




SATISFACTION WITH THE LIVES OF ANESTHESIOLOGISTS IN THE STATE OF PIAUÍ

 <https://doi.org/10.56238/levv15n42-067>

Submission date: 25/10/2024

Publication date: 25/11/2024

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ABSTRACT

Medicine is always in contact with what is most emblematic of the human being: pain, disease, finitude, death and the idea of failure in health. Therefore, the doctor needs to be a very healthy person so that he can provide good care to others. However, increasingly, these professionals present themselves as vulnerable subjects to illness and bring up their precarious working conditions. These conditions can directly influence the level of satisfaction with the life of these professionals and predispose them to a situation of fragility in relation to themselves and others, putting them at risk of developing burnout syndrome.

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Therefore, the objective of this study was to apply and correlate a Life Satisfaction Scale validated by UFRS among anesthesiologists in the State of Piauí. Possible factors that may contribute to a lower level of satisfaction and the existence of factors that may lead to the development of Burnout Syndrome were identified. Most anesthesiologists in the State of Piauí are satisfied with life. The highest scores found are directly related to satisfaction with remuneration. There was no factor associated with a low level of life satisfaction, however, it can be seen that some interviewees are possibly emerging in risk factors related to a future illness.

Keywords: Anesthesiologists. Satisfaction with life. Burnout Syndrome.

INTRODUCTION

According to the World Health Organization, well-being is an individual's perception of their position in life, in the context of the culture and value system in which they are inserted, and in relation to their goals, expectations, standards, and concerns (WHO, 2005). Bengel (1999) defines that health involves many dimensions, ranging from the absence of illness to the construction of a healthy emotional balance that brings positive meanings in the field of work, in personal and social life. For the author, health is the way that the individual faces stressful situations in his professional life and receives reflections from it.

In this context, medicine is always in contact with what is most emblematic of the human being: pain, disease, finitude, death, the idea of failure in health. Therefore, the doctor needs to be a healthy person in order to provide good care to others. However, increasingly, these professionals present themselves as vulnerable subjects to illness and bring up their precarious and hostile working conditions. This condition is intensified, particularly among anesthesiologists, who may have their occupational well-being compromised and influence dissatisfaction with life. In the meantime, the work of these professionals must be aligned with their psychic balance and their professional and personal satisfaction in order to increase their occupational well-being (SBA, 2013).

Conditions such as sleep deprivation, long working hours, low dedication to leisure time and physical activity, constant exposure to risk, time pressure and emergencies, living with suffering and death, and a feeling of devaluation of work may have become a reality for this class of physicians, leading them to a lower perception of quality of life in relation to other physicians in general (Arenson *et al.*, 2012).

The sum of these factors can result in a state of disenchantment and fatigue in the face of the difficulties arising from the practice of their profession. Such facts may even predispose the individual exposed to the development of *Burnout syndrome*, which, in addition to being considered an occupational disease, can further compromise the quality of life of anesthesiologists (Govêia *et al.*, 2011).

This syndrome in question is quickly becoming a challenge for the medical community, with prevalence currently considered to be around 20-50% among anesthesiologists. (SBA, 2013). Anesthesiologists seem to be a very vulnerable group due to the inherent conditioning to which they are subject in the professional environment. Because of this, these professionals may feel overwhelmed in relation to the needs of patient care in the perioperative period and often neglect their own personal demands.

Another important factor is life satisfaction as a cognitive component of subjective well-being, which is defined as the level of contentment that someone perceives when

thinking about their life in general. It is the level of enthusiasm or pleasure, or discontent and suffering, present in a person's life according to their perception of what is satisfying and/or pleasurable. (Diener; Luke; Oishi, 2005). Dissatisfaction with life influenced by negative emotions can compromise the emotional, psychological, and physical health of anesthesiologists.

In the literature, considerable contributions support the prevalence of psychophysiological alterations that are linked to the performance of anesthesiologists. Such evidence requires reflection and requires structural changes in the anesthetic environment. A good start would be to identify factors that are detrimental to life satisfaction that, because they are not easily recognized, are not properly addressed. In view of the above, this study aims to apply and correlate a Life Satisfaction Scale validated by UFRS among anesthesiologists in the State of Piauí.

METHODOLOGY

This project was submitted to the CEP (Research Ethics Committee) of UNIFACID/Wyden, for evaluation and authorization of its realization, in accordance with Resolution No. 466/2012 and No. 510/2016. The questionnaire was accompanied by a Free and Informed Consent Form (ICF) in order to explain the confidentiality of data that may identify the research population, highlighting the importance of the research and clarifying any doubts regarding the scientific research in question. The project was initiated after appreciation and approval by the Research Ethics Committee of the Faculdade Integral Diferencial – CEP/FACID (CAAE: 52689821.5.0000.5211).

