





Occupational Satisfaction of Physicians: The Impact of Demands and Resources

Michelle Morelo Pereira¹  <https://orcid.org/0000-0003-2437-2071>

Maria Cristina Ferreira¹  <https://orcid.org/0000-0003-0752-6710>

Felipe Valentini²  <https://orcid.org/0000-0002-0198-0958>

Abstract: According to the Work Demands and Resources Model, work demands exhaust workers while personal and work resources contribute to their growth. The present study aimed to identify the impact of a work resource (work-family enrichment) and a work demand (overload) on the occupational satisfaction of physicians, as well as the role of a personal resource (harmonious passion for work) as mediator of these relationships. A total of 284 Brazilian physicians participated in the study, of which 52.1% were females. The results of the structural equation modeling showed that work-family enrichment was positively related to occupational satisfaction, while overload was negatively related to this variable. Both relationships were partially mediated by passion for work. It was concluded that the identification and strengthening of the feelings of passion for work of physicians can contribute to the improvement of their occupational well-being, and, consequently, that of their families and customers.

Keywords: job satisfaction, positive psychology, physicians

Satisfação Laboral dos Médicos: O Impacto de Demandas e Recursos

Resumo: O Modelo de Demandas e Recursos do Trabalho preconiza que as demandas do trabalho exaurem o trabalhador enquanto os recursos pessoais e do trabalho contribuem para seu crescimento. O presente estudo teve como objetivo identificar o impacto de um recurso do trabalho (enriquecimento trabalho-família) e de uma demanda (sobrecarga) sobre a satisfação laboral dos médicos, bem como o papel mediador de um recurso pessoal (paixão harmoniosa pelo trabalho) nessas relações. Participaram do estudo 284 médicos brasileiros, sendo 52,1% do sexo feminino. Os resultados da modelagem de equações estruturais apontaram que o enriquecimento trabalho-família relacionou-se positivamente à satisfação laboral, enquanto a sobrecarga relacionou-se negativamente com tal variável. Ambas as relações foram parcialmente mediadas pela paixão pelo trabalho. Concluiu-se que a identificação e o fortalecimento do sentimento de paixão pelo trabalho dos médicos pode contribuir para a melhoria de seu bem-estar laboral e, em consequência, o de seus familiares e clientes.

Palavras-chave: satisfação no trabalho, psicologia positiva, médicos

Satisfacción Laboral de Médicos: El Impacto de Demandas y Recursos

Resumen: El Modelo de Demandas y Recursos Laborales apunta que las demandas del trabajo agotan al trabajador, mientras que los recursos personales y del trabajo contribuyen a su crecimiento. El presente estudio tuvo como objetivo identificar el impacto de un recurso del trabajo (enriquecimiento trabajo-familia) y de una demanda (sobrecarga) sobre la satisfacción laboral de los médicos, así como el papel mediador de un recurso personal (pasión armoniosa por el trabajo) en estas relaciones. En el estudio participaron 284 médicos brasileños, siendo el 52,1% del sexo femenino. Los resultados del modelado de ecuaciones estructurales apuntan que el enriquecimiento trabajo-familia se asoció positivamente con la satisfacción laboral, mientras que la sobrecarga se relacionó negativamente con dicha variable. Ambas relaciones se mediaron parcialmente mediante la pasión por el trabajo. Se concluyó que identificar y fortalecer el sentimiento de la pasión por el trabajo de los médicos puede contribuir a mejorar su bienestar laboral y, en consecuencia, el de sus familiares y clientes.

Palabras clave: satisfacción laboral, psicología positiva, médicos

¹ Universidade Salgado de Oliveira, Niterói-RJ, Brazil

² Universidade São Francisco, Campinas-SP, Brazil

Article derived from the master's dissertation of the first author, under the supervision of the second, defended in 2016, in the Graduate Program in Psychology of Universidade Salgado de Oliveira. Support: Coordination for the Improvement of Higher Education Personnel (CAPES).

Correspondence address: Michelle Morelo Pereira. Universidade Salgado de Oliveira. Rua Marechal Deodoro, 211, 2º andar, Niterói-RJ, Brazil. CEP 24.030-060. E-mail: mi_morelo@hotmail.com

Physicians are the professionals with greatest responsibility for the processes associated with health care (Machado, 1997), medicine being one of the professions with the highest number of individuals satisfied with their job (Carneiro & Gouveia, 2004). However, unfavorable working conditions characterized by low pay, retraining, excess liability, frequent contact with death (Machado, 1997), bureaucracy, financial and legal issues and the growing

complexity of diagnosis and treatment have been reversed in a growing increase in the levels of stress among physicians, which may cause them to become ill (Amanullah, McNally, Zelin, Cole, & Cernovsky, 2017) and jeopardize the quality of the care provided by them as well as the safety of their patients, due to the greater probability of occurrence of medical errors (Tsiga, Panagopoulou, & Montgomery, 2017). Thus, different studies point to a high incidence of personal suffering and damage to the mental health of physicians from various areas of practice (Dias, 2015), which may affect their occupational satisfaction.

