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Ribeiro, Beatriz Maria dos Santos Santiago; Martins, Júlia Trevisan; Moreira, Aline Aparecida Oliveira; Galdino, Maria José Quina; Lourenço, Maria do Carmo Fernandez Haddad; Dalri, Rita de Cassia de Marchi Barcelos  
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## Association between burnout syndrome and workplace violence in teachers

Associação entre a síndrome de *burnout* e a violência ocupacional em professoresRelación entre el síndrome de *burnout* y la violencia laboral en profesoresBeatriz Maria dos Santos Santiago Ribeiro<sup>1</sup>  <https://orcid.org/0000-0001-5211-5422>Júlia Trevisan Martins<sup>2</sup>  <https://orcid.org/0000-0001-6383-7981>Aline Aparecida Oliveira Moreira<sup>2</sup>  <https://orcid.org/0000-0002-2621-7078>Maria José Quina Galdino<sup>3</sup>  <https://orcid.org/0000-0001-6709-3502>Maria do Carmo Fernandez Haddad Lourenço<sup>2</sup>  <https://orcid.org/0000-0001-7564-8563>Rita de Cassia de Marchi Barcelos Dalri<sup>1</sup>  <https://orcid.org/0000-0002-6575-5426>

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## Descriptores

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## Corresponding author

Beatriz Maria dos Santos Santiago Ribeiro  
E-mail: [beatrizsantiago1994@hotmail.com](mailto:beatrizsantiago1994@hotmail.com)

## Associate Editor (Peer review process):

Juliana de Lima Lopes  
(<https://orcid.org/0000-0001-6915-6781>)  
Escola Paulista de Enfermagem, Universidade Federal de São Paulo, São Paulo, SP, Brazil

## Abstract

**Objective:** To verify the association between workplace violence and Burnout Syndrome in teachers.

**Methods:** This is a cross-sectional study conducted with 200 elementary and high school teachers from a municipality in Paraná. Data were collected through an instrument containing a questionnaire containing sociodemographic, occupational and characterization data of workplace violence suffered or witnessed in the last 12 months and the Maslach Burnout Inventory to evaluate Burnout Syndrome. Pearson's correlation coefficient, Fisher's test and multiple linear regression were used to verify the relationship between dependent and independent variables. A significance level of p-value was adopted  $\leq 0.05$ .

**Results:** The prevalence of verbal and physical violence was 71.5% and 3% among teachers, respectively. It was found that 57.5% presented high emotional exhaustion, 49% high depersonalization and 36% low professional achievement, and 21% have indicative of Burnout Syndrome. The multiple model indicated that emotional exhaustion and depersonalization were directly and significantly associated with physical and verbal violence, as well as witnessing these types of violence, regardless of gender and age.

**Conclusion:** The highest levels of emotional exhaustion and depersonalization were associated with the violence suffered by teachers. Measures should be taken to promote a safer working environment and, in turn, promote the physical and mental health of teachers.

## Resumo

**Objetivo:** Verificar a associação entre a violência laboral e a síndrome de *burnout* em professores.

**Métodos:** Estudo transversal realizado com 200 professores do Ensino Fundamental e Médio de um município paranaense. Os dados foram coletados por meio de um instrumento contendo um questionário com dados sociodemográficos, ocupacionais e de caracterização da violência laboral sofrida ou testemunhada nos últimos 12 meses e o *Maslach Burnout Inventory* para avaliar a síndrome de *burnout*. Para verificar a relação entre as variáveis dependentes e independentes, utilizou-se o coeficiente de correlação de Pearson, o teste de Fisher e a regressão linear múltipla. Adotou-se nível de significância de p-valor  $\leq 0,05$ .

**Resultados:** A prevalência de violência verbal e física foi de 71,5% e 3% entre os professores, respectivamente. Verificou-se que 57,5% apresentaram alta exaustão emocional, 49% alta despersonalização e 36% baixa realização profissional, e 21% possuem indicativo para síndrome de *burnout*. O modelo múltiplo indicou que exaustão emocional e despersonalização estiveram direta e significativamente associadas a sofrer violência física e verbal, bem como presenciar esses tipos de violência, independentemente de sexo e idade.

