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THE WELL-BEING AT WORK AND RESILIENCE: A STUDY CORRELATION IN NURSINGTECHNICIANS IN HOSPITAL

O BEM-ESTAR NO TRABALHO E A RESILIÊNCIA: UM ESTUDO CORRELACIONAL COM TÉCNICOS DE ENFERMAGEM HOSPITALAR

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RESUMO | Este artigo analisa a resiliência e bem-estar no trabalho como construtos importantes na discussão da promoção da saúde. Na hipótese que bem-estar correlaciona-se com a resiliência, analisou-se dentro do contexto da psicología positiva dialogando com a psicologia social. Empregou-se método exploratório em amostra de 131 técnicos de enfermagem. Os modelos teóricos foram o Inventário de Bem-estar no Trabalho e a Escala de Resiliência para Adultos. A Consistência foi analisada pela confiabilidade composta e alfa de Cronbach, validade convergente pela AVE. O teste KMO verificou se o modelo de análise fatorial utilizado era adequadamente ajustado aos dados. Análise fatorial confirmatória foi realizada para validação e correlação de Spearman para medir relações entre variáveis. Resultados: Análise de correlação indicou que existe correlação positiva entre os índices (r = 0,20, p = 0,096) e indicadores de bem-estar e resiliência. Concluindo-se que quanto maior a resiliência, maior será bem estar no trabalho e vice-versa.

Palavras-chave: resiliência; bem-estar no trabalho; enfermagem.

ABSTRACT | This article analyzes resilience and well-being at work as important constructs in the discussion of health promotion. In the hypothesis that well-being correlates with resilience, they are analyzed in the context of positive psychology by dialoguing with social psychology. An exploratory method was used in a sample of 131 nursing technicians. The theoretical models used were the Inventory of Well-being at Work and the Resilience Scale for Adults. Results: Consistency was analyzed by composite reliability and Cronbach's alpha, convergent validity through the AVE. The KMO test verified if the factorial analysis model used was adequately adjusted to the data. Confirmatory factorial analysis was performed for validation and Spearman's correlation to measure the relationships between variables. The correlation analysis indicated that there is a positive correlation between indices (r = 0.20, p = 0.096) and indicators of well-being and resilience. Concluding the greater the resilience is, the greater welfare at work is and vice versa.

Keywords: resilience; well-being at work; nursing.

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INTRODUCTION

Health promotion is paramount for the well-being and studying its conditioning is part of a process of understanding the evolution of factors that interact with human development. The work promotes the development of people and groups. Through work one satisfies the needs and builds the identity (Murcho & Jesus, 2014). This study highlights the phenomena of well-being at work and resilience, and investigates which variables interact with these phenomena. Understanding this relationship is part of a knowledge process for the promotion of health and education. Well-being in the context of work is a widely discussed theme (Hernandez, 2007). It reflects consequences on workers' health and organizational productivity.

The theoretical perspective of Positive Psychology, that based this study, follows the line of researchers that investigate if the positive emotional state of workers improves their relationship and performance in their work environment. Thus, we investigate the following question: What is the correlation between well-being constructs at work and resilience?

Well-being has always been discussed in positive psychology. There have been reports of research since 1950. Human and Social Sciences seek to maintain the relationship of well-being and health as a point of reference (Basílio, 2005). There is little consensus among authors to define well-being. For Siqueira & Padovan (2008), the concept is related to the satisfaction of a healthy life and can be linked to the positive social, psychological, and physical health functioning (Ryff, 1995). Albuquerque & Troccoli (2004) showed that studies of happiness and well-being are similar, but the difference is the concept of happiness. In the hedonic perspective, the stability of feelings is directed (Keyes et al., 2002). In the psychological field, well-being studies present subjective hedonic perspectives (Ryan & Deci, 2001). Siqueira & Padovan (2008) validated a 2-component model for measuring well-being at work. The IBET version 13 is part of other models (Albuquerque & Trócoli, 2004). Siqueira et al. (2014) characterized as categories of analysis for well-being: i) Commitment and satisfaction, ii) Involvement with work. The IBET-13 questionnaire contains 13 questions and is justified by its psychometric analysis potential.

Resilience is among the many measurable individual characteristics that may be associated with well-being. It stands out in the line of the investigations of phenomenological epistemological base, being considered psychological process involving positive results of adaptation and overcoming of adversities (Masten, 2001) seeking strategies of balance and psychological recovery (Placco, 2002).