Despite the importance of the occupational satisfaction of physicians for society in general, the studies about this subject are still incipient, both in Brazil and abroad (Durval Neto, 2013; Gouveia, Barbosa, Andrade, & Carneiro, 2005; Schaufeli, Bakker, van der Heijden, & Prins, 2009), despite the high relevance of the activities performed by this professional category. Based on these considerations, the present study discusses the impact of a work resource (work-family enrichment) and a demand (overload) on the well-being of physicians, based on its relationship with occupational satisfaction. In addition, it tries to identify the role played by a personal factor (harmonious passion for work) as mediator of these relationships.

Occupational well-being can be defined as a positive assessment of the various dimensions inherent to the workplace, including the affective, motivational, cognitive, behavioral and psychosomatic dimensions (Van Horn, Taris, Schaufeli, & Schreurs, 2004). However, the authors emphasize that the central dimension of well-being is expressed by the workers' emotional and affective state (affective dimension).

According to the Work Demands and Resources Model (Bakker & Demerouti, 2014; Schaufeli & Taris, 2014), occupational well-being suffers the influence of two parallel processes arising from work demands (physical, social or organizational aspects that require some sort of physical and/or psychological stress) and resources (physical, social, organizational aspects, or those contributing to the reduction of demands and promotion of growth and personal development). The process triggered by work demands concerns a state of negative energy, which physically exhausts the individual and deteriorates his/her well-being. The process triggered by work resources is characterized, however, as a motivational process, which leads the individual to grow and achieve his/her work goals, contributing to the improvement in his/her occupational well-being (Bakker & Demerouti, 2014).

The model also proposes that individual resources interfere with well-being, allowing the individual to control his/her own success and the impact of individual sensations on the work environment. For this reason, these individual resources also positively affect the individual's physical and emotional well-being (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007), in addition to working as moderators or mediators of the relations between environmental/organizational factors and occupational outcomes.

In the present work, the work resource adopted was work-family enrichment, which relates to the degree to which experiencing a role (work, for example) improves quality of life and the individual's performance in another role (family, for example) (Greenhaus & Powell, 2006). According to the Work-Family Enrichment Model developed by the authors, resources and expertise generated in a particular role (role A) and used by the individual to overcome problems or challenging situations can promote positive effects in another role (role B), as well as improve performance. These effects occur due to the operation of two different mechanisms that transfer one role's positive experiences to the other, in a bidirectional relationship. In this sense, the resources derived from work may facilitate the quality of life and the performance of the individual in the family, while the resources derived from the family can facilitate the individual's quality of life and performance at work (Greenhaus & Powell, 2006).

In an attempt to deepen the understanding of the effects of work-family enrichment on the results associated with work, McNall, Nicklin and Masuda (2010) adopted the social exchange theory (Blau, 1964). According to the authors, when employees notice that their organization gives them a favorable treatment, they tend to reciprocate with more positive behaviors and attitudes towards work.

Work-family enrichment is thus a process intrinsic to work that generates positive results associated not only with family (Greenhaus & Powell, 2006), but also with work itself (McNall et al., 2010). Therefore, it can be seen as a work resource, as it facilitates the achievement of work goals (Bakker & Demerouti, 2014) and consequently leads employees to repay their organization with positive attitudes (McNall et al., 2010), as is the case of occupational satisfaction (Tang, 2010). In this sense, the meta-analysis conducted by McNall et al. (2010) concluded that work-family enrichment was positively associated with occupational satisfaction. Further research also attested to the existence of positive correlations between work-family enrichment and life satisfaction (Gabardo-Martins, Ferreira, & Valentini, 2016), subjective well-being (Jaga, Bagraim, & Williams, 2013) and occupational satisfaction (Fung, Ahmad, & Omar, 2014). Thus, based on the Work-Family Enrichment Model (Greenhaus & Powell, 2006), the Work Demands and Resources Model (Bakker & Demerouti, 2014) and the Social Exchanges Theory (Blau, 1964), as well as on the empirical findings about the relations between work-family enrichment and occupational satisfaction, and seeking to extend these findings to the professional category of physicians, it was hypothesized that work-family enrichment is positively associated with the occupational satisfaction of physicians (H1).

In the context of the Work Demands and Resources Model (Bakker & Demerouti, 2014), work overload, which relates to the individual's subjective perception about the excess of tasks carries out by him/her in quantitative and qualitative terms (Bowling & Kirkendall, 2012), is considered a work demand for generating negative

sensations that contribute to stress and that, therefore, hinder the individual's occupational well-being (Bowling & Kirkendall, 2012). In this sense, it has shown positive correlations with the dimensions of cynicism and burnout (Cotter & Fouad, 2013) and negative affections (Gallagher & Meurs, 2015), as well as negative correlations with engagement (Cotter & Fouad, 2013), occupational satisfaction (Gallagher & Meurs, 2015) and positive affections directed at work (Gallagher & Meurs, 2015).

Similar results were also observed in a meta-analysis that was recently conducted by Bowling, Alarcon, Bragg and Hartman (2015), which showed that work overload is negatively correlated with affective organizational commitment and well-being, and positively correlated with social support, the intention to leave and absenteeism in the workplace. Based on these studies and on the Work Demands and Resources Model (Bakker & Demerouti, 2014), it was thus hypothesized that work overload negatively predicts the occupational satisfaction of physicians (H2).

