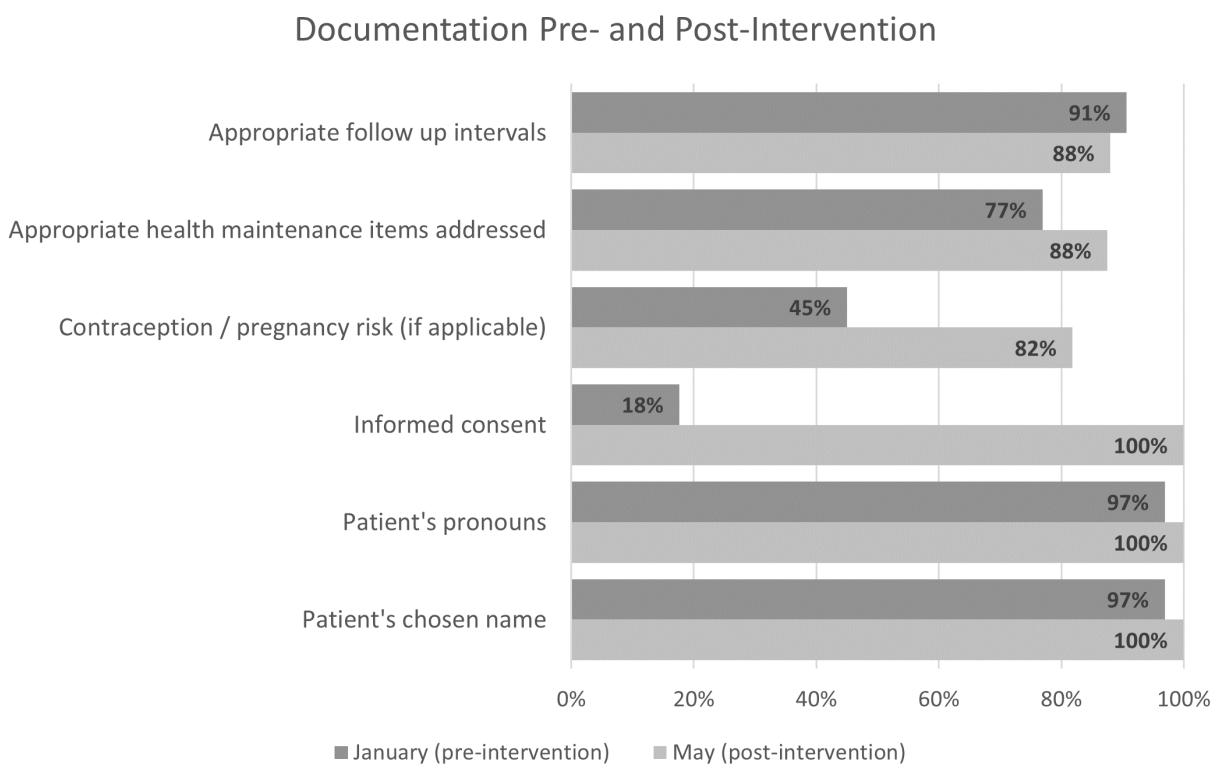

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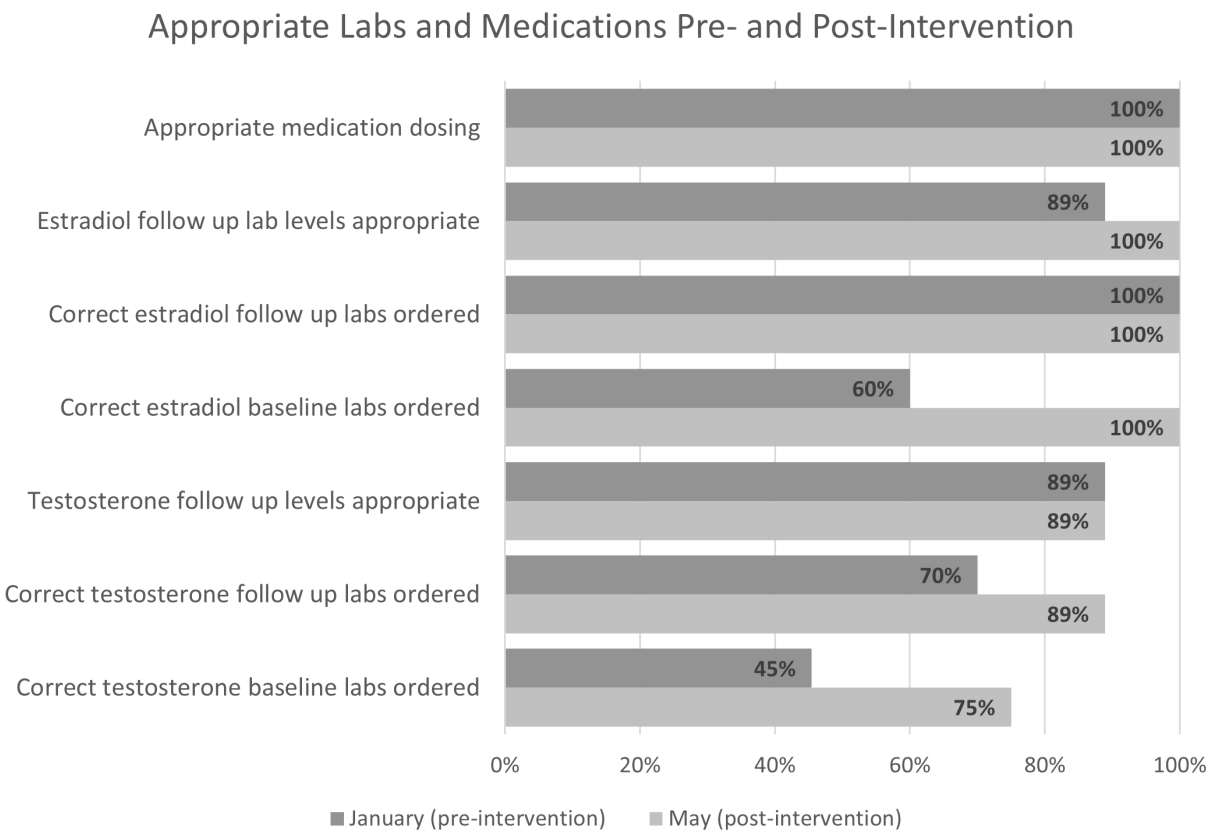
FIGURE 2. Comparing Appropriate Clinical Management in Medication Dosing and Laboratory Monitoring of Gender-Affirming Hormones Pre- and Postintervention



We look forward to expanding this single-site intervention into a full-fledged GAC curriculum for residents and faculty preceptors across all of our department's practice sites. We plan to evaluate current and future participants longitudinally using chart review, traditional knowledge assessments, and direct clinical observation by faculty experienced in GAC, while soliciting resident, faculty, and patient feedback regarding specific intervention components.

CONCLUSIONS

Like many residency programs, we are navigating new educational frontiers in GAC. Despite prior didactics, our preintervention chart review identified multiple knowledge and documentation gaps, which largely improved following our multimodal educational intervention. We are excited by the potential of this intervention, along with our innovative evaluation rubric, to expand the workforce of clinicians providing high-quality GAC in service of a more inclusive, equitable future for our learners and patients alike.

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