Psychosocial risk factors in the work of basic education and higher education managers: A comparative study

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Abstract

Educational management professionals present high psychosocial risks, and the pandemic apparently made this worse. This study aimed to understand the degree of psychosocial risk in the work of education managers, testing whether and how the level at which they work (basic and higher) impacts this risk. To achieve this objective, two studies were carried out, through the lens of the Person-Environment Model, applying a mixed-method approach: Study 1, carried out before the pandemic, described and compared the psychosocial risk in the two groups. Study 2 delves deeper and differentiates the perception of these risk factors for each group of managers. The results showed that, in both groups, the dimensions perceived as most critical are Control and Support from Management. In Study 2, the results suggest that there is more emotional demand in the basic education group, but they also experience more support. However, in the higher education group, there is no perceived balance; the risk lies in the exorbitantly competitive demands and excessive bureaucratization. In analyzing the reports, no different demand was attributed to the pandemic period, i.e. these conditions are associated with managers' routines, suggesting that the psychosocial risk in higher education management is latent.

Keywords: Psychosocial risk factors, health, managers, education.

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Fatores de risco psicossocial no trabalho de gestores da educação básica e da educação superior: Um estudo comparativo

Resumo

Os profissionais de gestão educacional apresentam riscos psicossociais elevados e a pandemia, aparentemente, agravou esta situação. O objetivo deste estudo foi compreender o grau de risco psicossocial no trabalho dos gestores educacionais, testando se, e como, o nível de atuação (básico e superior) impacta esse risco. Para alcançar este objetivo, foram realizados dois estudos, norteados pelo modelo Ajuste pessoa-ambiente, aplicando uma abordagem de método misto: O Estudo 1, realizado antes da pandemia, descreveu e comparou o risco psicossocial nos dois grupos. O Estudo 2 aprofunda e diferencia a percepção desses fatores de risco para cada grupo de gestores. Os resultados mostraram que, em ambos os grupos, as dimensões percebidas como mais críticas são Controle e o Apoio da Gestão. No Estudo 2, os resultados sugerem que no grupo da educação básica há mais exigências emocionais, contudo, experienciam maior suporte. Entretanto, no grupo da educação superior não se percebe equilíbrio, o risco está nas exigências exorbitantes de competitividade e na excessiva burocratização. Na análise dos relatos, não foi atribuída nenhuma demanda diferente ao período pandêmico, ou seja, essas condições estão associadas às rotinas dos gestores, sugerindo que o risco psicossocial na gestão do ensino superior é latente.

Palavras-chave: Fatores de risco psicossociais, saúde, gestores, educação.

INTRODUCTION

The COVID-19 pandemic imposed compulsory remote work in many countries worldwide, but its impact varied across different regions (Kniffin et al., 2021; Pérez-Nebra et al., 2021). In Brazil, there were serious difficulties in political governance during the pandemic period. The already fragile education sector was especially affected and required intense adaptation to remain operating. According to the United Nations Children's Fund (UNICEF), schools in Brazil were closed for 191 days, compared to an average of 67 days in other countries (Schymura, 2021). The pandemic context exacerbated the challenges faced by educational managers in the public sector, who were forced to work remotely without prior preparation and clear guidelines for action. This situation strongly impacted both the content and context demands placed upon them. Specifically, educational managers were

required to adapt to new work routines and procedures without adequate support, which increased the complexity of their roles. In addition, they faced challenges associated with the extrapolation of managerial roles, strained relationships, and limited control over the situation, which further intensified the occupational risks of these workers. It is also possible that the degree of risk due to the adjustment required may have depended on the level of education they work with (Lei de Diretizes e Bases da Educação [LDB], 1996); however, these questions require further investigation.

The professionals who take on educational management positions in Brazil predominantly originate from teaching professions without having received adequate education or training in management. In basic education and higher education contexts, the educational manager is responsible for leading and organizing the work of their subordinates, to different degrees, in cognitive, social, and psychological decisions and processes, which requires the professional integration of skills that cover all these levels, addressing various aspects of institutional functioning, including physical, sociopolitical, relational, material, financial, and pedagogical matters (Lück, 2009; Oliveira & Vasques-Menezes, 2018).

They also have the responsibility to reflect on educational policies shaped by the interplay between the social environment and the actions of those who operate in educational settings, leading to an even more challenging context for achieving a harmonious alignment between individuals and their environments (Lukombo, 2022). As a result of this conjuncture, the activity is marked by a troubled and intense work dynamic. This is evidenced by the demands placed on educational institutions to recruit increasingly competent, creative, inspiring, and versatile professionals. However, these demands are not always accompanied by adequate organizational support for effective performance, leading to high levels of stress and strain in the educational environment (Alves & Araujo, 2021).

