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Human Resources Management Practices in the public service: proposal of a measurement model

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INTRODUCTION

In the last 30 years there has been growing consensus in the strategic HRM literature of the need to focus on the integration of HRM practices (Boon, Den Hartog, & Lepak, 2019). Considering the rapid changes in the environment and the challenges posed by technology, globalization, political, economic and sanitary crises, such as the newly experienced Covid-19 pandemic (Buengeler, Leroy, & De Stobbeleir, 2018), organizations would benefit from flexible HRM practices that encourage engagement, appreciation, motivation (Aktar & Pangil, 2018), as well as facilitate the development of issues related to employee well-being and resilience to promote a healthier and more productive organizational environment (Cooke, Dickmann, & Parry, 2020).

A substantial portion of the studies seems to pay more attention to large private organizations, neglecting public organizations, which play an equally crucial role in the economy (Al Damoe, Hamid, & Sharif, 2017). For Blom, Kruijten, Van der Heijden and Van Thiel (2018), several public organizations have adopted private organizations' HRM practices as a way to improve their performance. For these researchers, there are significant differences between sectors, but the expectation that the effects of HRM practices are greater in the private organizations and smaller in the public organizations are not supported, so there is a little-explored gap regarding studies of HRM practices in the public organizations.

In public organizations, the objectives are less tangible, more diverse, and more conflicting compared to those of the private organizations, which makes their measurement more complex (Rainey & Jung, 2010), especially in the case of recruitment and selection and remuneration practices, which in some countries, such as Brazil, are ruled by regulations defined by law (Constitution of Brazil 1988, 2001). This demands the development of a specific and customized scale to assess HRM practices from the perspective of public servants, laying the foundations for the research problem proposed in this work: how to assess the perception of public servants in relation to the HRM practices implemented by the organizations they work for?

Thus, the objective of our study is to get validity and reliability evidence of a measurement model of human resource management practices customized for the context of the public organizations, in order to bring greater integration of HRM practices and public organizations' needs. The Public Human Resource Management Practices Scale (Public HRMPS) responds to calls in the field of the need for a greater focus on the measure of HRM practice systems, originally pointed out by Huselid (1995), and more recently by Boon et al. (2019). Here lies the main theoretical contribution of the study.

Likewise, an important practical implication of this study is that it provides public managers with a tool to diagnose public servants' perception of their organizations' HRM practices. This diagnosis will contribute to organizational strategic planning to increase the effectiveness in developing and implementing strategies, policies, and practices of HRM. Our focus on the Brazilian context, rife with challenges in the public sector, especially regarding the alignment of HRM practices with the organizations' strategies and the general guidelines established by the government, makes our findings generalizable to similar contexts.

THEORETICAL FRAMEWORK

In a context of uncertainties and new challenges for organizations, it is imperative to rethink organizational performance, as well as its policies, practices, and impacts on society

(Cooke et al., 2020). In the current scenario, characterized by a global crisis that broadly extrapolates health issues, having effects on the political and economic conjuncture, which has a direct impact on organizations, the promotion of quality of life and sustainability are especially highlighted.

In line with this perspective, organizations seek to improve their capacity and processes through the development and management of human capital, since people are protagonists in obtaining results to the extent that they can learn, produce and share knowledge, use the available resources and adapt to changes in the environment (Iqbal, Ahmad, Raziq, & Borini, 2019).

Thus, new roles, challenges, and perspectives emerged, laying the foundations for the so-called strategic HRM, considered as the rethinking of HRM practices and activities, strategically integrated with organizational objectives, to leverage the results of the organization, facilitating the implementation of its plans, as well as its resilience, taking into account the environmental variables and the multiple actors involved (Boxall & Purcell, 2016). This conceptual proposal, aligned with the Theory of Resources (Barney, 1991), comprises the conceptual framework of the present study.

