Does the current Italian healthcare system deal with the perspective of young surgeons? An assessment of the quality of professional life among orthopedists within the first 10 years of their careers

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SUMMARY

Objective. To assess the professional experiences and quality of life of young orthopedic surgeons within the Italian National Health Service (SSN) during their first 10 years of practice. **Methods**. A survey was distributed to young orthopedic surgeons in Italy, collecting data on demographics, professional experience, working conditions, job satisfaction, and economic satisfaction. Responses were analyzed using basic statistical measures to identify key trends. **Results**. The survey received 550 responses, with 76.9% males and a mean age of 36.8 years. Significant dissatisfaction was noted, with only 24% satisfied with compensation and 68.3% feeling it inadequate. Additionally, 44.7% reported a shortage of more than two units in their departments, and about 70% worked more than 36 hours per week. High levels of frustration (3.4/5) and fatigue (4.3/5) were reported. Only 27.3% positively rated professional development opportunities. To attain more favorable work conditions, 57.3% of respondents indicated they would prefer changing jobs within the next two years.

Conclusions. Young orthopedic surgeons in Italy face challenging working scenarios, inadequate staffing, and economic dissatisfaction, leading to significant attrition risk from the SSN. Systemic reforms are needed to improve retention and job satisfaction.

Key words: National healthcare system, orthopedic surgeons, professional life quality, job satisfaction, medical attrition

Introduction

The Italian National Health Service (SSN) has been grappling with significant challenges, particularly in retaining medical professionals. Recent reports indicate a worrying trend of doctors abandoning the SSN, exacerbating the strain on the health-care system. The primary reason for this exodus seems to include unsustainable working conditions, inadequate salaries, and a lack of professional growth opportunities ¹.

The Italian Federazione Nazionale degli Ordini dei Medici Chirurghi e degli Odontoiatri (FNOMCEO) predicted that around 100,000 doctors will leave the SSN in the next five years due to these systemic issues ². In 2024 alone, it is estimated that 7,000 more doctors will exit the SSN ³.

This trend seems to be largely driven by a combination of factors such as increased workload, insufficient staffing, and the lingering impacts of the COVID-19 pandemic, which have collectively heightened stress and burnout among healthcare professionals. Many doctors are now seeking better opportunities either in the private sector or abroad, where working conditions and compensation are more favorable ^{1,3}.

In this scenario, the Organization of Italian Orthopedic and Traumatology Surgeons (OTODI) has shown itself to be very aware to the problems that orthopedists experience daily in public hospitals. The under-40 fellows session (OTODI Young) investigated the issue from the perspective of young surgeons (orthopedic doctors within their first 10 years of their careers) by carrying out a survey examining working conditions, job satisfaction, and overarching challenges faced by these professionals to provide a detailed understanding of the issues affecting a critical segment within the SSN. This article provides an in-depth analysis of the results of the survey. These insights are crucial for informing policy and strategic decisions to improve the retention of medical professionals within the SSN.

Materials and methods

Study design and participants

A survey was developed by the council of OTODI Young targeting all young orthopedic surgeons who have been employed for less than 10 years. The aim was to gather comprehensive data regarding their experiences, challenges, satisfaction, and perspectives within the field of orthopedics.

Questionnaire development

The final questionnaire, reported in Figure 1, covered the following main areas:

- Demographics: age, gender, geographic origin, and current work location;
- Professional experience: duration of work within the SSN, type of hospital, and contract type;

- Working conditions: on-call duty, monthly on-call shifts, staffing levels, and weekly operating hours;
- Job satisfaction: interest areas, workload, legal issues, union membership, and various aspects of job satisfaction;
- Economic satisfaction: satisfaction with compensation and its adequacy for living conditions.

Survey distribution

The survey was conducted via Google Forms and disseminated using the mailing list of the OTODI society, ensuring that all members received an invitation to participate.

Participation in the survey was voluntary, and all responses were anonymized to ensure confidentiality. Consent was implied through the completion and submission of the survey.

The survey was released on September 1, 2023 and responses were collected over one month. The survey platform ensured anonymity and confidentiality of the respondents, with no identifying information collected.

Data analysis

The data collected was subjected to basic statistical measures; mean, median, mode, and standard deviation were used to summarize the responses. Relationships between different variables (e.g., job satisfaction and type of hospital) were examined using cross-tabulation.