However, there is no recipe for the development of resilience (Sanches, 2009), but it is possible to indicate which contexts are favorable or unfavorable to their development. Individuals who suffer adversity have the opportunity to solve problems (Polk, 1997). Silva et al. (2003) conceptualizes resilience as a complex phenomenon, multicontextual and linked to social interaction. Resilience became measurable through the studies of Wagnhild & Youn (1990) and then Hjemdal et al. (2001) proposed the Resilience Scale for Adult (RSA) and reformulated it in 2009. Considered today an effective tool to evaluate psychosocial issues and worker's health (Carvalho et al., 2014), through six factors: self-perception, planned future, social competence, structured style, family cohesion, and social resources.

Resilience reduces the intensity of stress level and can decrease negative emotional cues such as anger, depression, anxiety and increases emotional health (Hiew, 2001).

The working environment in organizations imposes on workers the need for constant adaptation. Health professionals, mainly nursing, maintain direct contact with the public (patients) and are subject to situations of high stress and suffering due to emotional exhaustion and dissatisfaction with work (Zapf, 2002). Worker errors committed by nursing professionals put the person's life at risk. These errors have a direct impact on the global indicators of health promotion and prevention.

In order to confirm the research problem, we hypothesized the following hypotheses: 1) There is

positive correlation between the indices of resilience and well-being at work; 2) There is a positive correlation between the indicators of resilience and well-being at work.

This study emphasized the work of nursing technicians with the general objective of correlating the constructs of well-being at work and the resilience of these professionals. Correlational studies have two objectives: to establish relations between variables and to predict the behavior of variables (Sternberg, 2000). A descriptive and correlational analysis of the data was performed. We also did exploratory factor analysis, confirmatory factor analysis and Spearman correlation.

The research contributes to broadening the understanding of the construct well-being at work and demonstrated the relevance of hospital resilience. The results contributed to a better understanding of the variables that are associated to the constructs. They suggest the importance of expanding the discussions for the health of the nursing technician and other health professionals. It emphasized the importance of deepening the positive and social factors of people at work. It highlights the need to better understand these variables and propose actions to the work done by nursing technicians with the intention of avoiding risk of deaths caused by errors of technicians in the hospital environment.

METHODS: DATA PRELIMINARY

The Participants

The group consisted of 131 volunteers, nursing technicians from a hospital, with 83.2% of women and 16.8% of men (Ethics Committee approval number, CAAE - 304873145.0000.5126). That choice was given by the criterion of accessibility of the participants being in a certain place (sample not probabilistic) and at a certain time. The mean age was 33.6 years (SD = 9.8), the day shift prevailed, representing 60.8% of the sample, 37.7% for the night shift and 1.5% in both. The level of education was 86.7% for high-school and 13.3% for university level, with 78.6% of nursing technicians not currently studying and 21.4% students. Most of the technicians work in the medical clinic sector, accounting for 35.1% of the total, 29% in the surgical clinic, 16% in the Intensive treatment Unit (ITC) and 19.8% in other sectors. The average has been working since 17.9 years of age (SD = 4.6).

The Instruments

The Inventory of Well-being at Work (IBET-13) (Siqueira, Orengo & Peiró, 2014) contains 13 questions that include components of the psychological constitutive model, classic concepts of organizational behavior, being important elements to define well-being at work, which are: work involvement and affective organizational commitment. Each item of the questionnaire was composed of a Likert-type scale, ranging from 1 (total disagreement) to 5 (total agreement). High scores indicate higher levels of well-being at work factors.

The Resilience Scale for Adults (RSA) (Hjemdal et al., 2009) contains 33 statements where the participant must choose, in a 7-point Likert-type scale, if it makes sense in relation to herself and in relation to people of her environment that are important to her. The answers show whether it is positive or negative content. Half of the items were reversely scored to reduce acquiescence biases. Higher scores indicate higher levels of resilience factors.
Both instruments maintain an internal consistency, however, the variables are of second order, that is, they are not formed directly by the items or questions, but by other latent variables, which we will call indicators.