The literature on psychosocial risk factors among educational managers is limited. In general, the scope of the studies has been restricted to one educational level, focusing mainly on either basic or higher education. A few studies have demonstrated disparities in the performance of professionals working in basic education and higher education. The public basic education work conditions are marked by complexities arising from the precarious institutional structure, limited access to financial resources, low remuneration and lack of professional recognition, inadequate governmental and social support, as well as a demotivated student body (Avelino & Mendes, 2020; Krug et al., 2019; Rosa & Viegas, 2019). In contrast, conditions in public higher education are relatively less challenging regarding work conditions, with higher salaries, better infrastructure, and relatively more adequate equipment. However, professionals in this sector report lower levels of job satisfac-

tion regarding the social dimension, which involves interpersonal relationships in the institutional environment (Broch et al., 2020; Ribeiro et al., 2016).

Despite the divergence of opinions in literature and the disparity between the working conditions of professionals in basic and higher education, both sectors are linked to the Ministry of Education and are regulated by the *Lei de Diretrizes e Bases* (LDB, 1996). Therefore, both groups have a uniform legal framework despite the potential differences across working conditions in the two sectors. Given these different scenarios in which the educational management professional operates, it is crucial to examine not only the psychosocial risk factors associated with their role but also the extent to which the work context, i.e., basic education versus higher education, shapes the perception of these factors and what are different (if they are).

The International Labour Organization [ILO] (2021) considers that the COVID-19 pandemic has changed the nature and conditions of work, bringing new psychosocial risks that affect workers' health and well-being. Psychosocial risks may have increased and/or emerged as a result of this period, increasing workers' vulnerabilities. Consequently, managers have been exposed to several unprecedented or increased risk factors that may negatively impact their mental health. However, the extent of these risk factors and how they interrelate at different management levels remains unknown.

Psychosocial risk factors refer to the intricate interaction between the work environment, task content, organizational conditions, individual abilities and needs, cultural nuances, and other particular characteristics of the worker that could potentially compromise their physical or mental well-being and manifest as an occupational disorder, illness, injury, or accident (Harvey et al., 2017; ILO, 1984). These factors are often assessed by technical or physiological models, which consider stress a product of dynamic interactions between individuals and their work environment (Chirico, 2016).

The interplay between psychosocial risk factors, and thus work stressors and the ensuing outcomes in the workforce, depending on the population in which they operate, constitutes the central object of the Person-Environment fit (P-E fit) theory (Kristof-Brown & Guay, 2011). The concept of fit is intuitive in the work context. Individuals typically seek employment where they feel they align with the job requirements, while organizations tend to recruit individuals who are a good fit for the role. The perceived level of fit at work, or lack thereof, can profoundly impact a worker's decision to stay in or leave their current job (Cable & DeRue, 2002).

The concept of P-E fit refers to the degree of level of agreement or disagreement between an individual and his/her work environment. The P-E fit adopts a transactional perspective, which proposes a dynamic interplay between an individual and their stressful environment regarding emotional processes. Stress occurs when there

is a mismatch between the perceived demands of a situation and an individual's perceived ability to manage it (Chirico, 2016). This occurs when there is a lack of harmony between the person and their work environment or demands. This theory suggests that the greater the compatibility between an individual and their work environment, the greater the benefits. The P-E fit theory comprises two dimensions: person-organization fit and person-job fit. The person-organization fit refers to the extent to which the environment fulfils an individual's needs and values (Kulik et al., 1987), while the person-job fit refers to the compatibility between the job demands and the individual's ability to meet these demands (Saufi et al., 2020).

However, measuring the person-environment relationship is challenging. Individuals' subjective perception of fit is often based on objective characteristics that are not always well aligned. Additionally, it is difficult to measure due to the varying effects of different types of misalignments between person-organization, person-job, and demands and capacity, and whether they are high or low (Guan et al., 2021). Thus, it is generally and intuitively assumed that lower perceived risk factors indicate a higher level of compatibility (Kristof-Brown & Guay, 2011). It is also understood that the relationship between these risk factors is not solely dependent on an individual's perception and ability to handle them but can also be influenced by the environment itself.

Due to the lack of studies with public education management professionals and the gap in the literature about the interference of the organizational contexts of basic and higher education in the conception of psychosocial risk factors of educational managers, this study aims to understand the degree of psychosocial risk of education managers, testing whether and how the level at which they work (basic and higher) impacts this risk. By considering the evidence of differences in work contexts and changes in arrangements and conditions brought about by the COVID-19 pandemic, the specific objective of this study was to understand the different working conditions between these groups, how they relate to the P-E fit model, and finally, if the pandemic condition affected the perception of educational managers.