<sup>1</sup>Escola de Enfermagem, Universidade de São Paulo, Ribeirão Preto, SP, Brazil.

<sup>2</sup>Universidade Estadual de Londrina, Londrina, PR, Brazil.

<sup>3</sup>Universidade Estadual do Norte do Paraná, Bandeirantes, PR, Brazil.

Conflicts of interest: nothing to declare.

**Conclusão:** Os maiores níveis de exaustão emocional e despersonalização estiveram associados à violência sofrida pelos professores. Medidas devem ser tomadas para promover um ambiente laboral mais seguro e, por sua vez, favorecer a saúde física e mental dos professores.

## Resumen

**Objetivo:** Verificar la relación entre la violencia laboral y el síndrome de *burnout* en profesores.

**Métodos:** Estudio transversal realizado con 200 profesores de educación primaria y secundaria de un municipio del estado de Paraná. Los datos fueron recopilados mediante un instrumento con un cuestionario con datos sociodemográficos, laborales y de caracterización de la violencia laboral sufrida o presenciada en los últimos 12 meses y el *Maslach Burnout Inventory* para evaluar el síndrome de *burnout*. Para verificar la relación entre las variables dependientes e independientes, se utilizó el coeficiente de correlación de Pearson, la prueba de Fischer y la regresión lineal múltiple. El nivel de significación adoptado fue de  $p$ -valor  $\leq 0,05$ .

**Resultados:** La prevalencia de violencia verbal fue del 71,5 % y física del 3 % entre los profesores. Se verificó que el 57,5 % presentó agotamiento emocional alto, el 49 % alta despersonalización y el 36 % baja realización profesional. El 21 % tiene indicios de síndrome de *burnout*. El modelo múltiple indicó que el agotamiento emocional y la despersonalización estuvieron directa y significativamente asociados a sufrir violencia física y verbal, al igual que presenciar estos tipos de violencia, independientemente del sexo y edad.

**Conclusión:** Los mayores niveles de agotamiento emocional y despersonalización estuvieron relacionados con la violencia sufrida por los profesores. Deben tomarse medidas para promover un ambiente laboral más seguro y, a la vez, favorecer la salud física y mental de los profesores.

## Introduction

Workplace violence causes problems to workers' physical and mental health<sup>(1)</sup> and is even related to Burnout Syndrome.<sup>(2)</sup> This violence can be conceptualized as any action in which professionals, during the exercise of their profession, are the victims of aggression, threat or suffers damage or injury in the occupational context.<sup>(3)</sup> Among its consequences are reduced strength, illness, and physical and mental exhaustion.<sup>(1)</sup>

Teachers, in most cases, are unprepared to protect themselves from violence in the school environment, and this affects their physical and mental health, as well as affects students, due to damage to the teaching-learning process.<sup>(4)</sup>

The term burnout represents the description of exhaustion or strenuousness and is specific to the industrial environment; it is characterized as a prolonged response to chronic interpersonal stressors. Its evaluation considers the experience of stress determined by a social model, involving three dimensions: depersonalization, emotional exhaustion, and low professional achievement.<sup>(5)</sup>

A systematic review pointed out that elementary and high school teachers are among professionals at high risk to develop Burnout Syndrome. This is explained by the fact that this profession is directly related to the human being and that over time wears-if due to low remuneration, lack of recognition, demotivation, conflicting inter-

personal relationships and violence, among other factors.<sup>(6)</sup>

Research coordinated by the Organization for Economic Cooperation and Development (OECD) pointed to Brazil as the country with the highest number of cases of violence attributed against teachers. The study, known as the Teaching and Learning International Survey (Talis), interviewed more than 100,000 teachers and principals of second-cycle elementary and high schools in 34 countries. The data revealed that 12.5% of the interviewees in Brazil reported having suffered verbal aggression or intimidation of students at least once a week, occupying the worst position in this area among all the countries surveyed. The overall average was 3.4%, especially Malaysia, Romania and South Korea, with zero rate of violence against these professionals.<sup>(7)</sup>

Another study<sup>(2)</sup> showed that teachers who are victims of verbal or physical violence have higher frequencies of high levels of emotional exhaustion and depersonalization, i.e., those who suffer work violence are more likely to develop Burnout Syndrome. Authors<sup>(8)</sup> state that this scenario hinders the development of its activities, requires great energy consumption and, consequently, provides less efficiency and causes feelings of dissatisfaction.

