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ORIGINAL RESEARCH

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Fulfilled but worn out: gynecologic oncologists experience high levels of compassion satisfaction and compassion fatigue

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Abstract

Professional quality of life is composed of both positive (compassion satisfaction) and negative (compassion fatigue) components. The objective of this study was to evaluate the professional quality of life among gynecologic oncologists measured through compassion satisfaction and compassion fatigue. An anonymous Research Electronic Data Capture (REDCap) survey was sent to the Society of Gynecologic Oncology (SGO) members. The survey was composed of a brief questionnaire assessing basic demographics followed by the ProQOL 5 survey, a validated scale assessing professional quality of life. This scale measures compassion satisfaction and compassion fatigue. Compassion fatigue is measured in terms of its two components—burnout and secondary trauma. ProQOL revealed that most respondents had moderate (57%) or high compassion satisfaction (41%). However, the majority also had moderate to high levels of burnout and secondary trauma (65% and 50%, respectively). Increasing age was associated with increased compassion satisfaction (B = 0.192, $p = 0.04$) and lower rates of burnout (B = −0.217, $p = 0.02$). Those in a strictly academic practice environment were 2.13 times more likely to experience moderate or high levels of burnout ($p = 0.04$). Female identifying participants were 2.6 times more likely to report moderate or high secondary trauma ($p = 0.02$). Additionally, those with childcare plans that were altered by the COVID-19 pandemic were 5.5 times as likely to have moderate or high burnout scores ($p = 0.004$). In conclusion, gynecologic oncologists experience high levels of compassion satisfaction. However, they also experience a significant amount of compassion fatigue as demonstrated by the moderate to high level of burnout and secondary trauma. Sociodemographic factors such as age, gender, type of practice, and presence of parental responsibilities may place some individuals at higher risk for compassion fatigue.

Keywords

Burnout; Compassion satisfaction; Compassion fatigue; Professional quality of life

1. Introduction

Patients cared for by gynecologic oncologists are often acutely or chronically ill with poor prognostic outcomes. By providing both surgical and medical care during the entire trajectory of a patient's cancer diagnosis, gynecologic oncologists are encouraged to exhibit large amounts of critical thinking, patience, and empathy every day [1, 2]. While this care can be extremely fulfilling, it may also put these providers at increased risk of burnout and compassion fatigue. For example, a survey of gynecologic oncologists reported 32% of respondents screening positive for burnout [2, 3]. This finding was re-demonstrated when Davidson, *et al.* [4] described burnout in 24–48% of SGO members, depending on sex and practice model, according to the 2022 State of the Society survey. While the etiology of this burnout is likely multi-factorial, certainly the stress of encountering life-threatening illness on a day-to-day basis likely contributed to burnout levels observed among gynecologic oncologists [2].

Stamm *et al.* [5] describes burnout as one component of compassion fatigue. According to Stamm, compassion fatigue and compassion satisfaction create the two aspects of professional quality of life. Compassion satisfaction refers to the positive aspects of work experience, things that bring about feelings of accomplishment and enjoyment [5]. The definition of compassion fatigue has been debated over the years, with some researchers considering it synonymous with burnout or secondary traumatic stress disorder [6–8]. Stamm combined the two to create this understanding of compassion fatigue, a broader concept to describe the negative aspects of one's job, particularly those with caregiver roles [5]. There has been a considerable amount of focus on compassion fatigue

within healthcare, in which compassion fatigue has been associated with decreased compassionate actions towards others, decreased work satisfaction, and increased turnover intention [9].

Professional quality of life reveals how satisfied a provider is with their current job and represents the give and take between compassion satisfaction and compassion fatigue. While there is a growing body of literature supporting the prevalence of burnout in physicians such as gynecologic oncologists and other healthcare providers, there is limited information regarding the professional quality of life experienced by gynecologic oncologists [10–13]. Prior studies have associated gender and age as risks of burnout in physicians. When looking deeper at the role younger age and female gender may play on burnout and quality of life, many postulate that young, female providers may be more likely to act as primary care taker for children in the house and experience additional stressors related to that role. However, there is limited and conflicting literature regarding the role parenthood and children have on burnout and the professional quality of life of physicians [14–16].

This study sought to evaluate gynecologic oncologists' professional quality of life and identify demographic factors that may be associated with increased levels of compassion fatigue.