Results

Survey demographics

The survey collected responses from 550 young orthopedic surgeons as of October, 2023. The respondents comprised 423 males (76.9%) and 127 females (23.1%), with a mean age of 36.8 years. 40.2% of the respondents' origins were from Northern Italy, 32% from Southern Italy, 20.2% from Central Italy, and 7.6% from the Islands. The current work locations were 50.5% work in Northern Italy, 24.2% in Central Italy, 19.3% in Southern Italy, and 6% in the Islands. Table I shows demographic information.

The majority of respondents have been working in the SSN for varying durations: Less than 2 years for 26.9, 38.9% less than 5 years, 14.2% less than 7 years, and 20% less than 10 years. The types of public hospitals where these professionals work are HUB with trauma center (1st level) for 31.5%, while 34.7% work in a HUB without trauma center (2nd level), 20.2% in SPOKE (Basic Hospital), and 13.6% in University or Mixed Hospitals.

The types of contracts declared were permanent contract (within the public system) (64.4%), permanent contract (outside the public system) (19.3%), temporary contract (8.7%), temporary external contract (1.8%), freelance contract (0.9%), and scholarships (4.9%).

Sex:		Have you experienced unfair treatment (mobbing,			
□Male □Female □Prefer not to answer		bossing, discrimination)?			
Age: (please specify)		□Yes, reported it publicly/legally, and maintained job			
riger (preuse speerly)		□Yes, reported it publicly/legally, and changed workplace			
Which area of Italy are you originally fro	om?	□Yes, did not report it, and maintained job			
□North □Center □South □Islands		□Yes, did not report it, and changed workplace			
In which area of Italy do you work?		□No			
□North □Center □South □Islands		Rate the following statements from 1 to 5 (1 = not at all, 5 = very much):			
How long have you worked in the SSN (y	years)?	□I consider my current job position prestigious			
o< 2 o< 5 o< 7 o< 10		□ I consider my current job position fascinating			
		□I consider my current job position rewarding			
Type of hospital you work in: □HUB with a reference trauma center (Leve	rel 2)	□I consider my current job position tiring			
□HUB without a reference trauma center (I		□I consider my current job position frustrating			
□SPOKE (Basic hospital)		□I consider my current job position disappointing			
□University or mixed hospital		□I am engaged in tasks/bureaucracy outside my profession			
Is an outhorodic surgeon on active duty	24/79	□By planning with colleagues, I manage to participate in			
Is an orthopedic surgeon on active duty 2 □Yes □No	24//:	training courses, updates, and congresses			
		□ I participate in scientific production activities			
How many on-call shifts do you have on	average per	□I am satisfied with the economic compensation			
month? □<10 □10 □Up to 15 □>15		☐The economic compensation is in line with the workload and responsibilities			
Is your department understaffed compar	red to the	□The economic compensation is adequate for living in my			
established regional needs?		city			
□No □Yes, by one unit □Yes, by two units	□Yes, by more	□I can put privately visited patients on the waiting list			
than two units		without problems			
Weekly hours of operating sessions (trau	ıma + elective +	☐ I manage to operate patients on the waiting list according to			
Day Surgery):	illa - ciccuve -	urgency (A, B, C, D)			
□ Less than 36 □Between 36 and 72 □More	e than 72	☐ I routinely handle elective orthopedic surgery			
		□I am involved in the organizational and treatment decision- making processes in my unit			
Current contract type:	1	□The SSN employee often has to give up a private life			
□Fixed-term intramural □Fixed-term extr		□I manage to balance family needs			
□Permanent intramural □Permanent extra	amurai	□I feel legally protected by my company			
□Freelance contract □Scholarship		□ I see a concrete career perspective			
Main area of interest:		□In general, I am satisfied with my current job position			
□Traumatology		□In general, I am satisfied with my current quality of life			
□Elective orthopedics		,, , , ,			
☐Mixed with elective prevalence		Do you plan to change your job position in the near			
☐Mixed with traumatic prevalence		future (within 2 years)?			
□Other:		□Impossible □Unlikely □Likely □Very likely □Certain			
		If you decide to change, rate how these factors might			
Do you work beyond 38 hours per week?		influence your choice (1 = not at all, 5 = very much):			
☐Usually not ☐Yes, within 44 hours ☐Yes,	, over 44 hours	□I would choose my new job based on the pathology treated			
Hours per week dedicated to private prac	ctice.	□I would choose my new job based on proximity to home			
\Box < 4 \Box 5-9 \Box Up to 12 \Box > 12 \Box I do not practice		□I would choose my new job based on career prospects			
a 44 a 5 5 a 6 p to 12 a 5 12 a 1 to not pre-	cacc	□I would choose my new job based on better economic gain			
Post-COVID, how has the quality of your professional life					
changed?					
□Improved □Unchanged □Worsened					
Have you been involved in a medical-legal dispute?					
□Yes □No	putt				
- 100 H10					
Are you a member of a union?					
□Yes, specific for orthopedic surgeons □	□ I don't know				
□Yes, a general union	□No				

