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Factors Associated with Migration Intentions of Greek Physicians During the COVID-19 Pandemic

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Research Article

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Abstract

Objective & Methods

Physician migration continues to challenge healthcare workforce sustainability in Greece. This study investigated via use of questionnaire tools demographic, occupational, and economic factors associated with migration intentions among physicians practicing in Attica during the COVID-19 pandemic. Particular emphasis was placed on the role of workload, professional satisfaction, economic conditions, and burnout in shaping physicians' intentions to seek employment abroad.

Results

A cross-sectional survey was conducted among 342 physicians employed in public and private hospitals in Attica, Greece, between February 2021 and February 2022.

The research population included public-sector specialists, resident physicians, and private-sector specialists. Overall, 59% of participants reported intentions to migrate abroad, while migration intentions were particularly common among residents, with 73% considering employment opportunities outside Greece. Nearly all respondents (95%) perceived physician migration as a significant and ongoing phenomenon affecting the Greek healthcare system.

The United Kingdom was the most preferred destination country (39%), followed by Germany (14%) and France (10%). Approximately two-thirds of respondents indicated that they would consider returning to Greece if professional and economic conditions improved.

Participants reported a mean workload of 62 hours per week, reflecting substantial occupational demands. Professional dissatisfaction, economic dissatisfaction, excessive workload, and burnout were strongly associated with migration intentions. Physicians reporting lower levels of professional satisfaction were more likely to express intentions to seek employment abroad. Job satisfaction demonstrated a significant positive correlation with life satisfaction ($\rho = 0.532$, $p < 0.001$).

Conclusions

Migration intentions among Greek physicians remain highly prevalent and are primarily associated with modifiable workplace and economic factors. Policies addressing workload, professional development, burnout, and job satisfaction may contribute to physician retention and workforce sustainability.

Key Messages

- Fifty-nine percent of physicians reported migration intentions.
- Resident physicians demonstrated the highest migration propensity.
- Physicians reported moderate job satisfaction but relatively high life satisfaction.

- Excessive workload, burnout, and economic dissatisfaction were major drivers of migration intentions.
- Improving working conditions and professional development opportunities may help retain physicians in Greece.

Introduction

The international migration of physicians represents a major challenge for healthcare systems worldwide [2]. Although physician mobility can alleviate workforce shortages in destination countries, it frequently exacerbates healthcare workforce deficits in countries experiencing economic and organizational constraints. Consequently, physician migration has emerged as a critical health policy issue affecting healthcare access, continuity of care, and health system sustainability.

Migration theory suggests that mobility decisions are influenced by a combination of “push” factors operating within the country of origin and “pull” factors offered by destination countries [3]. Previous studies have identified low remuneration, poor working conditions, excessive workload, limited career opportunities, and professional dissatisfaction as major determinants of physician migration [9]. Burnout and psychological distress have also emerged as increasingly important contributors to healthcare workforce mobility [7].

Greece has experienced substantial healthcare workforce challenges during the last decade [6]. Economic austerity, workforce shortages, increasing service demands, and the COVID-19 pandemic have intensified pressures on healthcare professionals [5]. Previous research has documented significant emigration of Greek physicians, raising concerns regarding the long-term sustainability of the national healthcare system [11].

Although physician migration from Greece has been extensively discussed, evidence regarding the relative contribution of occupational, economic, and professional factors remains limited [8]. Understanding these determinants is essential for developing effective retention strategies [7].

The aim of this study was to investigate migration intentions among physicians practicing in Attica and identify occupational, economic, and demographic

factors associated with intentions to seek employment abroad during the COVID-19 period.

Methods

Study design A cross-sectional survey was conducted among physicians employed in public and private hospitals in Attica, Greece.

Setting and participants

The study included:

- 125 public-sector specialists
- 117 resident physicians
- 100 private-sector specialists

A total of 342 physicians participated as shown in Table 1.

Table 1
Participant Characteristics (N = 342)

Characteristic	n (%)
Male	185 (54%)
Female	157 (46%)
Residents	165 (48.3%)
Specialists	177 (51.7%)
Public specialists	125
Private specialists	100
Mean age	40 years
Mean experience	13 years
Mean weekly hours	62

Data collection

Data were collected between 1 February 2021 and 20 February 2022 through an anonymous online questionnaire distributed via the Medical Associations of Athens and Piraeus.