Two studies were conducted to address the objectives of this work. The first study, which used a quantitative approach and was conducted before the pandemic period, aimed to describe and compare the psychosocial risk across perceptions of psychosocial risk factors in Brazilian basic and higher education levels. It is possible to assume that if the risk is high, it is due to a mismatch. Considering the literature reviewed and presented (Avelino & Mendes, 2020; Broch et al., 2020; Krug et al., 2019; Ribeiro et al., 2016; Rosa & Viegas, 2019) the general hypothesis of this study was that the high education environment, despite having better physical working

conditions, entails a higher workload demand, resulting in more intense psychosocial risks for this group compared to the basic education group.

The second study used a qualitative approach and was conducted during the pandemic period. It aimed to provide a detailed description of the perception of these risk factors to understand the person-work (un)fit, besides determining whether this perception had changed due to the pandemic period.

This study contributes to the scientific literature in the field by identifying the key psychosocial risk factors that permeate management activity in each public educational setting and by understanding the degree to which one adjusts to the context. It opens up margins for other fit studies and explains how the organizational context and the pandemic period guided different perceptions of them. Additionally, although both managers' groups are linked to the same Ministry of Education in Brazil, the kind of issues they deal with could be different and have different psychosocial risks to prevent.

STUDY 1

METHOD

Participants

To recruit the participants, the researchers contacted the public institutions of higher and basic education, which, after analysis and approval of the research application, sent the invitation to the managers, via e-mail. The invitation contained information about the research, information that participation was voluntary and anonymous, and the link to answer the questionnaire.

A total of 164 managers participated in this study, 47 (29%) from basic education and 117 (71%) from higher education. The criteria for being a manager were self-description. In general, they were school directors in the case of basic education and heads of departments in the case of high education. Thus, their subordinates were teachers' colleagues. The average age of the participants was 46 years (SD = 9.09); 52% were male.

The profile of the participants indicated that in basic education, they were slightly younger (44.7% between 40-50 years old), women (76.6%), with less time of experience in management (less than 3 years; 44.7%), and a greater number of subordinates (more than 30; 63.8%), while in higher education they were slightly older, concentrated between 50 and 60 years old (35%) and men (50.4%), with

more time of experience (between 11 and 20 years; 34.2%) and fewer number of subordinates (less than 5; 50.4%). In both levels, a master's degree has prevalence at the educational level (59.6% and 47%, respectively).

Instruments

Health & Safety Executive – Indicator Tool (HSE-IT)

The quantitative data collection, conducted in Phase 1, was done using the application of the Health & Safety Executive - Indicator Tool (HSE-IT) (Health and Safety Executive, 2007), a questionnaire for diagnosis and primary intervention of psychosocial factors at work that can trigger work stress, psychological distress, and mental disorders, validated for Brazil by Lucca (2019). The HSE-it highlights six axes that define the aspects of work that, when maladjusted, are associated with high levels of stress: demands, control, support, relationship, role, and change.

In this short version, the questionnaire covers 35 psychosocial risk situations that may be work-related, distributed in two major domains: work content and work context. The work content includes demands, control, supervisor support, and colleague support. The work context brings together relationships, position and communication, and changes. Reliability varies between .62 and .86 in the present sample (described in Table 1, at diagonal), slightly worse than the original (range between .71 and .86; Lucca, 2019). The response scale is in the 5-point range, anchored in: (0) never, (1) rarely, (2) sometimes, (3) frequently, or (4) always, and the score is calculated from the sum of all responses divided by the total items, ranging from 0 to 4. In the dimensions of control, managerial and peer support, position, and changes, the answers marked "never" and "rarely" are considered indicative of stress. But in the dimensions of demands and relationships, the scale is inverted; so that the answers marked "always" and "often" are considered indicative of stress.

Sociodemographic and functional data

A questionnaire was applied to collect socio-demographic and functional data, covering gender, age, marital status, education, current position, time in the position, time of experience in a leadership role, and number of subordinates, with the aim of describing the profiles of the participants[4]. The manager's group was

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4   It was beyond the aim of this work, but women present less demands, less control and less toxic relationships. However, there is a clear mixed effect because we have more women in group 0. When comparing groups, the effect disappears. Marital status showed no difference in psychosocial risk. Age was related to increasing the perception of control ($r = .22**$). Scholarity shows no difference in psychosocial risk

controlled: 0= basic education and 1= higher education. This variable was weighted to differentiate the specific data for the analysis of the organizational environment. At the end, a question regarding the possibility and interest in participating in a second stage of the research (Study 2) was asked.

Procedures

This study was approved by the Research Ethics Committee of the Universidade de São Paulo, under number 4.424.524.