Figure 1. The survey addressed to public hospital ortho and trauma surgeons in Italy, employees for less than 10 years. As of October 2023, there were 550 responses.

Table I. The demographic distribution of the sample, taking into account factors like ge	ender, age, birthplace
geolocation, and occupation.	

Women	Men	Age (mean)	Place of origin	Current workplace
127 (23.1%)	423 (76.9%)	36.8	Northern 40.2%	Northern 50.5%
			Central 20.2%	Central 24.2%
			Southern 32%	Southern 19.3%
			Islands 7.6%	Islands 6%

The main areas of interest among respondents were Traumatology (25.6%), Elective Orthopedics (12.4%), Mixed Elective and Traumatology (15.5%), and Other specialties (e.g., Hand Surgery, Pediatric Orthopedics) for the remaining percentages.

Working conditions

A sizable portion of respondents -46% in the affirmative and 54% in the negative – stated that the orthopedic service at their hospital is on active duty 24/7.

Regarding monthly on-call shifts, 55.8% of respondents reported having less than 10 shifts, 23.6% reported having 10 shifts, 14.9% reported having up to 15 shifts, and 5.6% reported having more than 15 shifts.

Responses regarding staffing levels indicate that only 19.5% of respondents work with an adequate number of staff, while 15.3% report a shortage of one unit, 20.5% of two units, and

44.7% even work with more than two fewer professional units (Fig. 2).

Concerning weekly operating hours, which include trauma, elective, and day surgery sessions, 28.5% of respondents work less than 36 hours per week, 43.5% work between 36 and 72 hours, and 28% work more than 72 hours.

Regarding job satisfaction and challenges, respondents were asked about the necessity to work beyond the standard 38-hour workweek. 33.3% responded that it is not typically necessary, 40.5% reported working up to 44 hours weekly, and 26.2% reported working more than 44 hours weekly.

Finally, concerning legal issues and union membership, 36.4% of respondents reported being involved in medical-legal disputes, 8.4% are members of a specific surgeons' union, 15.5% are members of a general union, and 4.7% are not aware of the existence of medical unions.

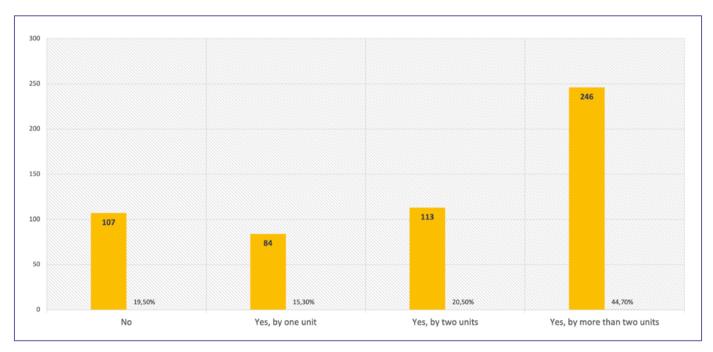


Figure 2. The answer to question #9: "Is your department understaffed compared to the established regional needs?" shows that more than 80% are working with staff below the minimum threshold compared to the workload required by their hospital.

Perceptions and satisfaction

Various aspects were rated on a scale from 1 (not at all) to 5 (very much). The findings provide a nuanced view of the perceived prestige, attractiveness, gratification, fatigue, frustration, disappointment, administrative burden, and opportunities for professional development in their roles.

Prestige and attractiveness of the position

Respondents rated the prestige and attractiveness of their positions relatively low, with an average rating of 2.3 for prestige and 2.4 for attractiveness. These ratings suggest a general perception that their roles are neither highly prestigious nor particularly attractive.

Gratification and fatigue

The survey results indicated a significant dichotomy between gratification and fatigue. The average rating for job gratification was 2.3, implying a low level of job satisfaction in terms of personal fulfillment. Conversely, the average rating for fatigue was notably high at 4.3, indicating that respondents frequently experience significant levels of exhaustion in their roles.