In the present investigation, passion for work was adopted as the antecedent of occupational well-being and as mediator of the previously hypothesized relationships. According to the Dualistic Model of Passion, this construct can be defined as a desire or force of the individual directed to a job he/she enjoys doing and believes to be important, investing time and energy in its performance (Vallerand et al., 2003). This model classifies passion into two dimensions: harmonious passion and obsessive passion. Both dimensions reflect a strong desire to engage in occupational activities, but this wish may (harmonious passion) or may not (obsessive passion) be under the individual's control. In this study, only harmonious passion was studied, due to the fact it leads to an autonomous internalization of the activity in the person's identity, that is, the individual freely accepts the activity he/she regards as important, without any contingencies linked to it (Vallerand et al., 2003). Work becomes, therefore, part of an integrated self-structure, that is, it starts occupying a significant space in the individual's life, but does not come into conflict with other aspects of his/her life (Vallerand et al., 2003).

According to the Work Demands and Resources Model (Bakker & Demerouti, 2014), passion for work can be thus seen as a personal resource, being characterized as an attribute of the individual him/herself, which allows him/her to develop the ability to successfully control the impact of his/her feelings on the environment (Hobfoll, Johnson, Ennis, & Jackson, 2003). It tends, therefore, to facilitate occupational satisfaction.

Corroborating this, empirical studies have evidenced that harmonious passion has significant positive correlations with occupational satisfaction (Houliort, Philippe, Vallerand, & Ménard, 2013), occupational well-being (Forest et al., 2012), occupational engagement (Trépanier, Fernet, Austin, Forest, & Vallerand, 2014) and positive affects directed to work (Philippe, Vallerand, Houliort, Lavigne, & Donahue, 2010). On the other hand, weak and negative correlations have been

observed between harmonious passion and negative affects and burnout (Vallerand et al., 2003). Therefore, based on these findings, the Dualistic Model of Passion (Vallerand et al., 2003) and the Work Demands and Resources Model (Bakker & Demerouti, 2014), seeking to extend these relationships to the professional category of physicians, it was hypothesized that harmonious passion positively predicts their occupational satisfaction (H3).

According to the Work Demands and Resources Model (Bakker & Demerouti, 2014), personal resources not only act directly on occupational well-being, but also as mediators of the relationship between organizational factors and occupational outcomes. This process occurs because the perception of people about their environment depends not only on it, but also on their personal resources, insofar as these resources are cultivated by environmental factors (Bandura, 2000). Thus, personal resources tend to interfere with the way in which people understand, reformulate and react to their occupational environment (Judge, Bono, & Locke, 2000).

In this sense, harmonious passion has shown positive correlations with work-family enrichment (Houliort, Philippe, Bourdeau, & Leduc, 2018). In addition, negative relations have been observed between harmonious passion and work overload (Thorgren & Wincent, 2013), demonstrating that the personal resource in question can also be influenced by work overload.

Additionally, Trépanier et al. (2014), in a recent study, found that harmonious passion worked as a partial mediator of the relationships of work demands and capabilities with burnout and occupational engagement, showing positive correlations with work resources and negative correlations with work demands. In other words, it is possible that work resources facilitate autonomous internalization, leading individuals to channel their energy to perform their tasks more efficiently, which would bring them greater occupational satisfaction. Work demands, on the contrary, would hamper this internalization and consequently, the efficient channeling of their energy (Trépanier et al., 2014). In summary, harmonious passion can be characterized as a mediator of the relationship between work resources and demands and positive outcomes in relation to the individual and the organization. Based on these assumptions, it was hypothesized that harmonious passion mediates the relationship between work-family enrichment and the occupational satisfaction of physicians (H4); and that harmonious passion mediates the relationship between work overload and the occupational satisfaction of physicians (H5).

To test these hypotheses, the present work, referencing the Dualistic Model of Passion (Vallerand et al., 2003) and the Work Demands and Resources Model (Bakker & Demerouti, 2014), aimed to identify the impact of a work resource (work-family enrichment) and a work demand (overload) on the job satisfaction of physicians, as well as the mediating role of a personal resource (harmonious passion for work) in these relationships.

Method

Participants

The sample was composed by 284 doctors of all Brazilian regions, with the majority (72.5%) however being concentrated in the state of Rio de Janeiro. The participants were of both sexes (52.1% female), aged between 24 and 69 years old ($M = 36.34$; $SD = 10.55$), the majority being composed of single individuals (51.4%). Their time in the current job ranged from 1 to 42 years ($M = 8.19$ years; $DP = 9.12$) and the total working time, from 1 to 42 years ($M = 11.53$ years; $DP = 10.73$). The weekly workload of the participants ranged from 8 to 100 weekly hours ($M = 59.85$; $DP = 23.00$), and all of them were public employees, working or not also in private companies or clinics. With regard to medical specialties, the most frequent were: surgery (13%), internal medicine (10%), pediatrics (9%), orthopedics (8.5%), gynecology (7%), general practice (6%), ophthalmology (4.6%) and urology (1.8%). As a criterion for inclusion in the sample, the physicians had to be working in the area for at least one year. Although some previous studies (Wan Rashid, Nordin, Omar, & Ismail, 2011) on work-family enrichment used samples composed only of married women with children, some authors (Fung et al., 2014) suggest that this is a minimalist view of the concept of family. Based on these authors, the study did not restrict the sample in relation to gender and marital status, although it used them as control.