Nevertheless, the safe and protected working environment for all is advocated by the Agenda of the World Health Organization (WHO), in its report "Transforming Our World: the 2030

Agenda for Sustainable Development”.<sup>(9)</sup> Thus, the benefits will turn to workers themselves, managers and society, since the results may contribute to the planning of strategies aimed at reducing the acts of violence against teachers, thus promoting health, reducing injuries and maximizing the quality of life at work.

Investigating workplace violence and its association with Burnout Syndrome in teachers at these levels of education is important, since most research on school violence mainly addresses bullying; moreover, studies with teachers deal, for the most part, regarding the perception of this professional in the face of the situation of conflict and violence.<sup>(10,11)</sup> Still, authors<sup>(11,12)</sup> identify that there are gaps in the violent acts that teachers suffer when performing their activities and that it is necessary to expand the study on violence in daily school life, as well as explore the different types and actors involved in the process so that it is possible to provide subsidies in order to create coping strategies.<sup>(10)</sup>

In view of the previous considerations, this study is relevant, since expanding knowledge about workplace violence and the impact on teachers' health – especially mental illnesses such as Burnout Syndrome – may offer subsidies to public policies against violence in the school environment. Furthermore, local managers, together with teachers and the community, can seek solutions to address this problem.

It is worth mentioning that there is a national health program in schools whose purpose is to define strategies and ways of producing health, in the individual and collective spheres. It is characterized by intra- and intersectoral articulation and cooperation, seeking to integrate its actions with other social protection networks, with broad participation and social control.<sup>(13)</sup> Thus, it is reinforced that the results of the study in question may contribute to new possibilities of nursing performance with regard to workers' health, because workplace violence causes damage mainly to mental health. Thus, they favor the reflection and planning of a holistic, multiprofessional care to these professionals, as well as the possibility of insertion into this program.

Therefore, this study aims to verify the association between Burnout Syndrome and workplace violence in teachers.

## Methods

This is a cross-sectional study developed with elementary and high school teachers from all 18 public schools in the urban area of a medium-sized municipality located in the State of Paraná, Brazil. This city has no legislation to prevent acts of violence in schools, nor a place of reception for teachers who have suffered aggression; what is done is a Police Report in the Civil Police.

During the data collection period, there were 393 teachers in the schools of the municipality; thus, a calculation was made in order to measure the sample size for finite population, taking into account the outcome of 50% and 95% of confidence interval, which resulted in a minimum number of 195 professionals.

The inclusion criteria were elementary and high school teachers involved in the teaching-learning process of students, with effective contracts for at least 12 months. Those who performed activities in other modalities (special education, professional education not articulated to high school and complementary education) and those who were on vacation or on leave of any kind were excluded, which culminated in the exclusion of 100 teachers. Thus, the 293 professionals who were able to participate in this study were invited, of which 200 composed the sample. To identify them, previously we contacted the direction of the Regional Education Center of Paraná who authorized the research.

The data collection instrument was composed of 52 questions that included sociodemographic and work information, in addition to the questionnaire for assessing workplace violence suffered or witnessed by nursing workers in the last 12 months, which was elaborated and validated in Brazilian Portuguese.<sup>(14)</sup> After the authorization of the researchers who elaborated it, it was adapted to the reality of the teachers and submitted to an apparent

validation,<sup>(15)</sup> similar to that adopted in the original model.

Thus, the questionnaire was evaluated by seven judges – three educators, two psychologists, a social worker and a lawyer, all specialists in the area of education and violence in schools. It is noteworthy that this type of validation is verified through the evaluation of experts and/or researchers regarding the relevance of an instrument.<sup>(16)</sup> Judges took into account the absence or presence of the following criteria: comprehensiveness, objectivity, organization and relevance.<sup>(17)</sup> It was understood scope as an attribute of the question that contained important information to achieve the objective of the study, expressed in an understandable way; objectivity concerns the question of easy understanding; organization, in turn, refers to the disposition of questions and alternatives, as well as their content in sequential order and easy to answer; and, finally, relevance as that essential issue to achieve the objective of research.<sup>(17)</sup> The items were considered adequate when there was a minimum agreement of 85.7% of the evaluators in relation to the evaluated aspects.<sup>(17)</sup>

Next, a pilot test was performed with 41 teachers who were not part of the study population; they considered the questionnaire appropriate, so there was no need for any change.