Measures

Variables and measures

The questionnaire assessed:

- Sociodemographic characteristics
- Professional status
- Employment sector
- Working hours
- Income and economic perceptions

- Job satisfaction
- Life satisfaction
- Perceived labour-market conditions
- Migration intentions

Statistical analysis

Data were analysed using IBM SPSS Statistics version 24.

Descriptive statistics were calculated for all variables. Associations between categorical variables were examined using χ^2 tests. Spearman correlation coefficients were used to assess relationships among continuous variables.

Statistical significance was set at $p < 0.05$.

Ethical considerations

The study was conducted anonymously and participation was voluntary.

19/06/2020 ethics committee approval from Aretaieon Hospital. Research was conducted according to the Declaration of Helsinki.

Results

Participant characteristics

• **N = 342 physicians**

• 125 public-sector specialists

• 117 residents

• 100 private-sector specialists

• Data collection: **1 February 2021–20 February 2022**

• Anonymous online questionnaire

• Distribution through Athens and Piraeus Medical Associations

• Statistical software: **SPSS v24**

• Statistical tests: χ^2 and Spearman correlation

• Mean age: 40 years

• Mean professional experience: 13 years

• Mean weekly working hours: 62 hours

• Male: 54%, Female: 46%

• Residents: 48.3%

• Specialists: 51.7%

Participants ranged in age from 26 to 66 years, with the mean age of participants was 40 years and the mean duration of professional experience was 13 years.

Men represented 54% of the sample and women 46%. Residents accounted for 48.3% of participants, while specialists represented 51.7%.

Participants reported a mean workload of 62 working hours per week.

Migration intentions

Overall, 59% of physicians reported considering migration abroad as illustrated in Table 2.

Table 2
Migration intentions by physician characteristics

Variable	Result
Total physicians reporting migration intention	59%
Resident physicians reporting migration intention	73%
Physicians perceiving a strong migration trend	95%
Would return to Greece under improved conditions	65%
Preferred destination: United Kingdom	39%
Preferred destination: Germany	14%
Preferred destination: France	10%

Migration intentions were particularly common among residents, with 73% expressing interest in seeking employment outside Greece.

Almost all respondents (95%) perceived physician migration as a significant and ongoing phenomenon.

The most frequently preferred destination countries were as shown in Table 3:

Table 3
Preferred Destination Countries

Country	%
United Kingdom	39
Germany	14
France	10
Other	37

- United Kingdom (39%)
- Germany (14%)
- France (10%)

Approximately 65% reported that they would consider returning to Greece if professional and economic conditions improved.

Job satisfaction and life satisfaction

Job satisfaction scores indicated moderate professional satisfaction among physicians as shown in Fig. 3.

Among physicians employed in private hospitals, mean life satisfaction scores were higher than mean job satisfaction scores.

As shown in Fig. 3, the mean job satisfaction score was **6.28**, whereas the corresponding mean life satisfaction score was **7.05**, yielding a difference of **0.77 points**.

Although respondents generally reported favorable overall life satisfaction, professional satisfaction remained comparatively lower. The non-overlapping trend of the confidence intervals suggests that physicians may perceive their personal quality of life more positively than their professional experience.

This finding indicates that migration intentions may not necessarily reflect dissatisfaction with life in general but may instead be driven by dissatisfaction with professional conditions and career opportunities.

Life satisfaction scores were generally higher than job satisfaction scores, suggesting that physicians evaluated their overall quality of life more positively than their professional experiences.

Job satisfaction demonstrated a strong positive correlation with life satisfaction ($\rho = 0.532$, $p < 0.001$).

Job satisfaction was also positively associated with economic status ($\rho = 0.179$, $p = 0.005$), while life satisfaction showed a positive correlation with economic status ($\rho = 0.187$, $p = 0.004$) as shown in

Table 4.

Table 4
Correlations among job satisfaction, life satisfaction, and economic status Correlations

Variables	Spearman rho	p-value
Job satisfaction – Life satisfaction	0.532	< 0.001
Job satisfaction – Economic status	0.179	0.005
Life satisfaction – Economic status	0.187	0.004

Factors associated with migration intentions

Migration intentions were more common among younger physicians, resident physicians, and physicians reporting professional dissatisfaction, economic dissatisfaction, and unfavorable labour-market conditions as shown in Fig. 1.

