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# Organizational well-being and motivation to work among employees and freelancers: the case of physiotherapists in Italy

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#### Abstract

*Background:* Numerous studies have furthered the dimension of organizational well-being in terms of its complexity over the years. However, little research that focused on the role of physiotherapists, who, as health professionals, address the physical and psychological pain of their clients.

*Methods:* This research intends to enhance the understanding of organizational well-being within the different work contexts in which physiotherapists carry out their profession. A total of 150 physiotherapists, with an average age of 41.58 years (SD=12.34), from throughout Italy participated in an online self-report questionnaire, and the data collected were analysed using SPSS software.

*Results:* From our analysis of the data, we find that compared to other professional categories, physiotherapists report lower burnout scores, which are also balanced by the presence of high levels of personal achievement.

*Conclusion:* The results of this study suggest a need for organizations to invest in the consolidation of individual resources, as this contributes to improvements in work and personal well-being.

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#### Keywords:

Organizational well-being; Physiotherapists; Work motivation; Life satisfaction; Burnout.



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#### 1. Introduction

"Organizational well-being" is defined as the ability that an organization demonstrates in being able to promote and maintain every type of worker a high level of physical, psychological and social well-being (Torri & Toniolo, 2010). The term has also been defined as the general health of an organization, which encompasses the organizational and social climate and the more individual dimension linked to productivity, levels of performance, turnover and absenteeism

(Wells, 2000). Furthermore, Cojocaru (2014) notes that organizational well-being is multidimensional and affects the physical, mental, and social health of the worker and argues that for a person to be effective in his own life and with an organization, an organizational client is needed to improve individual well-being. In evaluating organizational well-being and its complexities, studies have highlighted the presence of different dimensions, such as work motivation, job engagement, job satisfaction and burnout, which help illustrate the different aspects that characterize this construct. This principle has contributed to the development of research focused both on the negative aspects of well-being such as burnout, which is defined by Maslach (1975) as a syndrome of emotional exhaustion, personal depersonalization and derealization, and on the definition of positive organizational behaviors. Personality, work / organizational characteristics and work attitudes are factors that can affect the development of Burnout (Sabo, 2011). In addition, in healthcare-related environments, an additional risk for healthcare professionals is represented by compassion fatigue, also known as secondary trauma, caused by prolonged exposure to the suffering of patients. Ledoux (2015) pointed out that different definitions of compassion fatigue have been reported in the literature and there is no agreement on its ontology and etiology. In this regard, Gallagher (2013) refers to compassion fatigue, as a phenomenon resulting from the doctor-patient relationship, or more generally from the relationship between healthcare provider and patient (Sabo, 2011), which due to symptoms parallel to the disorder from post-traumatic stress, it can lead to compromise of professional skills (Showalter, 2010), to difficulties in taking care of the patient and in extreme cases to burnout. In contrast to this, it has emerged in the literature, however, that compassion satisfaction derives from feeling gratified in treating patients who suffer (Xie et al., 2021). Furthermore, Garner and Golijani-Moghaddam (2021) reported that in care professionals compassion fatigue and satisfaction are significantly associated with psychological flexibility, a crucial dimension for the quality of life of the professional, which is reflected in the organization in which they practice and on patients. Some authors (Bakker & Schaufeli, 2008; Luthans, 2002; Nelson & Cooper, 2007) have in fact highlighted how negative psychological states, which can lead to burnout, constitute only a part of the dimensions experienced at work and those positive ones prevail. One of these is work engagement, which is a psychological state considered to be at the opposite pole of burnout (Schaufeli & Salanova, 2007) and characterized by three dimensions: vigour, dedication, and absorption. The dimension of vigor refers to a high level of energy and mental resilience while working; dedication is characterized by a sense of enthusiasm and inspiration in connection with one's work, while absorption refers to dedicating full concentration to one's work. Another salient construct concerns the satisfaction of basic needs related to the work context (Van den Broeck et al., 2010), which allows us to obtain useful

information on the functioning of employees and examine the motivational potential of organizational factors. According to the theory of self-determination, the satisfaction of the three basic needs of autonomy, competence and relationship is considered a crucial condition for individual well-being (Decy & Ryan, 2000). Another dimension related to organizational well-being is work motivation (Gagné et al. 2014). Research conducted in this area shows how employees are driven to seek contexts that enhance their motivational energy and stimulate their optimal functioning. Therefore, paying attention to their needs could not only improve employees' productivity in the workplace but also help reduce the costs associated with stress and turnover (Gagné & Deci, 2005). Work well-being is also associated with an individual's general well-being, which can be supported through a general satisfaction with life (Diener et al., 1985; Pavor & Diener, 1993). This last dimension is considered a strong predictor of work performance within the more general construct of individual well-being.

