

Association among physical activity practice with the mental health and the quality of life perception in nursing professionals from Ribeirao Preto and the region during the COVID-19 pandemic

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ABSTRACT

Introduction: At the forefront of the COVID-19 pandemic are health professionals who carry out intense work, including nursing professionals, who represent a large number of health professionals working in health and hospital institutions. The high pressures in the work environment with expended workloads and journeys increased the demands due to the responsibility of their attributions. This context can negatively affect these professionals' physical activity practices, mental health, and perceived quality of life. **Objective:** Analyze the association between physical activity practice, mental health, and perceived quality of life in nursing professionals from Ribeirao Preto, SP, during the COVID-19 pandemic. **Methods:** This cross-sectional study was performed with nursing professionals from the Ribeirao Preto and region area in 2021 through an online form on the Google Forms tool. Questions related to sociodemographic data, professional activity, questionnaires to measure physical activity levels and sedentary behavior (IPAQ - short version), quality of life perception (SF - 12v2), and mental health (DASS-21) were used. Regarding the statistical analysis, the Chi-square test was used to verify the association of two categorical variables; the Student's T-test to compare two means, and the ANOVA to compare three means from unpaired samples. The significance level was 5%. **Results:** 125 professionals participated in the study, such as assistants, technicians, nurses, and coordinating nurses. Among them, 79.2% were women, 56.0% worked in the private sector, 34.4% were overweight, and 29.6% were obese. Professionals who practiced physical exercise or sport had a lower risk of depression (57.9% among non-practicing professionals, 47.9% among practicing one type of exercise, and 18.2% among practicing two or more types of exercise or sports, $p = 0.04$). In addition, professionals with moderate or high physical activity levels and who practiced physical exercises or sports had a better score in multiple domains and physical and mental quality of life components compared with low physical activity levels and not practicing physical exercises or sports, respectively. **Conclusion:** Nursing professionals who reported practicing more physical exercises or sports had lower mental health-related risks, and those who reported moderate or high physical activity levels had a better perception of quality of life.

Keywords: Nursing team, Quality of life, Sedentary behavior, Physical, COVID-19, Mental health.

INTRODUCTION

Since December 2019, the world has been alert to COVID-19, a disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)¹. In March 2020, the situation was declared a pandemic, and according to data from the World Health Organization (WHO)², Brazil, in the last week of October 2022, approached millions of cases and 690,000 deaths since the beginning of the pandemic³.

On the front lines of the fight against the pandemic, some health professionals, including nursing professionals, carry out intense work. The skills of these professionals stand out in the spaces and services of Primary Health Care (PHC) responsible for welcoming and screening suspected cases and the medium and high complexity levels, for receiving and developing care and therapeutic actions, according to the severity of the case. Furthermore, according to law 7.498/86⁴, nursing professionals are responsible

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for detecting and evaluating suspected cases and cooperating with epidemiological surveillance and control measures through notifications. The nursing team is the only professional category at the bedside, providing care 24 hours a day⁵.

Nursing professionals represent the largest share of health professionals who work in health institutions and hospitals. According to Nursing Federal Council⁶, the number of professional records in Brazil among assistants, technicians, and nurses is over 2.5 million, with the highest concentration in the Southeast, with approximately half of these professionals⁷. Because it is such an expressive number of professionals and their attributions within the health units, their importance is assumed for the population's health care. This care is essential, from referrals in Primary Health Care to the most complex care, such as within intensive care units (ICUs) and surgical centers.

The working conditions of these professionals could already be considered problematic in some respects, and with the COVID-19 pandemic, they got even worse. For example, nursing professionals face a high workload on the front line in the fight against COVID-19⁵. It is known that the high pressures in the work environment, increased workloads, and exhausting workdays can lead these professionals to experience stress, fear, worry, anxiety, and anguish even before the pandemic and now, enhanced by it⁸. Moreover, such factors can generate several consequences, such as the risk of absenteeism of professionals, medication errors, accidents at work, and lack of leisure⁹.

