

Burnout Syndrome in physiotherapists working in teaching, clinical and hospital areas during the COVID-19 pandemic

Síndrome de Burnout em fisioterapeutas atuantes na docência, clínica e área hospitalar durante a pandemia da COVID-19

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ABSTRACT | INTRODUCTION: According to the World Health Organization, Burnout syndrome is a response to the chronification of stress, strict to the work context. Some studies recognized this condition in 1980 and highlighted emotional exhaustion, depersonalization and a reduced sense of personal accomplishment experienced by professionals. There is a need to understand the Burnout syndrome in physical therapists, and the aggravation of the COVID-19 pandemic in these professionals working in the teaching, clinical and hospital areas **OBJECTIVE:** To verify the frequency of Burnout syndrome in physical therapists and to associate the impact of the work environment and the work variables in each area of work in the period of the COVID-19 pandemic. **METHODOLOGY:** This is an observational, descriptive-analytical study with a quantitative approach and cross-sectional design. A questionnaire was used to collect sociodemographic, occupational and behavioral data, as well as the Maslach Burnout Inventory (MBI) in its Human Services Survey (HSS) version. The inclusion criteria were age (22 to 70 years old), both genders, duly qualified by the professional council, and working in at least one fixed place of attendance for a minimum period of 06 months. Data analysis was done using the T test, Anova, Kruskal-Wallis and Mann-Whitney. The significance level was set at $p < 0.05$ and 95% CIs. **RESULTS:** 57 physiotherapist professionals working in clinics, hospitals and teaching participated. We compared the 03 criteria of the BS and its total score and correlated the 03 scenarios, in this regard, the three groups had Burnout Syndrome, since the literature recommends that high emotional exhaustion, associated with high depersonalization and low personal fulfillment is considered a syndrome of Burnout. **CONCLUSION:** Physical therapists have a high level of incidence of BS, it was found that the pandemic aggravated the prevalence and impact of BS on professionals working in hospitals, clinics and teaching.

KEYWORDS: Burnout. Burnout, Professional. Occupational Stress. Mental Health. Physiotherapy.

RESUMO | INTRODUÇÃO: Segundo a Organização Mundial da Saúde, a síndrome de Burnout (SB) é uma resposta à cronificação do estresse, estrita ao contexto laboral. Alguns estudos reconheceram essa condição em 1980 e destacaram a exaustão emocional, a despersonalização e um senso reduzido de realização pessoal experimentados pelos profissionais. Existe uma necessidade de entender a síndrome de Burnout nos fisioterapeutas, e o agravamento que a pandemia da COVID-19 provocou nestes profissionais atuantes nas áreas da docência, em clínicas e área hospitalar. **OBJETIVO:** Verificar a frequência da síndrome de Burnout em fisioterapeutas e associar o impacto do ambiente de trabalho em cada área de atuação no período da pandemia da COVID-19. **METODOLOGIA:** Trata-se de um estudo observacional, descritivo-analítico, de abordagem quantitativa e delineamento transversal. Como instrumentos de avaliação foram utilizados questionários de coleta de dados sociodemográficos, ocupacionais e comportamentais, além do Maslach Burnout Inventory (MBI) em sua versão Human Services Survey (HSS). Os critérios de inclusão consistiam em idade (22 a 70 anos), ambos os gêneros, devidamente habilitados pelo conselho da profissão, que atuassem em pelo menos um local fixo de atendimento por um período mínimo de 06 meses. A análise dos dados foi feita através do teste T, Anova, Kruskal – Wallis e Mann – Whitney. O nível de significância foi definido em $p < 0,05$ e ICs de 95%. **RESULTADOS:** Participaram 57 profissionais fisioterapeutas atuantes em clínicas, hospitais e professores. Comparamos os 03 critérios da SB e o seu score total e correlacionamos aos 03 cenários, neste quesito os três grupos Síndrome de Burnout, pois a literatura preconiza que alta exaustão emocional, associada a alta despersonalização e baixa realização pessoal é considerada uma síndrome de Burnout. **CONCLUSÃO:** Os fisioterapeutas apresentam alto nível de incidência da SB, foi constatado que a pandemia agravou a prevalência e o impacto da SB nos profissionais que atuam em hospitais, clínicas e na docência.