To differentiate the concepts of strategy, policies and practices, which constitute the basic foundations of SHRM, Martín-Alcázar, Romero-Fernández and Sánchez-Garvey (2005) indicate that HRM strategies define guidelines for workforce management, while policies seek to coordinate practices so that they are coherent and move in the same direction; thus, practices represent the actions themselves. For the present study, HRM practices are understood as articulated proposals of the organization regarding human relations, to achieve the desired results (Demo, 2016).

Research indicates the importance of HRM practices as leading to a number of important outcomes as: employee satisfaction (Oikonomidou & Konstantinidis, 2020); job engagement (Memon et al., 2020); service innovation (Alosani, Al-Dhaafri, & Abdulla, 2020); resilience at work (Costa, Demo, & Paschoal, 2019); politicization in organizational performance (Fuenzalida & Riccucci, 2018); organizational justice (Vermeeren, 2017); organizational citizenship behaviors (Tinti, Venelli-Costa, Vieira, & Cappellosa, 2017); organizational performance (Bello-Pintado & Garces-Galdeano, 2019), organizational effectiveness (Otoo, 2020) and lower employee turnover rates (Cristiani & Peiró, 2019).

Such associations demonstrate the strong predictive power of HRM practices over important results desired by organizations and on several variables of organizational behavior. Thus, it seems to be possible to affirm that HRM practices influence positive organizational behaviors, because the more the employee perceives practices that advocate their well-being, the more they will feel satisfied and affectively connected to work, thus contributing to greater organizational performance (Wu & Lee, 2017).

The seminal model of HRM practices, validated cross-culturally by Demo, Neiva, Nunes and Rozzett (2014), inspired the elaboration of the items of the Public HRMPS. This seminal model obtained good psychometric indices and is composed of six dimensions: recruitment and selection; relationship; training, development and education; work conditions; competency and performance appraisal; and remuneration and rewards.

In addition to some HRM practices indexes identified by advocates of the high-commitment and high-performance approach (Pfeffer, 2005), there is a lack of more comprehensive and integrated models of HRM practices, since the focus should not be on individual HRM practices (Boon et al., 2019). Thus, the Public HRMPS validated here brings an advance by testing an integrated model of customized HRM practices for the public organizations, a gap still unexplored, which delimits the opportunity and relevance of the present proposal.

METHOD

The design of this study is descriptive, exploratory, cross-sectional and multimethod. This section and the Findings section are presented in two parts: scale development procedures (qualitative step) and the scale validation procedures (quantitative step).

Scale development: qualitative step

In this stage, experts' analysis and semantic analysis were performed. Based on the literature and on the seminal HRM practices model (Demo, Neiva, Nunes, & Rozzett, 2014), the initial version of the Public HRMPS was elaborated, which was first submitted to the analysis of experts on the subject in order to validate whether the items are pertinent to HRM practices in a public organization (Kerlinger & Lee, 2008).

In line with recommendations that at least six experts participate in this stage (Kerlinger & Lee, 2008), ten public servants were consulted through focus group technique. In addition to verifying the relevance of the items, the experts were also encouraged to allocate, if possible, each item under one of the six dimensions of the HRPPS. In this analysis, the minimum agreement of 80% between experts was respected as the criteria of decision regarding the relevance, exclusion, inclusion and/or reformulation of the items of the scale (Kerlinger & Lee, 2008).

The final version from the experts' analyses was followed by the semantic analysis, which aimed to verify whether the wording of the items of the scale is clear, as well as to anticipate doubts that could appear at the time of the questionnaire application, working as a pretest, toward ensuring the survey items are clear to participants (Kerlinger & Lee, 2008). With this analysis, it was possible to verify redundancy, similarities of items, structure of sentences, or any adaptation necessary to ensure clarity of each scale item. As participants of a semantic analysis or pre-test should have a profile similar to the research target audience (Kerlinger & Lee, 2008), the semantic analysis was performed with 37 public servants. The product of semantic analysis was the application version of the Public HRMPS to be used in the quantitative step.