This is a quantitative, descriptive and cross-sectional study, with non-probabilistic sampling, whose sample universe comprises anesthesiologists working in the state of Piauí. This research was carried out through the application of a questionnaire containing sociodemographic interrogation and the Life Satisfaction Scale to professionals working in the specialty of anesthesiology in the State of Piauí.

The research instrument was made available through the online platform Google Forms and sent by e-mail or instant messaging application, and 54 responses were obtained. For this study, the inclusion criteria were: physicians with specialist titles in anesthesiology and working in Teresina, Piauí. The exclusion criteria were physicians who were specialists in anesthesiology who did not work in this area and the professionals who were not found. The sample of this study was a convenience study that was indicated by the participants. The study did not use authorization from co-participating institutions.

Data collection took place from May 2022 to July 2022. The anesthesiologists of the State of Piauí received a questionnaire adapted for the analysis of sociodemographic data (Age, Gender, number of employment contracts, number of hours of work per week, number of hours per week dedicated to physical activity, number of hours per week dedicated to social and/or leisure activities, average number of hours of daily sleep per week, This study aims to analyze the remuneration received as an anesthesiologist and a research instrument validated as a Life Satisfaction Measurement Scale (ESV) by the measurement laboratory of the Federal University of Rio Grande do Sul that takes into account the cognitive component of subjective well-being) (Diener *et al.*, 1985)

The ESV was composed of five self-report statements, in which the content evaluated is the level of satisfaction of the individuals interviewed with their living conditions. The core of the answers is based on the seven-point Likert scale, in which the professionals were asked to mark the number corresponding to how much they agree or disagree with the sentences presented.

The instructions were given in the questionnaire header. Item 1 received the value corresponding to "Strongly disagree" and item 7 the value corresponding to "Strongly agree", while the intermediate items showed different levels of agreement or disagreement with the statements.

To know the level of satisfaction with the life of the interviewees, the answers to the ESV items were summed and a raw individual score was obtained. Subsequently, the appropriate table of norms, shown in Table 1, is searched for the percentile corresponding to the raw score. The higher the percentile equivalent to the raw score, the higher the life satisfaction and the lower the percentile, the more dissatisfied with life.

These values reflect the subject's level of satisfaction when compared to the standardization sample of the scale already validated by UFRS. It was possible to know the level of satisfaction related to each item asked and to relate it to the profile of the interviewees' answers in order to acquire the relationship between the perception of well-being and the occupational quality of life of these professionals.

Table 1. Life Satisfaction Scale Norms for Men and Women

Percentil	Raw scores	Escores T
10	11	35
5	9	32
10	11	35
15	13	38
20	15	41
25	17	43
30	18	45
35	19	46
40	21	49
45	22	50
50	23	52
55	24	53
60	25	54
65	26	56
70	27	57
75	28	58
80	29	60
85	30	61
90	31	62
95	32	64
M* 21,8		
DP** 7,3		
Legend: M* = Mean, SD** = Standard deviation. Source: Measurement Laboratory of UFRGS, Zanón <i>et al.</i> , 2013		

To describe the sample profile, absolute and relative frequencies were used in the qualitative and mean variables, standard deviation in the quantitative variables, as well as the Komogorov-Smirnov test to verify whether the data followed the Normal distribution. (%). The difference between the T scores of the life satisfaction scale for men and women was analyzed using the non-Mann-Whitney U test for samples with two categories and the Kruskal-Wallis H test for samples with three categories or more. (%). In multiple comparisons, the post-hoc Nemenyi was used. The data were exported from Google Forms to the Microsoft Excel spreadsheet and analyzed in the *IBM Statistical Package for the Social Sciences* version 20.0. The level of significance adopted was $p < 0.05$.

RESULTS AND DISCUSSION

According to data released by the Federal Council of Medicine in 2020, anesthesiologists corresponded to a total of 25,484 professionals, which corresponds to a percentage of 5.9% in relation to the number of doctors registered in Brazil in the same year. In Piauí, until 2020, doctors registered with the Council totaled 5250 professionals and of these, 222 (4.19%) had the title of specialist in the area in question (SCHEFFER, 2020).

A total of 54 anesthesiologists answered the questionnaire, which corresponds to 24.54% of the total number of anesthesiologists registered as anesthesiologists in the state of Piauí. The sociodemographic data of the participants are described in Table 2.

