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# Burnout, compassion fatigue, and compassion satisfaction among obstetrics and gynecology resident physicians in the Philippines: A cross-sectional study

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## Abstract:

**INTRODUCTION:** Physician burnout (BO) is an increasing global concern due to its rising prevalence and effect on patient care.

**OBJECTIVE:** This study determined the prevalence of BO, compassion fatigue (CF), and compassion satisfaction (CS), among residents of obstetrics and gynecology in the Philippines, and identified the factors associated with these.

**METHODS:** This was a cross-sectional study, which used stratified random sampling. The strata comprised public and private hospitals that were subdivided into Luzon, Visayas, Mindanao, and National Capital Region. From these, 33 training hospitals were randomly selected, which served as clusters wherein all resident physicians of obstetrics and gynecology were invited to answer either an online or printed version of the Professional Quality of Life Scale Version 5 questionnaire.

**RESULTS:** Majority of the 311 participants included had average level of BO ( $n = 281, 90.4\%$ ), CF ( $n = 237, 76.2\%$ ), and CS ( $n = 213, 68.5\%$ ). CS was negatively correlated with burnout ( $r = -0.31, P < 0.001$ ) and CF ( $r = -0.34, P < 0.001$ ), whereas BO and CS were positively correlated ( $r = +0.48, P < 0.001$ ). Type of institution, sleeping hours, and interrupted leaves were the common factors that yield significant differences in BO ( $P = 0.037, P < 0.001, \text{ and } P < 0.001$ ) and CF ( $P = 0.002, P = 0.043, \text{ and } P = 0.005$ ). Significant differences were observed in CS scores in terms of age ( $P = 0.016$ ), marital status ( $P = 0.038$ ), child dependents ( $P = 0.006$ ), level of training ( $P = 0.005$ ), and location and type of institution ( $P \leq 0.001$  and  $P = 0.003$ ).

**CONCLUSION:** There is a need to develop active awareness of BO and CF among resident physicians to effect interventions at the individual and institutional level.

## Keywords:

Burnout, compassion fatigue, compassion satisfaction, obstetrician–gynecologist resident physicians

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## Introduction

Compassion is central to the practice of medicine and is expected by patients from medical professionals.<sup>[1]</sup> Compassionate

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caring is associated with greater patient satisfaction, better doctor–patient relationships, and improved psychological states among patients.<sup>[1]</sup> However, in this patient-centered environment, resident physicians are becoming prone to compassion fatigue (CF) and burnout (BO). CF is used interchangeably with secondary traumatic stress, which manifests as physical

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pain, sleeping problems, anger and irritability, negative coping behaviors, and emotional exhaustion associated with a significant change in a physician's ability to feel empathy for their patients, loved ones, and colleagues.<sup>[2-4]</sup> In contrast, compassion satisfaction (CS) is characterized by feeling satisfied by one's job and from the caring itself, characterized by feeling invigorated and wanting to continue the work that they like to do, and may seem to be protective against CF.<sup>[4]</sup>

## Background

There has been little research done on the prevalence of CF among obstetrician-gynecologists (OBGYNs). Physicians have BO rates that are twice the rate of working adults, which could be related to professional autonomy, high workload, long working hours, and sleep disturbances.<sup>[5]</sup> BO develops in response to chronic interpersonal stressors on the job, characterized by Maslach as overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment.<sup>[6]</sup> Clinically, these doctors were found to have greater chances of making medical errors, providing suboptimal care and having lower medical knowledge.<sup>[7-9]</sup>

## Residency training

Residency training can cause significant degree of BO, leading to difficulty in solving diagnostic dilemmas and complex treatment decision-making. Residents are highly dependent on senior residents' and consultants' evaluation in finishing training, leading to high levels of responsibility with low levels of autonomy. In addition to this, being an OBGYN requires prompt response to patients' demands and one may be called to duty at any hour day or night when a patient goes into labor.<sup>[10]</sup> The long working hours and being called back to the hospital to assist patients have important negative effects on physicians' well-being.<sup>[10]</sup> Aside from the work-life imbalance caused by large number of working hours, the difficulty in programming work schedule, and the high-stress work environment, these physicians are also the recipient of feelings of anger, fear, and despair from their patients.<sup>[10]</sup> These factors, added with the constant pressure of acquisition of knowledge and skills and keeping up with the newfound information and developments in the field, have led to decreased quality of life.

