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### THE CORRELATION BETWEEN SPECIALTY CHOICE AND THE QUALITY OF LIFE OF LEBANESE PHYSICIANS

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# THE CORRELATION BETWEEN SPECIALTY CHOICE AND THE QUALITY OF LIFE OF LEBANESE PHYSICIANS

## Abstract

Doctors suffer a stressful life and are less satisfied than individuals in other careers. A trend has been observed among medical students in USA showing a change of specialty choice to alleviate their quality of life. Even though most medical students choose their career path based on the field they are most pleased with, it sounds reasonable to get an idea about the quality of life in the specialty they will elect to do. The objective of this study is to evaluate the correlation between specialty choice and the quality of life of Lebanese physicians, to see which specialties have the most favorable quality of life and present their personal level of satisfaction regarding their lifestyle. This study conducted an anonymous modified short form survey (SF-36) questionnaire and some demographic data among Lebanese physicians practicing in Lebanon. Data was collected via emails using Lime Survey then entered and analyzed on SPSS software version 23.1. P value less than 0.05 was considered significant. 470 complete responses were retrieved in this research by email via Lime Survey. Specialty choice had a significant effect only on three scales; physical functioning ( $p < .001$ ), social functioning ( $p < .001$ ) and role limitations due to emotional problems ( $p = .25$ ), with no significant effect on energy and fatigue, emotional well-being, role limitations due to physical health, general health and pain. It was also found that specialty had significant effect on personal satisfaction ( $p = .016$ ). The study concluded that Lebanese physicians who practice laboratory medicine, family medicine, and pathology specialties having the most favorable quality of life based on the scales assessed in the SF-36 and that those practicing pediatrics had lower levels of personal satisfaction compared to those with pathology specialty.

## Keywords

Lifestyle, Lebanese physicians, Satisfaction, Lebanon, SF-36

## Authors

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## 1. INTRODUCTION

Specialty choice is one of the toughest decisions that a medical student has to take by the end of his undergraduate years since it determines their career fate and reflects their personality and general satisfaction. Based on studies conducted in the United States of America (USA), a trend has been observed among medical students showing a change of specialty predilection mainly owing to a controllable lifestyle. Indeed, French and American medical students are losing interest in specialties with uncontrollable lifestyle that include family medicine, obstetrics/gynecology, pediatrics internal medicine, and surgical specialties (De Souza et al, 2015). In fact, when the physician has a healthy lifestyle, he will not only be satisfied with his career choice, but it will also have a direct impact on the physician's advice to his patients regarding their lifestyle (Cornuz et al, 2000; Bazargan et al, 2009). Doctors suffer a stressful life and are less satisfied than individuals in other careers; in fact, a Chinese study showed that physicians have the most job burnouts and are thus more prone to stress (Wu et al, 2008). The main causes of stress are mainly reduced to four that include the job's necessitations and practice administration, how much they trespass the boundaries set between the physicians' personal life and work, what the patients expect from the physicians and the constant interruption at work and home (Cooper, 1989). The higher the workload that the physicians have, the higher the level of stress is; however, an increase in workload will also lead to an increase in the feeling of personal accomplishment (Deary, 1996).

In the USA, some pillars have categorized medical specialties into controllable (radiology) and uncontrollable lifestyles (obstetrics). Several studies conducted among medical students and physicians in the USA, revealed that one of the main factors behind selecting a suitable specialty is whether it comprises a controllable lifestyle (Dorsey et al, 2005; Schwartz et al, 1989; Dorsey et al, 2003; Fincher, 2004; Hauer et al, 2008). In another example, Canadian medical students expressed their interest in family medicine based on several factors; one of which was the medical and social lifestyle (Wright et al, 2004). Students seeking for general surgery specialty (GS) were satisfied with their lifestyle needs (Minor, Poenaru, Park, 2003), while another study showed that workload, duration of practice, reputation, salary, and the gratification of practice didn't associate with the specialty choice. Internationally, many papers have studied the specialty preference, in fact, a study conducted in the USA provided and proved that the R.O.A.D specialties (radiology, ophthalmology, anesthesia, and dermatology) were the best specialties regarding lifestyle according to fourth year USA medical students with a military service obligation (Dezee et al, 2013). The Canadian trend is not far from the American one, in fact a study based on the Canadian Residency Matching Service database found that surgical specialties, especially general surgery, were not being picked by medical students mainly due to the long working hours and the difficult lifestyle during residency (Marschall & Karimuddi, 2003).