Table 2. Profile of anesthesiologists in the State of Piauí interviewed in the survey.

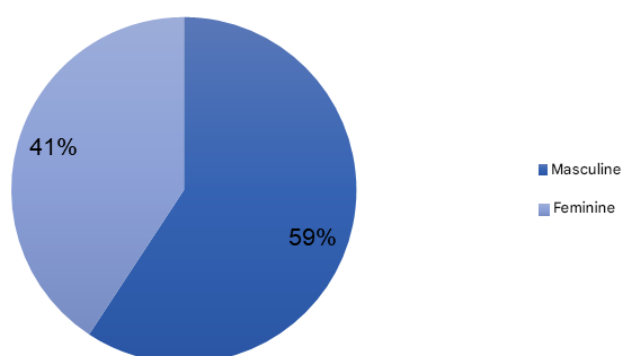
Variables	n	%
Sex		
Male	32	59,3
Female	22	40,7
Age group		
Under 25 years old	1	1,9
Between 26-35 years old	19	35,2
Between 36-45 years old	22	40,7
Between 46-55 years old	5	9,3
Between 56-65 years old	7	13,0
Number of employment relationships		
1	1	1,9
2	15	27,8
3	12	22,2
4	13	24,1
5 or more	13	24,1
Number of working hours per week		
Less than 20h	6	11,1
From 8 pm to 39 am	16	29,6
From 40 to 59 hours	19	35,2
From 60 to 79 hours	13	24,1
Greater than 80h	-	-
How do you consider your compensation as an anesthesiologist?		
Very bad	-	-
Spacious	3	5,6
Regular	17	31,5
Good	32	59,3
Very good	2	3,7
Regarding the last 12 months, how many times a week have you dedicated to physical activity?		
Not once	8	14,8
Less than 2 times a week	18	33,3
From 3 times to 6 times a week	28	51,9
Greater than 6 times	-	-
Regarding your sleep time in the last 12 months, how many hours of sleep a day do you usually dedicate?		
Less than 4 hours	1	1,9
Between 4-6 hours	16	29,6
Between 6-8 hours	35	64,8
More than 8 hours	2	3,7
Regarding the last 12 months, how many hours per week did you dedicate to social and/or leisure activities?		
No schedule	-	-
Less than 2h	6	11,1
From 2-4h	13	24,1
From 4-6 am	17	31,5
More than 7h	18	33,3

Cast Iron: MARQUES (2022)

The gender percentage of the physicians who responded to the questionnaire was 59.3% for males and 40.7% for females ($p < 0.111$), a result that is similar to that found in Scheffer's survey on Brazilian medical demography, in which 61.7% of Brazilian anesthesiologists were male and 38.3% female (Graph 1). Regarding the age group, 40.7% stated that they were aged between 36 and 45 years, 35.2% stated that they were aged

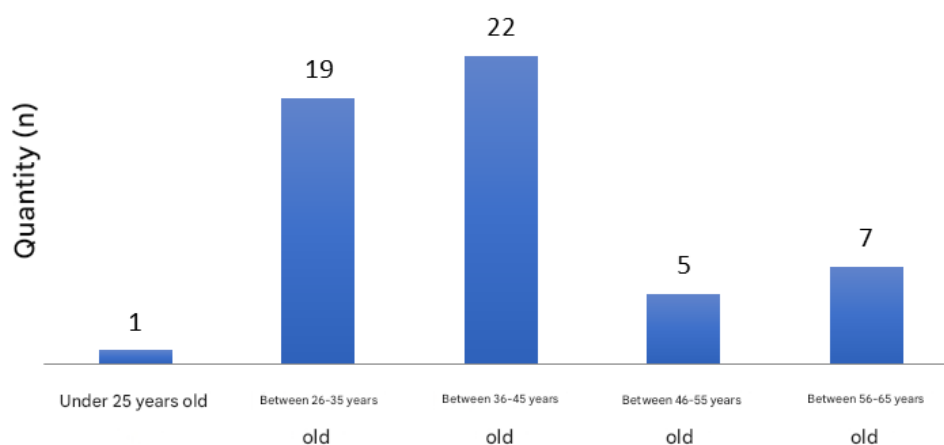
between 26 and 35 years, 13% were aged between 56 and 65 years, 9.3% between 46 and 55% and 1.9% were younger than 25 years ($p<0.377$). The mean age of the research participants was 40.1 years, which differs from the mean of 49.1 years in the data found in the 2020 medical demographics, presenting a younger population in relation to the usual average (Graph 2).

