

Work satisfaction, burnout and gender-based inequalities among ophthalmologists in India: A survey

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Abstract.

BACKGROUND: Ophthalmology is a rapidly evolving branch of medicine and advancing technology has raised the bar of patient expectations and outcomes. However, studies that assess physician stress and satisfaction especially in developing countries are limited in literature.

OBJECTIVE: This index study aims at looking at the levels of job satisfaction, burnout and perception of gender disparity among ophthalmologists in India.

METHODS: An Internet-based survey was sent out to ophthalmologists. 297 respondents replied with responses, which were anonymized and analyzed.

RESULTS: Of the 297 respondents, 101 were female and 196 were male ophthalmologists. The mean duration of practice of the respondents was 14.66 years. 54.21% (161/297) responded affirmatively when asked if they were satisfied with their careers. 19% (56/297) were not satisfied. 26.94% (80/297) replied that although they were satisfied, they wished they had more time for family. A quarter (25.2%; 63 out of 250) of the respondents felt burnt-out at that stage of their careers. 68.35% (203/297) of the respondents felt that being a woman ophthalmologist in India was more challenging than being a male ophthalmologist. This perception was significantly more amongst women respondents ($p < 0.0002$). Greater family responsibility, long working hours, and having to work harder were the challenges faced by female ophthalmologists. There was a significant difference in perception between male and female ophthalmologists regarding the presence of disparity in earnings given equal qualifications and experience with more women responding in the affirmative.

CONCLUSIONS: Indian ophthalmologists have personally and professionally satisfying careers with low rates of burnout. While good family support and an understanding partner help ophthalmologists achieve good work-life balance, women ophthalmologists perceive a gender-based disparity when it comes to proving their worth and getting suitably remunerated.

Keywords: Ophthalmology, women in medicine, physician burnout, gender disparity, job satisfaction

1. Introduction

Ophthalmology is a high technology-dependent specialty with constantly evolving and changing

drugs, drug delivery systems, diagnostic modalities, surgical concepts and instrumentation undergoing a paradigm transformation every few years. The need to constantly learn, unlearn and relearn in order to keep up with current knowledge and standards of care can be stressful for physicians. Long working hours, emotional exhaustion, demanding patients, limited resources, job-related factors and home-work interface stress can all contribute to what is being termed as ‘physician burnout’ [1]. Being a woman physician

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can be more taxing with domestic responsibilities, rigidity in career structures and discrimination being possible obstacles in the career path of women doctors [2].

With this background, a survey was conceptualized and sent out to Indian ophthalmologists. While there have been surveys in other countries to detect and quantify physician satisfaction and stress, there have been no such studies in India [3]. Therefore, this study was implemented with the aim of assessing levels of job satisfaction, burnout levels, and perception of gender disparity among ophthalmologists in India.

2. Methods

Institutional review board approval was obtained before the questionnaire was sent out (IRB Approval – AEHI-0214). A questionnaire was created and e-mailed to the ophthalmologists practicing in Mumbai, India. The invitational e-mail included a description of the aim of the survey and participants were asked to respond to the survey which was hosted by a third-party website so that all responses could be anonymized. The survey was kept open for two weeks and two reminder emails were sent. Two hundred and ninety seven members responded to the survey with responses. Only if a respondent viewed all questions and completed the entire survey with responses, was it considered a completed survey and included in the final analysis. Incomplete or partially viewed survey results were not included in the tabulations. Respondents had the option of not responding to questions should they wish not to answer and viewing the next question. A total of 498 invitations were sent out, 297 ophthalmologists took the survey; with a response rate of 60%.

The initial questions aimed to gather socio-demographic and professional information. Questions in the survey included age and gender, work experience, years of practice since completion of medical education, place of practice, working hours, and marital status. They survey also focused on personal and social aspects of the ophthalmologists' lives. A detailed list of the questions asked in the questionnaire is tabulated in Table 1.

All statistical analysis was performed with GraphPad Prism 6[®] (GraphPad Inc., La Jolla, CA, USA). Frequency and descriptive analysis was used for the demographic data of the participating ophthalmologists. Association between categorical variables was assessed using Fisher's exact test or Chi-Square test.