Traditionally, the concept of health has been associated with the absence of disease and later with complete physical, mental, and social well-being¹⁰ – more recently, the multidimensionality of this state has been recognized, and, therefore, the ways of living and life habits are valued¹¹. The perception of quality of life also has a characteristic in common with the definition of health, comprising several dimensions of people's lives, including the physical and emotional. It is important to emphasize that the perception of quality of life differs among people and can change over time in the same person¹². Among the factors that may be associated with health and perception of quality of life, this study highlights habits related to physical activity^{11,12}.

Notoriously, physical activity is positively associated with several physical health outcomes¹³, mental¹⁴, and perception of quality of life^{12,15}. Also

noteworthy is the evidence for nursing professionals - Raffone e Azevedo¹⁶ found that professionals who practice physical activity frequently may have a better overall relationship with work, including greater physical willingness to work.

Even considering the benefits associated with the practice of physical activity, there is evidence that among health professionals, most are insufficiently active (62%), with nurses being the most inactive (72%), followed by nursing technicians (55%). However, in professionals considered active, there is a better perception of quality of life and higher scores in functional capacity, vitality, and mental health compared to inactive ones¹⁷.

Given these considerations, there are notes in the literature that indicate negative situations related to mental health, quality of life, and low engagement with physical activity in nursing professionals, in a pre-pandemic scenario. Therefore, one must question how these health indicators reacted during this health crisis.

In this way, the general objective of this study was to analyze the association of physical activity with mental health and the perception of quality of life of nursing professionals during the COVID-19 pandemic. The hypothesis is that participants with greater practice of physical activity, physical exercise, or sport present lower risks related to mental health and a better perception of quality of life.

METHODS

This article is a cross-sectional epidemiological study approved by the Research Ethics Committee of the Escola de Educação Física e Esporte de Ribeirão Preto - Universidade de São Paulo (CAAE: 49172621.6.0000.5659). All participants were instructed about the objectives and procedures of the research and had the researchers' contacts in the Free and Informed Consent Form so they could clarify any doubts. All accepted the term and received a copy by email.

The present study followed the guidelines of the Strengthening the Reporting of Observational Studies in Epidemiology – STROBE initiative¹⁸. For this study, the version for cross-sectional studies was used. The items that make up the STROBE are related to the information that must be present in the title, abstract, introduction, methodology, results, and discussion of scientific articles.

Study design

The non-probabilistic convenience sampling method of the snowball type was used, by sending and sharing the link to the form via social networks in contact groups that involved the participation of nursing professionals, in addition to a wide range of disclosure. Respondents were asked to share the form with their peers. In addition, an official letter was sent to some private health institutions requesting assistance in disclosing.

The questionnaire application took place between July and August 2021, when the participants answered the online form, which was available for approximately one month and can be answered only once. In the first part, guidelines were presented on objectives, procedures, and other relevant information. Afterward, the participants could inform their consent to the research and proceed if they agreed. Finally, the form for this research was developed and applied using the Google Forms tool. The form was answered by 129 participants, two with duplicate and two with incomplete answers, so the final sample size was 125 participants.

Participants

The study was aimed at nursing professionals at all levels of activity in Ribeirao Preto and region (Regional Health Department XIII), such as public, private, and philanthropic hospitals, primary and secondary care such as the Basic Health Unit (BHU), Unit Basic Health District (UBHD), Emergency Care Unit (ECU), clinics, educational institutions linked to Nursing, Foundations, and Research Institutes linked to Health. Therefore, participants were included according to the following criteria: agreeing to the consent form; being registered with COREN; age > 18 years and having been employed for at least six months in any Health Institution in the city of Ribeirao Preto, SP or cities that are part of the Regional Health Department XIII.