PALAVRAS-CHAVE: Burnout. Esgotamento Profissional. Estresse Ocupacional. Saúde Mental. Fisioterapia.

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Introduction

According to the World Health Organization (WHO), Burnout Syndrome is a response to chronic work-related stress.¹ Some studies^{2,3} recognized this condition in 1980 and highlighted emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment experienced by professionals. Burnout Syndrome became a public health problem, included in the International Classification of Diseases in 2019.¹

Recent studies show a high prevalence of burnout among healthcare professionals, which is concerning, as its effects interfere with all aspects of an individual's life, causing professional and personal harm, and can reflect in the quality of the service provided and safety.⁴⁻⁷

Undeniably, the working conditions and the resulting consequences are linked to the current context of society, such as those caused by COVID-19, a globally recognized pandemic by the World Health Organization (WHO), leaving healthcare professionals even more exposed to stressors arising from uncertainty and fear. An atypical situation that increased the exposure of professionals and triggered the risk of developing psychological distress and other symptoms of mental health, resulting from the overwhelming workloads and sense of helplessness in the face of the situation.^{8,9}

Another field of work, teaching, has been profoundly affected during the pandemic period. Occupations involving emotional engagement are considered to be at higher risk for Burnout Syndrome.¹⁰

In intensive care units (ICUs), the workload can be higher due to patients typically having high morbidity, requiring physiotherapists to remain constantly vigilant, at the same time, there is a lack of adequate time to assess and attend to patients, furthermore, resources are often limited and it can lead to exhaustion and burnout among these professionals.¹¹ It is estimated that in adult ICUs, the prevalence of BS among healthcare professionals can exceed 50% of the active professionals.¹² Those working in clinics faced a constant state of uncertainty, in addition to the substantial loss of workload, being forced to close their treatment facilities that were not considered emergency services.¹³

There is a scarcity of studies evaluating the development of conditions such as BS in Brazilian physiotherapists, and despite being a relatively new profession in the Brazilian market, they have played a vital role in addressing the impact of the pandemic.^{10,13}

There is a need to understand BS among physiotherapists and the exacerbation of this syndrome due to COVID-19 pandemic in professionals working in teaching, clinical and hospital areas.⁶

Therefore, considering the significance of these professionals, who are susceptible to developing this condition due to high intellectual, physical and emotional demands placed upon them, the objective of this study was to determine the frequency of BS among physiotherapists and to examine the impact of the work environment in each area of practice during the COVID-19 period.

Methodology

This is an observational, descriptive-analytical study with a quantitative approach and a cross-sectional design. It was conducted in the region of Pouso Alegre, Minas Gerais, Brazil, from October 2021 to July 2022.

This project followed the norms and guidelines of Resolution 466/12 of the National Health Council, starting only after obtaining approval from the Research Ethics Committee of the Universidade do Vale do Sapucaí (UNIVÁS), CAAF: 52961321.7.0000.510252961321.7.0000.5102. Participants were required to sign an informed consent form prior to their involvement in the study.

The eligibility criteria included individuals aged 22 to 70 years of both genders, properly licensed by the professional council and practicing in at least one fixed healthcare facility for a minimum period of 6 months.

Exclusion criteria

Professionals who only exclusively provide home care due to the seasonal nature of their practice, as they may not have conducted visits during the periods of social isolation. Individuals undergoing psychological treatment unrelated to BS or with

a history of mental disorders were excluded and those who were on vacation or on medical leave during the data collection period were also excluded from the study.

The research was made available through WhatsApp using the snowball technique, where participants were directed through a link that provided access to a form on the Google forms platform, that included the informed consent statement and the questions to be answered.

The form included data collection instruments, such as sociodemographic, occupational and behavioral information, and the Maslach Burnout Inventory (MBI) in the Human Services Survey (HSS) version, which included 22 statements that comprehend the frequency of feelings and attitudes toward clients and work. These statements are divided into three dimensions: emotional exhaustion (composed of nine items), depersonalization (composed of five items) and personal accomplishment (composed of eight items), with a variation of seven points from 0 to 6. This instrument was translated and validated for use in Brazil by Liana Lautert in 1995¹⁴⁻¹⁶, being the following for each dimensions: emotional exhaustion score below 18 indicates low level, score from 19 to 26 medium level and scores above 27 high level; depersonalization scores below 5 indicate low level, score from 6 to 9 medium level and above 10 high level; personal accomplishment score below 33 indicate low level, scores from 34 to 39 medium level and score above 40 high level.