Table 1
List of questions all respondents were asked in the internet based survey

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1. Age
 2. Gender
 3. What is your practice setting?
 4. How many years have you been in practice?
 5. What is your marital status?
 6. How many children do you have?
 7. Do you have greater child raising responsibilities?
 8. How many hours per week do you work?
 9. Are you satisfied with your career?
 10. Do you feel it is challenging being a woman ophthalmologist compared to males?
 11. Challenges as a women ophthalmologist (Please give a score from 1 to 5: 1 being not important and 5 being important):
 - A. Work harder to prove professional excellence
 - B. Discrimination at work
 - C. Lesser confidence in women surgeons
 - D. Greater family responsibility
 - E. Long working hours
 - F. Inflexible working hours
 - G. Income not good enough
 - H. Difficult colleagues
 12. Do you feel there is a disparity in male vs female earnings given equal qualifications and experience?
 13. Given the choice to start over again, Would you choose another specialty?
 14. Do you feel burnt out ?
 15. Do you feel you have good work-life balance?
 16. What factors help you in achieving work-life balance?
 - A. Good family support
 - B. Great partner
 - C. Flexible working hours
 - D. Organizational support
 - E. Great time management
 - F. Understanding colleagues
 17. What factors prevent you from achieving work-life balance?
 - A. Children demands time
 - B. Partner not able to help in raising children
 - C. Inflexible work place
 - D. Critical Colleagues
 18. What is your happiness score at home? (1–5)
 19. What is your happiness score at work? (1–5)
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Continuous data was analyzed using non-parametric test, i.e. Mann-Whitney U test. We considered a p value < 0.05 as statistically significant.

Responses of all the study participants were kept anonymous for the purpose of data analysis. None of the physician identifiers were obtained during the study. Thus, the study conformed to the guidelines laid down by the Declaration of Helsinki. Since no such studies have been previously performed among ophthalmologists in India, formal sample size calculations were not performed for this study. The email addresses of all the participating ophthalmologists were verified by the local Ophthalmology society database. The authors to avoid ambiguity among responders validated the questionnaire.

Since a large number of ophthalmologists provided complete responses, the results of the study were considered reliable and valid.

3. Results

3.1. Demographics

Of the 297 responses received, 34% (101/297) of the respondents were women. Most of the respondents had their own solo private practice set-ups (49%, 147/297) whereas only 18 (6%) respondents were working in a government hospital or institute.

Two hundred and seventy five respondents (93%) were married, 10 (3%) ophthalmologists were married and divorced and only 12 (4%) respondents were single at the time of the survey. However, the number of divorcees amongst women was higher than the male counterpart in this cohort and this difference was statistically significant (8% in females versus 1% in males, $P=0.01$; Fisher's exact test).

3.2. Child raising responsibilities

When asked if they felt that they had greater child-raising responsibilities when compared with your partner, 40% (118/297) of the ophthalmologists responded affirmatively; of which 63% (74/118) were women. 73% (74/101) of the women respondents felt they had greater child-raising responsibility as compared to 24% (47/196) of their male colleagues and this disparity in perception of greater child-raising responsibilities was statistically significant ($\chi^2=67.07$; $P<0.0001$).

3.3. Working hours

The average number of hours per week of the respondents was 51.73 hours. Gender-wise analysis showed that the male respondents put in an average of 54.15 hours per week as compared to 46.60 hours per week put in by women ophthalmologists. This difference was found to be statistically significant ($P<0.001$, Mann-Whitney U test).

3.4. Job satisfaction

When asked if they were satisfied with their careers, 54% (161/297) responded positively; where as 19% (56/297) said that they were not satisfied. A substantial proportion; 27% (80/297) however,

felt that even though they were satisfied with their careers, they wished they had more time for family. We asked if they had the chance to start over and change their specialty, would they change it. An overwhelming 88% (220/250) of the ophthalmologists said they would not change their specialty. There was no gender-wise variation in the response to this question.

3.5. Women in ophthalmology

68% (203/297) of the respondents felt that being a woman ophthalmologist in India was more challenging than being a male ophthalmologist. This perception was significantly more amongst women respondents. 82% of the women respondents agreed that being a female ophthalmologist is more challenging; whereas only 61% of the male respondents agreed with them. The difference between the two groups was statistically significant ($P<0.001$; Fisher's exact test). We asked the respondents to specify the reasons they felt being a woman ophthalmologist was a challenge. The responses were graded on a 5-point scale. Respondents were asked to give a score ranging from 1 to 5; with 1 being least important and 5 being most important. On combining the responses for grades 1–3 versus 4–5, the need for women to work harder to prove professional excellence was the most important reason cited by the respondents (50%). Other challenges included lesser confidence among patients in women surgeons (41%), difficult colleagues (20%) and discrimination at work (17%).