Study 1, conducted using a quantitative approach, aimed to analyze the impact of the work context on the perception of psychosocial risk factors among managers at basic and higher education levels. This was done by administering a structured questionnaire that assessed the psychosocial factors at work. Participants received information about the study and its objectives and were required to provide written consent before participating.

The HSE-IT questionnaire and sociodemographic and functional data were applied through the Google Forms platform. In this form, we asked respondents who wished to proceed to Study 2 of the research to provide their email addresses for further contact. The dataset is available in Renier et al. (2023).

Data Analysis

We conducted a descriptive analysis and comparison between groups to understand if the groups were different, using the predictive analytics software IBM SPSS Statistics (version 21.0) and Jamovi (version 2.3.22). As the sample size differed, we used Welch's t-test, which does not make the homogeneity of variance assumption to test if the two managers groups differ in their psychosocial risk. In addition, a correlation between variables was performed to test each group's potential for psychosocial risks.

RESULTS

Results (Table 1) suggest that for both basic and higher education levels, the dimensions perceived as most critical were Control and Support from the manager. The indices were low for both groups, although Control for the basic education group was significantly lower.

Understanding the dimension being evaluated is necessary to determine a risk factor. The present study found that the university presents a significantly higher demand index, consistent with the hypothesis presented. However, there was also less perception of control, which was contrary to the general hypothesis.

Moreover, it was observed that the university environment had significantly more toxic relationships than basic education in the context dimensions. The other dimensions did not show significantly different relationships and were positioned at the midpoint of the scale.

The correlations are different between the two groups. At the basic education management level, the demand dimension showed a strong inverse correlation with all other dimensions, meaning that as the level of demand increases, the perception of control, support from superiors and colleagues, relationship quality, clarity of activities, and communication are all negatively affected. The same pattern occurs with the relationship's variable.

On the other hand, these correlations show an opposite pattern at the higher education management level compared to basic education. There is a positive correlation between the demand and toxic relationship dimensions with the other dimensions, indicating that when the demand increases, there is a higher perception of control, support from superiors and colleagues, relationships, clarity of activities, and communication. Conversely, when the demand decreases, the other correlated perceptions increase, but in a negative way.

Table 1

Descriptives, correlations and reliability (at diagonal)

Dimensions	M (SD)		1	2	3	4	5	6	7
	Basic Education (N = 47)	Higher Education (N = 117)							
Content									
1 Demand*	1.95 (0.79)*	2.46 (0.56)	(.68)	.45**	.39**	.25**	.36**	.28**	.31**
2 Control	2.42 (0.76)*	2.92 (0.58)	-.72**	(.80)	.52**	.62**	.24**	.51**	.56**
3 Management Support	2.61 (0.88)	2.83 (0.65)	-.72**	.57**	(.76)	.57**	.30**	.62**	.73**
4 Peer Support	3.01 (0.83)	3.09 (0.74)	-.57**	.49**	.36*	(.86)	.42**	.57**	.51**
Context									
5 Toxic relationships	1.40 (0.72)*	2.62 (0.70)	-.65**	-.40**	-.60**	-.49**	(.63)	.36**	.25**
6 Role (clarity)	3.43 (0.47)	3.49 (0.53)	-.36*	.28	.48**	.13	-.13	(.78)	.56**
7 Communication and changes	3.02 (0.81)	3.15 (0.60)	-.64**	.61**	.76**	.33	-.34*	.63**	(.62)

*Note. *p* < .05; **p* < .01; above diagonal are correlations at the higher education, below diagonal correlations at basic education. + In the dimensions of control, managerial and peer support, position, and changes, the scores below the midpoint indicate stress. On the other hand, in the dimensions of demands and relationships, the scale is inverted, meaning that scores above the midpoint indicate stress.

DISCUSSION

This study could verify the existence of statistically significant differences in relation to the perception of managers of basic and higher education in relation to psychosocial factors present in their work contexts. The results of this study suggest that the perception of maladjustment is different depending on the level of management. In general, it is possible to show that higher education management suffers from more psychosocial risk when compared to basic education. Describing the perception of these risk factors, and providing guidance for person-work adjustment in the pandemic period was the objective of Study 2.

STUDY 2

METHOD

Participants

A total of 16 managers participated in this study, constituting a subsample of Study 1. The sample consisted of 13 (81%) women and 6 (13%) men, with a mean age of 48 years (*SD* = 8.61). Although we expected a balanced sample across the sectors, 10 (62%) participants from basic education and 6 (38%) from higher education agreed to continue in the study.