The COVID-19 pandemic introduced numerous new challenges in both the workspace and home-life of health care providers. In a study evaluating stressors of the pandemic on women in academia, almost all reported changes in their responsibilities as a parent and increased stress related to those responsibilities [17]. By recognizing the potential magnification of this unique potential contributor, this survey further examined the potential affects childcare may play on a physician's professional quality of life.

2. Methods

2.1 Participants

An anonymous survey was sent to the members of the Society of Gynecologic Oncology (SGO) using the Research Electronic Data Capture (REDCap) software between August and September 2021. An initial email invitation followed by 2 additional reminder emails one month apart were sent to all list serv members. All attending-level gynecologic and medical oncologists that were listed in the organization list serv were eligible to participate. All surveys were completed between August and September 2021.

2.2 Data collection

The survey was composed of two parts. The first portion assessed basic demographic information such as age, gender, practice environment and questions regarding children and childcare if applicable. Given the timing of the project, it also assessed how the COVID-19 pandemic affected work type and home stressors such as childcare.

The second part was the ProQOL survey, a validated survey that evaluates the positive and negative aspects of helping others as a marker of professional quality of life [5]. The ProQOL is a series of 30 statements. Respondents report how frequently they experience those things—never, rarely, sometimes, often, or very often. These statements are built to assess both compassion satisfaction and burnout and secondary trauma—the two components of compassion fatigue. A score of 22 or less is considered a low level of compassion fatigue or satisfaction. A score of 23–41, and greater that 42 is considered moderate and high levels, respectively.

The external validity of the ProQOL is strong with over 200 publications and almost half of all research publications related to compassion fatigue utilizing the ProQOL survey. The ProQOL's three sections focusing on compassion satisfaction, burnout, and secondary trauma are all scored separately with alpha scale reliability of 0.88, 0.75 and 0.81, respectively. The compassion fatigue scale shows 2% shared variance with secondary trauma and 5% shared variance with burnout [5].

2.3 Statistical analysis

Descriptive statistics were calculated for sociodemographic variables and to determine scores of the ProQOL among this population. Means and standard deviations were calculated for continuous variables and counts and percentages were calculated for categorical variables. The ProQOL was scored and multivariable linear regression models were used to analyze sociodemographic data and compassion satisfaction or compassion fatigue using age, practice model, gender, and ethnicity as predictors or independent variables. Scores on the ProQOL compassion fatigue subcategory (burnout and secondary trauma) were grouped into low versus moderate/high. Logistic regression was utilized to analyze sociodemographic data and the relationship between the compassion fatigue subcategories. SPSS (Version 28.0, IBM Corp, Armonk, NY, USA) was used for the data analysis.

3. Results

3.1 Participants

A total of 1241 survey invitations were sent out *via* e-mail. 151 (12%) of invited members fully completed all portions of the survey. Sociodemographic variables are shown in Table 1.

The median age was 46 years. The majority identified as female (60.5%), white (76.4%), non-Hispanic (95.4%). Academic institutions were the most common practice environment (56.1%), followed by mixed practice (25.2%), and private practice (18.7%). Two thirds worked in an Urban location. The majority of respondents had greater than 15 years of experience since completing fellowship (36.9%), while 22.9% had less than 5 years of experience. Most (60.3%) had children under the age of 18.

3.2 ProQOL results

The results of the ProQOL survey are summarized in Fig. 1. A total of 98.6% had moderate or high compassion satisfaction scores. However, 65.3% and 50.4% had moderate or high burnout and secondary trauma scores, respectively. Linear regression found increasing age to be associated with increased compassion satisfaction scores (B = 0.192, p = 0.041) and lower burnout scores (B = −0.217, p = 0.019). A trend towards those identifying as male having lower burnout scores and

TABLE 1. Sociodemographic variables.