Graph 1. Gender of participants



Source: MARQUES (2022)

Chart 2. Age Range



Source: MARQUES (2022)

The percentage of employment contracts found among the anesthesiologists who answered the questionnaire was 27.8%, with two contracts; 24.1% reported that they had 5 or more jobs, 24.1% had 4 jobs, 22.2% had 3 jobs, and 1.9% had 1 job relationship ($p<0.498$) (Graph 3). Regarding the weekly workload, 35.2% have a workload of 60h-79h per week, 29.6% answered that they have 20h-39h per week, 24.1% answered that they have 60h-79h per week, 11.1% answered that they have less than 20 hours per week and no answer for a workload of more than 80 hours ($p<0.322$) (Graph 4).

It is possible to associate that the professionals who marked a workload greater than 60 hours answered that they had more than 4 work contracts. These data show a possible risk factor for the development of burnout syndrome among anesthesiologists, since, according to the literature, individuals who developed the syndrome had a workload of more than 60 hours per week (Santos, 2011).

Chart 3. Employment relationships

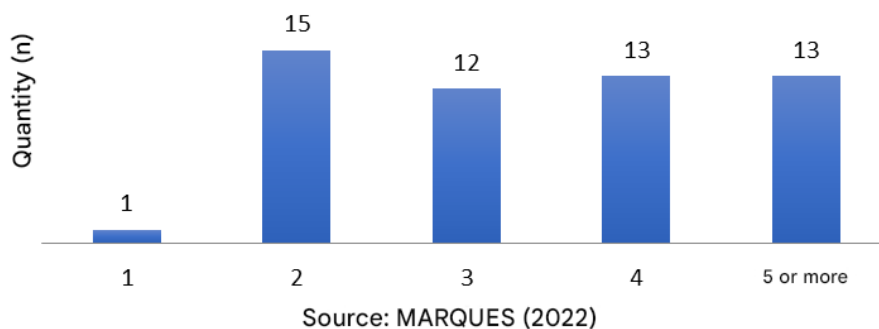
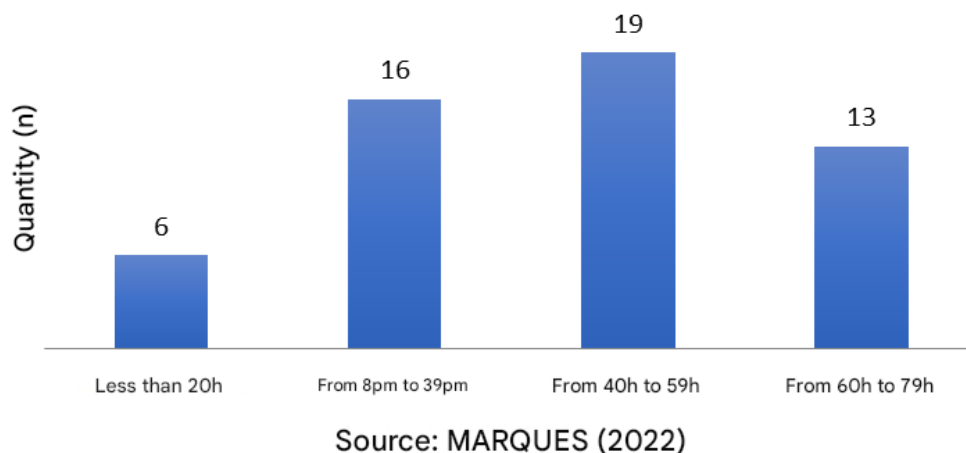