Instruments

Work-Family Enrichment Scale: the scale was developed by Carlson, Grzywacz and Kacmar (2010) and adapted to Brazilian samples by Gabardo-Martins et al. (2016). It consists of two dimensions (work-family enrichment and family-work enrichment), only the former having been used in the present work, with five items (e.g.: “My involvement with my work makes me cheerful and this helps me being a better member of my family”), to be answered in five-point Likert scales, ranging from strongly disagree (1) to strongly agree (5). In the version by Gabardo-Malik et al. (2016), this dimension showed internal consistency indexes (Cronbach’s alpha) equal to 0.90 and, in the current research, to 0.89.

Passion for Work Scale: the scale was devised by Vallerand and Houlfort (2003), having been validated and adapted to Brazilian samples (Pereira, Ferreira, & Valentini, 2018). It consists of seven items (e.g.: “My work reflects the qualities that I like in myself”), to be answered in seven-point Likert scales, ranging from totally disagree (1) to totally agree (7). The scale showed internal consistency equal to 0.90, in its validation study, and equal to 0.71, in the current research.

Overload Inventory: the instrument was devised by Spector and Jex (1998), and adapted to Brazilian Portuguese for the purposes of this study. It is composed of five items, to be answered in five-point Likert-type scales, ranging from never (1) to several times a day (5). E.g.: “How often do

you find that you have a lot on your plate?” The internal consistency of this dimension, in the original study, was 0.81 and, in the present study, it was equal to 0.87.

Scale of Overall Occupational Satisfaction: the instrument, devised by Silva (2008), is based on a single factor and consists of five items, to be answered in five-point Likert-type scales, ranging from strongly disagree (1) to strongly agree (5). E.g.: “I feel satisfied with my current job.” In the original validation study, the aforementioned instrument obtained an internal consistency index equal to 0.80, while in this study, this index was 0.87.

Procedures

Data collection. The collection was performed using printed (65.8%) and online (34.2%) versions of the instruments. In the online application, the physicians were contacted via phone, email and social network (Facebook). In the written application, authorization was obtained from the board of five hospitals in the state of Rio de Janeiro to obtain access to the physicians for the individual collection of data. In both modalities, the informed consent form was given to and signed by the participants. They all participated voluntarily, and no kind of reward was offered for participation in the study.

Data analysis. To verify the discriminant validity of the variables included in the study, the Mean Extracted Variances (MEV), which must be less than the squared correlations of each one of them and show a value equal to or greater than 0.50, were estimated for the model’s adjustment (Fornell & Larcker, 1981). Then, the hypothetical model was tested in the context of the Structural Equations Modeling, using the MPLUS software version 6.12. The parameters were estimated based on the the weighted least squares mean and variance adjusted (WLSMV). To evaluate the adjustment of the model to the data, the following indicators were considered: Chi-square, RMSEA, CFI and TLI (Byrne, 2012). Values below 0.08 for RMSEA and greater than 0.95 for CFI and TLI were considered as good indexes (Byrne, 2012). The indirect effects of the mediation analyses were tested via 500 bootstrapping.

Ethical Considerations

The research was initially submitted to the Research Ethics Committee of Universidade Salgado de Oliveira and approved under number 1.178.162.

Results

The correlations between the model’s variables, the squares of these correlations (or determination coefficients) and the MEVs were estimated. The results showed that the MEVs of the variables were lower than their squared correlations, except for the harmonious passion and

occupational satisfaction variables, between which the evidence of discriminant validity is only weak.

In the analysis of the study's hypotheses, the model of direct effects of work overload, work-family enrichment and passion for work on occupational satisfaction was tested, with the control of sex, marital status, current working time and total working time over the study's other variables. The results of the direct effects indicated that all of them were significant, thus confirming hypotheses 1, 2 and 3 (work-family enrichment and occupational satisfaction: $Beta = 0.48$; $p < 0.001$; overload and occupational satisfaction: $Beta = -0.15$; $p < 0.01$; harmonious passion and occupational satisfaction: $Beta = 0.35$; $p < 0.01$).

Regarding the mediation tests, the simultaneous insertion of both independent variables (enrichment and overload) in the model supported the inversion of the valence of the direct effect between overload and occupational satisfaction. This inversion of effect is probably associated with a suppression phenomenon caused by the slight collinearity between overload and occupational satisfaction. To solve the problem, separate mediation tests were conducted for variables overload and enrichment (i.e., one mediation test for each explanatory variable). The direct effect between work-family enrichment and satisfaction was equal to 0.93 ($p < 0.01$). After the insertion of mediating variable harmonious passion, this direct effect was reduced to 0.63 ($p < 0.01$), and

the indirect effect was equal to 0.31 ($p < 0.01$). These results indicated that harmonious passion mediated about 33% of the effect between enrichment and satisfaction. With regard to overload, its direct effect on satisfaction was equal to -0.37 ($p < 0.01$). This effect was reduced to -0.17 ($p < 0.01$) after the insertion of the passion variable in the model, and the direct effect was equal to -0.20 ($p < 0.01$). These results indicated that harmonious passion mediated about 54% of the effect between overload and satisfaction. Therefore, both models showed partial mediation, confirming hypotheses four and five. A negative correlation which was not predicted by the hypotheses was also noted, between overload and work-family enrichment ($r = -0.20$, $p < 0.05$).