Burnout Syndrome was measured by the Maslach Inventory Burnout – Human Services Survey (MBI-HSS), a Likert scale with 22 questions with answers that score from zero to six points, among which nine assess emotional exhaustion, five, depersonalization, and eight, professional achievement.<sup>(18)</sup> The choice of MBI-HSS occurred due to the characteristics that can trigger this syndrome, as well as because it is one of the most used instruments worldwide, besides presenting internal consistency and satisfactory factorial validity with the population of Brazilian teachers.<sup>(19)</sup>

Data were collected in July 2018 and February 2019, and this was in two ways: in workplaces during previously scheduled hours or through an electronic questionnaire prepared on the Google Forms platform, according to the teacher's preference.

Analysis was performed in the software R Core Team 2017 and by descriptive statistics, by means

of absolute frequencies, relative and average, as well as by inferential statistics. To evaluate the internal consistency of the MBI-HSS, Cronbach's alpha coefficient was calculated. To determine the prevalence of Burnout Syndrome, the following cutoff points were adopted: high level  $\geq 26$  for emotional exhaustion, high level  $\geq 9$ , depersonalization, and low professional achievement  $\leq 33$ .<sup>(18)</sup>

Interval quantitative dependent variables were: emotional exhaustion, depersonalization, and professional achievement. Independent dichotomous variables were: suffering verbal violence in the last 12 months (yes and no); suffer physical violence in the last 12 months (yes and no); witnessing verbal violence in the last 12 months (yes and no); and witnessing physical violence in the last 12 months (yes and no).

Multiple linear regression was performed, which allows statistically analyzing a problem and observing the association of variables, whose confirmation between the association of Burnout Syndrome dimensions and workplace violence was performed by Fisher's exact test. Subsequently, multiple models were adjusted by age and gender. P-value level was adopted  $\leq 0.05$ .

The study was approved by an Institutional Review Board, according to Opinion 2,744,982 and CAAE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 87890218.4.0000.5231. Licenses to use MBI-HSS were purchased from Mind Garden.

## Results

Of the 200 teachers investigated, 77.5% (n=155) were female, 33.5% (n=67) were between 31 and 40 years old, 76% (n=152) declared themselves white, and 35.5% (n=71) had no children. Regarding marital status, 60.5% (n=121) reported being married or with a partner, 70% (n=140) had training at the lato sensu specialization level, and 32.5% (n=65) had individual income above ten minimum wages.

Verbal violence, with 71.5% (n=143), prevailed among most teachers, and physical violence oc-

curred with 3% (n=6) of them. The majority witnessed verbal violence and physical workplace violence in the last 12 months (71%; n=142 and 39%; n=78, respectively).

Regarding the internal consistency of the MBI-HSS, it indicated satisfactory values for emotional exhaustion ( $\alpha=0.92$ ), depersonalization ( $\alpha=0.78$ ) and professional achievement ( $\alpha=0.81$ ), characterizing good internal consistency and reliability. The averages of the three burnout dimensions were obtained: emotional exhaustion (with 29.5), depersonalization (10.23) and professional achievement (36.07).

Based on the cut-off points for classification of the MBI-HSS, 57.5% (n=115) presented high emotional exhaustion, 49% (n=98), high depersonalization, and 36% (n=72), low professional achievement. It was found that 21% (n=42) are indicative of Burnout Syndrome, of which 59.5% (n=25) are women, 69% (n=29) have ten years or more of professional experience, 57.1% (n=24) have white skin, 78.5% (n=33) have no stable marital relationship, 55.7% (n=23) work part-time and do not work in another institution and 66.6% (n=28) are teachers in both elementary and high school modalities (elementary and high school). Furthermore, it was found that 53% (n=106) showed high emotional exhaustion and depersonalization, with a propensity to develop the syndrome.

In Table 1, the absence of correlation of the variables of violence with professional achievement is indicated, using Pearson's correlation coefficient.