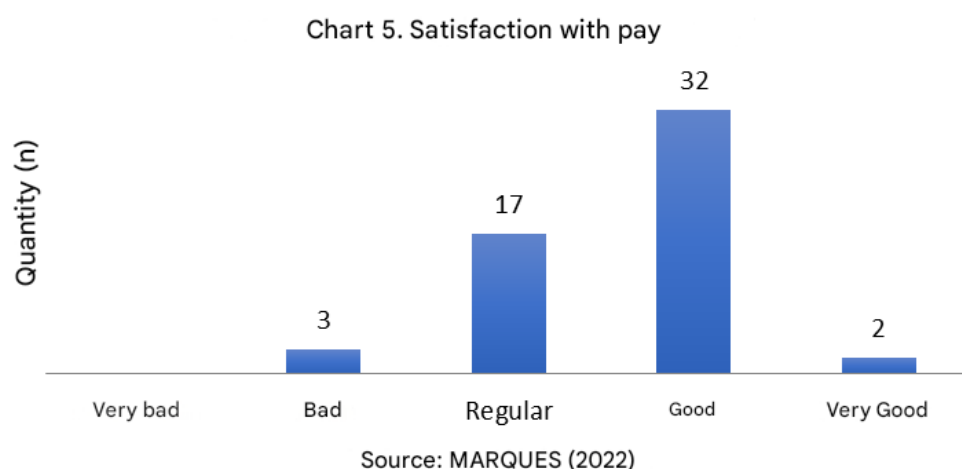
Chart 4. Hours worked per week



The Brazilian Society of Anesthesiology considers that the amount of work is directly related to risk factors for the development of occupational stress and 59.3% of the interviewees have a weekly workload greater than 60 hours, which may be a risk factor for compromising individual health in the future (SBA, 2013).

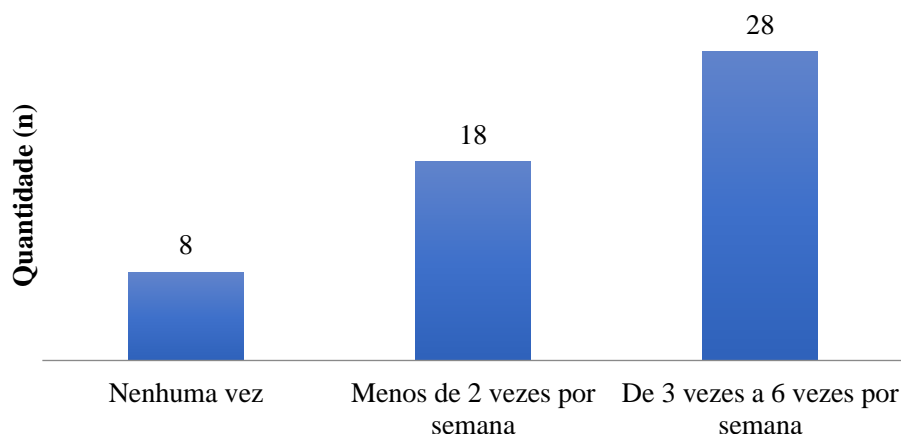
Regarding the remuneration as anesthesiologists (Graph 5), 59.3% of the interviewees considered it good, 31.5% considered it fair, 5.6% considered it bad, 3.7% considered it very good, and none of the interviewees considered it very bad ($p < 0.002$). According to the research carried out by Neves *et al* (2010), the remuneration that is

considered satisfactory is related to a greater work overload. This data suggests that despite satisfaction with remuneration, this finding may be a consequence of long working hours and this may imply the mental illness of these professionals.



In relation to the last 12 months, 51.9% of the interviewees indicated that they practiced physical activity 3 to 6 times a week, 33.3% indicated that they practiced physical activity less than 2 times a week, 14.8% indicated that they did not practice physical activity during the week and none of the participants answered that they practiced sports more than 6 times a week (Graph 6). These data show that 51.9% of the interviewees practice some physical activity at least 3 times a week ($p < 0.973$). This data shows a relevant factor for satisfaction with life, considering that the WHO recommends the practice of at least 3 times a week to have a positive impact on the individual's health. In addition, this can be an effective measure to improve stress levels among anesthesiologists and as a strategy to prevent *burnout syndrome*. (WEBER, 2000).

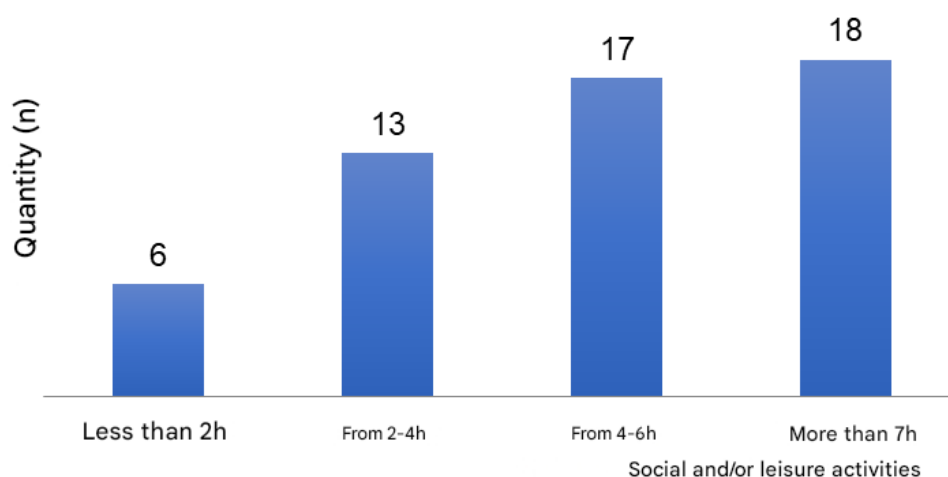
Gráfico 6. Prática de atividade física



Fonte: MARQUES (2022)