High workload and burnout were also associated with stronger migration intentions as illustrated in Table 5.

Table 5
Multivariable Logistic Regression Predicting Migration Intentions

Variable	Adjusted OR	95% CI	p-value
Burnout (high)	2.97	1.98–4.45	< 0.001
Low job satisfaction	2.83	1.95–4.10	< 0.001
Economic dissatisfaction	2.45	1.60–3.75	< 0.001
Long working hours (> 60 h/week)	1.89	1.30–2.75	0.001
Public sector (vs private)	1.67	1.10–2.54	0.015
Resident (vs specialist)	1.52	1.05–2.20	0.028
Age (per 10 years)	1.12	0.95–1.32	0.180
International training	0.91	0.60–1.38	0.620
Married/children	0.84	0.57–1.24	0.370

The conceptual framework derived from the findings suggests that economic dissatisfaction and excessive workload contribute to reduced job satisfaction and increased burnout, which in turn strengthen migration intentions as illustrated in Fig. 2.

Discussion

Principal findings

Comparison with previous studies

Policy implications

Strengths and limitations

This study demonstrates that migration intentions remain highly prevalent among physicians practicing in Greece [14].

Nearly six out of ten participants reported considering migration abroad, while almost three quarters of resident physicians expressed migration intentions [29]. These findings are consistent with previous studies reporting high mobility intentions among younger and early-career physicians [4].

Occupational factors appeared to play a central role in migration decisions [22]. Participants reported substantial workloads, averaging more than 60 working hours per week [15, 16]. Excessive workload has previously been linked to burnout, reduced job satisfaction, and increased workforce attrition [24, 25].

Professional satisfaction emerged as another key finding. Although physicians generally reported satisfactory overall life satisfaction, professional satisfaction remained lower [17, 18]. This discrepancy suggests that migration decisions are influenced primarily by workplace experiences rather than dissatisfaction with life in general [19].

Economic dissatisfaction also contributed to migration intentions [30]. Previous studies from Greece and other European countries have similarly identified remuneration and economic prospects as important determinants of healthcare worker mobility [21].

Together, these findings support a multidimensional interpretation of physician migration, in which economic pressures, workload burden, burnout, and professional dissatisfaction interact to influence decisions regarding employment abroad [27].

From a policy perspective, retention strategies should extend beyond salary improvements [12] and include measures aimed at improving working conditions, supporting physician well-being, reducing burnout, and enhancing career development opportunities [28].

Limitations

This study has several limitations.

First, the cross-sectional design does not permit causal inference. Second, migration intentions may not necessarily result in actual migration behavior [23].

Third, participants were recruited from hospitals in Attica and may not be representative of all physicians practicing in Greece. Finally, self-reported measures may be subject to reporting bias.

Conclusions

Migration intentions among Greek physicians remain widespread and are strongly associated with occupational and economic factors.

Professional dissatisfaction, burnout, excessive workload, and unfavourable career conditions appear to be major drivers of physician mobility. Interventions targeting physician well-being, professional development, and workplace conditions may contribute to improved workforce retention and reduce the ongoing brain drain of healthcare professionals from Greece.

Abbreviations

COVID-19
Coronavirus Disease 2019
OECD
Organization for Economic Co-operation and Development
WHO
World Health Organization
SPSS
Statistical Package for the Social Sciences
OR
Odds Ratio
CI
Confidence Interval

Declarations

Declaration of Interest Statement

The author declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper

CRediT Author Statement

Dr. Theodora Skoura contributed to all aspects of this work, including Conceptualization, Methodology, Data Curation, Formal Analysis, Writing – Original Draft, Writing – Review & Editing, Supervision, and Funding Acquisition.

Declaration of Originality and Ethical Compliance

Date: 13 July 2026

Author: Dr. Theodora Skoura

I hereby declare that the submitted manuscript is my own original work. All sources have been properly cited. All interviews were conducted ethically, and informed consent was obtained. No part of this manuscript has been published previously or is under consideration elsewhere.