On the other hand, internal medicine, surgery and general practice were the three most chosen medical careers in New Zealand (Zarkovic, Child, Naden, 2006) whereas the choice of general practice in Brazil is decreasing (Akl et al, 2011).

In 2012, Akl, E. A., El-Asmar, K., Maroun, N., Khater-Menassa. et al., conducted a research to assess the economic aspects as well as the extent of contentment of doctors working in Lebanon. It showed that almost half of them barely gain US \$2000 each month, besides that, less than 50% are not pleased with their profession (Ware, Gandek, 1998).

To our knowledge, little was found about using an objective scale such as the Short Form 36 (SF-36) to assess the lifestyle quality of Lebanese physicians. This research used the SF-36 health survey which is one with multiple and various purposes. This short form health survey provides an eight-scale profile of scores (physical functioning, role limitation due to physical health, bodily pain and general health, energy and fatigue, role limitation due to emotional problems, social functioning and emotional wellbeing) and is generally composed of 36 questions which serve in giving a summary of an individual's physical and mental statuses. A series of 7 questions were added to the SF-36 to encompass demographic characteristics of the recruited participants (Xu, Renick, 2016). The novelty of this research is that it evaluates the lifestyle of the Lebanese physicians in their chosen specialty and reflects the specialties with the least hectic lifestyle.

This will help medical students to have a clear idea about the lifestyle they will face in each specialty they will later on chose.

## 2. METHODOLOGY

This research is a descriptive cross-sectional study involving Lebanese Physicians practicing medicine in Lebanon that assesses the impact of specialty choice on their lifestyle. The study was conducted over a period of one year from April 2017 till April 2018 after receiving the Institutional Review Board (IRB) approval (code: 2017H-0059-M-R-0227) at Beirut Arab University.

The population consisted of Lebanese Physicians registered in the Lebanese Orders of Physicians in Beirut and Tripoli comprising 13468 Lebanese Physician. Lebanese physicians practicing outside Lebanon and medical interns were excluded from this study. To reflect the target population, an optimal sample size of 374 practitioner was needed based on an online sample size calculator. A P-value less than 0.05 was considered significant. Simple random sampling was applied. Responders were recruited by emailing them personally. Email addresses were gathered from the Lebanese Orders of Physicians in Beirut and Tripoli and official websites of hospitals and specialty associations in Lebanon. Email duplicates were checked and eliminated.

In January 2018, a total of 7580 emails were sent to the physicians using the online software Lime Survey version 2.73.1. It was followed by two reminders separated by an interval of ten days each. Participation was voluntary and completely anonymous. Participants had the choice of opting out at any stage. The email included an attached consent form and links directing them to either an English or Arabic version of the questionnaire. The informed consent form contained details about the survey purpose, benefits, risks and confidentiality of participant data. It also included information about the principle investigator and co-investigators in case the participant had any questions regarding the study.

The questionnaire covers some demographic factors (age, gender, place of birth, working place), a direct question about lifestyle satisfaction, and a 36-item short form health survey; SF36 version 1.0. SF36, which is an internationally validated questionnaire, assesses lifestyle according to eight concepts: physical functioning, role limitation due to physical health problems, role limitation due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain, and general health perception. SF 36 scoring manual guided the evaluation of these eight domains.

In short, each item received a score from 0 to 100 with a higher score signifying a more favorable health state. A total of 792 responses were received reflecting a response rate of 10.45%. Out of these responses 470 were complete (59.34%) and 322 were only partially completed (40.65%). Incomplete responses were excluded in the study.