The Procedures

The instruments were applied in voluntary meetings with 2-hour sessions. We applied sessions in many days. From a total of 195 hospital nursing technicians, 131 completed the instruments. We delivery the two instruments providing completion instructions; term of free consent; and informed the objectives of the research, procedures, the study's benefits, absence of risks for the participants, and guarantee of the anonymity. The ethical procedures in human research were met. The statistical package Software R (free)

was used for data analysis.

Data Analysis

A descriptive analysis was performed on the data collected through means and standard deviation. To compare the items (questions) of the two constructs, we calculated mean, standard deviation, and Confidence Interval Bootstrap 95%. The resilience and well-being at work constructors are of second order, formed of other latent variables. It was used Exploratory Factor Analysis (Mingoti, 2007) to form the indicators of questions to correlate them later. The items were allocated according to the theoretical model of (Hjemdal et al., 2009) for RSA and (Siqueira et al., 2014) for IBET-13. RSA was adjusted into 6 factors and IBET into 2 factors. Consistency was analyzed through Cronbach's Alpha and Composite Reliability. Dimension was analyzed through the Parallel Analysis Criterion, and the convergent validity was analyzed through Average Variance Extracted (AVE). The Kaiser–Meyer–Olkin (KMO) test was used to verify that the factor solution was adequate to the data. Confirmatory Factor Analysis (Hair et al., 2009) was done to adjust the model by the method of Satorra and Bentler (1994). The RSA and IBET scale were transformed to a numerical scale from -1 to 1, with negative mean values representing lack of resilient or lack of well-being at work, and values close to zero represent a neutral situation. Using the Two-Step approach, the dimension, reliability and validity criteria were met (Hair et al., 2009), forming the constructors.

All statistical analyses were performed with R software 3.3.0 2016. CFA was conducted with Lavaan package 0.5.20.

RESULTS

Descriptive statistics

A descriptive analysis of the data was made through the absolute and relative frequencies, mean and standard deviation. To compare the items (questions) of the constructs, we calculated mean, standard deviation and Confidence Interval Bootstrap.

Table 1 e 2 show the items, mean, and standard deviation of adult resilience and well-being at work constructs, respectively.

Table 1. Presentation, descriptive statistics, and Exploratory Factor Analysis of the items of adult resilience constructs

Constructs		Average	S.D.	F.L.
Self-perception	RS-1	0,70	0,53	-
	RS-7-INV	0,73	0,43	-
	RS-13	0,42	0,73	0,67
	RS-19-INV	0,93	0,25	-
	RS-25	0,75	0,42	0,77
	RS-29-INV	0,76	0,44	0,69
Planned future	RS-2	0,62	0,63	0,71
	RS-8-INV	0,67	0,56	0,60
	RS-14-INV	0,65	0,53	0,65
	RS-20-INV	0,82	0,40	0,69
Social competence	RS-3-INV	0,75	0,46	0,52
	RS-9	0,56	0,64	-
	RS-15-INV	0,72	0,51	0,78
	RS-21	0,70	0,54	0,70
	RS-26-INV	0,78	0,40	0,67
	RS-30	0,55	0,66	0,69

Table 1. Presentation, descriptive statistics, and Exploratory Factor Analysis of the items of adult resilience constructs
(continuação)

Constructs		Average	S.D.	F.L.
Structured style	RS-6-INV	-0,01	0,86	-
	RS-12	0,71	0,55	0,80
	RS-18-INV	0,69	0,53	0,83
	RS-24	0,70	0,52	0,69
Family cohesion	RS-4	0,11	0,79	-
	RS-10-INV	0,87	0,33	0,69
	RS-16	0,78	0,46	0,70
	RS-22-INV	0,79	0,39	0,79
	RS-27	0,67	0,56	0,51
	RS-31-INV	0,64	0,55	0,50
Social resources	RS-5	0,61	0,63	-
	RS-11-INV	0,88	0,27	0,68
	RS-17	0,80	0,40	0,59
	RS-23-INV	0,79	0,43	0,57
	RS-28-INV	0,89	0,25	0,78
	RS-32	0,71	0,51	0,68
	RS-33-INV	0,84	0,34	0,70

Table 2. Presentation, descriptive statistics, and Exploratory Factor Analysis of the items of well-being at work inventory constructs