Scale validity and reliability: quantitative step

At this stage, the target audience was comprised of public servants. The sample was characterized as non-probabilistic for convenience and the collection was performed by sending the online questionnaire, through the *Google Docs* platform, to the institutional e-mail of the public servants. Data were collected between August and October 2020.

The total sample obtained for the quantitative study included 526 subjects and the data from the application of the questionnaires were imported into the *Statistical Package for Social Sciences* (SPSS). In data cleaning stage, following the recommendation by Tabachnick and Fidell (2019), 46 items with missing data were removed using the listwise method. Next, to identify the outliers of the sample, the *Mahalanobis* distance was analyzed, and 23 questionnaires were eliminated, resulting in a final sample of 457 subjects.

Multicollinearity and singularity analyses were then conducted and the assumptions for the use of multivariate analysis (normality, linearity, and homoscedasticity of the data) were verified through normal probability plots and residual plots (Field, 2018). All assumptions have been confirmed.

For data validation, the recommendations of Tabachnick and Fidell (2019) were used, which suggest that for exploratory factor analysis (EFA), between 200 and 300 individuals should be used, also pointing out, as a rule, between 5 and 10 subjects per item of the questionnaire. On the other hand, for the dimensioning of the sample size for confirmatory

factor analysis (CFA), Hair, Babin, Anderson and Black (2018) and Kline (2015) recommend between 10 and 20 subjects per scale item.

Thus, the final sample, composed of 457 subjects, was divided as follows: for exploratory factor analysis, 310 subjects from the total sample were randomly selected while confirmatory factor analysis was composed of all 457 subjects in the final sample. For the conduction of CFA, structural equation modeling (SEM) was used to verify the adjustment of the proposed measurement model, through the statistical program AMOS.

Regarding the profile of the sample, in the EFA, the ages varied between 25 and 75 years, being 29.4% aged between 35 and 44 years. The majority of respondents are male (53.9%) and the working time in the institution surveyed is 6 to 10 years (31.3%). Similar results were verified in the CFA sample, with an age profile ranging from 25 to 75 years, with 28.7% of ages between 35 and 44 years, with the predominance of males (53.4%). Also, most of them work from 6 to 10 years in the organizations (32.4%).

FINDINGS AND DISCUSSION

Qualitative stage

Experts Analysis

Ten experts evaluated the 44 items initially proposed for the Public HRMPS. According to the criteria of Kerlinger and Lee (2008), considering the minimum agreement of 80% among the experts, 15 items were excluded, 4 had their wording changed and 6 items were added.

In Brazil, where recruitment and selection practices are characterized by impersonality in hiring, as they are determined through the application of public test; and remuneration and rewards, are legislatively mandated (Constitution of Brazil 1988, 2001), public managers have no discretion to make decisions in these areas. Thus, it was decided, in line with the experts, to remove these two dimensions from the Public HRMPS. In the end, there were 35 items, distributed in 4 factors (Work Conditions, Relationship, Competency and Performance Appraisal and Training, Development and Education), which comprised the form for semantic analysis.

Semantic Analysis

A semantic analysis followed the experts' analysis, intending to resolve questions that arose from the first application of the research instrument (Kerlinger & Lee, 2008). The forms were applied online to 37 public servants. This audience was chosen because it is also the target audience of the research. In this stage, 4 items were excluded and 13 items had their wording modified.

Finally, the product of the qualitative study was the application version of the Public HRMPS, containing 31 items to be evaluated by using a *Likert* agreement scale, ranging from extreme points from 1 (totally disagree) to 5 (totally agree), being 3 (I do not agree, nor disagree/Do not apply) the neutral point of the scale.

Quantitative stage

Exploratory validation of the Public HRMPS

First of all, to verify the feasibility of using factor analysis for the sample studied, that is, its factorability, the correlation matrix was analyzed concerning the adequacy index of the sample proposed by *Kaiser-Meyer-Olkin* (KMO). The KMO presented an index of 0.96, classified as "wonderful", which confirms the commonality between the variables and the factorability of the data matrix (Kerlinger & Lee, 2008). Next, to define the number of scale

factors, the following criteria were considered: eigenvalues, scree plot graph, and parallel analysis (Field, 2018).