## Study purpose

While CF and BO have been studied in health-care professionals, few publications address its incidence among OBGYN residents. The objective of this study is to determine the prevalence of CS, CF, and BO and their correlation to each other, as well as, their association to work-related and sociodemographic factors, among resident physicians-in-training in obstetrics and gynecology in the Philippines using the Professional

Quality of Life Scale (ProQOL) Version 5 (2009). Stamm, B.H. (2010). The Concise ProQOL Manual, 2nd Ed. Pocatello, ID: ProQOL.org.

## Methods

A cross-sectional study using self-administered questionnaire was conducted at randomly selected accredited training institutions between November 2019 and March 2020. The study used a three-stage stratified random sampling wherein the strata comprised the three geographical island groups in the country and National Capital Region (NCR). Each stratum had an equal proportion of accredited training hospitals for OBGYN that were randomly selected using fishbowl sampling. A total of 33 out of 86 hospitals were chosen randomly with the following distribution: 12 from NCR, 6 from Luzon, 12 from Visayas, and 3 from Mindanao. Each selected training hospital served as clusters wherein all resident physicians undergoing training in OBGYN for at least 3 months were either given a web-based or printed survey. Residents who resigned or graduated in December 2018, those with incomplete response, and residents belonging to the selected hospitals that were not given questionnaires before the implementation of the Luzon enhanced community quarantine, were excluded from the study.

## Study survey

The survey was divided into three parts: informed consent, sociodemographic and work-related factors, and ProQOL, which took approximately 5-10 min to complete. The following sociodemographic variables were obtained: demographic factors - age, sex, marital status, number of children and hometown; and work-related factors - level of training, type and location of institution, number of sleeping hours and working hours, and being called back to the hospital during off duty.

The CS and CF (ProQOL) version 5 (2009) instrument [Table 1, Appendix A] is a validated self-report instrument consisting of 30 items which are answered on a 1-5 Likert Scale (from 1 = never to 5 = very often).<sup>[4]</sup> ProQOL has a maximum raw score of 50 per construct and measures three constructs: CS, CF, and BO, and is not a diagnostic test for mental disorders.<sup>[4]</sup>

## Data analysis

All data gathered from each resident were encoded and analyzed using the Epi Info version 3.5.1 (Houston Texas, 2008). CF, BO, and CS scores were summarized by means and standard deviation. Work-related factors and sociodemographic characteristics were presented as frequencies and proportion. For the ProQOL questionnaires, scoring was done as instructed in the Concise ProQOL Manual. The scores were reported numerical variables and analyzed as continuous data

and ordinal data in three categories: high, average, and low levels of CF, CS, and BO. Scoring of each subcategory ranged from 5 to 50, A score of 22 or less is considered "low," "average" scores range from 23 to 41, and 42 or higher is considered a "high" score. Correlation between CF, BO, and CS scores was calculated using Pearson's correlation. Differences in CF, BO, and CS scores within categories of each predictor variable were determined using independent *t*-test (for 2 categories) and one-way ANOVA (for >2 categories).

## Results

A total of 311 out of 433 residents [Table 2, Appendix A] were included in the study, with response rates of 52.1% ( $n = 86$  of 165) in NCR, 53.8% ( $n = 43$  of 80) in the rest of Luzon, 100% ( $n = 118$ ) in Visayas, and 91.4% ( $n = 64$  of 70) in Mindanao. The response rates for government and private institutions were 78.8% ( $n = 167$  of 212) and 51.6% ( $n = 144$  of 221), respectively.

Majority had moderate level of CS ( $n = 213$ , 68.5%), BO ( $n = 281$ , 90.4%), and CF ( $n = 237$ , 76.2%) [Table 3, Appendix A]; marital status (single = 38.6 [5.2], married = 40.2 [4.9],  $P = 0.04$ ); presence of children (Yes = 40.5 (4.4), No = 38.5 (5.3),  $P = 0.01$ ); level of training (highest was level IV = 40.4 [4.8], lowest was level I = 37.6 [4.9],  $P = 0.01$ ); location of institution (highest was Mindanao = 40.4 [4.5], lowest was NCR = 36.5 [5.4],  $P < 0.001$ ); and type of institution (government = 38.2 [5.0], private = 39.9 [5.1],  $P = 0.003$ ) [Table 4, Appendix A].