Instrument

Interview Script

The interview script used in Study 2 was derived from the Copenhagen Psychosocial Questionnaire (COPSOQ) II - Short Version, developed by the Psychosocial Department, National Institute of Occupational Health, Copenhagen, Denmark (2001), and was designed as a semi-structured interview. To ensure the quality of the script, it underwent validation by two expert judges, who considered semantic validation, quality, and purpose of the study. Additionally, a pilot study was conducted with two managers to verify the clarity of the questions and terminologies. One modification to the script involved the inclusion of a definition of work stress, which was used as a guide to answering questions related to the theme of "Physical and Mental Health," to ensure that interviewees understood the phenomenon being investigated.

The questions included in the interview script explored (1) work content (variety of tasks), (2) work volume and pace (work organization, working hours, control, role in the organization), (3) organizational environment (environment and equipment, organizational functioning and culture), (4) relationship (interpersonal relationships at work, home-work relationship), (5) living (feelings generated by occupational exposure), (6) position (career progression), and (7) stress (physical and mental health).

Procedures

To conduct this research, semi-structured interviews were conducted with an interview script. This instrument enabled the collection of data using a set of previously developed open questions and other questions that might arise during the dialogue with the interviewee. This method allowed the collection of additional and detailed information (Guazi, 2021).

The study participants were informed about the study and its objectives and provided written consent before participation in the research. They were asked to provide information on their sociodemographic characteristics, occupational health, and working in remote mode, if applicable. All interviews were conducted online, recorded, and transcribed in full.

A sole researcher conducted the interviews with managers who expressed willingness to participate. However, to avoid bias in the process, the other researchers followed the interviews and validated the execution. The duration of the interviews varied from 30 minutes to 60 minutes. The interviews were held virtually using the Google Meet platform, and the interviewee's consent was sought before recording the session for later transcription. To speed up the transcription process and ensure data reliability, a digital tool called oTranscribe (http://https://otranscribe.com) was used to transcribe the recordings.

Data Analysis

Lexical Analysis

We transcribed all the interviews verbatim. After the transcription, we organized the corpus by standardizing Portuguese and connecting keywords. This involved rewriting certain words, such as "wellbeing" which became "well-being". Additionally, some words had multiple meanings and the same spelling, such as "legal", which means legal/law in English, and great/fine/cool in Brazilian Portuguese.

These discrepancies were addressed during the organization process to ensure the accuracy and clarity of the data.

The lexical analysis used the Iramuteq software and the Camargo and Justo (2013) Iramuteq protocol. We conducted 16 interviews, with 101 segments, 35838 occurrences, and 1041 of hapax. We also conducted Reinert Classification with Descendent Hierarchical Classification (DHC) and Correspondence Factor Analysis (CFA). All researchers participated in the data analysis processes.
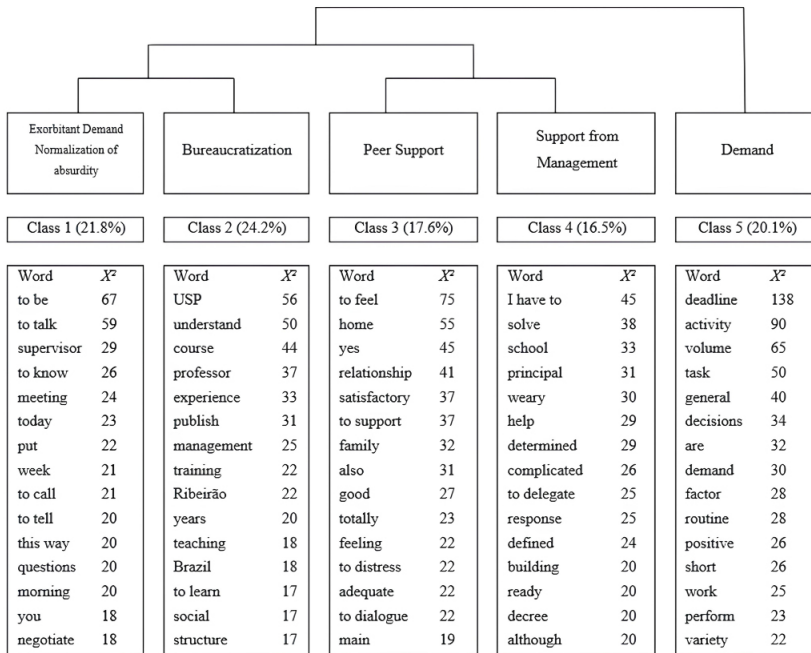
Lexical Analysis Comparison

To compare the classes of the lexical analysis with both clusters, we conducted a chi-square analysis. This analysis allowed us to identify the differences between the groups by examining the absence/presence of the group in a row and the active forms of the class in a column. Those differences were considered significant when the test value was greater than 3.84, based on 1 degree of freedom and $p<.05$.