	N (%)
Sex	
Male	60 (38.2)
Female	95 (60.5)
Prefer not to answer	2 (1.3)
Race	
White	120 (76.4)
Black	1 (0.6)
Asian	17 (10.8)
Multi-racial	10 (6.4)
Other	9 (5.7)
Hispanic or Latinx	
Yes	7 (4.6)
No	146 (95.4)
Practice environment	
Private Practice	29 (18.7)
Academic Institution	87 (56.1)
Mixed	39 (25.2)
Practice location	
Urban	105 (66.9)
Suburban	46 (29.3)
Rural	6 (3.8)
Time since fellowship completion	
<5 yr	36 (22.9)
5–10 yr	36 (22.9)
11–15 yr	27 (17.2)
>15 yr	58 (36.9)

lower secondary trauma scores was also found (B = −0.181, $p = 0.051$; B = −0.179, $p = 0.063$). Logistic regression results demonstrated those in academic-based practice environments were 2.13 times more likely to report moderate or high burnout scores ($p = 0.036$) and increasing age was associated with reduced moderate and high burnout scores (OR (odds ratio): 0.96, $p = -0.044$). Women were 2.6 times more likely to report moderate or high secondary trauma compared to those identifying as male ($p = 0.022$). Complete data from the linear and logistic regression can be found in the **Supplemental Table 1**.

3.3 Childcare during the COVID-19 pandemic

The effects of the COVID-19 pandemic are summarized in Table 2. The majority of respondents reported a stable patient volume throughout the pandemic (64.2%), and only 3.3% reported being cross-deployed to care for COVID-19 patients solely. The responses regarding children and childcare are shown in Table 3. The majority of respondents (60.3%) reported having a child 18 years or younger or a child greater than 18 years old who requires care or supervision. The majority (83.2%) report having a partner or family member who completes childcare responsibilities during the week. 34.1% of respondents had their childcare plans affected by the COVID-19 pandemic.

TABLE 2. Impact of COVID-19 pandemic on clinical practice.

	N (%)
Patient Volume	
Increased	25 (16.6)
Stable	97 (64.2)
Decreased	29 (19.2)
Cross-Deployed	
Yes	5 (3.3)
No	146 (96.7)

TABLE 3. Detailed information regarding demographics relating to children.

	N (%)
Do you have a child at home?	
Yes	91 (60.3)
No	59 (39.1)
Are you the primary care organizer?	
Yes	48 (51.1)
No	46 (48.9)
Do you work a reduced schedule?	
Yes	6 (6.3)
No	89 (93.7)
Primary form of childcare	
Partner	25 (26.3)
Other family members	2 (2.1)
Full-time nanny/au pair	18 (18.9)
Daycare	11 (11.6)
Combination	27 (28.4)
Other	12 (12.6)
Did COVID-19 affect childcare plans?	
Yes	32 (34.0)
No	62 (66.0)

A sub-analysis of respondents whose childcare plans were affected by COVID-19 was completed and the results are shown in Fig. 2. Those respondents who had their childcare altered by COVID-19 were 5.5 times as likely to have moderate or high burnout scores (OR: 5.5, $p = 0.004$). Multivariable logistic regression noted that increasing age (OR: 1.09, $p = 0.023$), white ethnicity (OR: 3.4, $p = 0.028$), and identifying as female (OR: 4.77, $p = 0.025$) were associated with moderate or high secondary trauma scores in this subgroup. Additionally, women in this group were 3.43 times as likely to experience moderate or severe burnout when compared to those who did not identify as female (B = 1.23, $p = 0.05$).