It should be noted that the aforementioned coefficients are not standardized and therefore cannot be compared with each other. To improve the interpretation of the effects between variables, a model in which all relationships were simultaneously estimated was analyzed. Figure 1 presents the standardized coefficients of this model, the indicators of which showed proper adjustment: $\chi^2 = 560.79$ (183); CFI = 0.96; TLI = 0.95 e RMSEA = 0.085. It should be noted that the effect of enrichment on satisfaction is greater than that of overload (for both direct and indirect effects). This result may suggest that positive occupational aspects contribute more to satisfaction than the simple removal of the negative aspects.

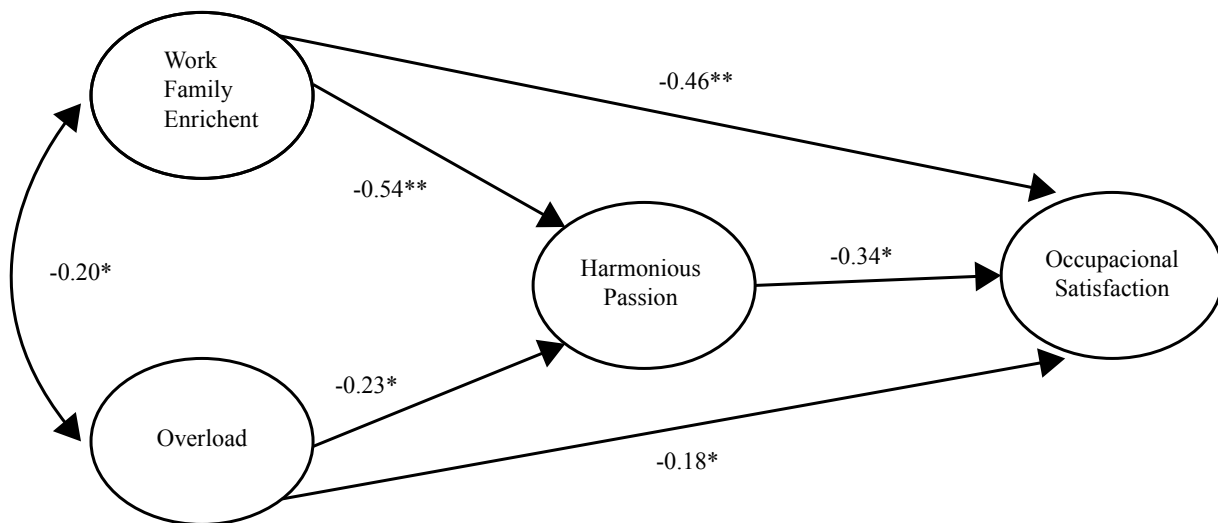


Figure 1. Model of harmonious passion as mediator of the relationships between work-family enrichment and overload with occupational satisfaction, with their respective effects. * $p < 0.01$, ** $p < 0.001$.

Discussion

The goal of this study was to verify the impact of a work resource (work-family enrichment) and a demand (overload) on the well-being of physicians, based on its relationship with occupational satisfaction. In addition, it tried to identify the role played by a personal factor (harmonious passion for work) as mediator of these relationships. The results obtained

in the structural equation modeling showed that work-family enrichment positively explained occupational satisfaction, thus confirming hypothesis 1.

It was found that the higher the levels of work-family enrichment, the greater the physicians' occupational satisfaction, i.e., when these professionals realize their job facilitates their family performance, they tend to develop more positive responses, feeling more satisfied. These

findings corroborate previous ones which also showed that work-family enrichment is positively related to occupational satisfaction (Fung et al., 2014). In addition, they support Greenhaus and Powell's theory (2006), which defends the existence of the transference of positive experiences from work to family. They also support Blau's Social Exchange Theory (1964), according to which if the individual realizes that his/her organization offers him/her pleasant work experiences and the establishment of interpersonal bonds that contribute to him/her being a better member of his/her family, for example, s/he tends to repay it with more positive attitudes directed to his/her job, thus demonstrating greater occupational satisfaction. In other words, the individuals tend to maintain social relations of exchange, where they reciprocate positively when they receive benefits regarded by them as fair and valuable (Blau, 1964).

Hypothesis 2, according to which excessive workload would negatively predict occupational satisfaction, was also confirmed. It was thus observed that the higher the workload levels, the lower the physicians' occupational satisfaction. These results confirm data obtained in other investigations (Bowling et al., 2015; Gallagher & Meurs, 2015), which also showed that work overload negatively predicts occupational satisfaction. According to Wallace and Lemaire (2009), workload is one of the most stressful aspects of medical work and stems from several factors, including the excessive number of patients, lack of the time needed to ensure a better quality of care, pressure to meet deadlines, high number of working hours, conflicts between the organization's and the patients' needs, and lack of autonomy to manage these demands. This context would thus explain the lower occupational satisfaction observed among physicians subjected to greater overload. The results obtained also support the Work Demands and Resources Model (Bakker & Demerouti, 2014), showing that work demands such as overload can generate negative feelings in the individual that diminish his/her occupational satisfaction (Bowling & Kirkendall, 2012).