The eigenvalues method greater than 1.0 indicated five factors and the total variance explained greater than 3% also indicated five factors. The scree plot indicated four factors. In turn, parallel analysis represents an increasing criterion in the international literature, given its precision in determining sets of extracted values, in addition to being little influenced by sample size and by the factor loadings of items (Hayton, Allen, & Scarpello, 2004), being adequate in 92% of cases. RanEigen software was used to perform the parallel analysis, that also indicated four factors.

Once the number of factors of the scale was defined, exploratory factor analysis was initiated, with Promax oblique rotation, since behavioral studies presuppose correlations between the variables. To achieve it, it was established as an acceptable minimum load of 0.45 to retain only reasonable, good, very good, and excellent items (Tabachnick & Fidell, 2019).

The factor loading concerns the correlation of the dimension or factor with its items. Thus, to evaluate the quality of the items or the internal validity of the scale, we followed the classification suggested by Comrey and Lee (2013): despicable (less than 0.3), poor (between 0.32 and 0.44), reasonable (between 0.45 and 0.54), good (between 0.55 and 0.62), very good (between 0.63 and 0.70) and excellent (equal to or greater than 0.71). Then, after EFA, the Public HRMPS was composed by 21 items, two excellent, six very good, six good, and seven reasonable. Eight items comprised factor 1, three in factor 2, seven in factor 3, and three items composed factor 4 of the scale.

Based on the items of factor 1, the name of Training, Development and Education (TDE) was proposed, as it covers a set of human resource management practices that aim to provide and stimulate the acquisition of skills and the development of knowledge. Factor 2 was named Relationship (R) because it includes practices that aim to stimulate the participation, autonomy, and engagement of public servants, in addition to motivating and involving employees at work. Named Work Conditions (WC) factor 3 comprises practices aimed not only at physical working conditions but also on conditions related to the psychological well-being of the employees. Finally, factor 4 can be called Competency and Performance Appraisal (CPA) since these are practices related to the evaluation of public servant performance. Such concepts are consistent with the definitions of Demo et al. (2014) and also with the suggestions proposed by Boon et al. (2019), which are: training/development (identified as "TDE"); participation/autonomy/communication (referring to what we called "relationship"); performance and evaluation (entitled "competency and performance appraisal"); and design/safety at work (referring to what was called "work conditions").

The degree of scale reliability was calculated using *Cronbach's* alpha (α), which is a good parameter of precision, or internal consistency of the scale (Hair, Babin, Anderson, & Black, 2018). According to Nunnally and Bernstein (1994), results above 0.70 are considered reliable and above 0.80, very reliable. The results obtained from the alpha were 0.81 for TDE; 0.90 for R; 0.83 for WC; and 0.77 for CPA. Also, the total variance explained by the four factors was 60%, which can be evaluated as a satisfactory result (Hair et al., 2018), since the study is exploratory and represents the first effort to measure HRM practices in public organizations.