**Table 1.** Correlation of workplace violence with the dimensions of burnout among elementary and high school teachers (n=200)

Variables	Emotional exhaustion		Depersonalization		Professional achievement	
	PC	SVC%**	PC*	SVC%**	PC*	SVC%**
Physical violence	0.87	76.5	0.87	75.8	0.08	0.60
Witnessing physical violence	0.86	73.7	0.78	60.5	0.05	0.30
Verbal violence	0.87	75.8	0.87	75.8	0.08	0.60
Witnessing verbal violence	0.87	75.7	0.83	69.0	0.05	0.20

\*PC - Pearson's correlation coefficient; \*\*SVC - shared variance coefficient

Next, the multiple model that physical and verbal violence and witnessing physical and verbal violence maintained a statistically significant associ-

ation with emotional exhaustion and depersonalization, regardless of gender and age (Table 2).

**Table 2.** Association of Burnout Syndrome with workplace violence among elementary and high school teachers (n=200)

Models*	Estimate	Error chance	t-value	p-value	95% confidence interval
Emotional exhaustion					
Physical violence	10.68	1.11	9.50	< 0.01	8.48-12.88
Verbal violence	12.71	0.50	23.95	< 0.01	11.17-13.18
Witnessing physical violence	15.93	0.91	17.44	< 0.01	14.13-17.73
Witnessing verbal violence	10.34	1.01	10.21	< 0.01	8.34-12.33
Depersonalization					
Physical violence	5.53	0.65	8.48	< 0.01	4.24-6.81
Verbal violence	2.28	0.29	7.68	< 0.01	1.69-2.86
Witnessing physical violence	5.51	0.53	10.34	< 0.01	4.46-6.56
Witnessing verbal violence	7.64	0.59	12.93	< 0.01	6.48-6.56
Professional achievement					
Physical violence	1.70	3.69	0.73	0.46	-2.87-6.29
Verbal violence	1.77	1.33	1.33	0.18	-0.84-4.40
Witnessing physical violence	0.03	1.89	0.01	0.98	-3.71-3.78
Witnessing verbal violence	-0.41	2.10	-0.19	0.84	-4.56-3.74

\*Fit variables: gender and age

## Discussion

In the present study, 71.5% of the teachers suffered verbal violence. These data are analogous to that found in the literature in national and international, as in the research developed with high school and elementary school teachers in the United States which identified a high rate of professionals (84.8%) who claimed to have been victims of verbal violence directly or indirectly.<sup>(20)</sup> A study conducted in Teresina (Piauí) on violence in the school space revealed that half of the high school teachers suffered acts of workplace violence, the most frequent were verbal insults.<sup>(10)</sup>

In line with the data found in the present study, teachers who were victims of student insults/enjoyments or physical violence exhibit higher frequencies of higher levels of emotional exhaustion and depersonalization, respectively. The violence suffered can cause effects on their physical and mental health, besides making the work environment difficult and intolerable, influencing them to feel threatened when teaching classes, wearing on physical, emotional and cognitive aspects.<sup>(21)</sup>

In the investigation in question, it can be affirmed that physical violence is associated with lev-

els of emotional exhaustion and depersonalization. Authors<sup>(22)</sup> state that workplace violence affects the physical and mental health of workers and consequently on their psychological well-being. A review study conducted in Turkey with the purpose of revealing the teacher's perception of Burnout Syndrome showed that this professional knows that it gradually arises from stressors accumulated during their work routine and that it involves the emotional pressure experienced with students, parents and co-workers.<sup>(23)</sup>

Emotional exhaustion was more related to the female public, similarly to the study with teachers using the three-dimensional burnout model that revealed the greatest emotional exhaustion among women.<sup>(24)</sup> Still, an international survey identified that women have greater emotional exhaustion, greater depersonalization and less sense of professional accomplishment.<sup>(25)</sup>

As 77.5% of the participants in the present study are women, the results corroborate a study regarding the dimensions of emotional exhaustion and depersonalization, in which they identified that women presented in the cut-off points, higher indicative of Burnout Syndrome than men.<sup>(25)</sup>

In a way, workplace violence constitutes a worrying social stressor and a labor demand that exhausts both emotional and physical resources and consequently leads to burnout,<sup>(26)</sup> as indicated in the present study, in which the levels of the syndrome were associated with exposure to violence.