In terms of association of the different variables with BO scores, statistically significant differences were observed in terms of level of training (highest was level I = 29.8 [4.8], lowest was level IV = 27.6 [5.1],  $P = 0.04$ ); location of institution (highest was NCR = 31.6 [4.9], lowest was Mindanao = 27.5 [5.0],  $P < 0.001$ ); type of institution (government = 29.6 [5.0], private = 28.4 [5.0],  $P = 0.04$ ); sleeping hours per day (< 4 h = 31.0 [5.2], 4 h and above = 28.4 [4.8],  $P < 0.001$ ); and number of times one has to go back to the hospital while off duty (highest was 2–3×/week = 30.3 [4.9], lowest was once a week = 26.4 [5.4],  $P < 0.001$ ) [Table 4, Appendix A].

In terms of association of different variables with CF scores, statistically significant differences were seen in terms of type of institution (government = 27.4 [5.1], private = 25.4 [5.9],  $P = 0.002$ ); sleeping hours per day (< 4 h = 27.6 [5.8], 4 h and above = 26.1 [5.4],  $P = 0.04$ ); and number of times one has to go back to the hospital while off duty (highest was 2–3×/month = 27.7 [5.9], lowest was once a month = 24.0 [5.6],  $P = 0.01$ ) [Table 4, Appendix A].

Gender, hometown, area of institution, and working hours per week were the factors not associated with CS, CF, and BO. It was observed that CS was negatively correlated with BO ( $r = -0.31$ ,  $P < 0.001$ ) and CF ( $r = -0.34$ ,  $P < 0.001$ ), whereas BO and CF were positively correlated ( $r = +0.48$ ,  $P < 0.001$ ).

## Discussion

Physician BO is an increasing global concern that has caught significant attention due to its rising prevalence and effect on patient care. In two meta-analyses, BO rate among residents of OBGYN was at 44%.<sup>[11,12]</sup> This is similar to a local study which showed 43% of OBGYN residents to have BO and 50% to have CF.<sup>[13,14]</sup> Likewise, our study showed similar negative correlation of BO and CF with CS and a positive correlation between BO and CF. Different factors may have caused low CS and high CF and BO among OBGYN residents. Exposure factors, such as prolonged hours of work and high percentage of emergency cases, may be associated.<sup>[15]</sup>

On the other hand, organizational factors, such as supportive working environment and adequate supervision, may decrease the incidence of CF. In addition, having autonomy and control among the residents may mitigate BO.<sup>[15]</sup> This was supported by a meta-analysis among health-care providers, which showed that factors associated with better compassion scores included positive work environments, including social support networks, work in private clinics, and support from management.<sup>[16]</sup>

Burned-out providers are more likely to experience alcohol abuse, increased suicidal thoughts, and early retirement.<sup>[7,8]</sup> A meta-analysis among medical residents of different specialties showed an 11% increase in the likelihood of a reported medical error for each increase of one point in the depersonalization score and a 5% increase for a one-point increase in the emotional exhaustion score.<sup>[11]</sup> These could be explained by the anatomic changes in the brain, such as the structural changes in the amygdala, which could be responsible for the inability of residents with high BO rate to regulate their negative emotions, as well as the cortical thinning, that lead to decrease in fine motor function.<sup>[6]</sup> In terms of health-related outcomes, surveys have shown associations with emotional exhaustion and elevated rates of physical illnesses and reports of somatic symptoms such as headaches and sleep disturbances.<sup>[6]</sup>

### Work-related factors

#### *Year level in training*

BO among medical trainees is quite common, ranging from approximately 27% to 75% among medical residents of different specialties.<sup>[17]</sup> Being in the 1<sup>st</sup> year



of residency was associated with increased likelihood of BO.<sup>[17,18]</sup> This could be attributed to the adjustment to a new environment and difference in expectations, tasks, and responsibilities between a medical student and a resident.<sup>[18]</sup> These trainees also get exposed to death and dying, producing a great deal of anxiety and self-doubt, which could lead to feelings of incompetence and irresponsibility.<sup>[18]</sup> In contrast, those with greater years of practice already have higher CS scores, which could be associated with the presence of “escape phenomenon”, where experienced clinicians find ways to maintain adequate levels of patient satisfaction and simultaneously causing no BO.<sup>[19]</sup> A study among OBGYN in Metro Cebu found no association between the level of BO and the clinical performance of the senior residents.<sup>[20]</sup> These residents in the higher year level have coping mechanisms formed and motivational factors, which include every new procedure done.<sup>[19]</sup> This is consistent with the current study wherein those in their 4<sup>th</sup> year of training had the highest CS scores and lowest BO scores.