Constructs		Average	S.D.	F.L.
Commitment and satisfaction	BE-1	0,44	0,41	0,80
	BE-2	0,23	0,48	0,77
	BE-4	0,49	0,39	0,71
	BE-5	-0,32	0,58	0,63
	BE-6	0,22	0,45	0,85
	BE-8	0,35	0,45	0,53
	BE-10	0,45	0,43	0,68
	BE-11	0,18	0,45	0,75
	BE-13	-0,06	0,66	0,69
Work Involvement	BE-3	0,08	0,48	0,56
	BE-7	0,06	0,53	0,79
	BE-9	0,00	0,55	0,71
	BE-12	-0,39	0,52	0,67

Internal consistency

Exploratory Factor Analysis (Mingoti, 2007) was used to create the indicators. Factor loadings smaller than 0.50 were removed because they do not contribute to the formation of the indicator (Hair et al., 2009). The last column of Table 1 e 2 shows the factor loadings of adult resilience and well-being at work constructs, respectively. For well-being at work inventory, no items presented factor loading smaller than 0.5. This means that no items needed to be removed.

Table 3 and 4 validate the constructs for adult resilience and well-being at work, respectively. We verified that the most of the indicators presented Cronbach's alpha (CA) or composite reliability (CR) greater than 0.60. AVEs were larger than 0.40. The parallel analysis method indicated that all items were one-dimensional. Thus, the indicators were validated since they fulfilled all the necessary requirements of consistency, one-dimensionality and convergent validity.

Table 3. Validation of adult resilience constructs

Constructs	Items	AVE	CA	CR	KMO	Dim
Self-perception	3	0,51	0,47	0,67	0,60	1
Planned future	4	0,44	0,56	0,68	0,69	1
Social competence	5	0,46	0,70	0,75	0,74	1
Structured style	3	0,60	0,67	0,74	0,63	1
Family cohesion	5	0,42	0,62	0,72	0,68	1
Social resources	6	0,45	0,72	0,77	0,77	1

Table 4. Validation of Well-being at work constructs

Constructs	Items	AVE	CA	CR	KMO	Dim
Commitment and satisfaction	9	0,52	0,87	0,87	0,89	1
Work Involvement	4	0,47	0,63	0,71	0,64	1

Indices' correlation

Since the constructs of resilience and well-being at work are of the second order, it was necessary to use the two-step approach. The Exploratory Factor Analysis was used to create the indicators, and the Confirmatory Factor Analysis was used to create the indices and verify if there was any relation between them. Confirmatory factor analysis allows verifying the adjustments of the observed data to a proposed hypothetical model.
In this analysis, we put together all the indicators constructed for RSA and for IBET-13 to present the correlation between them, as shown in Table 5.

In adult resilience, all constructs had factor loadings (FL) higher than 0.50 except for social competence (0.47). In IBET-13, all the constructs presented factor loadings higher than 0.50. Confirmatory factorial analysis used Spearman correlation. The correlation between adult resilience index and well-being at work index was r=0.20 with a p-value = 0.096. This indicates that the correlation was significant at the 10% level, which confirms the hypothesis H1.

Thus, we can observe that these phenomena, within the group of investigated nursing technicians, there was a tendency that the greater is the resilience of the individuals, the greater is the well-being at the work.

Table 5. Confirmatory factor analysis for the indicators of resilience for adults and the inventory of well-being at work and the correlation between the indices

Constructs		F.L.	Com.	p-value
Resilience for Adults	Self-perception	0,76	0,58	0,000
	Planned future	0,55	0,31	0,000
	Social competence	0,47	0,22	0,000
	Structured style	0,60	0,36	0,000
	Family cohesion	0,77	0,59	0,000
	Social resources	0,71	0,5	0,000
Inventory of well-being at work	Commitment and satisfaction	0,82	0,67	0,000
	Work Involvement	0,70	0,48	0,000
Correlation between resilience for adults and well-being at work:			**r 0,20**	**0,096**

Descriptive goodness-of-fit

Table 6 shows the quality parameters of the model, which were: Chi-square, degrees of freedom, Chi-square/ degrees of freedom, comparative fit index (CFI), RMSEA, RMSEA interval, RMSEA p-value. CFI presented a value higher than 0.90 (0.93). RMSEA and its range were below the maximum limit of 0.10. The ratio between chi-square and degrees of freedom was less than 3. These parameters indicate a good model fit.