RESULTS

The Descendent Hierarchical Classification (DHC) categorized the words into five classes of words (Figure 1). These classes emerged from the interviews of which two couples of variables are related, namely classes 2 and 5, and 4 and 3.

Class 1 was called "Demands" and the most frequent word was "deadline". It appears most frequently in the speech segments of basic education managers. Class 2, named "Exorbitant Demands", was identified by demands significantly higher than usual and was more evident in the speech extractions than in the lexicons. This class was predominant among higher education managers. Class 3, called "Support from Management", was distinguished by the most frequent word "precise" and was more prevalent among basic education managers. Class 4, "Peer Support", was characterized by the most frequent word "feel" and predominance at both levels. Finally, Class 5, named "Bureaucratization", was more evident in the speech extractions rather than in the lexicons, and indicated high bureaucracy at work

Figure 1

Descendent Hierarchical Classification (DHC)

Exorbitant Demand Normalization of absurdity	Bureaucratization	Peer Support	Support from Management	Demand
Class 1 (21.8%)	**Class 2 (24.2%)**	**Class 3 (17.6%)**	**Class 4 (16.5%)**	**Class 5 (20.1%)**

Word	X^2	Word	X^2	Word	X^2	Word	X^2	Word	X^2
to be	67	USP	56	to feel	75	I have to	45	deadline	138
to talk	59	understand	50	home	55	solve	38	activity	90
supervisor	29	course	44	yes	45	school	33	volume	65
to know	26	professor	37	relationship	41	principal	31	task	50
meeting	24	experience	33	satisfactory	37	weary	30	general	40
today	23	publish	31	to support	37	help	29	decisions	34
put	22	management	25	family	32	determined	29	are	32
week	21	training	22	also	31	complicated	26	demand	30
to call	21	Ribeirão	22	good	27	to delegate	25	factor	28
to tell	20	years	20	totally	23	response	25	routine	28
this way	20	teaching	18	feeling	22	defined	24	positive	26
questions	20	Brazil	18	to distress	22	building	20	short	26
morning	20	to learn	17	adequate	22	ready	20	work	25
you	18	social	17	to dialogue	22	decree	20	perform	23
negotiate	18	structure	17	main	19	although	20	variety	22

The examples of representative speech for each category are presented in Table 2. The analysis performed by the Iramuteq Software generated these verb counts, which ranked the most representative expressions for each word class in descending order. The most typical expressions are represented in the table, for illustration. These reports, combined with the lexicons, aided the nomenclature of the classes

Table 2

Fragments by class

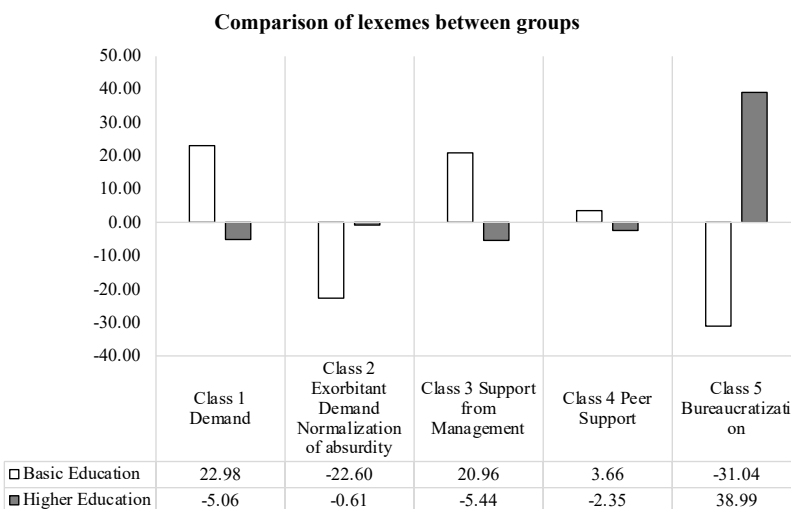| Classes	Examples of fragments
Class 1	"There's a variety of stuff to do, but it's all related to the job. It's a decent amount of work, but sometimes it's super busy and other times it's just regular stuff. Sometimes there are short deadlines for certain tasks. 8 hours." 524 "With the accumulation of tasks and tight deadlines. Limited, as everything has to go through the responsible department for approval. My tasks are defined, but sometimes I have to do other stuff that's not really part of my role." 440
Class 2	"Despite all that, yes, my son understands, for instance he'll say "You are still in a meeting", then he goes to school and he comes back, he says "Still in a meeting". Then in the evenings he'll say, "Mom, you're still working? How late are you going to be?"281 "But the university doesn't shut down, you know? At this time (outside working hours) there are still tons of people there, students, professors and yeah, I'm often there too." 300