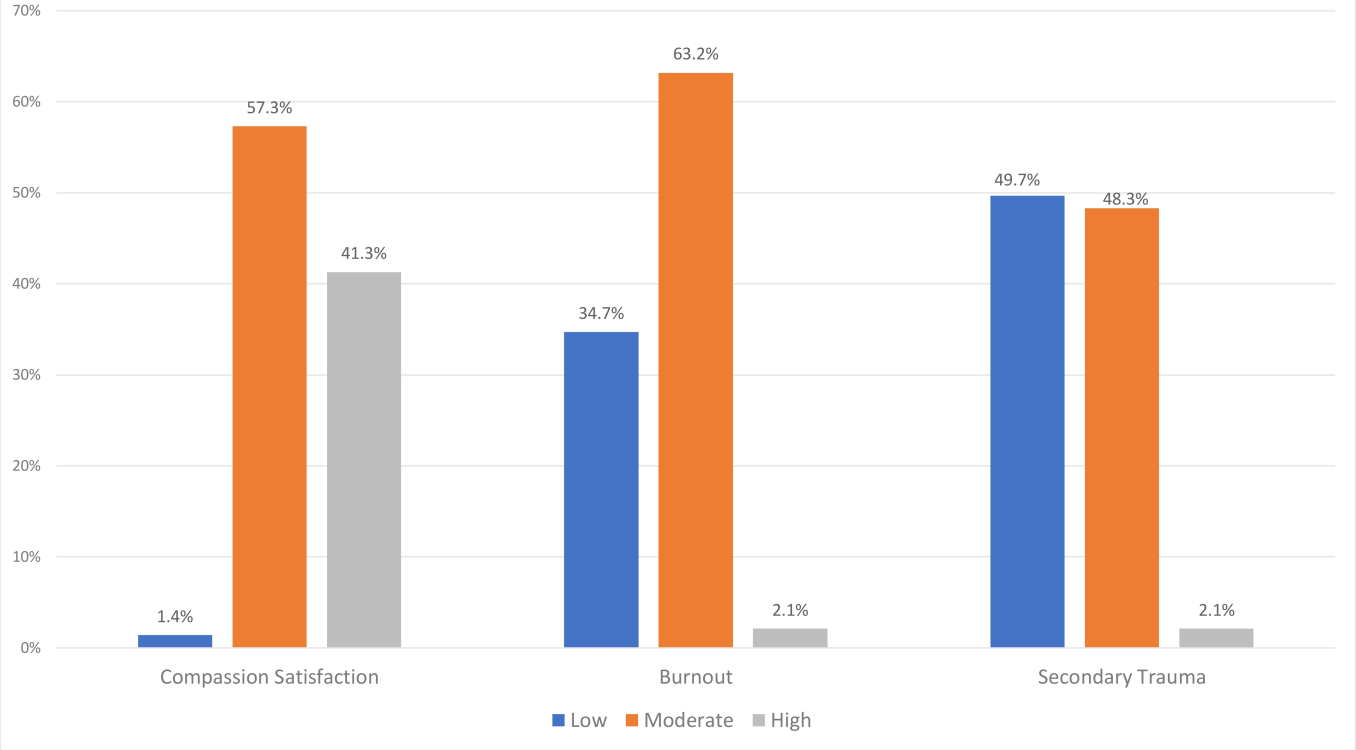

FIGURE 1. The results of the ProQOL survey*. *Scores 22 or less, 23–41, 42 and greater were considered low, moderate and high, respectively.