Specialties were grouped into eight categories: Surgery, family medicine, laboratory medicine, pathology, radiology, pediatrics, obstetrics and gynecology, pediatrics (included pediatrics and neonatology), and internal medicine (included allergy, cardiology, dermatology, emergency medicine, endocrinology, gastroenterology, general medicine, geriatrics, hematology and oncology, infectious diseases, internal medicine, nephrology, neurology, psychiatry, pulmonology, and rheumatology). Data entry and analysis were accomplished using the SPSS software version 23.1. Data was analyzed using the ANOVA F-Welch test, with a Follow-up Games-Howell post hoc test.

## 3. RESULTS

### 3.1. Demographic Characteristics

The number of participants that were invited to complete this study was N = 7580 participants. The number of participants who attempted to complete the study was N = 792. Out of those who attempted to complete the study, N = 470 participants had completed responses while N = 322 did not have any registered answers. As such, the final sample of the study was N = 470 participants (N = 291 males and N = 179 females). The age of participants ranged between 24 and 80 with mean age (M = 40.61, SD = 12.63).

Regarding the place of birth, around one third of participants were born in Beirut (32.3%) followed by Mount Lebanon (17.4%) and Tripoli (10.4%). The rest of participants were born in Kesrwen-Jbeil (8.1%), South Lebanon (7.9%), Bekaa (5.7%), Akkar (3.6%), Baalback-Hermel (2.1%) and Nabatieh (1.9%). It is noteworthy that 10.4% of participants were born abroad. Regarding the working place of participants, around half of participants worked in Beirut (55.5%), followed by Mount Lebanon (16.0%) and Tripoli (10.0%). The rest of participants worked in South Lebanon (6.8%), Kesrwen- Jbeil (5.5%), Bekaa (2.6%), Akkar (1.7%), Nabatieh (1.3%) and Baalback- Hermel (0.6%). Regarding the specialty of participants, around one third of participants were specialized in Internal Medicine (34.1%) followed by Surgery (31.6%) and Pediatrics (14.3%). The rest of

participants were specialized in Obstetrics and Gynecology (8.1%), Family Medicine (6.0%), Laboratory Medicine (1.1%), Pathology (1.5%) and Radiology (3.4%).

### 3.2. Analysis

Table 1 depicts the ranges, means and standard deviations of the eight subscales. On average, participants had favorable health states with high levels of physical functioning ( $M = 87.45$ ,  $SD = 17.20$ ), energy and fatigue ( $M = 60.44$ ,  $SD = 20.87$ ), emotional wellbeing ( $M = 66.33$ ,  $SD = 19.95$ ), social functioning ( $M = 72.71$ ,  $SD = 25.56$ ) and low levels of role limitations due to physical health ( $M = 80.53$ ,  $SD = 33.75$ ), role limitations due to emotional problems ( $M = 74.89$ ,  $SD = 38.55$ ), general health pain ( $M = 67.34$ ,  $SD = 19.48$ ) and pain ( $M = 78.04$ ,  $SD = 20.17$ ).

Table 1: Ranges, means, and standard deviations of the SF-36 eight scales in participants  
Reference: Authors and statistician

	N	Minimum	Maximum	Mean	Std. Deviation
Physical Functioning	470	.00	100.00	87.45	17.20
Role Limitations Physical Health	470	.00	100.00	80.53	33.75
Role limitations due to Emotional Problems	470	.00	100.00	74.89	38.55
Energy-Fatigue	470	5.00	100.00	60.44	20.87
Emotional Wellbeing	470	4.00	100.00	66.33	19.95
Social Functioning	470	.00	100.00	72.71	25.46
Pain	470	.00	100.00	78.04	20.17
General Health	470	10.00	100.00	67.34	19.48