Table 6. Quality Parameters of the Model

Quality Parameters	Value
Chi-square	26,3
Degrees of freedom	19,0
Chi-square /Degrees of freedom	1,4
CFI	0,93
RMSEA	0,05
RMSEA interval	[0,00; 0,09]
RMSEA p-value	0,403

Indicators' correlation

Table 7 illustrates the Spearman's correlation between the indicators of the RSA and IBET-13 constructs. It was possible to verify that there is a positive correlation between the indicators of resilience and well-being at work. This correlation was found between self-perception and work involvement (r=0.20, p=0.024) and between social competence and work involvement (r=0.19, p=0.033). This means: the greater is the self-perception, the greater is the involvement with work and vice versa; the greater is the social competence, the greater is the involvement with work and vice versa, which confirms the hypothesis H2.

Table 7. Correlation RSA and IBET-13

Variables	Commitment and satisfaction		Work Involvement	
	r	p-value[1]	r	p-value[1]
Self-perception	0,16	0,070	0,20	**0,024**
Planned future	0,13	0,134	0,03	0,725
Social competence	0,16	0,072	0,19	**0,033**
Structured style	0,12	0,168	0,12	0,183
Family cohesion	0,15	0,096	0,10	0,270
Social resources	0,16	0,071	0,09	0,296

Spearman Correlation Test

Discussion of results

Figure 1 illustrates the proposed model after computing the results. The indices are represented by the rectangular objects and the indicators by the circular objects. The arrows contain the factor loadings. The double arrow shows the Spearman's correlation and p-value between the indices.
Research contributes to broadening the understanding of the construct well-being at work and demonstrated the relevance of resilience to organizations.

In relation to the verification of the hypotheses to answer the research problem defined Being that, the greater is the resilience, the greater is the well-being at work and vice versa, which confirms that there is positive correlation between the indices and indicators of resilience and well-being at work. This correlation occurred, specifically, among the indicators of self-perception and involvement with work and between the indicators social competence and involvement with work.

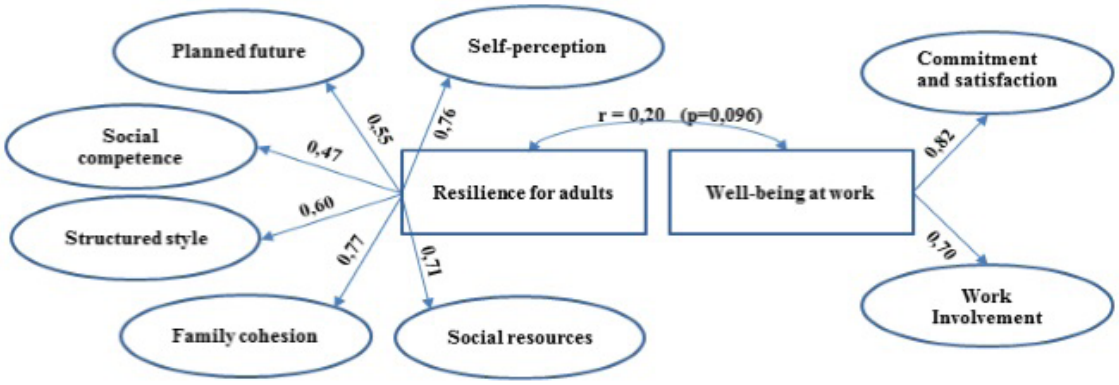

Figure 1. Illustration of the proposed model

The used instruments were shown to be potential tools for explaining the constructs in issues with work-related phenomena. All the information obtained through the correlational and descriptive study served to explain the influence of resilience on well-being at work and vice versa. The importance of the influence of the well-being at work components such as commitment and satisfaction, and work involvement are also influenced by personal and organizational factors (Rousseau, 1997). The results confirmed Siqueira & Padovam (2008) since there is affective relationship between the individual and the organization for positive emotional experiences (enthusiasm, pride, contentment, trust, support, and dedication).

The combined study of well-being at work and resilience with nursing technicians became relevant once the factors of the resilience scale for adult (RSA) describe attributes of the individuals that can facilitate well-being. The results showed, in general, that the factors of resilience significantly influence the well-being at work and reaffirmed the use of these instruments for organizational diagnoses, subsidizing the organizational decision making.

In light of the precepts of Positive Psychology and Social Psychology, it was perceived that there are variables that favor resilience and well-being at work in hospital environments. These variables are personal and daily on individuals' life.