Table 2 (continuation)

Fragments by class

Classes	Examples of fragments
Class 3	"You have to solve the problem anyhow, this is very exhausting, it's like this: you have to deliver by that day, figure it out, do it because I need it. 203 "Yes, because I go to the superior above the school principal, so when I need it, I have that kind of help." 195
Class 4	"And when we talk, the subordinate, the employee, can understand, this is our goal. Very satisfactory." 238 "We always talk together, so any conflict we have, I do feel the support, we support each other, we talk together, we solve these conflicts together, we are really a team". 220
Class 5	"There has to be a public contest and, for example, the Ribeirão Preto City Hall has commissioned positions, when Nogueirinha leaves, a lot of people will leave, you know?" 215 "My colleagues think so, at USP each one looks at their own discipline and I understand that my function is to make an invitation to look at the course as a whole, but the colleagues don't like that very much." 192

The chi-square analysis (Figure 2) shows a significant difference in Classes 1, 3, and 5 among the levels analyzed, with inverse proportionality among them. The basic education management level appears more frequently in Classes 1 and 3, while the higher education management level is in evidence only in Class 5. Class 2, despite not being significantly expressed, is even less present in the basic education management level. Class 4 does not show expressive indexes either.

Figure 2

Comparison of lexemes between basic and higher education groups for each word class

Comparison of lexemes between groups

	Class 1 Demand	Class 2 Exorbitant Demand Normalization of absurdity	Class 3 Support from Management	Class 4 Peer Support	Class 5 Bureaucratization
□ Basic Education	22.98	-22.60	20.96	3.66	-31.04
▩ Higher Education	-5.06	-0.61	-5.44	-2.35	38.99

The results suggest that the maladjustment in higher education is due to the exorbitant, inordinate demand, and excessive bureaucratization. The demand for basic education is consistent with the tasks, as well as peers and management support, showing the low psychosocial risk of the category when compared to higher education, which seems to be in a situation of greater risk due to the higher maladjustment.

The analysis of the lexicons did not indicate associations or divergences of the maladjustments with the pandemic period. These conditions were associated with the daily lives of professionals, which suggests the latent need for intervention.

GENERAL DISCUSSION

This study aimed to understand the degree of psychosocial risk in the work of education managers, testing whether and how the level at which they work (basic and higher) impacts this risk by applying a mixed-method approach. In Study 1, it was found for both contexts of educational management, there was a lack of control and low support from management. The largest divergence in the perceptions of maladjustment was related to the dimensions of Demands and Relationships, which were perceived to a lesser extent in primary education and a greater extent in higher education. The correlations of these dimensions with others were opposite in both contexts. In basic education management, greater demands and harmful relationships were associated with a higher perception of psychosocial risk factors, consistent with the existing literature (Verhaest & Verhofstadt, 2016). In contrast, in higher education management, this condition was associated with lower risk perception. This suggests significant differences between the two contexts and may indicate different types of maladjustments, particularly among higher education managers. Possible explanations for this phenomenon include individual characteristics, such as narcissism and a need for distinction (Imber, 2005), and structural factors related to demands and evaluations (Bastos et al., 2023).

In deepening the analyses of the perception of maladjustments, Study 2 emerged with two classes of psychosocial risk factors predominant in the discourse of higher education managers, in addition to those presented in the HSE-IT: Bureaucratization and Exorbitant Demands. Regarding the former, bureaucracy, it has been found that excessive standards and rules end up decreasing the managers' room of maneuver, who often report impediments to making decisions and solving problems related to processes and managing their own team (Sicilia et al., 2019). Previous studies conducted in the context of higher education in Brazil have pointed to bureaucracy as a linear, rigid, less qualitative procedural element that is unable to cope with the complexity of the higher education context (Félix, 2014). One notices, therefore,

a person-institution mismatch, where what the individual values as important in that context is different from what has been demanded from them. The formalization and regulation of bureaucratic action, which seeks to achieve fairness and consistency in organizational practices, is a sign of organizational maturation, but it also reflects tradition and the establishment of processes, both descriptively and prescriptively. This contradicts the logic of autonomy and makes it impossible to acknowledge individual differences and diversity. Hence, bureaucracy carries the inherent absurdity of the problem it aims to solve (Bal et al., 2022). In Latin countries, where excessive bureaucracy is more common (Hofstede, 1985) it imposes restrictions that force workers to be passive and submissive and managers to enforce these rules (Gruenfeld & Tiedens 2010). The bureaucracy, of an anonymous nature, with which higher education fights an absurd and hypernormalized battle, questions the dignity of the teacher, generating a bureaucracy-autonomy paradox seen in the results (Bal et al., 2022). For example, career support staff in universities who should solve the bureaucracy often limit themselves to explaining and delivering the forms for the managers to execute the bureaucracy, overburdening the role of higher education managers.