Aspects studied

Anamnesis

An anamnesis elaborated by the authors allowed the collection of socio-demographic data

(gender, age, body mass, height, and skin color) and professional data (occupation level, employment relationship, and sector), in addition to information on lifestyle habits, current health status and practice of physical exercise or sport.

Assessment of the usual level of physical activity

The short version of the International Physical Activity Questionnaire (IPAQ), validated for Brazilian population, was used¹⁹. Participants were classified according to the level of physical activity, obtained by the sum of the frequency and duration of all activities in a typical week, categorizing them into low, moderate, or high, where:

- low
 - No activity is reported; or
 - Some activity is reported, but not enough to meet moderate or high categories.
- Moderate
 - Any of the following three criteria:
 - 3 or more days of vigorous activity of at least 20 minutes a day; or
 - 5 or more days of moderate-intensity activity and/or walking for at least 30 minutes a day; or
 - 5 or more days of any combination of walking, moderate- or vigorous-intensity activity, achieving a minimum of 600 MET-minutes/week.
- high
 - Any of the following two criteria:
 - Vigorous-intensity activity on at least three days and accumulating at least 1,500 MET-minutes/week; or
 - 7 or more days of any combination of walking, moderate- or vigorous-intensity activities accumulating at least 3,000 MET-minutes/week.

Quality of life

The 12-Item Short-Form Health Survey Version 2 (SF-12v2) instrument assessed the perception of quality of life. A previous version was translated into Portuguese and validated by Camelier²⁰, and more recently, this second version had its psychometric properties tested by Damásio, Andrade, and Koller²¹. The SF-12 evaluates eight domains (physical capacity, physical aspects, body pain, general health aspects, vitality, social aspects, emotional aspects, and mental

health) of influence on the quality of life, in addition to the physical and mental components^{22,23}. The answers generate a score that makes assessing the perception of quality of life possible.

Mental Health Scale

The Depression, Anxiety, and Stress Scale (DASS-21), adapted and validated by Vignola and Tucci²⁴ for Brazilian population, was used to assess mental health. The seven questions form the depression, anxiety, and stress subscale.

Thus, the variables under study refer to the data collected and analyzed by these instruments (IPAQ, SF-12v2, and DASS-21), in addition to the variables characterizing the target audience of the research, the latter variables being descriptive and analytical. The response variables were the risk of depression, anxiety, stress, and perceived quality of life.

Statistical analysis

In the descriptive stage, a table was developed to summarize the values, organize and describe the data with descriptive measures. Furthermore, the following statistical analyses were carried out²⁵: categorical variables were expressed in absolute and relative frequency, and continuous variables were expressed in mean and standard deviation.

- Chi-square test to verify the association of aspects related to mental health (depression, anxiety, and stress) with gender, age, level of physical activity, and practice of physical exercises or sports. This test aims to verify the association between two categorical variables;
- Analysis of variance (ANOVA) to compare the groups according to physical activity levels with the quality of life domains. This methodology is based on partitioning the total variance of a given response (dependent variable) into two parts: the first due to the regression model (in this case, between groups) and the second due to residuals (errors) (within groups). This model assumes that its residuals have a normal distribution with mean 0 and constant variance. In cases where this assumption was not observed, transformations in the response variable were used.

- Student t-tests of independent samples to compare groups according to the practice of physical exercises or sports with the quality of life domains. This test consists of comparing two means from unpaired samples. To use this test, it is necessary to test whether the variances of the two groups are statistically equal and whether the data follow a normal distribution.

In all analyses, a significance level of 5% was considered, and adjustments were obtained using the Statistical Analysis Software - SAS (Version 9.2).

RESULTS

Participants were predominantly female, aged less than 40 years, and self-declared white. Most had an occupation level as a nursing technician, having an employment relationship and working in the private sector. Most participants, based on BMI, were classified as overweight or obese, and the level of physical activity was classified as low. Less than half of the participants regularly practiced physical exercise or sport (Table 1).