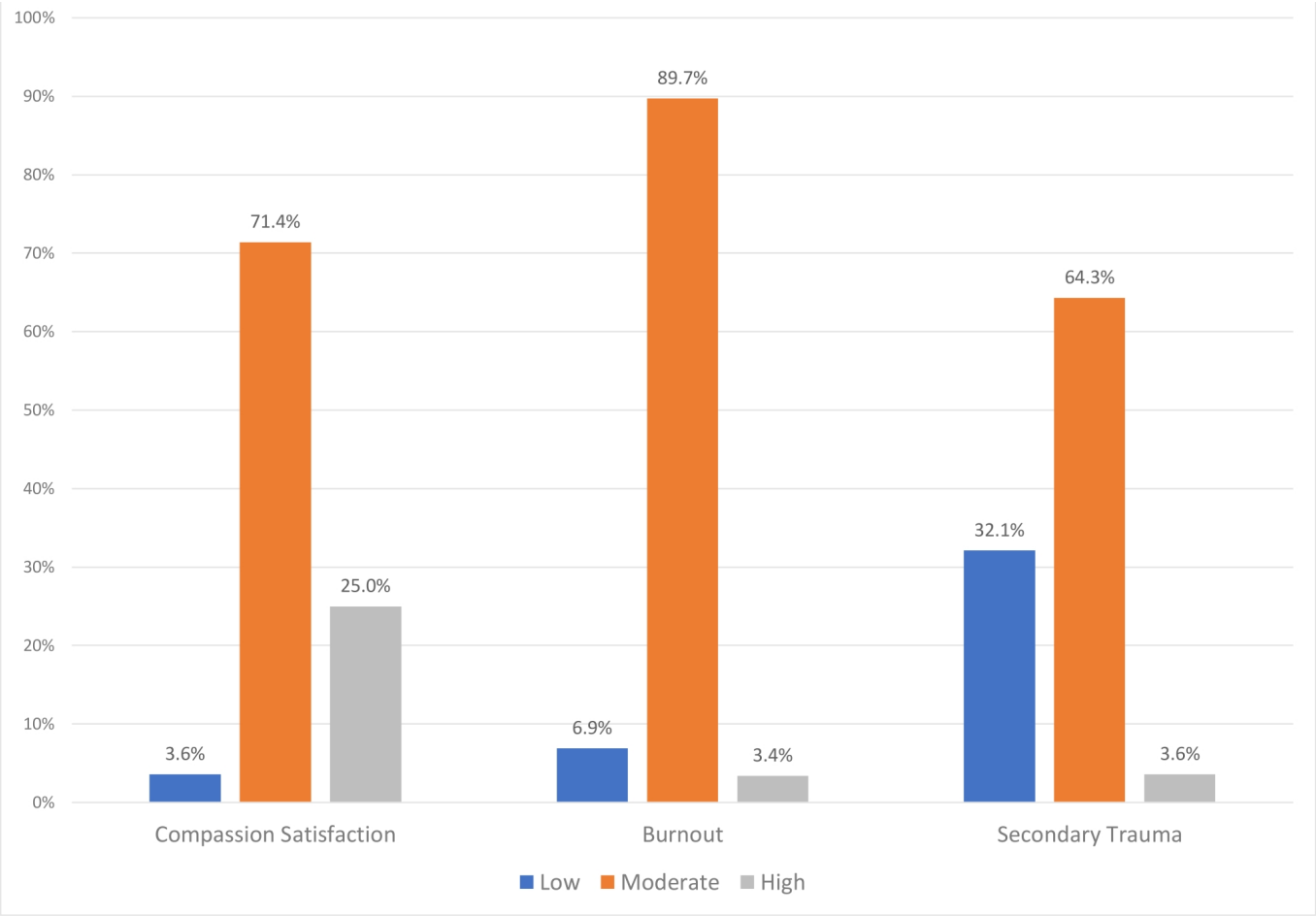

FIGURE 2. ProQOL results from respondents who had childcare plans altered by Covid-19*. *Scores 22 or less, 23–41, 42 and greater were considered low, moderate and high, respectively.

4. Discussion

This study is the only one we are aware of to investigate the professional quality of life of gynecologic oncologists. It demonstrated that although a challenging field, gynecologic oncology is very rewarding to the individual provider. Most gynecologic oncologists in our study experience high levels of satisfaction from the work that they do helping others as indicated by their high compassion satisfaction scores. However, gynecologic oncologists also appear to experience moderate to high levels of burnout, secondary trauma and compassion fatigue related to their work. A multitude of factors likely influence why these providers experience such negative impact from their work. This survey showed younger age, female gender, academic practice, and childcare stressors may increase one's risk of burnout, secondary trauma, and overall compassion fatigue.

It is well documented that female gender and younger age are risk factors for burnout across a variety of medical specialties and this data supports that they are also risk factors for decreased professional quality of life among gynecologic oncologists [2–4, 12, 18, 19]. It is thought that the disproportionate amount of female physicians experiencing burnout may be related to the fact that full-time working women are more likely to assume the majority of household responsibilities compared to men who work full-time despite continually evolving gender roles in society [20]. Additional studies cite the "leaky pipeline" of academic medicine to be a major contributor to female physician burnout. This concept is further highlighted by the fact that women begin as 46% of the physician workforce but represent and much more limited portion of department chairs and full-time professors, 18% and 23%, respectively [21]. It is likely that the gender disparity within physician burnout rates is multi-factorial.

Respondents who reported working in an academic institution were found to be 2.13 times more likely than those working in a private or mixed practice to have moderate to high burnout scores. Increased work hours, administrative responsibilities and call burden have been shown to increase emotional exhaustion [22]. Additionally, decreased autonomy has been associated with higher rates of burnout and compassion fatigue. Large academic institutions have set salaries, benefits, clinic organization patterns that attempt to decrease the administrative burden of the provider but this also decreases the autonomy of their practice. Whether those in academic practice perceive higher work burden or lower autonomy has not been clearly evaluated but could be a contributing factor to the association seen in our study.