Within this theoretical framework, the present research intends to deepen our understanding of organizational well-being in regard to the different work contexts in which physiotherapists carry out their profession. Some of the scales considered here have already been used to analyse the organizational well-being of other professional figures, but the physiotherapist has never been analysed from this perspective. The only dimension that has been explored in the literature since the 90s of the last century (Broom & Williams, 1996; Schlenz et al., 1994) is that relating to the burnout that physiotherapists often encounter. However, the other dimensions that constitute organizational well-being have been little explored.

#### 1.1 Physiotherapists and their work context

Physiotherapists are considered to be health professionals and, as such, come into contact with the physical and psychological pain of their clients (Gillet et al., 2020; Rania et al., 2015, 2018) and due to unfulfilled expectations and consequent reactions often find themselves controlling their emotions (Bruschini et al., 2018) and having to manage an excessive workload (Gillet et al., 2020). These professionals, therefore, are exposed to high levels of stress, which can also affect their family and social lives. Lindsay et al. (2008) report that the main stressors that physiotherapists experience include role conflict and ambiguity, understaffing, excessive work hours, high work demands and feelings of inadequacy regarding patients.

Past research by Mandy et al. (2004) in Norway found that physiotherapists had lower levels of burnout than other care professionals suggesting that this finding could be justified by more protective factors: working less than full-time, high perception of self-efficacy, being married or living together and having family support. Perception of self-efficacy and was also married / cohabiting and therefore enjoyed family support. More recently Nowakowska-Domagala et al.

(2015) found that physiotherapists reported low levels of Personal Accomplishment and emotional exhaustion, suggesting that young participants in their research with reduced work experience could not experience the long-term effects of stress related to work. However, the literature on organizational well-being and work motivation in physiotherapists is currently underdeveloped, although as stated by Wilski et al. (2015), this stands in contrast to the importance and responsibility attributed to such professional figures, who often interface with clients with various emotional problems.

More recently, Bruschini et al. (2018) highlighted how the physiotherapist's work typically addresses patients of all ages with a disability or who are living with diseases and health problems. For this reason, Śliwiński et al. (2014) state that the physiotherapist must necessarily have developed interpersonal communication skills. It was also found that the high levels of professional competence required of physiotherapists, involving constant credential updating in line with new technological trends but without economic recognition, causes them to become overloaded with work, which affects both the quality of their relationships with their patients and their private lives and generating dissatisfaction (Śliwiński et al., 2014). Bruschini et al. (2018) also found that an excessive number of working hours hinders both the adequate emotional care of patients and responsiveness to their requests for help, which has repercussions at both the work and social-familial levels. Previous research conducted by Śliwiński et al. (2014) also shows that as the pervasiveness of stress, resentment and helplessness among physiotherapists and health workers in general increases, there are repercussions for their health and mood, compromising their overall physical health. In a previous study, Santos et al. (2010) found that physiotherapists' sources of stress include high workloads, low wages, a lack of professional autonomy, a lack of social recognition of their profession, limited emotional support from organizations and, finally, emotional burdens. More recently Gh et al. (2013) confirmed the findings of Santos et al. (2010); in fact, their research revealed that the main sources of stress for physiotherapists were related to the lack of autonomy in the workplace, the low perceived salary and the lack of coordination with superiors and colleagues. Furthermore, Preece (2020) highlights how work and socio-demographic environments can represent factors that influence stress and burnout in physiotherapists.

Fiabane et al. (2013), in comparing the different health professions, found that with regard to the dimension of work engagement, physiotherapists present lower scores for energy and involvement and show high levels of disengagement, more generally demonstrating lower job satisfaction. The same authors underline how high the risk of developing stress and burnout syndrome is for these professionals, especially for those who work in public hospitals, since they are subjected to high-pressured situations.

#### 1.2 Aims

The purpose of this research is to analyze the organizational well-being and work motivation of physiotherapists, who work as employees or freelancers and to see if there are gender differences.

In particular, the aims of this research are as follows:

- analyse the organizational well-being and work motivation of physiotherapists;

- verify if there are gender differences in relation to the constructs investigated;

- understand if there are differences between working as an employee and working as a freelancer;

- identify the existence of correlations between the variants investigated;

- verify which dimensions of organizational well-being affect Life Satisfaction.

#### 2. Methods

#### 2.1 Participants

Our participants included 150 physiotherapists, with an average age of 41.58 years (SD 12.34), from throughout Italy. Table 1 below reports the sociodemographic characteristics of our sample.

Categorical variables	0/0	
Gender		
Male	32.4	
Female	67.6	
Marital status		
Married/Cohabiting	56.1	
unmarried	35.1	
Separated/divorced	8.1	
Widower	0.7	
Educational qualification		
High school diploma	2.0	
Graduation	61.5	
Postgraduate specialization	36.5	
Work condition		
Employed	60.8	

 Table 1. Sociodemographic characteristics of the participants (N=150)

Freelancers	39.2
Full-time	75.7
Part-time	24.3

Regarding years of work experience, 21.6% of the participants reported having up to 5 years of experience, 14.2% reported having 6 to 10 years of experience, 25.7% reported having 11 to 20 years of experience and finally 38.5% reported having over 20 years of experience.