Based on the analysis of sociodemographic data and the DASS-21 questionnaire, a greater risk of depression was observed among participants who did not practice physical exercise or sport ($p < 0.05$) (Table 2). Descriptively, although there is no statistical evidence ($p = 0.08$), it is possible to observe that people with a low level of physical activity also had a higher risk of depression (Table 2). Similarly, although there is no statistical evidence ($p = 0.07$), it is descriptively observed that participants who did not practice physical exercise or sport were at greater risk for anxiety (Table 3).

Table 1
Characterization of nursing professionals in Ribeirao Preto and region during the COVID-19 pandemic.

Variable	Categories	n=125	%
Gender	Female	99	79.2
	Male	26	20.8
Age	< 40 years	92	73.6
	> 40 years	33	26.4

Variable	Categories	n=125	%
Skin color	White	82	65.6
	Black	8	6.4
	Brown	35	28.0
Occupancy level	Assist Nursing	15	12.0
	Techn Nursing	72	57.6
	Nurse	27	21.6
	Nurse Coordinator	11	8.8
Employment relationship	1 bond	79	63.2
	2 bonds	46	36.8
Sector	Public	55	44.0
	Private	70	56.0
BMI	Normal	45	36.0
	Overweight	43	34.4
	Obesity	37	29.6
PA level	Low	74	59.2
	Moderate	34	27.2
	High	17	13.6
PE or Sport	Do not practice	76	60.8
	Yes. practice a type	38	30.4
	Yes. practice 2 or more types	11	8.8

Source: from the authors. Assist = Assistant; Techn = Technician; Nurse = Nurse; PA = physical activity; PE = physical exercise; BMI = Body Mass Index.

Table 2

Analysis of the association between sex, age, level of physical activity, and practice of physical exercise or sport with the risk of depression in nursing professionals in Ribeirao Preto and region during the COVID-19 pandemic.

Variable	Categories	Normal		Risk		Total		p value
		N	%	n	%	n	%	
Gender	Female	48	48,5	51	51,5	99	100	0.89
	Male	13	50,0	13	50,0	26	100	
Age	< 40 years	44	47,8	48	52,2	92	100	0.72
	> 40 years	17	51,5	16	48,5	33	100	
Level from PA	Low	30	40,5	44	59,5	74	100	0.08
	Moderate	21	61,8	13	38,2	34	100	
	High	10	58,8	7	41,2	17	100	
PE or Sport	Do not practice	32	42,1	44	57,9	76	100	0.04
	Yes, practice a type	20	52,6	18	47,4	38	100	
	Yes, practice 2 or more types	9	81,8	2	18,2	11	100	

Source: from the authors. PA = physical activity; PE = physical exercise.

There were no associations between sociodemographic data, the practice of physical exercise or sport, and the level of physical activity with the risk of stress (Table 4). However, as a complement to this analysis, it was possible to observe a lower mean score related to stress when comparing the high physical activity group 10.4 (9.7) with the low physical activity group 15.5 (9.2) ($p < 0.05$) (data not shown in the tables).

From the division of participants into groups according to the level of physical activity, it was observed that there were statistically significant differences ($p < 0.05$) in seven of the eight domains of quality of life and also in the physical and mental components. The groups classified as having a "high" and "moderate" level of physical activity had better scores when compared to the group with a "low" level of physical activity. In general health, social and emotional aspects, the group with a high level of physical activity showed better results when compared to the moderate group. There was no difference between the groups, only in the "body pain" domain (Table 5).

A statistical difference was observed considering the comparison of groups based on the practice of physical exercises or sports for the domains of physical capacity, general aspects of health, and vitality, in addition to the physical component (Table 6).

Table 3

Analysis of the association between sex, age, level of physical activity, and practice of physical exercise or sport with the risk of anxiety in nursing professionals in Ribeirao Preto and region during the COVID-19 pandemic.