During the unique time of the COVID-19 pandemic, the majority of our responders reported a stable patient volume and only 3% were cross-deployed. This implies that the practice of gynecologic oncology was pressured to continue as it had prior to the pandemic despite a continually evolving and unprecedented time in medical history. Health care providers have been identified as one of the most affected groups during the pandemic due to the need for them to balance the health and safety of themselves and their families with that of their patients [17, 23]. While pre-existing individual provider responsibilities were maintained, additional stressors were introduced into the work-place and into home life, particularly for the 35% of respondents who had childcare plans altered due to the pandemic.

Having children has been shown to be both a protective factor and a risk factor for burnout among a variety of healthcare providers. In a large survey to the members of the American College of Surgeons in 2008, having children was associated with lower rates of burnout [14]. On the contrary, a survey among over 300 physical and occupational therapists found an increasing number of children to be associated with increasing burnout scores according to the Maslach Burnout Inventory [16]. And a third study among mental health providers in the military found parenthood not to be associated with burnout in either direction [15]. Our study shows the added stressor of acquiring and organizing childcare impacted by the COVID-19 pandemic was associated with increased rates of moderate and high compassion fatigue. It may be hypothesized that the presence or absence of children in the home may not be the factor at play but rather the added responsibility of caring for another person outside of work. Childcare options and support for physicians who choose to have families presents an additional, tangible target to decrease the potential emotional exhaustion of healthcare providers. Employer-provided childcare or childcare subsidies have been found to increase workplace productivity, decrease employee absenteeism and decrease employee turnover in non-healthcare specific studies [24, 25]. It is reasonable to extrapolate the same improvement in productivity and employee retainment may be experienced within the healthcare system.

Despite its strengths, there are some limitations to this study to discuss. The response rate to the survey was lower than expected and resulted in a limited sample size with inherent selection bias. However, this response rate is considered reasonable for a survey such as ours without incentives for participation (*e.g.*, gift cards or other such reimbursement) which usually have response rates ranging from 6–20% [26]. While there was not significant diversity seen among the respondents, the demographics do appropriately mirror the overall demographics of SGO as per the most recent SGO State of the Society survey. As mentioned above, the results of our survey have an inherent selection bias, as those inclined to respond to the survey may have a particular interest and emotional investment in the topic. Additionally, as previously mentioned, this study only began to evaluate the associations with compassion satisfaction and compassion fatigue but does not evaluate all contributing potential factors or address potential solutions.

Acknowledging physician burnout within the field of gynecologic oncology is only the first step on a long road to implementing systems changes to better the experience for providers and patients within the field. There continues to be a large space for continued study on possible interventions and solutions as well as space to further delve into why we see associations with gender, age, practice setting, and parental responsibilities. Interpersonal solutions to improve rates of burnout and compassion fatigue, such as mindfulness, positive psychology, and group coaching sessions have been successful in some settings, but they have not been successful in improving all factors contributing to burnout [21]. Additionally, they fail to identify or address the true underlying causes related to

this association.

5. Conclusions

Our study highlights the benefits that gynecologic oncologists experience from their jobs but also highlights the stressors experienced by many of our respondents. Financial incentive and organizational support will be needed to implement changes and systemic improvements. Ultimately, increasing research needs to be done to evaluate what structural changes can be made to improve the rates of burnout and compassion fatigue in order to improve the quality of life experienced by gynecologic oncology physicians. Acknowledging and supporting gynecologic oncologists experiencing work related stress will allow these physicians to continue their mission of caring for women needing the uniquely comprehensive cancer care provided by gynecologic oncologists.

AVAILABILITY OF DATA AND MATERIALS

The data from this study are contained within this article. Additional data are available upon request from the corresponding author.

AUTHOR CONTRIBUTIONS

LB—Involved in design of the project, collected and reviewed data, drafted and revised the manuscript, approved the final manuscript. MS—Involved in conception and design of the project, data interpretation, drafted and revised the manuscript, approved the final manuscript. LP—Involved in conception and design of the project, drafted and revised the manuscript, approved the final manuscript. AB—Involved in conception and design of the project, collected and reviewed data; data analysis and interpretation, drafted and revised the manuscript, approved the final manuscript.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was approved by the Institutional Review Board at our institution (#211100). Information regarding the study was included at the beginning of the survey. By completing the survey, each participant consented to participate in the study.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

SUPPLEMENTARY MATERIAL

Supplementary material associated with this article can be found, in the online version, at https://oss.ejgo.net/files/article/1735533155989766144/attachment/Supplementary%20material.docx.

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