The next question was if the respondents felt there was a disparity when comparing the earnings of male and female ophthalmologists, given equal qualifications and experience. Of the 250 responses received for this question, 30% (75) felt there was indeed a disparity. However, gender-wise analysis showed 40% of the women respondents felt that this inequality existed as compared to only 24% of the male respondents. This difference in perception between the two genders was statistically significant ($P<0.01$; Fisher's exact test).

3.6. Burnout and work-life balance

75% (187/250) of the ophthalmologists who replied felt they did not perceive 'burnout' in any form. Importantly, although 25% felt they were near burnout or already burnt out, none of the variables; namely longer duration of practice, gender, type of

workplace, or age showed any statistical significance during comparison of the two groups.

Interestingly, an identical number 75% (187/250) felt that they had a good work-life balance. While comparing the two issues of burnout and work-life balance, 52% (33/63) of those who experienced physician burnout also reported not having a good work-life balance. Women ophthalmologists reported a significantly higher ($P < 0.05$) number of those not having a good work-life balance.

We also asked the ophthalmologists to quantify the importance of the factors that helped them in achieving good work-life balance using a 5-point scale. Grades 1–3 and 4–5 were combined and analyzed. Good family support (76%), good partner (74%), efficient time management (56%), flexible working hours (53%), and understanding and supportive colleagues (51%) were the most important factors. Organizational support (43%) was considered to be the least important factor that played any role in achieving work-life balance.

When asked to grade the factors that prevented achieving good work-life balance, there was no unanimity amongst the respondents. Inflexible work place (40%) was considered to be the most important reason by the respondents. The other reasons in the order of importance included children's needs (40%) and lack of partner's involvement in raising children (32%).

The respondents were asked to score their happiness quotient at home and at work; using a 5-point scale, with a score of 1 indicating most unhappy and a score of 5 indicating extremely happy. 64% respondents indicated a high happiness quotient at work and 72% indicated a high happiness quotient at home. Among women ophthalmologists, 53% respondents indicated a high happiness quotient at work and 65% indicated a high happiness quotient at home. Among male ophthalmologists, the happiness score was high for 71% men at work and 76% men at home. While comparing the happiness scores at home between the two sexes (Chi Square test); the difference between the home scores was not statistically significant ($\chi^2 = 2.911$, $P < 0.05$). The gender-wise comparison of happiness scores at work was statistically significant ($\chi^2 = 6.87$, $P < 0.01$).

4. Discussion

Job satisfaction refers to the satisfaction levels or contentment that a person derives from his or her

workplace. Satisfied workers usually perform well; they have a reduced level of absenteeism and fewer number of employees leave an organization [4, 5]. Similarly, such findings can be extrapolated to the physician community.

Job satisfaction for physicians can have implications in their judgment, the quality of care they extend to their patients, and therefore, the entire healthcare system at large. Physicians are more likely to be effective if they are satisfied with their work environment [6, 7]. It has been reported that physicians' satisfaction correlates with general life satisfaction [8]. Also as a corollary, people who are satisfied with life are satisfied with their job and those that are satisfied with their job tend to be satisfied with life [9]. Furthermore, physician satisfaction also correlates with patient satisfaction and desirable patient outcomes [10, 11]. However, physician satisfaction varies with specialties [12]. A report that studied the results of specialty-specific data on career satisfaction found emergency pediatric care consultants were the most satisfied with their careers; neurosurgeons were least satisfied with their careers. Of the forty-two specialties surveyed by the authors, ophthalmology ranked reasonably high at 13th place in terms of the mean satisfaction score [12].

In our study, 81% (241/298) of the respondents reported being satisfied with their careers. It is interesting to note that nearly a third (33%; 80/241) of those who said they were satisfied with their careers wished they had more time for their families. This corresponds well with the average number of working hours per week of the respondents. The male respondents put in an average of 54.15 hours per week as opposed to 46.60 hours per week put in by women ophthalmologists. It was noted that 72.50% (58/80) of those who felt the need for more time with family were males. The average working hours per week in this select cohort was 59.05 hours per week, which is higher than the average for all the respondents at 51.33 hours per week.

The job-satisfaction rates among Indian ophthalmologists in this study was nearly the same as reported by similar studies from Nigeria and the United States [9, 13]. Similar studies in India have shown that Indian (non-ophthalmology) doctors were also largely satisfied from their job [14]. However, the authors of the previously mentioned Nigerian study stated that a falsely high level of job satisfaction could be due to their sampling ophthalmologists who were attending the annual congress of the Ophthalmological Society of Nigeria. It is possible that those

attending might be more committed to their profession and are thus likely to be more satisfied with their jobs than those who chose not to attend [9].