To preliminarily identify Burnout in physiotherapists, the MBI-HSS (Maslach Burnout Inventory – Human Services Survey) was used; this instrument has been validated and translated into Portuguese language specifically for healthcare professionals.¹⁵⁻¹⁷

According to Ebisui¹⁸, the classification by Maslach and Jackson for diagnosing BS and its risk subclasses is as follows: for the diagnosis of BS: high emotional exhaustion, high depersonalization and low personal accomplishment; for high risk: high emotional exhaustion, high depersonalization and high personal accomplishment or high emotional exhaustion, low depersonalization and low personal accomplishment or low emotional exhaustion, high depersonalization

and low personal accomplishment; for moderate risk: high emotional exhaustion or high depersonalization and low personal accomplishment; for low risk of developing BS: reduced risk: low emotional exhaustion, low depersonalization and high personal accomplishment.

The study sample consisted of 57 physiotherapists subsequently divided into three groups: those working in hospitals, clinics/practices, and teaching. To correctly distribute the professionals into the designed groups, in the case of those who had more than one of mentioned roles, the number of hours dedicated to each role was taken into account.

The professionals working in the mentioned fields were screened and the research invitation link was sent to them. After the professionals' acceptance, the sample was composed of 30 physiotherapists working in clinics and practices, 13 physiotherapists working in hospitals, and 14 physiotherapists working in teaching.

In cases where a professional worked in more than two settings, the one that they spent the most time was considered.

Consequently, the sample was classified into physiotherapists working in hospitals, clinics and teaching. Aiming to understand the impact of BS in each professional area.

The data analysis was made by the IBM® SPSS® statistical analysis software platform, using T-tests, Kruskal – Wallis and Mann – Whitney. The significance level was set at $p < 0.05$, with 95% confidence intervals.

Results

Table 01 presents data regarding the sociodemographic, occupational and behavioral characteristics of the sample, comparing the 3 groups. One notable finding is that the group of physiotherapists who work in the hospital, had more treatments with psychologists compared to the other groups, although there was no statistical difference between the groups.

Table 01. Comparative sociodemographic, occupational and behavioral analysis of the population 2021-2022

	Clinical 30 participants		Hospital 13 participants		Teaching 14 participants		Kruskal- wallis test
	Média	SD	Média	SD	Média	SD	
Marital status	0,466	0,507	0,076	0,277	0,785	0,425	0,001*
Age in years	30,9	6,503	27,76	3,609	39,57	7,643	0,000*
Gender	0,833	0,379	0,615	0,506	0,642	0,497	0,222
Reports having two or more jobs	0,533	0,507	0,615	0,506	0,785	0,425	0,284
Years since graduation	5,433	5,911	4	3,027	15,07	8,579	0,000*
Take regular vacations	0,366	0,490	0,692	0,480	0,857	0,363	0,006*
Physical activity (how many days per week)	1,066	1,337	1,846	1,625	1,714	1,728	0,184
Have any hobbies	0,666	0,479	0,461	0,518	0,642	0,497	0,439
Drink alcoholic beverages	0,266	0,449	0,230	0,438	0,357	0,497	0,747
Psychological treatment	0,166	0,379	0,461	0,518	0,285	0,468	0,132
Continuous use of medication	0,166	0,379	0,307	0,480	0,285	0,468	0,509
Episodes of panic disorder	0,4	0,498	0,307	0,480	0,285	0,468	0,714
Family history of burnout, panic disorder and depression?	0,633	0,490	0,538	0,518	0,571	0,513	0,827

Abbreviations: SD: standart deviation; *p-value \leq 0,05. In marital status, 0 was considered for single and 1 for married; in gender, 0 for males and 1 for females; for the number of jobs, 0 for one job and 1 for two or more jobs; if they take regular vacations, 0 no regular vacations and 1 for regular vacations; if they don't have hobbies 0, and if they have hobbies 1; if they don't consume alcoholic beverages 0, and if they do 1; if they relate not undergoing psychological treatment 0, and if they do 1; if they don't use continuous medication 0, and if they do 1; if they haven't had any episode of panic disorder 0, and if they had 1; if they don't have a family history of burnout 0, and if they do 1.