The second category, known as exorbitant demands, refers to the quantity and quality of work required and the resulting mismatch with the individual. While this factor was present in Study 1 for both groups of managers, the mean score was below the midpoint of the scale, suggesting that it was not perceived as intensely as reported in interviews. Study 2 found that this characteristic emerges more intensely in higher education, where it seems to be linked to undignified working conditions caused by a high workload, tight deadlines, difficulties in balancing work and family life, and truncated processes. These conditions have been naturalized as normal in this work context. Similar trends in higher education contexts have been identified by previous studies in other countries, where university workers have experienced pressure, anxiety, and psychological stress, as well as job insecurity (Bal et al., 2022). The positive correlation between increased demands and increased job satisfaction among higher education managers, evidenced in Study 1, can be attributed to a phenomenon called *hypernormalization* that is continuously reinforced in the context. This process involves the inability of individuals to recognize the absurdity of their experiences, as such experiences are normalized and integrated into the everyday life of the university context. This denial occurs not only through spoken language but also through social practices (Bal et al., 2022).

The classes of words that emerge in addition to those included in the HSE-IT, raise questions about the scope of the instrument in covering different types of psychosocial risk factors, particularly in the dimensions of demands and relationships, as evidenced in Study 1. This discrepancy may be attributed to the fact

that the questionnaire addresses generic rather than context-specific psychosocial risks. The present study suggests that the instrument is more effective in capturing the experiences of workers in primary education than in higher education. The identification of word classes and typical segments that highlight themes not addressed by the generic instrument underscores the need to develop a measure of psychosocial risks specifically tailored to academia or managers.

The results found in the study also suggest similarities and differences in the work of primary and higher education managers, based on the analysis of contextual factors. These findings can help in the planning of joint actions, as well as in actions directed to the specific needs of each context. Such actions can help the Ministry of Education, the Brazilian agency responsible for education in general, more specifically the Secretary of Basic Education and the Secretary of Higher Education, to formulate actions to prevent and promote the health and well-being of these professionals. Such actions involve improvements in the working conditions identified as maladjustment factors in the managers' view. These may include revising the levels of demand, fostering positive interpersonal relationships, and reassessing the evaluation processes to prioritize collaboration.

This study has limitations regarding the difference of participants in the two studies, with more participants from higher education management in Study 1 and more participants from primary education management in Study 2. Furthermore, Study 2 had a relatively small number of participants. However, despite these limitations, the psychometric indices suggested that the scale was adequate and capable of distinguishing between the groups of managers in primary and higher education.

Both studies were conducted exclusively in the state of São Paulo, Brazil, which implies that these findings may have different expressions than other regions and countries with distinct legal frameworks and contexts. Nevertheless, it is important to highlight that São Paulo is the most populous state in Brazil, which suggests that the results may have relevance to other regions with similar demographic profiles.

Finally, although the data presented and analyzed in the context of higher education were collected on different campuses, they belonged to a single educational institution, that is traditional and rigid, with an age-old structural and organizational culture. However, it is also one of the largest and most prestigious higher education organizations in the country. This peculiar condition may not be representative of other younger institutions with different characteristics, which goes beyond the scope of this study.

However, despite the limitations, this study contributes to the prevention of risk factors by identifying the main risk factors that cause maladjustment among managers in basic and higher education settings. These findings can be used by managers to promote changes in their daily activities, reducing exposure to

these risks and promoting better working conditions. In addition, individual and organizational protective strategies can be developed to promote the health and well-being of managers in each context. The positive evaluation of relationships and support in both contexts suggests that efforts can be made to foster these aspects in the workplace.

CONCLUSION

The results of this work indicate that the work context of educational managers, specifically in terms of educational level, shapes their perception of psychosocial risk factors. The quantitative data reveals that managers in higher education perceive greater risk factors related to overwhelming and disrespectful demands, as well as problematic relationships, while this perception is more restrained in primary education. The in-depth evaluation of this condition, through interviews, showed that these demands in higher education are associated with undignified working conditions, resulting from an excessive workload and challenges in balancing work and family life. An excessive bureaucratization was also evidenced, which hinders the professional's performance and limits their autonomy and control over scheduling, decision-making, and methods related to work processes.

The pandemic context was not revealed as a marker of the maladjustments observed in both contexts, where demands characterized by overload and excessive work were normalized. From the analysis of the factors present in each context, this study can help in the planning of collective interventions and measures addressing the specific needs of each group, aiming to mitigate maladjustments and foster more favorable working conditions for these professionals.

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