#### 3.3.1. Effect of Specialty on Physical Functioning

The homogeneity of variance test revealed that the variances of physical functioning were significantly different across the various specialties;  $F(7, 461) = 5.12$ ,  $p < .001$ , indicating that the homogeneity of variance assumption was not met. Since the homogeneity of variance was not met, as such an ANOVA F-Welch test was conducted to study the effect of specialty on physical functioning. The results revealed that there was a significant effect of specialty on physical functioning;  $F\text{-Welch}(7, 49.69) = 8.28$ ,  $p < .001$ ; (see Table 2). Follow-up Games-Howell post hoc test was conducted to explore the differences on physical functioning across the eight specialty groups. The results revealed that participants with family medicine ( $M = 93.39$ ,  $SE = 13.68$ ) specialty had higher levels of physical functioning compared to those with pediatrics specialty ( $M = 81.42$ ,  $SE = 23.24$ ); [Mean Difference = 11.97,  $SE = 3.84$ ,  $p = .049$ , 95%CI (0.03, 23.92)]. The results also revealed that participants with laboratory medicine specialty ( $M = 98.00$ ,  $SE = 2.74$ ) had higher levels of physical functioning compared to participants with internal medicine specialty ( $M = 88.41$ ,  $SE = 15.80$ ), participants with surgery specialty ( $M = 87.70$ ,  $SE = 16.87$ ), participants with pediatrics specialty ( $M = 81.42$ ,  $SE = 23.24$ ), participants with obstetrics and gynecology specialty ( $M = 86.18$ ,  $SE = 16.17$ ) and participants with radiology specialty ( $M = 86.25$ ,  $SE = 10.88$ ) with [Mean Difference = 9.59,  $SE = 1.75$ ,  $p = .001$ , 95%CI (3.55, 15.64)], [Mean Difference = 10.30,  $SE = 1.85$ ,  $p < .000$ , 95%CI (4.06, 16.54)], [Mean Difference = 16.58,  $SE = 3.09$ ,  $p = .000$ , 95%CI (6.87, 26.30)], [Mean Difference = 11.82,  $SE = 2.89$ ,  $p = .005$ , 95%CI (2.54, 21.10)], [Mean Difference = 11.75,  $SE = 2.98$ ,  $p = .016$ , 95%CI (1.63, 21.87)] respectively. There were no other significant differences across the eight specialties on physical functioning.

Table 2: Analysis of Variance- Differences on Physical Functioning among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Physical Functioning	7	49.69	8.28	.001

#### 3.3.2. Effect of specialty on role limitations due to physical health

The homogeneity of variance test revealed that the variances of role limitations due to physical health were significantly different across the various specialties;  $F(7, 461) = 3.77$ ,  $p = .001$ , indicating that the homogeneity of variance assumption was not met. Since the homogeneity of variance was

not met, as such an ANOVA F-Welch test was conducted to study the effect of specialty on role limitations due to physical health. The results revealed that there was no significant effect of specialty on role limitations due to physical health; F-Welch (7, 38.79) = 1.77,  $p = .12$ , ns; see Table 3.

Table 3: Analysis of Variance- Differences on role limitations due to Physical health among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Role Limitations due to Physical Health	7	38.79	1.77	.121

### 3.3.3. Effect of specialty on role limitations due to emotional problems

The homogeneity of variance test revealed that the variances of role limitations due to emotional problems were significantly different across the various specialties;  $F(7, 461) = 3.63$ ,  $p = .001$ , indicating that the homogeneity of variance assumption was not met. ANOVA F-test was conducted to study the effect of specialty on role limitations due to emotional problems. The results revealed that there was no significant effect of specialty on role limitations due to emotional problems;  $F(7, 461) = 1.30$ ,  $p = .25$ , ns; see Table 4.

Although the results of the ANOVA F-test were not significant, follow-up Games-Howell post hoc test was conducted to explore the differences on role limitations due to emotional problems across the eight specialty groups. The results revealed that participants with Pathology specialty ( $M = 100.00$ ,  $SE = 0.00$ ) had lower levels of role limitations due to emotional problems compared to participants with internal medicine specialty ( $M = 88.41$ ,  $SE = 15.80$ ), participants with surgery specialty ( $M = 87.70$ ,  $SE = 16.87$ ), participants with pediatrics specialty ( $M = 81.42$ ,  $SE = 23.24$ ), participants with obstetrics and gynecology specialty ( $M = 86.18$ ,  $SE = 16.17$ ) and participants with family medicine specialty ( $M = 86.25$ ,  $SE = 10.88$ ) with [Mean Difference = 24.17,  $SE = 2.97$ ,  $p < .001$ , 95%CI (15.05, 33.29)], [Mean Difference = 23.20,  $SE = 3.17$ ,  $p < .000$ , 95%CI (13.44, 32.96)], [Mean Difference = 30.35,  $SE = 4.95$ ,  $p < .001$ , 95%CI (14.86, 45.84)], [Mean Difference = 36.84,  $SE = 6.86$ ,  $p < .001$ , 95%CI (14.81, 58.87)], [Mean Difference = 25.00,  $SE = 6.99$ ,  $p = .025$ , 95%CI (2.07, 47.93)] respectively. There were no other significant differences across the eight specialties on role limitations due to emotional problems.