Source: the authors (2023).

In table 2, we compared 3 criteria of BS and their total scores, correlating them with the 3 work settings of this study. It can be noted that the group in the teaching profession showed the least impact in terms of emotional exhaustion, which can be explained by the security of working from home remotely and the assurance of receiving a salary, both of which had a significant impact on the other group. Another important finding is self-reported level of depersonalization among professionals working in hospitals, this finding highlights the loss of professional identify, often related to excessive workload and a sense of powerlessness caused by the pandemic, which resulted in the death of many Brazilians. Although there is no statistically significant difference among the 3 groups, it is evident that all of them have been affected by BS.

Table 02. Comparison of Burnout frequency among physiotherapists working in clinics, hospitals and university professors in 2021-2022

	Clinical 30 participants		Hospital 13 participants		Teaching 14 participants		Kruskal-Wallis test
	Avarage	SD	Avarage	SD	Avarage	SD	
Exhaustion	29,30	7,08	29,30	7,08	28,29	7,38	0,736
Depersonalization	17,36	3,97	18,23	3,24	16,28	3,47	0,397
Personal accomplishment	18,23	5,82	15,69	5,09	16,79	3,75	0,321
Total Burnout	64,9	14,09	61,38	12,14	61,35	11,67	0,814

Abbreviations: SD: standart deviation; *p-value \leq 0,05.

Source: the authors (2023).

In table 3, in terms of emotional exhaustion, all groups showed a high risk for this criterion, but there were no significant differences among them. In the criteria of depersonalization and personal accomplishment, the three groups exhibited similar patterns, indicating high levels in both dimensions. In terms of the local Burnout score, all analyzed groups are at high risk of developing Burnout.

Table 03. Comparison of the groups in relation to individual Burnout criteria

Criteria	Emotional exhaustion			Depersonalization			Personal Accomplishment		
	High risk	Modarate risk	Low risk	High risk	Modarate risk	Low risk	High risk	Moderate risk	Low risk
Clinical	56,7%	40%	3,3%	93,3%	6,7%	-	-	3,33%	96,7%
Hospital	61,5%	23,1%	15,4%	100%	-	-	-	-	100%
Teaching	50%	37,7%	14,3%	100%	-	-	-	-	100%

Legend: Statistical Test: Delta Percentile; - no score in the criterion.
Source: the authors (2023).

Discussion

The main objective of this research was to investigate the frequency of burnout syndrome in physiotherapists and associate the impact on the work environment in each area of practice during COVID-19 pandemic. It is known that there is a lack of consensus regarding the diagnosis of BS and heterogeneous data that vary according to the assessment method used in the literature, making it challenging to compare studies.²

In the literature, there are studies⁷ that support the modification of scoring in only one dimension for the characterization of BS. Therefore, in order to avoid assessment bias, our study calculated the prevalence of BS following the criteria of Maslach.

Another study³ found that professional exhaustion is one of the first manifestation in the process of BS or the most important in this condition, the high level of emotional exhaustion, low autonomy and lack of control over the work environment may be related to the propensity for BS.

According to the literature¹⁹ there is evidence about the risks of BS, assessing the burden on professionals related to emotional exhaustion, which can led to depersonalization and cynical attitudes.

In this study, it was possible to compare the levels of exhaustion and depersonalization among the participants' groups, where all of them presented high levels of exhaustion and depersonalization, agreeing with findings in other research in the literature, where the high levels contribute to the propensity for BS.^{6,11}

Our findings corroborate those of Castro et al.²⁰, who, through their studies, showed that only 2% of the investigated physiotherapists worked in more than one hospital. However, even among those with only one job, there was a high prevalence of BS. The authors also highlight that the risk of developing Burnout was higher in physiotherapists who had more than one job.²⁰

In a study²¹ from 2020, which analyzed the impact of BS on ICU, comparing doctors, nurses, and nursing assistants, there was already a high frequency of professionals with BS, which increased impact as can be seen in these results during the pandemic period. The professionals experienced an overload of work, leading to a decline in professional quality and moral distress, feelings of helplessness and alienation. The data showed that the professionals had high levels of stress and moderate levels of Burnout.