The results of the sample in the present investigation showed that there was an association between violence and Burnout Syndrome, as occurred with the study developed in Poland that revealed that those who experienced aggressive behaviors in the school environment reported symptoms of burnout.<sup>(27)</sup> In Brazil, a relationship was found between supporting student insults and emotional exhaustion, in which adjustments by age, work qualities and perception of relationships with students, students and family of students were associated. The relationship between violence and Burnout Syndrome was also evidenced.<sup>(2)</sup>

In the study in question, it was found that witnessing physical and verbal violence was associated

with emotional exhaustion and depersonalization, regardless of gender and age. Similar data were found in a Korean study, identifying that teachers who attend acts of violence at school are more likely to present psychological distress, to have more conflicting interpersonal relationships, as well as higher levels of feelings of fear, which, in turn, results in negative impacts on their work performance.<sup>(28)</sup>

Witnessing physical and verbal violence was associated with emotional exhaustion and depersonalization among the teachers of the study in question. A study conducted in Minnesota, USA, with the purpose of comparing teachers who have never seen violence against their peers, showed that teachers who witnessed this act are more likely, i.e., to be almost three times more likely to suffer the same form of violence seen in the course of their lives.<sup>(29)</sup>

The professional performance was not associated with the variables of violence investigated, as well as in a study with teachers of basic education on factors associated with Burnout Syndrome, in which there was no association between the dimension of professional achievement and physical violence.<sup>(2)</sup>

It is worth mentioning that school violence is a complex and multifaceted social phenomenon, at the same time singular, social and political. In Brazil, among the various causes, it is an occurrence that permeates other forms of social violence.<sup>(30)</sup> Latin America is a region of the world where there is the greatest violence in school. This fact may be directly related to being a place where there is greater economic/income, social and educational inequality, as well as in relation to health, basic sanitation, housing, among others.<sup>(31)</sup>

Given the severity of occurrences of violence in the school environment, the United Nations Educational, Science and Culture Organization (UNESCO) has recently proposed different public and cultural policies to address this problem, since it is a need to understand the meanings underlying the acts of violence.<sup>(32)</sup> Thus, it is necessary that managers, at the local, state and federal level, together with teachers, students and community of the city in which the present study was carried out, as well as in other realities, seek actions to reduce and/or curb violent situations in the school environment.

It is noteworthy that violence should not be trivialized or naturalized by institutions or groups of people at work, because professionals who experience this type of situation are more prone to Burnout Syndrome.<sup>(33)</sup> It involves not only the victim and the offender, but interpersonal relationships, social, historical and organizational aspects.<sup>(34)</sup> It is emphasized the importance of organizations identifying events of violence and ensuring policy and prevention measures for the management of violence and worker exhaustion.<sup>(26)</sup>

This research has a cross-sectional design and does not allow establishing relationships between cause and effect, which can be considered a limitation. However, it contributed to the advancement of scientific knowledge, especially nursing, by enabling teachers' health to be rethought beyond biological conception, i.e., with a view of comprehensiveness. Such comprehensiveness occurs when actions imply the recognition of the complexity, potentiality and uniqueness of people or groups, with the purpose of promoting equity, maximizing health, reducing the weaknesses of risks arising from social, economic, political, cultural and environmental determinants.<sup>(13)</sup>

Thus, occupational nursing has a relevant role in the provision of services, protection and health promotion for workers – teachers or not. It can act in integration with a multidisciplinary team and in the leadership for the development and management of programs focused on the issues of violence in the school environment.<sup>(35)</sup>

## Conclusion

Teachers who experienced or witnessed physical and verbal workplace violence in the last 12 months presented higher levels of emotional exhaustion and de-personalization, but there was no significant correlation with professional achievement. It is necessary to adopt the culture of not accepting violence in the work environments. It is necessary an articulation between health managers, education and, in particular, those of schools and nursing professionals so that immediate actions can be taken among teachers who have suffered aggression and have high levels of exhaustion.

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## Collaborations

Ribeiro BMS, Martins JT, Moreira AAO, Galdino MJQ, Lourenço MCFH and Dalri RCMB collaborated with the project design, data analysis and interpretation, writing of the article, critical review of the relevant intellectual content and approval of the final version to be published.

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