### Location and type of institution

Citizen access to public and private health-care facilities is determined by individual preferences, geographical location, and financial status. Institution-based doctors are affiliated with public and private institutions equally at 50%.<sup>[21]</sup> However, according to the Philippine health system review in 2018, public medical centers reported higher and increasing bed utilization at 81% in 2010 increasing to 103% in 2012, compared to private medical centers at 59% declining to 56%.<sup>[21]</sup> This increases the patient-to-doctor ratio in public institutions which could contribute to the higher BO and CF among their residents. Moreover, public medical centers have higher inpatient load of obstetrics patients compared to private institutions as measured by the bed mix indicator at 21% in 2012, compared to only 13% in private institutions, which further increases the load among the OBGYN residents.<sup>[21]</sup> Interestingly, in spite of the increase in BO, measured by high emotional exhaustion, the residents had better clinical job performance with increasing number of patients handled, although they also had higher likelihood of having reduced empathy.<sup>[20]</sup>

In the current study, a striking difference in CS scores was seen among residents working in private versus government institutions. Those working in government hospitals had higher BO and CF scores, while those training in private hospitals had better CS scores. This is similar to an Indian study which showed higher CS scores in government institutions.<sup>[18]</sup> Having poor working conditions and less number of modern equipment may have significantly affected BO and CS among the two setups (private versus government setup).<sup>[18]</sup> Having access to sufficient resources and supplies during work

may have decreased the number of residents in private institutions with CF and BO and higher CS.<sup>[15]</sup>

Previous studies have shown that physicians working in the rural setting were more likely to suffer BO than those working in metropolitan hospitals.<sup>[15]</sup> This may be explained chronic shortages of mental health services among medical professionals in the rural areas, causing them to access medical help only during late stages of illness.<sup>[15]</sup> However, no statistically significant differences were seen in this study between scores of those working in rural and in urban facilities.

### Work hours per week

A study among medical residents in Minnesota showed that BO and CF scores were significantly higher for those who worked >80 h and higher BO scores among those who worked overnight shifts.<sup>[22]</sup> Likewise, in the current study, BO was higher among those working for more than 80 h per week; however, the result was not statistically significant. A positive correlation between emotional exhaustion and the number of hours worked was also noted among OBGYN in Metro Cebu, where residents worked an average of 116 h per week.<sup>[20]</sup>

In July 2003, the Accreditation Council for Graduate Medical Education in the United States implemented work hour limitations, cutting down the work week to 80 h and no more than 24 consecutive hours.<sup>[17]</sup> A study in Wayne State University School of Medicine tested BO among residents before and after the work hour limits were placed and found that residents who reported working more than 80 h had higher rates of BO (69.2%) compared with a BO rate of 38.5% after the time restriction was in effect.<sup>[17]</sup> However, most training institutions in the Philippines still follow an every 3 days 24-h duty scheme with the possibility of extending on the postduty day to oversee deliveries of all laboring patients admitted during their tour of duty. For this reason, 83% ( $n = 258$ ) of the surveyed OBGYN residents still work for more than 80 h per week. In addition to higher BO scores, these residents could show a decrease in sustained attention and processing speed starting at the middle of their duty as a result of long working hours and lack of sleep.<sup>[23]</sup>