Frustration and disappointment

Frustration and disappointment also emerged as considerable factors. Respondents rated frustration with an average score of 3.4, suggesting moderate to high levels of frustration in their jobs. The average rating for disappointment was 2.7, indicating a moderate degree of dissatisfaction. Moreover, investigating the perception of being a victim of bossing, mobbing, or sexual discrimination only 70% declared not to be, while 20% declared to have been victim but to have done nothing about it.

Administrative burden and professional development

The impact of non-clinical work and opportunities for professional growth were explored. Notably, 36% of respondents rated their engagement in non-clinical work (such as administrative duties) highly, with scores of 4 or 5. In terms of professional development, only 27.3% rated their possibility to attend training courses highly, while only 10.2% rated their involvement in scientific production with similar high scores. These figures highlight a significant administrative burden and suggested limited opportunities for professional advancement.

Economic satisfaction

24% of respondents rated their satisfaction with economic compensation as 1 or 2, indicating general dissatisfaction. A significant 68.3% rated their compensation as poorly matched to their workload (scores of 1 or 2). Additionally, 61.8% felt their compensation was inadequate for living in their respective cities, further underscoring the economic challenges faced by the respondents.

Abandonment of the workplace

Approximately 50% declared that they were likely or very likely to change their actual position of work and 8% said they would certainly do so (Fig. 3). Most of those affirmed that they would base their decision on the economic proposition or the quality of life. Of those surveyed, 42.7% said it would be impossible or unlikely to change their job position.

Discussion

The OTODI Young survey provides a snapshot of the working conditions and professional challenges faced by young orthopedic surgeons within the Italian National Health Service. The data reveal several key issues that contribute to the dissatisfaction and potential departure of these medical professionals from the public healthcare system.

One of the most significant findings from the survey is that about of 60% of respondents declared their intention (likely o very likely) to change job for better economics or life condition. National reports support these findings, highlighting chronic understaffing and the increased workload as primary reasons for the exodus of medical professionals from the SSN³. A majority of respondents indicated that their departments are understaffed, with 44.7% stating that they are short by more than two units. This staffing shortage is compounded by the fact that about 45% have more than 10 on-call shifts monthly and about 70% declared to work more than the 36 hour per week requested by the national contract, indicating a heavy oncall burden. Several studies have previously demonstrated that excessive workload and long working hours are primary contributors of burnout in healthcare professionals, which starts from the moment of residency 4-6.

These elements not only strain physical and mental well-being, but also limit opportunities for recovery and personal time, exacerbating stress and fatigue. This exacerbates a scenario where the demanding nature of the medical profession often leads to a lack of work-life balance, further intensifying burnout symptoms.

Job satisfaction among young orthopedic surgeons appears to be low, with many respondents expressing frustration and disappointment with their current roles. The average ratings for job prestige and attractiveness were 2.3 and 2.4 up to 5, respectively, indicating a perceived lack of professional fulfillment. Furthermore, only 27.3% of respondents rated their ability to attend training courses highly, and just 10.2% felt that they were involved in scientific production. Organizational factors such as insufficient support, lack of recognition, and inadequate resources play a significant role in the wellness and satisfaction ⁷. A recent study performed at Boston Medical School underlined that when healthcare professionals perceive a lack of support from their institutions it can lead to feelings of isolation and helplessness ⁸. Furthermore, inadequate mentorship and limited career development opportunities contribute to job dissatisfaction and burnout ^{4,7}.

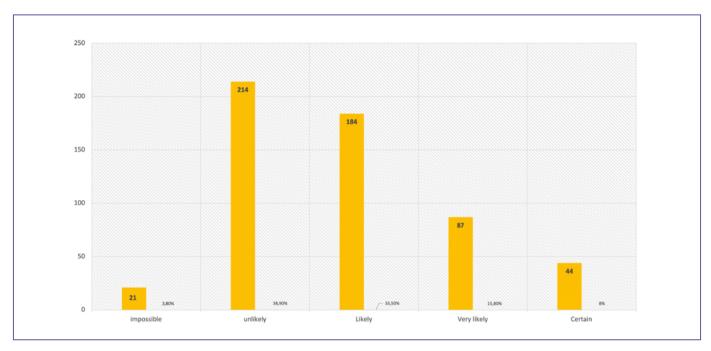


Figure 3. The answer to question #20: "Do you plan to change your job position in the near future (within 2 years)?" shows that 57.3% would like to change jobs within the next 2 years, of which 8% are certain about it.