When asked, an overwhelming majority of the ophthalmologists were satisfied with their careers and if given the opportunity, would not change their branch of medicine. In previous studies, doctors were reportedly dissatisfied with the average number of working hours per day and working environment [14, 15]. Another study reported long working hours and lack of sleep were the major causes of dissatisfaction among junior doctors [16]. Gender was not found significantly associated with satisfaction and dissatisfaction in previous studies from around the world, which corroborates with the findings of our study [17, 18]. On a similar note, Stewart and colleagues noted that there was a difference between the two transatlantic groups when asked what advise they would give a student pursuing medicine: 51% in the US versus 28% in Europe said 'definitely become a physician', versus 25% in Europe and 16% in the US indicating to 'choose a different career' [19].

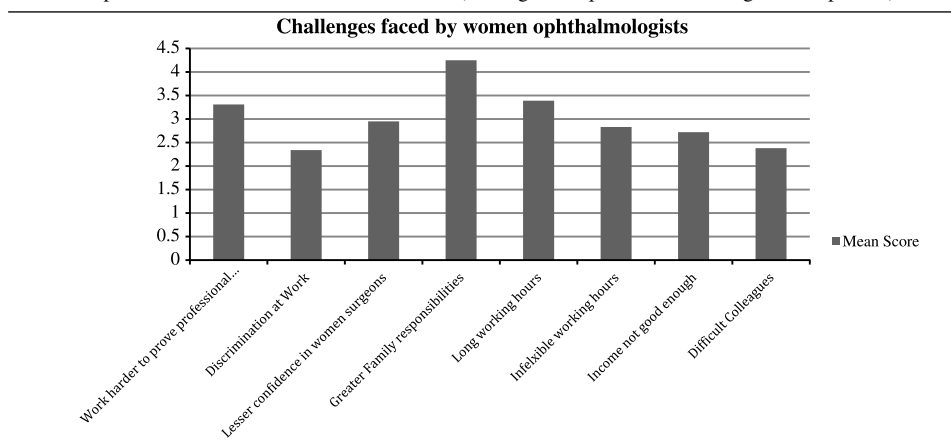
Indian society is unique in its practices and beliefs. While the practice of modern medicine in India has kept pace with recent advances abroad; Indian society remains predominantly patriarchal. Although not rigidly laid down, Indian society traditionally has had gender specific roles with women playing passive roles and husbands - active dominating roles. Marriage and motherhood are generally regarded as the primary status roles for women in India [20].

Given this background, it is not surprising to see that in our survey, there was a significant gender-wise disparity when asked if they felt that they had more child-raising responsibilities compared to their domestic partners. In our survey, 73% (74/101) of the women respondents also felt they had greater child-raising responsibility as compared to 24% (47/196) of their male colleagues. This is in contrast to the findings of a survey of North American women pediatric surgeons; where among respondents under the age of 44 years, half of the respondents noted that their spouse took the major responsibilities of child-care [21]. However, other studies from the west have painted a different picture: another survey of women surgeons showed they were less likely to have a spouse who was the primary caretaker of the children [22]. The general perception among ophthalmologists in India is being a woman ophthalmologist is more challenging with 68% (203/297) of the respondents feeling so. This is more acutely perceived among the women with 82% of the women respondents agreeing. One may argue that the enforcement of Indian societal norms reflects in our study as well: when asked to list the reasons why being a woman ophthalmologist is a challenge, having to shoulder 'greater family responsibility' was the most important reason (Table 2).

However, that women surgeons spend more time on family care responsibilities than their male colleagues is something previously reported from studies in America [23, 24]. A similar survey reflected among American cardiothoracic surgeons

Table 2

Graphical representation of the responses received when asked to score the challenges women ophthalmologists face. Respondents were asked to score from 1 to 5 (1 being not important and 5 being most important)



found that majority of men in their survey (76%) reported their spouse primarily had responsibility for household tasks [25]. This, we believe, highlights that women the world over, continue to essay the customarily designated roles.

Among women physicians, gender biases in income and opportunities for promotion have been recognized previously in literature [26–28]. Fairness of financial compensation has been recognized as an important factor in relation to career satisfaction for women physicians in many branches such as emergency medicine, urology, gynecology and psychiatry [29]. As mentioned earlier, in our study, ‘the need to work harder to prove professional excellence’ and ‘lesser confidence amongst patients in women surgeons’ were graded as moderately important reasons as to why being a woman ophthalmologist was a challenge.