### Sleep hours per day and interrupted leaves

Positive depression screening, pathologic sleepiness, and sleeping <7 h a night were independent predictors of BO in a study of medical students published in 2016.<sup>[5]</sup> In addition to having more quantitative workload, the number of times of disturbed sleep for emergencies, hours of continued medical education per year and hospital paper work, and the number of patients attended to per day had significant correlation with BO.<sup>[19]</sup> The resident's lack of control over schedule and hours worked is one of

the strongest predictors of BO.<sup>[20]</sup> The study demonstrates that lower sleeping hours per day, where 72.7% of the residents slept 4–6 h a day, and going back to hospital during off duty days, were linked with higher BO scores and higher CF and are more important factors than patient workload. The importance of sleep disturbances shows that changing work schedules, night shifts, and the consecutive fragmented sleep could have a severe cognitive and emotional impact on the performance of physicians on the day after a shift.<sup>[5]</sup>

### Sociodemographic factors

#### *Gender and age group*

There are conflicting results in terms of anthropometric measurements. Some studies show personal and anthropometric measurements to have no correlation with CS, BO, and CF.<sup>[22,24]</sup> The current study showed lower BO and higher CS among higher age groups and no statistically significant difference between genders. The inverse relationship between age and BO could be explained by physicians becoming less empathetic with time and are thus less burdened by patient suffering.<sup>[1]</sup> Another explanation is that experience and age may allow doctors to develop better self-management leading to lower BO and coping skills to replenish the resources that are used in their clinical work.<sup>[1]</sup> Contradicting results were seen in a study in Shiraz University where total stress among medical residents increased with age ( $P = 0.03$ ) and was more common among females than males ( $P = 0.01$ ).<sup>[24]</sup> Women were at greater risk of professional BO because of unrealistic expectations, family pressure, work-life imbalance, or sleep disorders.<sup>[5]</sup>

### Marital status and child dependents

A study among different specialty residents showed that mean CF scores for residents with child dependents were significantly higher than the scores for residents without child dependents.<sup>[22]</sup> This could mean higher physical and emotional stress responses to their work.<sup>[13]</sup> Furthermore, higher CS scores were seen among those married and those with children, which could be a psychological consequence of being exposed to traumatic situations that the resident fears may eventually affect his or her family dependents.<sup>[22]</sup> Contrary to these, no statistically significant differences in CF and BO scores were found in this study between those with children and those who did not.

### Interventions

Data on this study are insufficient to recommend particular measures on decreasing CF and BO among OBGYN residents. However, since these affect the well-being of a person and how they take care of their patients, effective interventions must be developed at the individual and institutional level to decrease BO and

CF and increase CS among OBGYN residents. Trainings on stress management, coping skills, communication courses, mindful-based stress reduction, compassion-focused therapy, acceptance commitment therapy and other related programs might decrease significant CF and BO. These trainings may also enhance the feelings of happiness, life satisfaction, emotional resilience and CS among medical resident.<sup>[1,5,14,18,20,25]</sup>

### Limitation

The study has a number of limitations. First, nonresponse bias could affect the results, although the proportion of residents completing the survey was high (72%). Further, due to the anonymity of the survey, we were not able to compare variables of those who answered versus those who did not. We also did not evaluate personal factors, such as home support, personal coping strategies, and training program factors, which could be associated with well-being. Finally, this study cannot address causality or directionality of the observed associations, given its cross-sectional design.

### Conclusion

Majority of resident physicians-in-training in obstetrics and gynecology in the Philippines had average level of CS, BO, and CF. Statistically significant differences were observed between CS, BO, and CF with marital status, presence of children, level of training, location of institution, type of institution, sleeping hours per day, and number of times one has to go back to the hospital while off duty. CS was negatively correlated with BO and CF, whereas BO and CF were positively correlated.

This nationwide study can be used to shed light on the high prevalence and severity of CF and BO and decreasing CS among residents of OBGYN. Institutions should strive to detect signs of BO and fatigue among physicians-in-training and provide interventions to manage stressful situations during their residency training. After the intervention, the same questionnaire can be administered and the scores obtained can be compared to this baseline study; as such, it can also be used as means of monitoring the gaps in translation of services and effect of future interventions done to reduce this hyperendemic situation.

### Ethical approval

Ethical approval has been granted by the University of the Philippines Research Ethics Board Review Panel 3 last October 25, 2019, with reference number 2019-447-01.

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### Conflicts of interest

The investigators have no conflict of interest to declare. The study has no affiliation with Proqol.org or any other entities with financial interest.