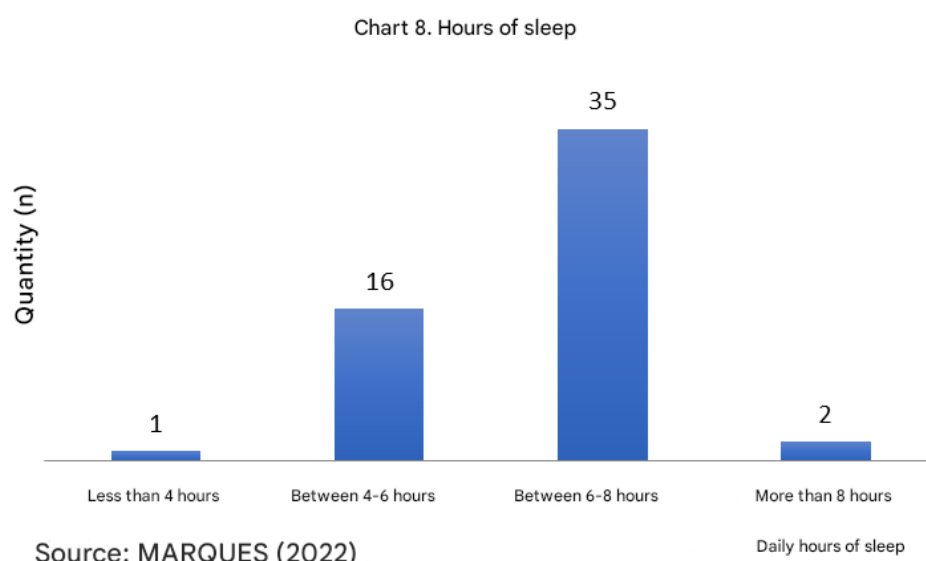
Regarding the time dedicated to social and/or leisure activities (Graph 7), 33.3% of the individuals answered that they dedicate more than 7 hours per week, 31.5% indicated that they dedicate 4-6 hours per week, 24.1% dedicate less than 2 hours per week and none of the participants indicated that they did not dedicate any time ($p < 0.154$). It is worth mentioning that according to article XXIV of the Universal Declaration of Human Rights of 1948 "Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic paid vacations". Most of the individuals interviewed dedicate more than 6 hours per week to leisure, which can significantly influence the satisfaction with life of the anesthesiologists interviewed. A reduced number of hours dedicated to leisure seems to be a future risk factor for the illness of workers, as the lack of weekly time dedicated to leisure can deprive the individual of a healthy life and of living with the family and society, being a relevant factor for satisfaction with life among professionals (PINHEIRO, 2020).

Chart 7. Social and/or leisure activities



Source: MARQUES (2022)

Regarding daily sleep time (Graph 8), 64.8% of the interviewees reported that they dedicated 6h-8 hours of sleep per day, 29.6% dedicated between 4-6 hours per day, 3.7% more than 8 hours per day, and 1.9% dedicated less than 4 hours per day ($p < 0.129$). The main variables of the individual daily need for sleep are age and individual demand. Most adults feel the minimum need met with 7 hours of sleep daily. Chronic derangement in the daily sleep architecture can lead to symptoms such as tiredness, irritability, changes in intellect and excessive daytime sleepiness alternating with insomnia, which can compromise the perception of well-being and satisfaction with life among anesthesiologists (FERNANDES, 2006).



Regarding the level of satisfaction with the lives of anesthesiologists, it was possible to determine that the median of the raw scores obtained by the 54 interviewees was 27.5. This score, associated with the value found in the table, reveals a median value of 57.50. This value determines a percentile correspondence of 72.5% with the subjects compared to the standardization sample of the scale. As can be seen in Graph 9, the mean T score found among the subjects was 56.75, which corresponds to the 65% percentile of the normalization sample. With these data, it can be inferred that the interviewees had a central tendency to have a level of satisfaction with life above the theoretical median of the total score of the scale ($M=21.8$; range 9-32). Thus, it is found that in a majority they will be satisfied with their lives.