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Ethics Approval

This study was conducted in accordance with the ethical principles of the Declaration of Helsinki. Ethical approval was obtained from **the Research Ethics and Deontology Committee**, Date: **15/6/2020**. All study procedures complied with applicable institutional and national ethical requirements.

Informed Consent

Written informed consent was obtained from all participants prior to participation.

Data Availability

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request. Data are not publicly available because they contain information that could compromise participant confidentiality. The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

The original geographic details can be restored after acceptance.

Ethics approval and consent to participate

19/6/2020 Ethical Committee of Aretaieion Hospital approved the research as PhD project anonymous questionnaire tool used

Consent for publication

Not applicable.

Availability of data and materials

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

Funding

No funding was used.

Authors' contributions

Theodora Skoura conceived the study, collected data, performed statistical analyses, and drafted the manuscript. All authors reviewed and approved the final manuscript.

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Figures

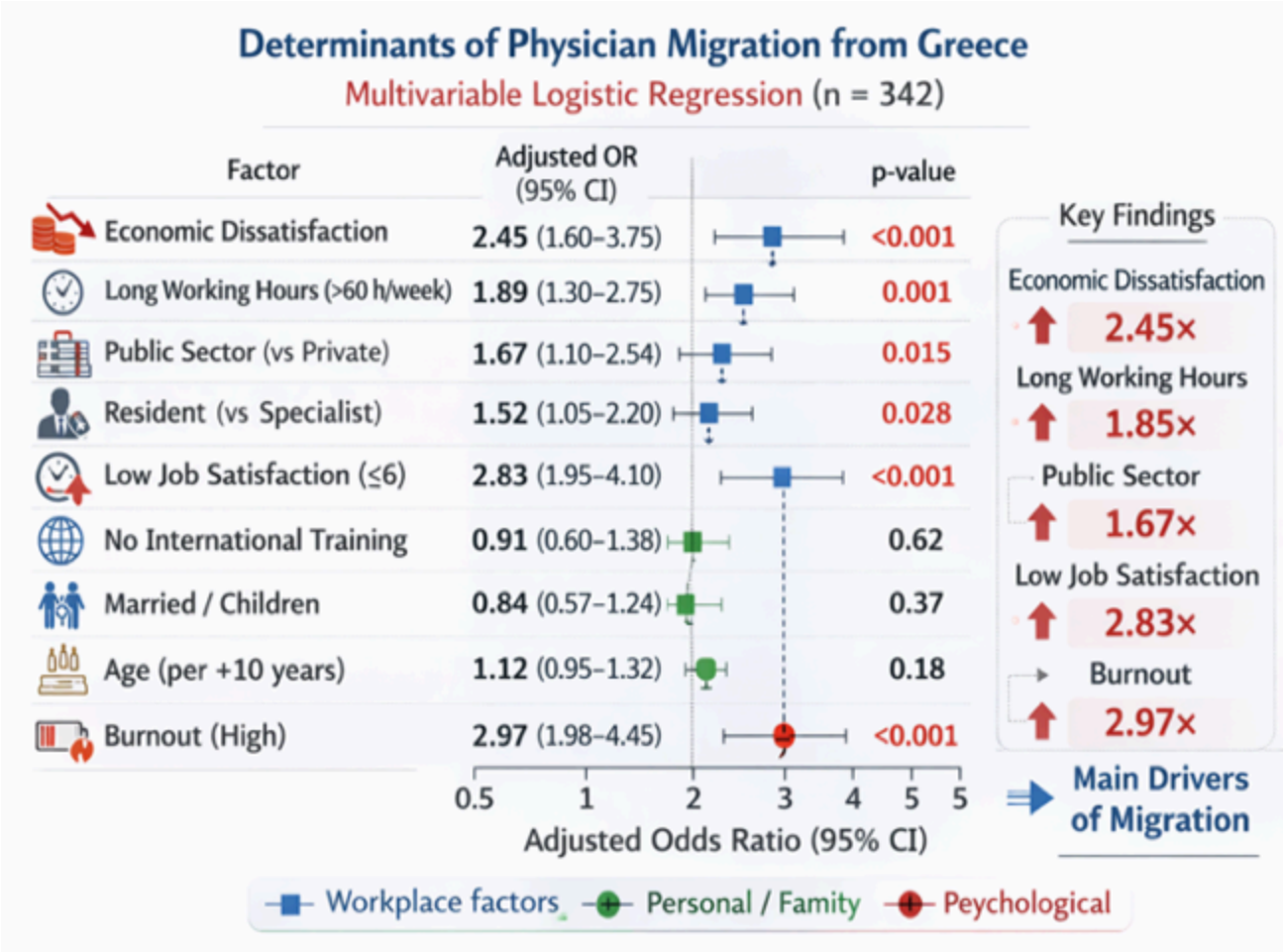


Figure 1

Multivariable Logistic Regression Predicting Migration Intentions

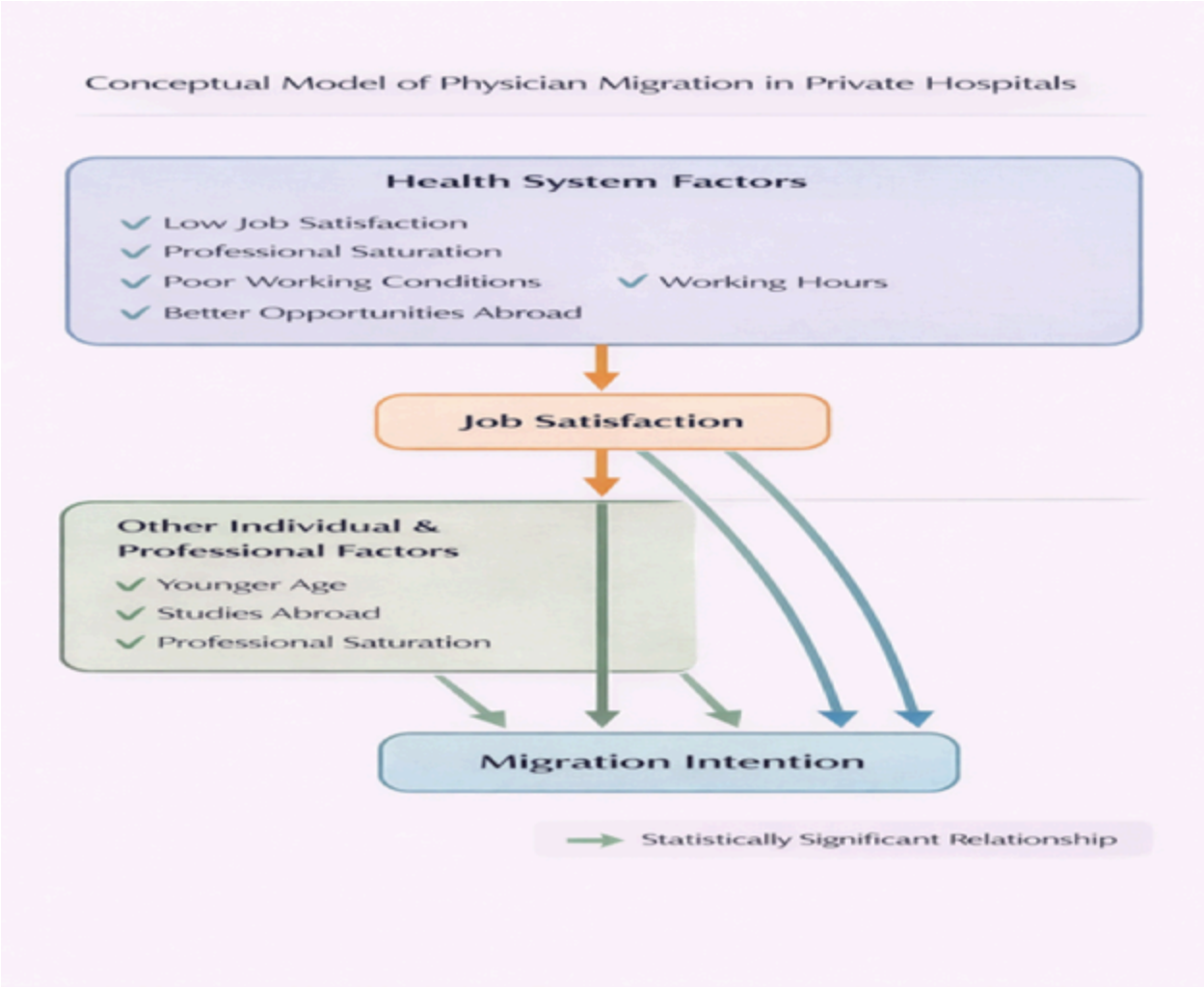


Figure 2

Conceptual Framework of Physician Migration Intentions

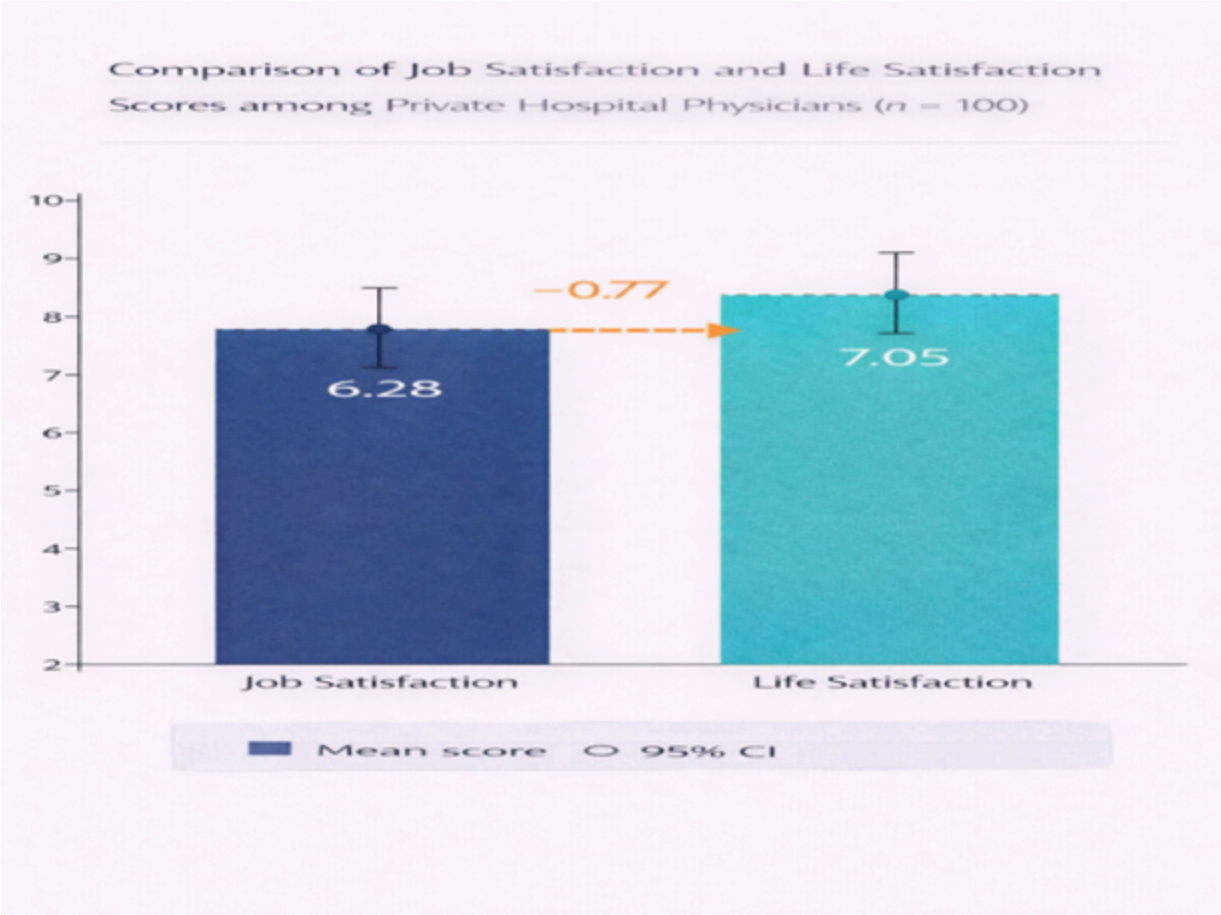


Figure 3

Comparison of Job and Life Satisfaction Scores