Table 4: Analysis of Variance- Differences on role limitations due to emotional problems among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Role Limitations due to Emotional Problems	7	461	1.30	.25

### 3.3.4. Effect of specialty on energy-fatigue

The homogeneity of variance test revealed that the variances of energy-fatigue were not significantly different across the various specialties;  $F(7, 461) = 0.40$ ,  $p = .91$ , indicating that the homogeneity of variance assumption was met. Since the homogeneity of variance was met, as such an ANOVA F-test was conducted to study the effect of specialty on energy-fatigue. The results revealed that there was no significant effect of specialty on energy-fatigue;  $F(7, 461) = 0.68$ ,  $p = .69$ , ns; see Table 5.

Table 5: Analysis of Variance- Differences on Energy-fatigue among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Energy Fatigue	7	461	0.68	.691

### 3.3.5. Effect of specialty on emotional well-being

The homogeneity of variance test revealed that the variances of emotional wellbeing were not significantly different across the various specialties;  $F(7, 461) = 1.05$ ,  $p = .40$ , indicating that the homogeneity of variance assumption was met. Since the homogeneity of variance was met, as such an ANOVA F-test was conducted to study the effect of specialty on emotional wellbeing. The results revealed that there was no significant effect of specialty on emotional wellbeing;  $F(7, 461) = .91$ ,  $p = .50$ , ns; see Table 6.

Table 6: Analysis of Variance- Differences on Emotional well-being among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Emotional Wellbeing	7	461	0.91	.502

### 3.3.6. Effect of specialty on social functioning

The homogeneity of variance test revealed that the variances of social functioning were significantly different across the various specialties;  $F(7, 461) = 2.24$ ,  $p = .030$ , indicating that the homogeneity of variance assumption was not met. As such, ANOVA F-Welch test was conducted to study the effect of specialty on social functioning. The results revealed that there was a significant effect of specialty on social functioning;  $F(7, 43.57) = 8.19$ ,  $p < .001$ ; see Table 7.

Follow-up Games-Howell post hoc test was conducted to explore the differences on social functioning across the eight specialty groups. The results revealed that participants with Laboratory Medicine specialty ( $M = 95.00$ ,  $SE = 6.85$ ) had higher levels of social functioning compared to participants with internal medicine specialty ( $M = 73.83$ ,  $SE = 27.07$ ), participants with surgery specialty ( $M = 71.79$ ,  $SE = 24.53$ ), participants with pediatrics specialty ( $M = 69.03$ ,  $SE = 25.50$ ) and participants with obstetrics and gynecology specialty ( $M = 64.14$ ,  $SE = 27.29$ ) with [Mean Difference = 21.17,  $SE = 3.74$ ,  $p = .005$ , 95%CI (6.75, 35.59)], [Mean Difference = 23.21,  $SE = 3.67$ ,  $p = .003$ , 95%CI (8.79, 37.63)], [Mean Difference = 25.97,  $SE = 4.37$ ,  $p < .001$ , 95%CI (10.79, 41.15)], [Mean Difference = 30.86,  $SE = 5.38$ ,  $p < .001$ , 95%CI (13.15, 48.56)], respectively. There were no other significant differences across the eight specialties on social functioning.