Resilience was understood as an attribute that was not born with the subject nor acquired through development, but as an interactive process between the individual and her environment (Melillo et al., 2005). The charging for fast and efficient results on the workers results in an increasingly complex pressure and brings repercussions for the identity of the organizational subject. The importance of resilience at work lies in the fact that the more resilient is the individual, the better prepared she is for changes.

This work also suggests the importance of broadening the discussion on the application of planning and management of public policies for workers' health, prevention of occupational diseases. The work of the nursing technicians deserves to be highlighted, mainly, as regards the risk factors to which they are subjected.

FINAL CONSIDERATIONS

It is notable the current need to expand research in the area of social psychology to guide actions for the workers' health, among others, in organizations.

Both the RSA and the IBET-13 were shown to be reliable instruments of analysis to assist hospitals and organizations, in general, in management and decision-making with regard to aspects of health.

Table 8 illustrates the results of hypotheses H1 and H2 at the significance level of 5% and 10% and Table 9 demonstrates the statistical techniques used to reach these results.

The results found made it possible to understand the dimensions of well-being at work and resilience studies, assisting in the preparation of future validation studies in this area of research and also contributed to a better understanding of the aspects of the variables that are associated with the referred constructs.

In addition, studies show that well-being at work and resilience are potential constructs for opening new studies that seek to contribute to the understanding of the human being from its potentialities and integration into the social.

The research evidenced the importance of deepening the understanding of the positive and social factors that integrate the life of the people in the work, considering the centrality that this activity represents for the majority of the individuals, suggesting future work on the correlation of well-being at work with the resilience of the individuals in other areas.

One research's limitation was that it did not expand to the specific factors of care activity in nursing technicians.

Table 8. Summary of hypotheses verification

Hypothesis		Result	
		Level of 10%	Level of 5%
H_1	There is a positive correlation between the indices of resilience and well-being at work.	**Confirmed**	Not Confirmed
H_2	There is a positive correlation between the indicators of resilience and well-being at work.	**Confirmed**	**Confirmed**

Table 9. Techniques used to test hypotheses

Hypothesis	Technique	Description
H_1	Confirmatory Factor Analysis	Validation and Correlation of Constructs
H_2	Spearman Correlation	It measures the degree to which two variables are related

CONTRIBUIÇÕES DOS AUTORES

Abreu HD participou da concepção metodológica, delineamento de pesquisa, pesquisa bibliográfica, aplicação dos instrumentos de pesquisa, análise estatística dos dados obtidos, interpretação dos resultados, elaboração das conclusões, redação e encaminhamento do artigo científico. Rodríguez Blanco AJM participou da concepção metodológica, delineamento de pesquisa e avaliação das conclusões.

CONFLITOS DE INTERESSES

Nenhum conflito financeiro, legal ou político envolvendo terceiros (governo, empresas e fundações privadas, etc.) foi declarado para nenhum aspecto do trabalho submetido (incluindo mas não limitando-se a subvenções e financiamentos, conselho consultivo, desenho de estudo, preparação de manuscrito, análise estatística, etc).

REFERENCES

Albuquerque, A.S., & Tróccoli, B.T. (2004). Development of a subjective well-being scale [Desenvolvimento de uma escala de bem-estar subjetivo]. *Psicologia: Teoria e Pesquisa*, 20(2), 153-164. doi: 10.1590/S0102-37722004000200008

Basílio, M.A. (2005). *The relationships between well-being at work and participation in organizational health promotion programs. [As relações entre bem-estar no trabalho e participação em programas organizacionais de promoção da saúde]*. Dissertação de Mestrado, Universidade Metodista de São Paulo, São Paulo, Brasil.

Carvalho, V.D., Teodoro, M.L.M., & Borges, L.D.O. (2014). Resilience Scale for Adults: application among public servants [Escala de Resiliência para Adultos: aplicação entre servidores públicos]. *Avaliação Psicológica*, 13(2), 287-295.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2009). *Multivariate data analysis (Vol. 6)*. Upper Saddle River, NJ: Pearson Prentice Hall.

Hernandez, D.J. (2007). *Impacts of Organizational Health Perception on Well-Being at Work [Impactos da Percepção de Saúde Organizacional no bem-estar no Trabalho]*. Dissertação de Mestrado, Universidade Federal de Uberlândia, Minas Gerais, Brasil.