Regarding the answers given to each of the five items of the ESV, item 1: *My life is close to my ideal*, classification 1 on the scale was assigned only 1 time (1.9%), classification 2 was not assigned by any of the interviewees, classification 3 was assigned

by 2 (3.7%) of the interviewees, classification 4 by 11 (20.4%) of the interviewees, Rating 5 by 21 (38.9%) respondents, rating 6 by 16 (29.6%) respondents and rating 7 by 3 (5.6%) of respondents.

In item 2: *My living conditions are excellent*, classification 1 did not receive any attribution, classification 2 received 1 attribution (1.9%), classification 3 received 2 (3.7%) attributions, classification 4 received 5 (9.3%) attributions, classification 5 received 26 (48.1%) attributions, classification 6 received 11 (20.4%) attributions and classification 7 received 9 (16.7%) attributions from the interviewees.

In item 3: *I am satisfied with my life*, classification 1 on the scale was assigned only 1 time (1.9%), classification 2 was not assigned by any of the interviewees, classification 3 was assigned by 2 (3.7%) of the interviewees, classification 4 by 6 (11.1%) of the interviewees, classification 5 by 13 (24.1%) respondents, classification 6 by 18 (33.3%) of the interviewees and classification 7 by 14 (25.9%) of the interviewees.

In item 4: *So far I have achieved the important things I want in life*, grades 1 and 2 were not marked, classification 3 was marked only 1 (1.9%) time, classification 4 was marked 2 (3.7%) times, classification 5 was marked 11 (20.4%) times, classification 6 was marked 24 (44.4%) times and classification 7 was marked 16 (29.6%) times during the interview.

In item 5: *if I could live my life again I would not change almost anything*, 2 attributions were found for classifications 1 and 2, classification 3 received 6 (11.1%) attributions, classification 4 received 3 (5.6%) attributions, classification 5 received 14 (25.9%) attributions, classification 6 received 19 (35.2%) attributions and classification 7 received 8 (14.8%) attributions from the interviewees.

The raw scores of the male respondents were associated with 55.56 ± 06.63 ($p < 0.111$) on the T-score of the normalization scale and the scores of the female respondents were 58.50 ± 05.15 ($p < 0.111$), presenting a higher level of satisfaction with life among female anesthesiologists.

As shown in Table 3, individuals aged 56-65 years demonstrated greater satisfaction with life, corresponding to a score of 57.86 ± 04.78 ($p < 0.377$), and the most dissatisfied individuals under 35 years of age, corresponding to scores of 56.53 ± 06.41 ($p < 0.377$).

The number of work contracts showed that individuals with 3 employment contracts have greater satisfaction with life, scoring 58.00 ± 05.54 ($p < 0.498$). Individuals with 2 workplaces, on the other hand, have lower satisfaction with life compared to the first group.

Regarding the number of hours worked per week, the interviewees who indicated that they work less than 20 hours per week had a higher life satisfaction score,

corresponding to 59.33 ± 04.63 ($p < 0.322$). Individuals with more than 60 hours per week began to score below $56.38 \pm$, which seems to demonstrate that excessive workload can negatively influence the level of satisfaction of anesthesiologists with life.

As can be seen in Graph 8, the remuneration as anesthesiologist stood out for individuals who indicated that they considered it good or very good with 59.03 ± 05.04 ($p < 0.002$) and 58.00 ± 08.49 , respectively. These data seem to demonstrate that salary satisfaction seems to have a significant relationship with a higher level of life satisfaction.

Graph 9. Life satisfaction according to the remuneration of anesthesiologists working in Piauí.

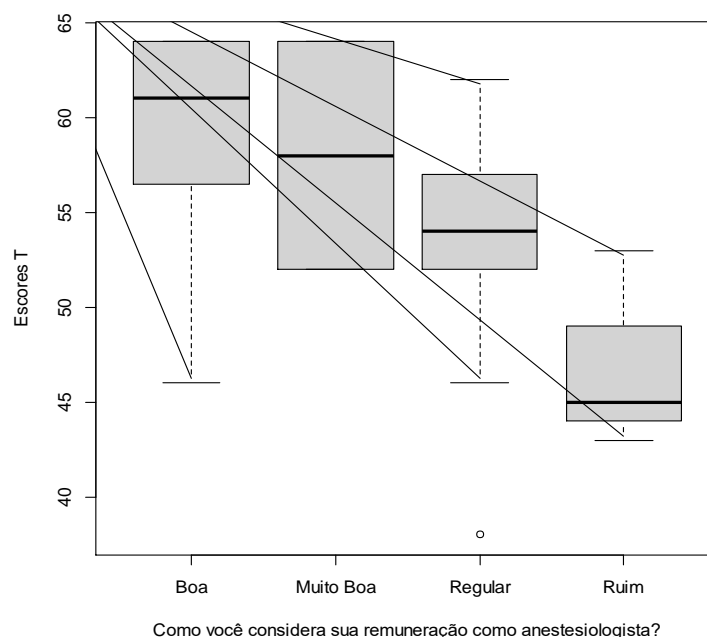


Table 3. Life satisfaction according to the profile of anesthesiologists working in Piauí, 2022.