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## Appendix A

**Table 1: Compassion satisfaction and compassion fatigue (professional quality of life) version 5 (2009). When you treat people you have direct contact with their lives. As you may have found, your compassion for those you treat can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as an obstetrician and gynecologist. Consider each of the following questions about you and your current work situation. Tick the appropriate box that honestly reflects how frequently you experienced these things in the last 30 days**

	Never	Rarely	Sometimes	Often	Very often
I am happy					
I am preoccupied with more than one person I treat					
I get satisfaction from being able to treat people					
I feel connected to others					
I jump or am startled by unexpected sounds					
I feel invigorated after working with those I treat					
I find it difficult to separate my personal life from my life as an obstetrician and gynecologist					
I am not as productive at work because I am losing sleep over traumatic experiences of a person I treat					
I think that I might have been affected by the traumatic stress of those I treat					
I feel trapped by my job as an obstetrician and gynecologist					
Because of my treating, I have felt "on edge" about various things					
I like my work as an obstetrician and gynecologist					
I feel depressed because of the traumatic experiences of the people I treat					
I feel as though I am experiencing the trauma of someone I have treated					
I have beliefs that sustain me					
I am pleased with how I am able to keep up with surgical techniques and protocols					
I am the person I always wanted to be					
My work makes me feel satisfied					
I feel worn out because of my work as an obstetrician and gynecologist					
I have happy thoughts and feelings about those I treat and how I could help them					
I feel overwhelmed because my case work load seems endless					
I believe I can make a difference through my work					
I avoid certain activities or situations because they remind me of frightening experiences of the people I treat					
I am proud of what I can do to treat					
As a result of my treating, I have intrusive, frightening thoughts					
I feel "bogged down" by the system					
I have thoughts that I am a "success" as an obstetrician and gynecologist					
I can't recall important parts of my work with trauma victims					
I am a very caring person					
I am happy that I chose to do this work					

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**Table 2: Sociodemographic and work-related factors and their relationship with compassion fatigue, compassion satisfaction and burnout scores among obstetrics and gynecology resident physicians-in-training (n=311) in the Philippines included in a cross-sectional study, 2019-2020**

Sociodemographic factors	Compassion satisfaction		Burnout		Compassion fatigue		Achieved power (%)
	Mean (SD)	P	Mean (SD)	P	Mean (SD)	P	
Sex							
Male	39.1 (4.9)	0.86	29.3 (4.7)	0.79	27.3 (5.7)	0.47	3-10.6
Female	38.9 (5.2)		29.0 (5.1)		26.4 (5.5)		
Age group							
21-30	38.5 (5.2)	0.02	29.1 (5.2)	0.73	26.4 (5.3)	0.66	4.8-69
>30	40.0 (4.9)		28.9 (4.6)		26.6 (6.2)		
Marital status							
Single	38.6 (5.2)	0.04	29.2 (5.0)	0.39	26.6 (5.4)	0.43	10.4-62
Married	40.2 (4.9)		28.5 (5.1)		25.9 (6.1)		
Presence of children							
Yes	40.5 (4.4)	0.006	28.2 (5.2)	0.17	26.3 (6.0)	0.87	3.7-87
No	38.5 (5.3)		29.2 (5.0)		26.5 (5.4)		
Hometown within the same region as training institution							
Yes	39.1 (4.9)	0.54	29.0 (4.9)	0.83	26.3 (5.3)	0.69	2.9-7.2
No	38.8 (5.4)		29.1 (5.2)		26.6 (5.8)		
Level of training							
I	37.6 (4.9)	0.005	29.8 (4.8)	0.04	26.3 (4.9)	0.78	15.1-89.2
II	38.9 (5.7)		29.2 (5.6)		26.4 (5.8)		
III	39.3 (4.7)		29.4 (4.2)		27.1 (5.8)		
IV	40.4 (4.8)		27.6 (5.1)		26.2 (5.8)		
Location of institution							
Luzon	39.7 (4.90)	<0.001	28.8 (4.9)	<0.001	27.4 (4.4)	0.08	10.2-92.1
Visayas	39.7 (4.8)		28.0 (4.6)		25.6 (5.4)		
Mindanao	40.4 (4.5)		27.5 (5.0)		26.1 (5.4)		
NCR	36.5 (5.4)		31.6 (4.9)		27.4 (6.2)		
Type of institution							
Government	38.2 (5.0)	0.003	29.6 (5.0)	0.04	27.4 (5.1)	0.002	56.0-89.4
Private	39.9 (5.1)		28.4 (5.0)		25.4 (5.9)		
Area of institution							
Urban area	38.9 (5.2)	0.65	29.0 (5.1)	0.90	26.4 (5.6)	0.28	2.0-23.5
Rural area	39.5 (5.0)		28.9 (4.4)		27.8 (4.6)		
Work hours per week							
80 h or less	39.0 (5.2)	0.97	28.2 (4.8)	0.16	27.6 (5.0)	0.09	2.4-44.4
>80 h	38.9 (5.2)		29.2 (5.1)		26.2 (5.6)		
Sleeping hours per day							
<4 h	38.1 (6.0)	0.10	31.0 (5.2)	<0.001	27.6 (5.8)	0.04	32.0-97.4
4 h and above	39.2 (4.8)		28.4 (4.8)		26.1 (5.4)		
Number of times one has to go back to the hospital while off duty							
2-3 x/week	39.0 (5.2)	0.55	30.3 (4.9)	<0.001	27.0 (5.3)	0.01	17.2-90.5
Once a week	39.2 (5.5)		26.4 (5.4)		26.1 (5.5)		
2-3 x/month	37.8 (5.2)		29.4 (3.8)		27.7 (5.9)		
Once a month	39.4 (4.5)		28.2 (4.1)		24.0 (5.6)		