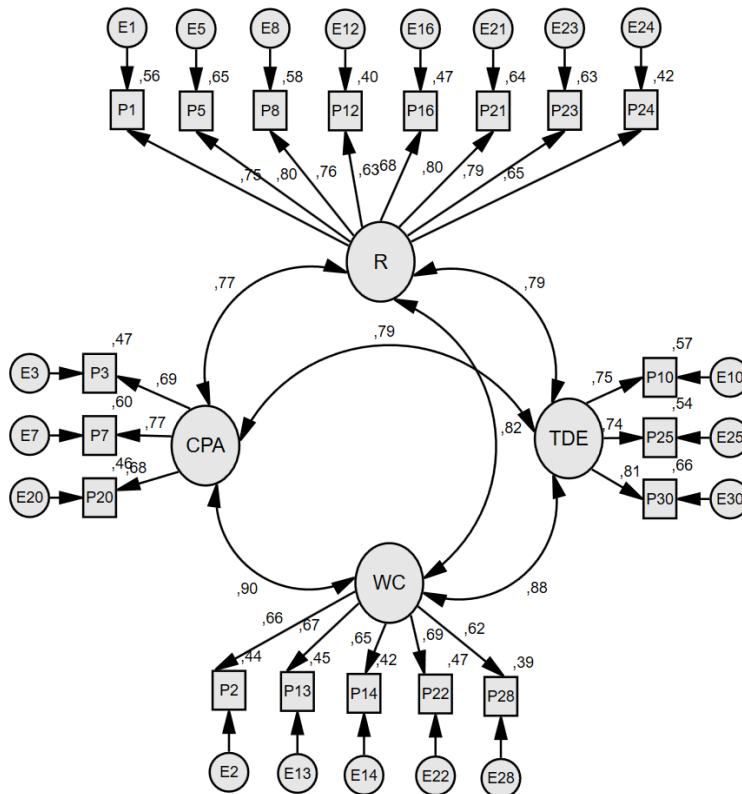
Confirmatory validation of the Public HRMPS

To perform the confirmatory validation of the scale, the chosen method was the maximum likelihood estimation, through structural equation modeling (SEM). To evaluate the quality of a measurement model in structural equations, it is necessary to analyze the adjustment or fit of the model to empirical data. For this, the researcher must report at least one incremental index and one absolute index, in addition to the chi-square value and the associated degrees of freedom to determine its acceptability. As Hair et al. (2018) state, a model presenting the value

of the standard χ^2 (CMIN/DF or NC, where CMIN is the statistic of χ^2 and DF are the degrees of freedom of the model), CFI (Comparative Fit Index) and RMSEA (Root Mean Square Error of Approximation) has sufficient information for its evaluation.

For Kline (2015), values indicating a good fit for a structural model must meet the following criteria: values for NC (CMIN/DF) of 2.0 or 3.0 and up to 5.0; values for CFI equal to or greater than 0.90; values for RMSEA equal or below 0.06 or up to 0.08. We can observe that all parameters were within the references indicated in the literature, so that the model presented a good adjustment index. Figure 1 presents the model after the confirmatory factor analysis.

Figure 1: Confirmatory Factor Analysis Model



Note: χ^2 (146) = 452,363; $p < 0,001$; NC(CMIN/DF) = 3,00; CFI=0,93; RMSEA=0,06.

Comparing to the initial exploratory structure, two items were eliminated because they had a factor loading below 0.55 (Hair et al., 2018). So the final measurement model presented very good and excellent items only, attesting to their quality or internal validity (items with 9 excellent loads and 10 very good loads).

Jöreskog's rho analyzes the composite reliability of the factors and presents itself as a more recommended measure of reliability than *Cronbach's alpha*, when it comes to structural equation modeling (Chin, 1998). The composite reliability of the 4 factors are: Relationship $\rho=0.90$; Training, Development and Education $\rho=0.81$; Work Conditions $\rho=0.79$; and Competency and Performance Appraisal $\rho=0.76$. All factors were very reliable because they presented values higher than 0.70 (Chin, 1998).

Table 1 shows the psychometric indexes of public HRMPS.