Hypothesis 3, according to which harmonious passion would predict occupational satisfaction, was also confirmed. It was shown that physicians who have more rewarding experiences in their workplace and who are passionate about it tend to feel more satisfied. These findings corroborate a previous study which also found a positive relationship between harmonious passion and occupational satisfaction (Houfourt et al., 2013). According to the Dualistic Model of Passion (Vallerand et al., 2003), when an individual develops harmonious passion for his/her work, it starts to occupy a significant space in his/her life, not coming into conflict with other aspects of it, leading him/her to experience greater positive sensations in relation to his/her work, as is the case, for example, of greater occupational satisfaction.

It was also shown that passion for work partially mediated the relationship between work-family enrichment and occupational satisfaction, as well as the relationship between work overload and occupational satisfaction,

which partially confirmed hypotheses four and five. In this sense, higher levels of occupational satisfaction were found in individuals with higher enrichment scores and lower overload scores. In addition to these effects, however, it was found that harmonious passion for work explains part of these relationships. In other words, part of the effects of work-family enrichment and overload on satisfaction promote harmonious passion, consequently increasing occupational satisfaction. These results corroborate those found by Trépanier et al. (2014), where harmonious passion served as mediator of the relationship between work resources and demands with occupational engagement.

Finally, a negative correlation which was not predicted by the hypotheses was also noted, between work overload and work-family enrichment. Considering that work overload is a demand, that is, a stressor, while work-family enrichment is characterized as a work resource (Tement & Korunka, 2015), a negative relationship between these constructs would naturally be expected, as indeed occurred. These findings corroborate those of recent studies with Italian health professionals (Ghislieri, Gatti, Molino, & Cortese, 2017), where it was also observed that work overload negatively influences the work-family relationship.

The results obtained allow some suggestions about the implementation of intervention strategies that can improve the occupational satisfaction of physicians, and that should occur at the individual and institutional plans (Brower, 2017). At the individual plan, programs designed to develop the physicians' skills of minimizing their work demands (such as work overload, for example) and maximizing the resources available (such as good family relationships, for example) may be useful to increase their occupational satisfaction. At the institutional level, the adoption of organizational policies involving physicians in decision-making processes, especially with respect to greater autonomy in the management of their work processes (as in the case of the overload they usually experience), may also prove useful. Organizations could also identify and strengthen the physicians' feeling of harmonious passion for work, since professionals who are more passionate about what they do generally have greater occupational satisfaction. To perform these interventions, the creation of Continued Medical Education Centers aimed at improving the physicians' well-being is suggested (Amanullah et al., 2017).

This study has some limitations, such as the cross-sectional nature of the research, which makes it impossible to establish causal relationships between the variables. Therefore, in the future, longitudinal studies could contribute to a deeper understanding of the causal relationships between the variables of the tested model. Another limitation refers to difficulties in generalizing the results, since the sample had a non-probability in nature, and was mostly originated from a single state, namely, Rio de Janeiro. Therefore, it would be interesting to conduct future studies on this topic in other Brazilian regions.

Despite these limitations, the evidence shown by this study may support a model that had not been tested previously. In addition, it contributes to the extension of the nomological

network of occupational satisfaction, particularly with regard to the direct and mediating role of harmonious passion in this process, in the category of physicians, which is vital for the health versus disease binomial, and that has not been sufficiently investigated.