Table 7: Analysis of Variance- Differences on social Functioning among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Social Functioning	7	43.57	8.19	.000

### 3.3.7. Effect of specialty on pain

The homogeneity of variance test revealed that the variances of pain were significantly different across the various specialties;  $F(7, 461) = 3.91$ ,  $p < .001$ , indicating that the homogeneity of variance assumption was not met. Since the homogeneity of variance was not met, as such an ANOVA F-Welch test was conducted to study the effect of specialty on pain. The results revealed that there was no significant effect of specialty on pain; F-Welch ( $7, 40.81$ ) = 2.06,  $p = .07$ , ns; see Table 8.

Table 8: Analysis of Variance- Differences on Pain among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Pain	7	40.81	2.06	.07

### 3.3.8. Effect of specialty on general health

The homogeneity of variance test revealed that the variances of general health were not significantly different across the various specialties;  $F(7, 461) = 1.49$ ,  $p = .19$ , ns, indicating that the

homogeneity of variance assumption was met. Since the homogeneity of variance was met, as such an ANOVA F-test was conducted to study the effect of specialty on general health.

The results revealed that there was no significant effect of specialty on general health;  $F(7, 461) = 1.96, p = .06, ns$ ; see Table 9.

Table 9: Analysis of Variance- Differences on Pain among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
General Health	7	461	1.96	.059

### 3.3.9 Effect of Specialty on Personal Satisfaction with Lifestyle:

The homogeneity of variance test revealed that the variances of Personal Satisfaction were not significantly different across the various specialties;  $F(7, 461) = 1.70, p = .11, ns$ , indicating that the homogeneity of variance assumption was met. Since the homogeneity of variance was met, as such an ANOVA F-test was conducted to study the effect of specialty on personal satisfaction. The results revealed that there was a significant effect of specialty on personal satisfaction;  $F(7, 461) = 2.48, p = .016$ ; see Table 10.

Follow-up Games-Hall post hoc test was conducted to explore the differences on personal satisfaction across the eight specialty groups. The results revealed that participants with Pediatrics specialty ( $M = 3.001, SE = 1.24$ ) specialty had lower levels of personal satisfaction compared to those with pathology specialty ( $M = 1.71, SE = 0.76$ ); [Mean Difference = 1.29,  $SE = 0.32, p = .037, 95\%CI (0.07, 2.50)$ ]. There were no other significant differences across the eight specialties on personal satisfaction.

Table 10: Analysis of Variance- Differences on personal satisfaction with lifestyle among various specialties  
Reference: Authors and statistician

	Df1	Df2	F-test	Sig
Personal satisfaction with lifestyle	7	461	2.84	.016

## 4. DISCUSSION

Most medical students face the dilemma of choosing a suitable specialty. One of the most important factors that impact their choice is the physician's lifestyle. The influence of specialty choice on this particular factor has been the target of several studies. Lifestyle comprises complex elements that are difficult to evaluate. This study assessed the Lebanese physicians' lifestyle among different specialties based on the international survey SF-36, which highlights eight scales (physical functioning, role limitation due to physical health problems, role limitation due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain, and general health), all of which had a very good reliability ( $\alpha > 0.7$ ). 470 complete responses were evaluated and grouped within eight specialties: internal medicine (34.1%), surgery (31.6%), pediatrics (14.3%), obstetrics and gynecology (8.1%), family medicine (6.0%), laboratory medicine (1.1%), pathology (1.5%), and radiology (3.4%).

On average, participants expressed high scores on all eight scales which implied favorable health states with high levels of physical functioning, energy and fatigue, emotional well-being, social functioning, general health and low levels of role limitations due to physical health and role limitations due to emotional problems and pain demonstrating an overall favorable health state.

Yet, specialty choice had a significant effect only on three scales; physical functioning, social functioning and role limitations due to emotional problems.

To begin with, the findings confirmed that specialty choice had a clear effect on physical functioning (Plays out a wide range of physical activities comprising the most vigorous as a result of health). Family medicine physicians had better physical functioning compared to those with pediatrics specialty. On the other hand, laboratory medicine had better physical functioning compared to internal medicine, surgery, pediatrics, obstetrics and gynecology and radiology. There was no significant



difference between family medicine and laboratory medicine both were considered to have the best physical functioning among the others.