Table 1: Public HRMPS Psychometric Indexes

Scale Dimension	EV	CR	Item Description	SE	UE	Se	p	Item Quality
TDE	0.59	0.81	10. The organization in which I work invests in the development of public servants, providing their professional growth (e.g., full or partial sponsorship of undergraduate, postgraduate, language courses, improvement, continuing education, etc.).	0.75	1.01	0.06	***	Excellent
			25. In the organization in which I work, training needs are raised periodically.	0.74	0.95	0.06	***	Excellent
			30. The organization in which I work helps the employees to develop the skills necessary to carry out the work activities (e.g., training, participation in congresses, etc.).	0.81	1.00		***	Excellent
R	0.54	0.90	1. In the organization in which I work, there is coherence between the discourse and the practice of managers/heads.	0.75	1.00		***	Excellent
			5. In the organization in which I work, there is trust between public servants and managers/bosses.	0.80	1.07	0.06	***	Excellent
			8. The organization in which I work encourages the participation of public servants in decision-making.	0.76	1.15	0.07	***	Excellent
			12. Public servants are proud to work in the organization I work for.	0.63	0.70	0.05	***	Very good
			16. The organization in which I work privileges the autonomy of public servants in the performance of the tasks.	0.69	0.92	0.06	***	Very good
			21. In the organization in which I work, there is a climate of cooperation between public servants.	0.80	1.07	0.06	***	Excellent
			23. The organization in which I work treats the organization's public servants with respect.	0.80	1.01	0.06	***	Excellent
			24. Public servants of the organization in which I work are helpful.	0.65	0.83	0.06	***	Very good
WC	0.43	0.79	2. The organization in which I work provides public servants with appropriate technology (materials, software, and hardware) for the task performance.	0.66	1.00		***	Very good
			13. The organization in which I work has the quality-of-life programs for public servants (e.g., flexible hours, work gymnastics, etc.).	0.67	0.98	0.08	***	Very good
			14. The facilities and physical conditions of the organization in which I work (e.g., lighting, ventilation, noise, and temperature) are appropriate.	0.65	0.92	0.08	***	Very good
			22. The organization in which I work is concerned with the security of its public servants (e.g., control of access for strangers, badge requirement, etc.).	0.69	1.02	0.08	***	Very good

			28. The organization in which I work provides living spaces and/or convenience services (e.g. parking lots, banks, restaurants/snack bars, etc.).	0.63	0.92	0.08	***	Very good
CPA	0.51	0.76	3. In the organization I work in, public servants receive informal feedback about their performance.	0.69	1.00		***	Very good
			7. In the organization in which I work, the performance evaluation helps the elaboration of a professional development plan of public servants.	0.77	1.23	0.09	***	Excellent
			20. In the organization in which I work, the results of the performance evaluation are communicated to public servants.	0.68	1.13	0.09	***	Very good

Note: EV= extracted variance, CR= composite reliability, SE= standardized error, UE= unstandardized estimates, se= standardized error, *= $p < 0.001$

In sequence, the construct validity of the Public HRMPS was tested through convergent, divergent, discriminant, and nomological validities. Construct validity is considered the most fundamental form of the validity of psychological instruments since it ascertains how much a group of measured items represents the theoretical construct that these items should measure indeed (Hair et al., 2018).

A scale has convergent validity when the factors that compose it are well represented (high factor loads) by its items (Hair et al., 2018). In this perspective, the first indication of convergent validity of the factors of a scale is the reliability of each factor, that must be above 0.7. Another convergence indicator refers to factor loadings, which should be higher than 0.55. Finally, the extracted variance of the factors should be above 0.4 (Hair, Hult, Ringle, & Sarstedt, 2014). All four factors of public HRMPS presented variance extracted above 0.4, that is: Relationship 0.54; Training, Development and Education 0.59; Work Conditions 0.43; and Competency and Performance Appraisal 0.51. Thus, it is possible to affirm that the Public HRMPS presented convergent validity.

Divergent validity identifies the degree to which measures of conceptually distinct factors differ (Hair et al., 2018). According to the *Fornell-Larcker* criteria, when the estimated extracted variance value of each factor exceeds the square of correlations between them, there is divergent validity (Hair et al., 2018). This criteria was attested showing that the scale four factors are really distinct from each other, constituting independent subscales, which can be used separately for managerial diagnosis and evaluation.