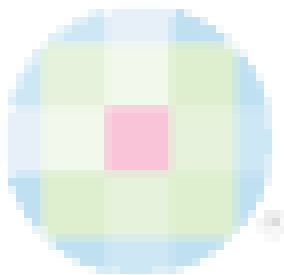
NCR=National capital region, SD=Standard deviation



**Table 3: Prevalence of compassion satisfaction, compassion fatigue, and burnout among obstetrics and gynecology resident physicians-in-training (n=311) in the Philippines using compassion satisfaction and compassion fatigue (professional quality of life) Version 5 (2009), 2019-2020**

Scale	Compassion satisfaction (mean=38.9, SD=5.2, maximum=50, minimum=23), n (%)	Burnout (mean=29.0, SD=5.0, maximum=44, minimum=16), n (%)	Compassion fatigue (mean=26.5, SD=5.5, maximum=42, minimum=12), n (%)
Low	0	28 (9.0)	71 (22.8)
Moderate	213 (68.50)	281 (90.4)	237 (76.2)
High	98 (31.5)	2 (0.6)	3 (1.0)
Total	311	311	311

SD=Standard deviation



**Table 4: Characteristics of respondents included in the cross-sectional study to determine the prevalence of burnout, compassion fatigue and compassion satisfaction among obstetrics and gynecology resident physicians in the Philippines, 2019-2020**

	<i>n (%)</i>
<b>Sociodemographic variables</b>	
Sex	
Male	22 (7.1)
Female	289 (92.9)
Age group (years)	
21-30	215 (69.1)
31-40	95 (30.5)
>40	1 (0.3)
Marital status	
Single	250 (80.4)
Married	61 (19.6)
Presence of children	
Yes	63 (20.3)
No	248 (79.7)
Hometown within the same region as training institution	
Yes	154 (49.5)
No	157 (50.5)
<b>Work-related factors</b>	
Level of training	
I	91 (29.3)
II	85 (27.3)
III	62 (19.9)
IV	73 (23.5)
Location of institution	
NCR	87 (28.0)
Luzon (aside from NCR)	42 (13.5)
Visayas	118 (37.9)
Mindanao	64 (20.6)
Type of institution	
Government	167 (53.7)
Private	144 (46.3)
Area of institution	
Urban area	293 (94.2)
Rural area	18 (5.8)
Work hours per week	
40 h or less	11 (3.5)
41-60 h	14 (4.5)
61-80 h	28 (9.0)
>80 h	258 (83.0)
Sleeping hours per day	
None to less than an hour	3 (9.6)
1-3 h	75 (24.1)
4-6 h	226 (72.7)
7 h and above	7 (2.3)
Number of times one has to go back to the hospital while off duty	
2-3 x/week	164 (52.7)
Once a week	67 (21.5)
2-3 x/month	34 (10.9)
Once a month	46 (14.8)

NCR=National capital region