Hiew, C. (2001). *Stress and health: The letting go response*. In R. Roth & S. Neil (Eds.). A matter of Life: Psychological Theory, Research and Practice. Lengerich: Pabst Science Publishers.

Hjemdal, O., Friborg, O., Martinussen, M., & Rosenvinge, J.H. (2001). Preliminary results from the development and validation of a Norwegian scale for measuring adult resilience. *Journal of the Norwegian Psychological Association*, 38, 310-317.

Hjemdal, O., Roazzi, A., Dias, M. G. B. B., Roazzi, M., & Vikan, A. (2009). *Exploring the psychometric properties of the resilience scale for adults in a Brazilian sample*. Em D. Elizur, & E. Yaniv (Orgs.), Facet new horizons in theory construction and data analysis (120-138). Jerusalem: FTA.

Keyes, C.L.M., Shmotkin, D., & Ryff, C.D. (2002). Optimizing well being: the empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82(6), 1007-1022.

Masten, A.S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227-238.

Melillo, A., Estamatti, M., Cuestas, A. (2005). *Some psychological fundaments of the concept of resilience [Alguns fundamentos psicológicos do conceito de resiliência]*. In: A. Melillo & E. N. S. Ojeda (orgs.). Resilience: discovering your own fortress [Resiliência: descobrindo as próprias fortalezas] (pp. 59-72). Porto Alegre: Artmed.

Mingoti, S.A. (2007). Data analysis through multivariate statistical methods: an applied approach [Análise de dados através de métodos de estatística multivariada: uma abordagem aplicada], Editora: UFMG, 10.

Murcho, N.A.C., & Jesus, S.N. (2014). *Absenteeism at work [Absenteísmo no trabalho]*. In M. M. M. Siqueira (Org.). New measures of organizational behavior: diagnostic and management tools [Novas medidas do comportamento organizacional: ferramentas de diagnóstico e de gestão] (pp. 15-24). Porto Alegre: Artmed.

Placco, V.M.N. de S. (2002). Prefácio. In J. Tavares (Org.), *Resilience and Educacion [Resiliência e Educação]* (pp. 7-12). São Paulo: Cortez.

Polk, L.V. (1997). Toward a middle-range theory of resilience. *Advances in Nursing Science*, 19(3), 1-13.

Ryan, R.M., Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual review of psychology*, 52(1), 141-166. doi: 10.1146/annurev.psych.52.1.141

Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, 69(4), 719-727.

Rousseau, D.M. (1997). Organizational behavior in the new organizational era. *Annual Review of Psychology*, 48, 515-546.

Sanches, M.S. (2009). Sports practice as a potentially resilient activity [A prática esportiva como uma atividade potencialmente promotora de resiliência]. *Rev. Bras. Psicologia do Esporte*, 1(1).

Silva, M.R.S., Elsen, I., Lacharité, C. (2003). Resilience: Conceptions, associated factors and problems related to the construction of knowledge in the area. [Resiliência: Concepções, fatores associados e problemas relativos à construção do conhecimento na área]. *Paidéia*, 13(26), 147-156. doi: 10.1590/S0103-863X2003000300003

Siqueira, M.M.M., Padovam, V.A. (2008). Theoretical foundations of subjective well-being, psychological well-being and well-being at work [Bases teóricas de bem-estar subjetivo, bem-estar psicológico e bem-estar no trabalho]. *Psicologia: teoria e pesquisa*, 24(2), 201–209. doi: 10.1590/S0102-37722008000200010

Siqueira, M.M.M., Martins, M.C.F., Orengo, V., & Souza, W.S. (2014). *Engagement at work. [Engajamento no trabalho]*. In: M. M. M. Siqueira (Org.). New measures of organizational behavior: diagnostic and management tools [Novas medidas do comportamento organizacional: ferramentas de diagnóstico e de gestão]. Porto Alegre: Artmed.

Sternberg, R.J. (2000). *Cognitive Psychology [Psicologia cognitiva]*. Porto Alegre: Artmed.

Wagnhild, G., Young, H.M. (1990). Resilience among older women. *Journal of Nursing Scholarship*, 22(4), 252-255. doi: 10.1111/j.1547-5069.1990.tb00224.x

Zapf, D. (2002). Emotion work and psychological well-being: A review of the literature and some conceptual considerations. *Human resource management review*, 12(2), 237-268. doi: 10.1016/S1053-4822(02)00048-7