Fonte: MARQUES (2022)

Variables	Escores T	
	Average \pm SD	p-value
Sex		
Male	55.56 \pm 06.63	0,1111
Female	58.50 \pm 05.15	
Age group		
Under 25 years old	50,00 \pm 00,00	0,3772
Between 26-35 years old	56.53 \pm 06.41	
Between 36-45 years old	57.77 \pm 06.10	
Between 46-55 years old	53,00 \pm 07,52	
Between 56-65 years old	57,86 \pm 04,78	
Number of employment relationships		
1	64,00 \pm 00,00	0,4982
2	55,73 \pm 05,43	
3	58,00 \pm 05,54	
4	56,46 \pm 07,61	
5 or more	56,54 \pm 06,44	
Number of working hours per week		
Less than 20h	59,33 \pm 04,63	0,3222
From 8 pm to 39 am	58,56 \pm 05,14	
From 40 to 59 hours	54,68 \pm 07,33	
From 60 to 79 hours	56,38 \pm 05,68	
Greater than 80h	-	
How do you consider your compensation as an anesthesiologist?		
Very bad	-	0,0022
Spacious	47,00 \pm 05,29a	
Regular	54,06 \pm 05,79a	
Good	59,03 \pm 05,04b	
Very good	58,00 \pm 08,49ab	
Regarding the last 12 months, how many times a week have you dedicated to physical activity?		
Not once	57,13 \pm 05,22	0,9732
Less than 2 times a week	57,06 \pm 05,96	
From 3 times to 6 times a week	56,46 \pm 06,76	
Greater than 6 times	-	
Regarding the last 12 months, how many hours per week did you dedicate to social and/or leisure activities?		
No schedule	-	
Less than 2h	57,50 \pm 08,46	0,1542
From 2-4h	53,46 \pm 06,92	
From 4-6h	57,35 \pm 05,29	
But from 7 a.m.	58,33 \pm 05,18	

SD = standard deviation; 1Mann-Whitney; 2Kruskal-Wallis; Note: equal letters do not differ from each other./ Source: Marques, 2022.

Individuals who practiced physical activity 3 to 6 times a week had a score of 56.46 \pm 06.76 ($p < 0.973$), which corresponds to an above-average level of satisfaction with life. This data could not be significantly associated with individuals who did not practice physical activity, of which they had scores of 57.13 \pm 05.22 ($p < 0.973$). In addition, the literature shows that the practice of physical activity at least 3 times a week can be a protective factor for the development of *burnout syndrome*.

The anesthesiologists who are most satisfied with life in relation to the hours dedicated to social and/or leisure activities are those who dedicate more than 7 hours per week, scoring 58.33 ± 05.18 ($p < 0.154$) in the overall score. Individuals who dedicate less than 2 hours a day to this type of activity scored 53.46 ± 06.92 ($p < 0.154$), i.e., a greater weekly time dedicated to activities that are not directly related to work seems to have a beneficial effect on increasing the level of satisfaction with life of the individuals surveyed.

CONCLUSION

Most anesthesiologists in the State of Piauí are satisfied with life. The highest scores found are directly related to satisfaction with remuneration. There was no factor that was associated with a low level of life satisfaction, however, some reflections are necessary. Most work more than 40 hours a week, with 59.3% working more than 60 hours a week, which can be a risk factor for illness.

In addition, the practice of weekly physical activity is below that recommended by the WHO in 29% of the interviewees, which may reflect that this measure is not so valued as a prevention strategy for burnout syndrome among these individuals. And, despite adequate sleep hours for the majority, 29.6% have a reduced amount of sleep replacement, which can be a risk factor for mental illness. There is a lack of institutional strategies related to the well-being of anesthesiologists, in which 81% of the institutions do not have committees or working groups dedicated to the topic in question (SBA, 2013).

Therefore, this study can contribute to guide preventive actions, whether individual, in teams or in representative class bodies, on the organizational, environmental and work logistics conjuncture, which may compromise the level of satisfaction with life among anesthesiologists.

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