Variable	Categories	Normal		Risk		Total		p value
		n	%	n	%	n	%	
Gender	Female	55	55.6	44	44.4	99	100	0.85
	Male	15	57.7	11	42.3	26	100	
Age	< 40 years	53	57.6	39	42.4	92	100	0.55
	> 40 years	17	51.5	16	48.5	33	100	
Level from PA	Low	37	50.0	37	50.0	74	100	0.22
	Moderate	21	61.8	13	38.2	34	100	
	High	12	70.6	5	29.4	17	100	
PE or Sport	Do not practice	37	48.7	39	51.3	76	100	0.07
	Yes, practice a type	24	63.2	14	36.8	38	100	
	Yes, practice 2 or more types	9	81.8	2	18.2	11	100	

Source: from the authors. PA = physical activity; PE = physical exercise.

Table 4

Analysis of the association between sex, age, level of physical activity, and practice of physical exercise or sport with the risk of stress among nursing professionals in Ribeirao Preto and region during the COVID-19 pandemic.

Variable	Categories	Normal		Risk		Total		p value
		N	%	n	%	n	%	
Gender	Female	39	39.4	60	60.6	99	100	0.79
	Male	11	42.3	15	57.7	26	100	
Age	< 40 years	35	38.0	57	62.0	92	100	0.46
	> 40 years	15	45.5	18	54.6	33	100	
Level from PA	Low	28	37.8	46	62.2	74	100	0.50
	Moderate	13	38.2	21	61.8	34	100	
	High	9	52.9	8	47.1	17	100	
PE or Sport	Do not practice	28	36.8	48	63.2	76	100	0.67
	Yes, practice a type	17	44.7	21	55.3	38	100	
	Yes, practice 2 or more types	5	45.5	6	54.6	11	100	

Source: from the authors. PA = physical activity; PE = physical exercise.

Table 5

Comparison of groups according to the level of physical activity for the domains and components of quality of life in nursing professionals in Ribeirao Preto and region during the COVID-19 pandemic.

Groups	Low (n = 74)	Moderate (n = 34)	High (n = 17)
Age	33.88 (7.69)	36.03 (9.25)	36.88 (9.29)
Physical capacity	47.42 (8.98)	51.92 (6.43) ^a	54.45 (3.76) ^a
Physical aspects	46.91 (10.05)	47.29 (9.83)	52.30 (8.22) ^a
Body pain	46.84 (10.04)	46.35 (10.15)	50.85 (8.01)
General health aspects	42.47 (9.11)	45.18 (7.21)	51.84 (6.46) ^{ab}

Groups	Low (n = 74)	Moderate (n = 34)	High (n = 17)
Vitality	43.13 (9.60)	48.05 (11.21) ^a	52.49 (8.80) ^a
Social aspects	39.24 (11.76)	39.94 (13.82)	48.85 (11.02) ^{ab}
Emotional aspects	41.42 (12.37)	46.05 (9.91) ^a	48.84 (8.56) ^a
Mental health	37.60 (10.14)	42.13 (12.89) ^a	50.20 (10.76) ^{ab}
Physical component	49.20 (7.50)	50.02 (5.94)	53.68 (5.23) ^a
Mental component	37.15 (10.84)	41.62 (12.43)	48.45 (12.00) ^{ab}

Source: from the authors. Mean (standard deviation); a $p < 0.05$ compared to Low; b $p < 0.05$ compared to Moderate;

Table 6

Comparison of groups according to the practice of physical exercise or sport for the domains and components of quality of life in nursing professionals in Ribeirao Preto and region during the COVID-19 pandemic.