Globally too, there has been discrimination noted when it comes to paychecks in the healthcare system. One survey reported that in the United Kingdom, there existed a 28.6% pay-gap between men and women medical practitioners [29]. This report further points to the surprising finding that when it came to nurses, paramedics, and healthcare managers—the gender pay differences are closer to zero.

Women in our study had a significantly lower average working hours per week compared to men. The reason could be attributed to the expressed collective opinion of women ophthalmologists that they have to shoulder the larger chunk of family and household responsibilities. Career satisfaction for women physicians is influenced by factors such as schedule flexibility [3, 30, 31]. Often times, the ideal time for career growth is in the late twenties or early thirties: a time when most physicians have just finished residency and/or fellowship. This phase of career consolidation often coincides with the period of childbearing for women. In India, where the average age of women at first child birth is 19.9 years, women are often encouraged to conceive early [30]. Caniano and colleagues, while discussing their insights from a survey of women pediatric surgeons, mention how respondents commented on the stress of achieving pregnancy at an older age and on the need for assisted reproductive technology. The respondents in their study commented that special consideration should be given to having children “before the realities of the biological clock,” even if it means prolonging training for women who got married while in medical school or during

residency [21]. Lack of flexible timings and rigid schedules are recurring themes in literature on career satisfaction among women physicians. When asked to list the things they may have traded off to achieve career satisfaction, women included factors that related to their personal time, predictable time, and time for relationships [31].

In our study, The respondents were asked to score their happiness quotient at home and at work; using a 5-point scale, with a score of 1 indicating most unhappy and a score of 5 indicating extremely happy. The gender-wise difference between the home scores was not statistically significant. However, the gender-wise comparison of happiness scores at work was statistically significant which corroborates with women not being as happy at work as men and also that a significantly higher number of women reporting not being able to achieve a good work-life balance. Caniano et al. state that part-time and flexible work schedules have been identified as ways to achieve career-family balance [21].

While our study may have the inherent sampling errors of any survey, we believe it brings to light, hitherto unexplored facets of ophthalmic practice in India. A sample of 297 respondents may not necessarily represent the true cross section of ophthalmologists spread across rural and urban India but we believe this is a beginning. Our findings should be considered by women who plan to take up a career in medicine as well as those women medical students who wish to pursue a career in ophthalmology. We believe our findings about the perception of gender disparity and career satisfaction should stimulate constructive discussions among healthcare managers and decision makers. In an ideal scenario, women ophthalmologists should be able to achieve good work-life balance with the help of predictable schedules, controllable timings, and sound support systems in the form of family and colleagues in a non-discriminatory environment. To achieve this, the issues highlighted in our study should be taken into consideration by policy makers and institutes in order to reform the current practice models. Government and private institutions must address the issue of gender-based discrimination when it comes to remuneration. Sensitivity, compassion, and understanding on the part of male colleagues may also have a role in equalizing the disparity and creating a harmonious and productive environment in the work-setting. Addressing the needs of women ophthalmologists can only enhance their satisfaction levels, which in turn will boost the

quality of healthcare and make the workforce more industrious.

5. Implications for practice and the road ahead

In general, literature suggests that women are discriminated against in two aspects: with respect to level of occupation and salary earned [32]. The findings of this study would indicate that gender discrimination in some form of the other occurs even in the medical fraternity. Arrizabalaga and colleagues reported that there are significantly lesser women in leading positions in the medical practice. Fewer women in senior management and leadership positions inevitably means that their individual and collective opinions are less likely to be voiced in decision-making processes. This would mean that policies are unwittingly being made and adopted without acknowledging or understanding the needs of the women workforce [33].

Professional medical associations can also play a role in implementing this. Specific measures include institutional backing of strategies to address gender inequality, scientific training and sensitization of the workforce to change the attitudes of the managers; providing support during and on return from maternity leave and finally encouraging women to apply for appointments and promotions [33]. Our study represents the viewpoint of both male and female ophthalmologists in India and this point of view can serve as a foundation to build a framework for balanced policies and practice models.

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Conflict of interest

None of the authors have any financial interests to disclose.

Contributors

Substantial contributions to conception and design, acquisition of data: PJ, VJ, AGN.

Drafting the article, and data analysis: AGN, AA.
Revision and final approval: AGN, VJ.

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