Even though physical functioning was affected by specialty and showed a significant difference in between specialties, role limitation due to physical health was not affected by specialty choice.

Social functioning; performing typical social events without any inconvenience due to specialty; was also significantly affected by specialty. In fact, laboratory medicine was better than most of the other specialties (internal medicine, surgery, pediatrics and obstetrics and gynecology).

Moreover, specialty affected the physician's role limitation due to emotional problems, which indicates that there are no issues with work or other day by day exercises because of emotional problems; revealing that pathologists had the least limitations in comparison to internal medicine, surgery, pediatrics, family medicine, obstetrics and gynecology physicians.

However, specialty's effect on the physician's emotional well-being showed no significant relation. Some studies had the ability to point out the single best specialty lifestyle (Dorsey et al, 2003; Dezee et al, 2013). Yet, they depended on subjective surveys asking students to rate the lifestyle of each specialty (Dezee et al, 2013) or studied the percentage of students getting into each specialty (Dorsey et al, 2003), using this data as a marker of a good lifestyle in this specialty rather than using an international objective scale. However, the use of SF-36 in this study allowed getting the comparison between different specialties rather than selecting the best specialty lifestyle.

Considering that the specialty with the best lifestyle was the one that scored highest on most of the significant scales, family medicine scored highest on the physical functioning scale; pathology scored best on the role limitation due to emotional problems and laboratory medicine scored highest on both physical and social functioning scales. Laboratory medicine will be therefore considered the specialty with the best lifestyle within the Lebanese physicians.

To the best of our knowledge, nothing was mentioned about choosing laboratory medicine due to optimal lifestyle over other specialties in other countries. As for the family medicine, it was found to be the most chosen specialty in Canada and the least chosen specialty in USA and France. In USA and France, the family physicians (as primary care) have a big load since the patient first goes to them and is then referred to other specialties if needed.

Yet in Lebanon, primary care services are not well developed and so patients don't present to family physicians as their first option. In USA and France, pediatrics and Obstetrics and Gynecology were of the least chosen specialties.

This Lebanese study came to show that pediatrics and Obstetrics and Gynecology did not get high scores on the SF-36 scales which can explain a hectic lifestyle affecting the rate of choosing such specialties. Although Lebanese surgeons and internists were not among those with the best lifestyle, surgery and internal medicine were highly chosen in New Zealand which may be due to cultural factors such as high salaries.

Furthermore, comparison was made between the level of satisfaction among Lebanese physicians of different specialties through a direct question reflecting personal satisfaction with their lifestyle. Pathologists showed higher satisfaction than pediatrics. Yet, there were no other significant relations. However, when looking at the means plot, the specialty with the highest level of satisfaction was pathology, followed by in a descending order, family medicine, laboratory medicine, surgery, internal medicine, obstetrics and gynecology, and lastly radiology. A study conducted in Boston, USA, demonstrated that pathology and emergency medicine were among the five specialties with the most career personal satisfaction (Xu et al, 2016).

On the other hand, a few limitations were met during the conduction of this research. First, the usage of an online survey gave a low representative sample of laboratory medicine and pathology compared to internal medicine and surgery. Second, using the simple random methodology in this study came out with an unequal distribution of the sample size among different specialties: Internal medicine constituted almost one third of the participants (34.1%), followed by surgery (31.6%), while laboratory medicine and pathology represented only 1.1% and 1.5% respectively of the total participants. Third, SF-36 did not take into account the sleep variable which may play an important role in one's lifestyle.

## 5. CONCLUSIONS

At the end of this study, we conclude that specialty choice does indeed have a significant correlation with the quality of life attained by Lebanese physicians; especially with respect to physical

functioning, social functioning and role limitations due to emotional problems. The specialties that have reflected the finest lifestyle regarding these three factors were laboratory medicine, family medicine, and pathology.

This study also concludes that pathology specialists were most satisfied with their quality of life. This paper emphasizes the correlation between specialty choice and physicians' quality of life for medical students; for it would be more helpful to choose a specialty with prior knowledge about all its aspects to prevent future regret regarding this choice.

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