Groups	No (n = 76)	Yes (n = 49)
Age	34.35 (7.77)	35.71 (9.29)
Physical capacity	48.33 (8.80)	51.64 (6.84) ^a
Physical aspects	47.13 (10.16)	48.73 (9.38)
Body pain	46.85 (9.27)	47.89 (10.80)
General health aspects	42.44 (9.41)	47.75 (6.73) ^a
Vitality	44.09 (9.51)	48.38 (11.45) ^a
Social aspects	39.39 (12.16)	42.89 (13.09)
Emotional aspects	43.01 (11.99)	44.78 (10.91)
Mental health	39.13 (10.15)	42.82 (13.77)
Physical component	49.05 (7.03)	51.61 (6.58) ^a
Mental component	38.61 (10.80)	41.98 (13.60)

Source: from the authors. Mean (standard deviation); at $p < 0.05$ versus "no".

DISCUSSION

This study aimed to analyze the association between physical activity and the practice of physical exercise or sport with mental health and the perception of quality of life of nursing professionals during the COVID-19 pandemic. The risk of depression was significantly lower in those who reported practicing physical exercise or sports and descriptively lower in those who reached levels of physical activity between moderate and high. Descriptively, a lower risk of anxiety was also observed in participants who practiced physical exercise or sports. Furthermore, the groups that reached moderate to high levels of physical activity

had higher scores in the perception of quality of life than those with a low level of physical activity. The results were similar regarding physical exercise or sports, with higher scores among those who practiced than those who did not.

Of the nursing professionals participating in this study, more than half had a low level of physical activity, and approximately two-thirds were overweight or obese. Still, more than half did not practice any physical exercise or sport regularly. Previously, Coelho *et al.*²⁶, in a survey with 52 nursing technicians, revealed that the BMI of 25% of the participants was classified as overweight and 2% as first-degree obesity; only 23% practiced physical exercises regularly. The authors observed that most respondents had a low level of physical activity, did not have healthy eating habits, and did not drink enough water or exercise regularly. A worrying scenario found by the results of the present study may indicate a worsening in some aspects, such as the higher prevalence of overweight and obesity.

The reality of nursing professionals observed in this study is consistent with the scenario of the Brazilian population²⁷. In the Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey, 52,443 Brazilians were interviewed, and sociodemographic data and data related to life and health habits were collected. It was found that the frequency of physical activity in free time equivalent to 150 minutes of moderate activity per week was 39%, higher among men (46.7%) than among women (32.4%) and in both sexes. Adults who practiced physical activity while commuting, equivalent to at least 150 minutes of moderate physical activity per week, was 14.1%, with no differences between genders. Considering the adult population studied, 44.8% did not reach a sufficient level of physical activity, which was higher among women (52.2%) than among men (36.1%). Physical

inactivity was 13.9%, with minimal differences between genders. The frequency of overweight was 55.4%, being slightly higher among men (57.1%) than among women (53.9%), while the frequency of obese adults was 20.3%, being similar between men and women.

Some studies that evaluated the life habits of nursing professionals showed important results that can be useful for developing actions. Pereira *et al.*²⁸ (2019) analyzed the profile of overweight and obesity in 326 workers in a hospital, where it was observed that 66.7% of women were classified as sedentary and 60% were overweight. In men, obesity was more prevalent in the 30-39 age group and among sedentary individuals. In women in the 40 to 49 age group and among sedentary women, obesity was high, above 90%. Complementarily, Chillida *et al.*²⁹ evaluated 570 nursing professionals using the QSETS (Tool for collecting sociodemographic data, lifestyle, health, and work aspects) and revealed that approximately 1/3 used alcoholic beverages, 19% were smokers, 31.6% had overweight, and 17.8% were obese. Only 17.2% of respondents practiced at least 150 minutes of physical activity per week, among which 67% had at least one medically diagnosed disease.

It is worth noting that changes in healthy habits, such as eating, can also happen due to physical and mental exhaustion syndromes, such as Burnout, occupational stress, depression, and anxiety. For example, the recent study by Liboredo *et al.*³⁰ observed that workers on the frontline of COVID-19 were 2.2 times more likely to have higher scores on a test that evaluated uncontrolled eating due to emotional factors linked to mental health caused by professional performance during the pandemic.