Moreover, it has been demonstrated that addressing these issues not only improve the well-being of healthcare providers, but also enhance the quality of patient care by reducing medical errors and improving overall job performance⁸.

Economic dissatisfaction is another major issue. In Italy, physicians earn significantly less compared to their counterparts in many other European countries. The average annual salary for a specialist in Italy is approximately €81,000, while it is €136,000, €146,000,, and €172,000 in UK, Germany, and Ireland, respectively⁹. In this scenario, the survey results show that only 24% of respondents are satisfied with their compensation, with 68.3% feeling that their compensation does not match their workload and 61.8% finding it inadequate for their living conditions.

The lingering impacts of the COVID-19 pandemic have exacerbated these issues. More than 40% of participants declared that their working conditions worsened after the pandemic. Junior orthopedic surgeons, like many other healthcare workers, have been at the frontline of this crisis, further compounding their dissatisfaction and sense of fatigue.

A notable portion of respondents (36.4%) reported involvement in medical-legal disputes, adding another layer of stress and dissatisfaction to their professional lives. Additionally, union membership is relatively low, with only 8.4% belonging to a specific orthopedic surgeons' union and 15.5% to a general union. This lack of union support may leave these professionals feeling isolated and unsupported in addressing their workplace grievances.

The problem is largely known. As the president of Italian Federation of General Physician (FIMMG) declared that sees more than 35,600 new legal actions brought against doctors every year all over the country which, however, in 97% of cases are completely unfounded 10. While Italy may have a more explicit approach to the criminal liability of doctors compared to other countries, it is not the only jurisdiction where doctors can be criminally prosecuted 11,12. The primary difference lies in the frequency and circumstances under which criminal liability is applied. Other countries tend to reserve criminal liability for particularly severe cases of negligence or intentional criminal conduct, whereas in Italy criminal liability can also be applied in cases of minor fault, although laws such as the Gelli-Bianco law have mitigated this 12. However, the recent efforts of the government in this field show that the issue is still unsolved and have a negative impact on the career of young orthopedic surgeons.

A limitation of the present pertains to the fact that the questionnaire was restricted to National Health Service personnel with fewer than 10 years of service, while orthopedic surgeons with more seniority were not included. Moreover, we did not include junior colleagues who are not employed in the public system. Therefore, we are unsure if other generations or different professional realities also share same worries. Regardless of this, the survey results underscore the urgent need for systemic changes within the SSN to address the issues faced by young orthopedic surgeons. Our results highlight that it is evident more action is required to stop violence against

healthcare workers and to pass legislation decriminalizing the medical act. This is because professionals are unable to work calmly due to the fear of lawsuits, which, in 90% of cases, are unfounded. Conversely, the doctor's worries cause the use of defensive medicine to skyrocket, at a cost to the State of more than 10 billion euros annually ¹³. In order to bring Italian salaries closer to the average for Europe, it would also be necessary to separate healthcare workers from the public administration and valorize them economically through an increase in the specific medical and healthcare allowance.

Conclusions

The survey by OTODI Young reveals a challenging environment for young orthopedic surgeons within the Italian National Health Service. Despite their dedication to their field, many face significant dissatisfaction with their working conditions, compensation, and work-life balance. The data indicate a pressing need for systemic reforms to improve staffing levels, reduce administrative burden, and provide better economic incentives to retain these essential healthcare professionals. Addressing these issues is crucial to ensuring the sustainability and effectiveness of the SSN and to prevent further attrition among its young medical professionals.

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Conflict of interest stetament

The Authors declare no conflict of interest.

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Author contributions

This study is the result of the solid and assiduous work of the entire OTODI Young group, and in particular of: FA: conceptualisation, writing (original draft); LP: conceptualisation, data curation, writing (original draft); RP: conceptualisation, methodology, supervision; FB: writing (review & editing), data curation; FD: methodology, supervision; AF: conceptualization, methodology, writing (review & editing), supervision.

Ethical consideration

The research was conducted ethically, with all study procedures being performed in accordance with the requirements of the World Medical Association's Declaration of Helsinki.

When responding to the questionnaire participants gave in-

When responding to the questionnaire, participants gave informed consent for study participation and data publication.

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