References

- Amanullah, S., McNally, K., Zelin, J., Cole, J., & Cernovsky, Z. (2017). Are burnout prevention programs for hospital physicians needed? *Asian Journal of Psychiatry*, *26*, 66-69. doi:10.1016/j.ajp.2017.01.009
- Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen, & C. L. Cooper (Eds.), *Wellbeing: A complete reference guide* (Vol. 3, pp. 37-64). Chichester, United Kingdom: Wiley-Blackwell.
- Bandura, A. (2000). Cultivate self-efficacy for personal and organizational effectiveness. In E. A. Locke (Ed.), *Handbook of principles of organizational behavior* (pp. 120-136). Oxford, United Kingdom: Blackwell.
- Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Bowling, N. A., Alarcon, G. M., Bragg, C. B., & Hartman, M. J. (2015). A meta-analytic examination of the potential correlates and consequences of workload. *Work & Stress*, *29*(2), 95-113. doi:10.1080/02678373.2015.1033037
- Bowling, N. A., & Kirkendall, C. (2012). Workload: A review of causes, consequences, and potential interventions. In J. Houdmont, S. Leka, & R. R. Sinclair (Eds.), *Contemporary occupational health psychology: Global perspectives on research and practice* (Vol. 2, pp. 221-238). Chichester, United Kingdom: Wiley-Blackwell.
- Brower, K. J. (2017). Organization-level interventions to promote physician health and well-being: From taking care of physicians to giving care to patients. In K. J. Brower, & M. B. Riba (Eds.), *Physician mental health and well-being: Research and practice* (pp. 295-323). Cham, Switzerland: Springer. doi:10.1007/978-3-319-55583-6_13
- Byrne, B. M. (2012). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. New York, NY: Taylor and Francis.
- Carlson, D., Grzywacz, J. G., & Kacmar, K. M. (2010). The relationship of schedule flexibility and outcomes via the work-family interface. *Journal of Managerial Psychology*, *25*(4), 330-355. doi:10.1108/02683941011035278
- Carneiro, M. B., & Gouveia, V. V. (Coords.). (2004). *O médico e o seu trabalho: Aspectos metodológicos e resultados do Brasil* [The physician and his work: Methodological aspects and Brazilian results]. Brasília, DF: Conselho Federal de Medicina.
- Cotter, E. W., & Fouad, N. A. (2013). Examining burnout and engagement in layoff survivors: The role of personal strengths. *Journal of Career Development*, *40*(5), 424-444. doi:10.1177/0894845312466957
- Dias, E. C. (2015). Condições de trabalho e saúde dos médicos: Uma questão negligenciada e um desafio para a Associação Nacional de Medicina do Trabalho [Working conditions and health of physicians: A neglected issue and a challenge for the Brazilian National Association of Occupational Medicine]. *Revista Brasileira de Medicina do Trabalho*, *13*(2), 60-68. Retrieved from <http://files.bvs.br/upload/S/1679-4435/2015/v13n2/a5229.pdf>
- Duval Neto, G. F. (Ed.). (2013). *Bem-estar ocupacional em anesthesiologia* [Occupational well-being in anesthesiology]. Brasília, DF: Sociedade Brasileira de Anesthesiologia.
- Forest, J., Mageau, G. A., Crevier-Braud, L., Bergeron, É., Dubreuil, P., & Lavigne, G. L. (2012). Harmonious passion as an explanation of the relation between signature strengths' use and well-being at work: Test of an intervention program. *Human Relations*, *65*(9), 1233-1252. doi:10.1177/0018726711433134
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50. doi:10.2307/3151312
- Fung, N. S., Ahmad, A., & Omar, Z. (2014). Role of work-family enrichment in improving job satisfaction. *American Journal of Applied Sciences*, *11*(1), 96-104. doi:10.3844/ajassp.2014.96.104
- Gabardo-Martins, L. M. D., Ferreira, M. C., & Valentini, F. (2016). Evidências de validade da escala de enriquecimento trabalho-família em amostras brasileiras [Evidences of validity of the scale of work-family enrichment in Brazilian samples]. *Revista Psicologia: Teoria e Prática*, *18*(1), 100-112. doi:10.15348/1980-6906/psicologia.v18n1p100-112
- Gallagher, V. C., & Meurs, J. A. (2015). Positive affectivity under work overload: Evidence of differential outcomes. *Canadian Journal of Administrative Sciences*, *32*(1), 4-14. doi:10.1002/CJAS.1309
- Ghislieri, C., Gatti, P., Molino, M., & Cortese, C. G. (2017). Work-family conflict and enrichment in nurses: Between job demands, perceived organisational support and work-family backlash. *Journal of Nursing Management*, *25*(1), 65-75. doi:10.1111/jonm.12442
- Gouveia, V. V., Barbosa, G. A., Andrade, E. O., & Carneiro, M. B. (2005). Medindo a satisfação com a vida dos médicos no Brasil [Measuring life satisfaction among physicians in Brazil]. *Jornal Brasileiro de Psiquiatria*, *54*(4), 298-305. Retrieved from https://www.researchgate.net/publication/279194945_Medindo_a_satisfacao_com_a_vida_dos_medicos_no_Brasil

- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31(1), 72-92. doi:10.5465/AMR.2006.19379625
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632-643. doi:10.1037/0022-3514.84.3.632
- Houliort, N., Philippe, F. L., Bourdeau, S., & Leduc, C. (2018). A comprehensive understanding of the relationships between passion for work and work-family conflict and the consequences for psychological distress. *International Journal of Stress Management*, 25(4), 313-329. doi:10.1037/str0000068
- Houliort, N., Philippe, F. L., Vallerand, R. J., & Ménard, J. (2013). On passion and heavy work investment: Personal and organizational outcomes. *Journal of Managerial Psychology*, 29(1), 25-45. doi:10.1108/JMP-06-2013-0155
- Jaga, A., Bagraim, J., & Williams, Z. (2013). Work family enrichment and psychological health. *South African Journal of Industrial Psychology*, 39(2), 1-10. doi:10.4102/sajip.v39i2.1143
- Judge, T. A., Bono, J. E., & Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85(2), 237-249. doi:10.1037/0021-9010.85.2.237
- Machado, M. H. (Ed.). (1997). *Os médicos no Brasil: Um retrato da realidade* [Physicians in Brazil: A portrait of reality]. Rio de Janeiro, RJ: Editora Fiocruz.
- McNall, L. A., Nicklin, J. M., & Masuda, A. D. (2010). A meta-analytic review of the consequences associated with work-family enrichment. *Journal of Business and Psychology*, 25(3), 381-396. doi:10.1007/S10869-009-9141-1
- Pereira, M. M., Ferreira, M. C., & Valentini, F. (2018). Evidências de validade da escala de paixão pelo trabalho em amostras brasileiras [Validity evidences of passion towards work scale in Brazilian samples]. *Psico-USF*, 23(1), 151-162. doi:10.1590/1413-82712018230113
- Philippe, F. L., Vallerand, R. J., Houliort, N., Lavigne, G. L., & Donahue, E. G. (2010). Passion for an activity and quality of interpersonal relationships: The mediating role of emotions. *Journal of Personality and Social Psychology*, 98(6), 917-932. doi:10.1037/a0018017
- Schaufeli, W. B., Bakker, A. B., van der Heijden, F. M. M. A., & Prins, J. T. (2009). Workaholism, burnout and well-being among junior doctors: The mediating role of role conflict. *Work & Stress*, 23(2), 155-172. doi:10.1080/02678370902834021
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging occupational, organizational and public health: A transdisciplinary approach* (pp. 43-68). Dordrecht, The Netherlands: Springer.
- Silva, A. P. C. (2008). *Estressores ambientais, natureza do contrato de trabalho e reações psicológicas ao estresse* [Environmental stressors, work contract nature, and psychological reactions to stress] (Master's thesis). Universidade Salgado de Oliveira, Niterói, RJ. Retrieved from <http://livros01.livrosgratis.com.br/cp106154.pdf>
- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology*, 3(4), 356-367. doi:10.1037/1076-8998.3.4.356
- Tang, S. (2010). *Work support, work-family enrichment, work demand and work well-being among Chinese employees: A study of mediating and moderating processes* (Master's thesis). Lingnan University, Hong Kong, China. Retrieved from http://commons.ln.edu.hk/soc_etd/28/
- Tement, S., & Korunka, C. (2015). The moderating impact of types of caregiving on job demands, resources, and their relation to work-to-family conflict and enrichment. *Journal of Family Issues*, 36(1), 31-55. doi:10.1177/0192513X13483971
- Thorgren, S., & Wincent, J. (2013). Passion and role opportunity search: Interfering effects of conflicts and overloads. *International Journal of Stress Management*, 20(1), 20-36. doi:10.1037/a0031457
- Trépanier, S. G., Fernet, C., Austin, S., Forest, J., & Vallerand, R. J. (2014). Linking job demands and resources to burnout and work engagement: Does passion underlie these differential relationships? *Motivation and Emotion*, 38(3), 353-366. doi:10.1007/s11031-013-9384-z
- Tsiga, E., Panagopoulou, E., & Montgomery, A. (2017). Examining the link between burnout and medical error: A checklist approach. *Burnout Research*, 6, 1-8. doi:10.1016/j.burn.2017.02.002
- Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, F., Léonard, M., . . . Marsolais, J. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85(4), 756-767. doi:10.1037/0022-3514.85.4.756
- Vallerand, R. J., & Houliort, N. (2003). Passion at work: Toward a new conceptualization. In S. W. Gilliland, D. D. Steiner, & D. P. Skarlicki (Eds.), *Emerging perspectives on values in organizations* (pp. 175-204). Greenwich, United Kingdom: IAP.

- Van Horn, J. E., Taris, T. W., Schaufeli, W. B., & Schreurs, P. J. G. (2004). The structure of occupational well-being: A study among Dutch teachers. *Journal of Occupational and Organizational Psychology*, 77(3), 365-375. doi:10.1348/0963179041752718
- Wallace, J. E., & Lemaire, J. (2009). Physician well being and quality of patient care: An exploratory study of the missing link. *Psychology, Health & Medicine*, 14(5), 545-552. doi:10.1080/13548500903012871
- Wan Rashid, W. E., Nordin, M. S., Omar, A., & Ismail, I. (2011). Social support, work-family enrichment and life satisfaction among married nurses in health service. *International Journal of Social Science and Humanity*, 1(2), 150-155. doi:10.7763/IJSSH.2011.V1.26
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121-141. doi:10.1037/1072-5245.14.2.121

Michelle Morelo Pereira is a Ph.D candidate of the Graduate Program in Psychology of Universidade Salgado de Oliveira, Niterói-RJ, Brazil.

Maria Cristina Ferreira is a Professor of the Graduate Program in Psychology of Universidade Salgado de Oliveira, Niterói-RJ, Brazil.

Felipe Valentini is a Professor of Universidade São Francisco, Campinas-SP, Brazil.

Authors' Contribution:

All authors made substantial contributions to the conception and design of this study, to data analysis and interpretation, and to the revision and approval of the manuscript's final version. All the authors assume public responsibility for the manuscript's contents.

Received: Jul. 19, 2017

1st Revision: Oct. 05, 2017

2nd Revision: Nov. 30, 2017

Approved: Dec. 10, 2017

How to cite this article:

Pereira, M. M., Ferreira, M. C., & Valentini, F. (2019). Occupational satisfaction of physicians: The impact of demands and resources. *Paidéia (Ribeirão Preto)*, 29, e2920. doi:http://dx.doi.org/10.1590/1982-4327e2920