More specifically, on physical activity, Freitas *et al.*³¹ evaluated the impact of a physical exercise program on the levels of anxiety, depression, exhaustion, occupational stress, and self-perception of health and quality of life related to the work of the nursing team. The program was carried out five days a week, lasting ten minutes, for three consecutive months and had 21 participants. The intervention did not benefit work stress and psychological variables. Still, it was well accepted by nursing professionals, who reported improving their perception of health and work-related quality of life. As a factor that may have influenced the achievement of more favorable results, the fact that the intervention proposed only 10 minutes of daily physical exercise stands out, not

meeting the recommendations of the Physical Activity Guide for the Brazilian Population³², which advocates the practice of at least 150 minutes of physical activity per week at moderate intensity or 75 minutes of intense physical activity, or a combination of both. However, the same Guide points out that every movement counts, so the intervention was important even at a lower volume than recommended weekly. It is worth mentioning that the results of the present study pointed to an association between the level of physical activity, the practice of physical exercise or sport, and aspects related to mental health.

Vidotti *et al.*³³ analyzed the factors associated with Burnout syndrome according to the nursing team's work shift. The study used the participation of 502 nursing professionals, among assistants, technicians, and nurses, and the instruments Maslach Burnout Inventory-Human Service Survey and the Demand-Control-Support Questionnaire. Burnout syndrome levels were significantly higher among day shift nursing workers, and the associated factors indicated a sedentary lifestyle. The results showed that high depersonalization was associated with physically inactive nurses, and dissatisfaction with sleep and physical inactivity was significantly related to low professional achievement. The authors also indicated that the greater the intensity of physical exercises, the lower the levels of Burnout, anxiety, and depression.

Robazzi *et al.*³⁴ add that, besides promoting absenteeism, work accidents, medication errors, exhaustion, work overload, and lack of leisure, overwork contributes to mental and/or physical illnesses in health workers.

Souza's observational study *et al.*³⁵, which was carried out with Brazilian adults through an online questionnaire five months after the implementation of social distancing measures during the COVID-19 pandemic, observed that during the pandemic, there was an increase in screen time and a reduction in physical activity among participants.

The results of the present study, using a cross-sectional approach, do not allow any cause-and-effect relationship. Still, it did enable observing some associations between the level of physical activity and the practice of physical exercise or sport with mental health and the perception of quality of life. It is also worth noting that these data come from a non-probabilistic sample for convenience, carried out at a specific time; therefore, extrapolating the results

to the population would not be adequate. Still, there was a lack of studies on this theme among nursing professionals.

Longitudinal follow-up studies can provide important information for the evolution of knowledge in this context to assess the greater impacts of social isolation and high work demand among nursing professionals caused by the COVID-19 pandemic.

FINAL CONSIDERATIONS

An association was observed between a low level of physical activity and the lack of physical exercise or sports, with lower scores in the perception of quality of life and risks associated with depression, with a descriptive risk for anxiety also being observed. With this, the great benefits and importance of physical exercise and an active lifestyle are reinforced, both in the prevention of psychosocial diseases and in the maintenance of the physical health of nursing professionals. The present study identified that most nursing professionals have low adherence to physical exercise or sports and are at risk for depression and anxiety, as well as a low score in the perception of quality of life. It is suggested that health institutions adopt programs that promote improvement in the perception of quality of life of employees, encouraging and promoting the practice of physical activity and regular exercise, as well as adopting measures to protect mental health.

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Conflict of interest

The authors declare no conflict of interest.

Specific contributions of each author to the work

LRM participated in the article's design, data collection, and writing development.

MJA participated in analyzing the results, developing the article's writing, and revising the final version.

GPC and JLA participated in analyzing the results and revising the article's final version.

EASL participated in developing the study method, performing the statistical analysis, and revising the article's final version.

AAT participated in the conception, data collection, development of the article's writing, and revising of the final version, in addition to coordinating the work team.

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