Table 2: Public HRMPS Divergent validity

Factor	Relationship	Training, Development and Education	Work Conditions	Competency and Performance Appraisal
Relationship	0.54^a	-	-	-
Training, Development and Education	0.27	0.59^a	-	-
Work Conditions	0.25	0.34	0.43^a	-
Competency and Performance Appraisal	0.19	0.24	0.25	0.51^a

Note: ^a extracted variance.

Next, to verify discriminant validity, we perform an EFA with the items of the Public HRMPS and items of other different measures (Brakus, Schmitt, & Zarantonello, 2009) and observe whether the most representative items, with greater load, are added to the same factor they should be conceptually loaded. Thus, an EFA was carried out with the items of the Public HRMPS and item of a scale to assess Organizational Virtues (Gomide Jr, Vieira, & Oliveira, 2016). The EFA performed shows that the items regarding HRM practices were grouped in factor 2 and the items concerning organizational virtues were grouped in factor 1. Thus, it is concluded that HRM practices, measured by the Public HRMPS, in addition to having divergent validity among its factors, it also has discriminant validity in relation to other possibly related constructs.

Finally, nomological or criterion validity shows the ability of the scale to behave in relation to other constructs, as predicted in the scientific literature (Hair et al., 2018). Studies state that there is a correlation between HRM practices and organizational virtues (Ahmed, Rehman, Ali, Ali, & Anwar, 2018). To attest the nomological validity, then, we correlated the means of the answers given by the respondents to for both measures (Public HRMPS and Organizational Virtues Scale (Gomide Jr et al., 2016), a variable composed by two factors (good faith and trust). For this correlation analysis, Pearson's coefficient was used, presented a positive and significative (at the 0.01 level) correlation of 0.75, classified as strong (Cohen, 1992).

With the evidence of internal and construct validity and also reliability, we moved on to provide theoretical support for each item on the scale, in order to confirm its content validity (Hair et al., 2018). Items 10, 25 and 30 of the TDE factor are in line with Araujo, Abbad and Freitas (2017), stating that it is very important to engage managers in the analysis of training needs and in the construction of instructional designs that promote improvements in the performance of employees, teams and the organization as a whole. Likewise, Van Esch, Wei and Chiang (2016) assert that training and people development are crucial to the success or failure of an organization, thus, managers should stimulate continuous learning and the production of knowledge of employees.

Item 16, the most representative of the Relationship factor, since it presents the highest factor loading (0.87), highlights the autonomy of the public servants in carrying out their activities. Autonomy, that is, the ability to enjoy a margin of freedom and independence in performing tasks at work, brings with it the responsibility for achieving the established objectives and also the feeling of pleasure at work (Winter & Alf, 2019).

The other items of this factor (1, 5, 8, 21, and 24) address important aspects in teamwork, such as: trust between members and their superiors, cooperation and helpfulness among coworkers, as well as the coherence of attitudes and participation in decision-making. Trust assumes an extremely important role, as it facilitates cooperation in labor relations and enables more effective management (Sun, Aryee, & Law, 2007). Thus, the organization that seeks to encourage the motivation and performance of its employees needs to take into account the planning and implementation of relationship practices, to encourage communication between employees and managers, seeking the alignment between discourse and practice; to preserve a climate of understanding and trust between teams; and to grant autonomy to employees in performing tasks and decision-making (Cooper, Wang, Bartram, & Cooke, 2019). Besides, relationship practices that promote an affective bond and that privilege respect, sense of belonging, and pride in being part of the organization (items 12 and 23) should be encouraged (Kehoe & Wright, 2013).

As for the Work Conditions, items 2 and 14 relate to physical, technological, and safety conditions in the work environment and are following the ideas that employees need appropriate technology (Guest, 2017) and working conditions and a pleasant environment to be healthy physically, socially, and emotionally (Tiecher & Diehl, 2017). Thus, as stated by items 13, 22,

and 28, organizations should excel in environments that help promote health and quality of life at work, offering flexible benefits plan, and workplace facilities and convenience (Prysmakova, Tantardini, & Potkański, 2019).