Compared with international research focusing on physiotherapists, we observe that lower levels of burnout were reported in the pre-COVID period. However, direct comparisons are difficult because these studies assessed burnout using different instruments.²²

In this study, we observed that physiotherapists working in hospitals all exhibited high levels of susceptibility to Burnout, contradicting the aforementioned study¹⁴ where professionals in their study reported moderate levels of Burnout.

According to another study from 2015²³, risk factors for Burnout in physiotherapists were examined. The study included 102 physiotherapists working in various facilities and analyzed factors such as gender, age, experience, workplace and the amount of rest time. It was observed that the rate of Burnout was higher in professionals aged 35 to 40 and with more than 10 years of experience, physiotherapists who did not engage in physical activity reported lower levels of personal satisfaction.

Similarly, in the present study, we can make an observation by comparing groups of physiotherapists working in different settings, it was found that there was a high level of BS among all groups, without significant differences between them and in terms of personal accomplishment, all groups reported low levels. In terms of physical activity, the results were also low, with no significant differences between the analyzed groups.

The finding in the literature²⁴ demonstrates that excessive alcohol and substance use can be a behavioral manifestation of avoidance or escapism from work, serving as a warning for various consequences associated with Burnout and behavioral issues. In this study, alcohol consumption levels were low, with no significant differences between the groups, and there was no predominant pattern of consumption, which differs from the findings in the literature.

In a study²³, was shown that prior to COVID-19, the propensity for BS among these professionals was low/moderate level. A study found in the literature noted that the prevalence of BS in physiotherapists during the pandemic is moderate/high level. Another study¹³ analyzed previous research that showed that BS was

already a problem for these professionals and with the arrival of the pandemic, there was a significant exacerbation of this condition. Similarly, the present study showed that the propensity for Burnout in all groups of physiotherapists was at a high level.

This research highlighted the frequency of Burnout in physiotherapists professionals working in three scenarios investigated. While teachers had to adapt their working style to a new demand, hospital professionals experienced a heavy workload with a high rate of patient loss, on the other hand, clinic professionals faced issues related to the loss of their workplace and financial difficulties.

This research revealed high levels of Burnout in physiotherapists, and these frequencies increase due to the factors generated by the COVID-19 pandemic. Another important factor to highlight is the number of physiotherapists considered at moderate risk of developing BS, it is necessary to seek strategies to prevent these professionals from becoming ill.

Finally, it is necessary to conduct research with larger number of participants to have a better understanding of the impact of Burnout on these professionals, and a study on the impact of BS on physiotherapy students is needed to determine if the frequency of Burnout is already present during their formation as future professionals.

With the findings of this study, it is not possible to assert that the other studies conducted with physiotherapists, working in these environments, will present the same frequency of Burnout, as this study has a small sample size and with the end of the pandemic scenario, significant differences may emerge. It would be valuable to conduct further research on this new change in a post-pandemic world to obtain more accurate and updated insights.

Conclusion

Physiotherapists have a high level of incidence of BS, and it has been observed that the pandemic has worsened the prevalence and impact of Burnout in hospitals, clinics and teaching areas.

Authors' contribution

Viana LP and Silva JYB participated in all the research stages, from de development of the idea, approval by the ethics committee, data collection, analysis and discussion, to the completion of the research. Vasconcelos ALC, Pereira DC, Silva RX and Silva TMG contributed to data collection, database setup, statistical analysis and discussion of the research. Openheimer DG participated in all the stages of the project, from the formulation of the research question, and submission to the ethics committee, to its completion.

Conflicts of interest

No financial, legal, or political conflicts involving third parties (government, companies, private foundations, etc.) were declared for any aspect of the submitted work (including, but not limited to grant and funding, advisory board participation, study design, manuscript preparation, statistical analysis, etc.) were declared.

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