Finally, items 3, 7 and 20 relate to Competency and Performance Appraisal and are HRM practices reinforced by Ghauri (2018), since feedback, understood as an exchange of observations and information between manager and employees about performance at work, is an important tool for HRM. HRM practices increase employee skills and efficiency through existing performance assessment so managers should prepare plans and criteria of CPA together with employees and widely disseminate the evaluation results (Van Esch, Wei, & Chiang, 2016).

Implications, Limitations and Future Research

Our research focused on producing a scale of HRM practices customized for the context of public organizations attending a gap in the literature. The Public HRMPS can be used in relational studies to test structural models of prediction, mediation, and moderation in the public sector, improving and generating new insights for scientific knowledge of the theme. Also, the transforming role of strategic HRM can be operationalized through the adoption of practices gathered in the Public HRMPS.

Moreover, although empirical evidence so far recommends investments in sets of HRM practices (Boon et al., 2019), it is interesting to know which specific practices affect to a greater or lesser extent other variables of organizational behavior, so the multifactor structure of the Public HRMS, with four independent dimensions may be helpful. Specifically for public organizations with characteristics like those of Brazil, it is known that the practices of remuneration and rewards and recruitment and selection are established in laws and regulations issued by the government.

In this sense, each of the subscales of the Public HRMPS can be used in future relational studies to evaluate relationships with other variables of positive organizational behavior, such as resilience at work, organizational virtues, well-being at work, and, who knows, quality of life in telework, a work reality brought about by the Covid-19 pandemic.

Furthermore, the Public HRMPS can serve as a useful diagnostic tool for the decision-making of public managers since the perceptions of the public servants regarding the HRM practices employed by the organizations they work for will be known. Thus, it will be possible to act in areas where improvements are necessary, in addition to advancing towards new HRM strategies to promote healthier and more productive work environments.

As social implications, healthier and more productive environments translate into real impacts for society, which is the first beneficiary of public services provided with more quality, efficiency and accountability. Strategic HRM needs to embrace the concept of sustainability. A sustainable organization has a flexible structure, with HRM practices that reflect ethical concerns and sustainability principles, encouraging participatory decision-making, diversity management, and promoting high health and safety indicators in the work environment as a whole (Oliveira, Estivaleta, Andrade, & Costa, 2017).

This work represents a first effort to develop and validate a measurement model that aims to evaluate HRM practices in the context of the public service, so the results obtained are more indicative than conclusive, constituting a first limitation of the research. Also, the convenience sampling also prevents any generalizations of the results obtained. Additionally, our study used only one data source, and is therefore subject to the common-method variance problems. As a criterion of parsimony, we compared the unifactorial structure with the multifactorial structure of the scale. If the one-factor model presented a good fit, there would be common-method variance. As this didn't happen, we may conclude that the common-method variance itself doesn't explain the results.

Another limitation is due to the cross-sectional design, as questions regarding causality remain unanswered. In this sense, the testing of the Public HRMPS and its antecedents and consequents in a longitudinal framework would provide more insights into probable causation. Moreover, the use of longitudinal data will allow the Public HRMPS to be updated on a constant and continuous basis, embracing the new trends, challenges, and possibilities of HRM for public institutions.

Also, we suggest further studies to conduct research by comparing the views of managers and peers to obtain a more faithful picture of the perceptions and effects of HRM practices at different organizational levels. Besides, an interesting agenda would be validations of the Public HRMPS in different samples to provide external validity in different government spheres and public powers.

CONCLUSION

We may conclude, in spite of the limitations pointed, that the main objective of this study was reached and an instrument to assess the perceptions of public servants regarding HRM practices was presented in an innovative way on the public organizations context. The Public HRMPS is an operationally valid and reliable measure to evaluate practices considered essential for strategic HRM and can be used as a diagnostic tool to support managers of public organizations in their decision-making, so they can promote a strategic evidence-based HRM.

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