#### **2.2 Procedures**

The methodology used is quantitative, and an online self-report questionnaire was administered to involve participants from throughout Italy. The study was promoted by the Italian Physiotherapists Association based in Italy in two ways. We first sent an e-mail to all members describing the purpose of the study, the tools proposed, the return of data, and a link to access the questionnaire. Second, we posted the link to the questionnaire on the association's website so that it could be completed by those who were not members and therefore did not receive our e-mail. Before the survey could be completed, the subjects were required to read an informed consent statement and provide consent, to be of the designated age, and to understand that their participation was voluntary and that they could withdraw at any time by closing their browser window. The survey took, on average, approximately 20 minutes for each participant to complete. All procedures performed were in accordance with the ethical standards of the Research Ethics Committee of the Department of Education Sciences of the University of Genoa and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Online informed consent was obtained from all individual adult participants included in the study.

#### 2.3 Measures

• The Maslach Burnout Inventory (MBI) (Maslach & Jacson, 1981), validated and adapted in Italy by Sirigatti et al. (1988). This questionnaire consists of twenty-two items that provide a measure of perceived burnout. The frequency response format is used. Items are answered on a seven-point Likert scale ranging from 0 (*Never*) to 6 (*Everyday*). The instrument includes three subscales: *Personal Accomplishment* (PA) (8 items, e.g., "I have accomplished many valuable things in my work"), *Emotional Exhaustion* (EE) (9 items, e.g., "I feel emotionally exhausted from my job"), and *Depersonalization* (DP) (5 items, e.g., "I am afraid that this work will harden me emotionally"). The Cronbach's alpha for the present study is .80 for this scale.

- The Utrecht Work Engagement Scale (UWES-9) (Schaufeli & Bakker, 2003) consists of 9 items validated and adapted to the Italian context by Balducci et al. (2010) and assesses work commitment, an aspect of positive organizational behaviour, measured on three scales: *Vigour, Dedication*, and *Absorption*. The subject must indicate the frequency with which they have certain experiences at work on a Likert scale of 0 (*never*) to 6 (*always*). Examples of items include the following: "At work, I feel strong and vigorous" (vigour), "I am happy when I work hard" (dedication), and "I am immersed in my work" (absorption). The Cronbach's alpha for the present study is .92 for this scale.
- The Multidimensional Work Motivation Scale (MWMS) (Gagné et al., 2014; Italian validation Battistelli et al., 2015) includes 19 items on a seven-point scale (from 1= not at all to 7= completely), and measures the motivation to work based on the theory of self-determination. The scale is made up of six subscales with three items: Amotivation, e.g., "I am not motivated, because I truly feel that I'm wasting my time at work"; Extrinsic regulation—social, e.g., "To get others' approval (e.g., supervisor, colleagues, family, clients ...)"; Extrinsic regulation—material, e.g., "Because others will reward me financially only if I dedicate enough effort to my job (e.g., employer, supervisor ...)"; Introjected regulation, e.g., "Because I have to prove to myself that I can perform this job"; Identified regulation, e.g., "Because I personally consider it important to make an effort at this job"; Intrinsic motivation, e.g., "Because I have fun doing my job". The Cronbach's alpha for the present study is .84 for this scale.
- The Work-Related Based Need Satisfaction Scale (W-R-BNS) (Broeck et al., 2010; Italian validation Colledani et al., 2018) includes 18 items measured on a five-point scale (from 1 = completely disagree to 5 = completely agree). The scale is composed of three subscales with six items assigned for each basic need: Autonomy or a sense of volition and psychological freedom, e.g., "The tasks I have to do at work are in line with what I truly want to do"; Competence or a feeling of effectiveness, e.g., "I feel that I can accomplish even the most difficult tasks at work"; and Relatedness or a feeling of being loved and supported, e.g., "Some people I work with are close friends of mine". The Cronbach's alpha for the present study is .78 for this scale.
- Satisfaction with Life Scale (SWLS) was developed by Diener (1985) (Italian validation Di Fabio & Palazzeschi, 2012). This scale includes 4-items Likert scale ranging from 1 to 7, where 1 means *strongly disagree* and 7 means *strongly agree*. The Cronbach's alpha for the present study is .89 for this scale.

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• Compilation of sociopersonal data for age, gender, educational qualifications, work conditions, and marital status.

#### 2.4 Data analysis

A statistical analysis was performed using SPSS Statistics 18.0. Descriptive statistics were calculated for sociodemographic characteristics and information about variables, and the scores of scales were expressed as the means and standard deviations. To investigate gender differences, employed and freelancer t-tests were used for independent samples. To compare differences between our participants and the Italian normative sample for the Maslach Burnout Inventory (Corrado et al., 2019), Utrecht Work Engagement (Balducci et al., 2010) and Satisfaction with Life Scale (DI Fabio & Palazzeschi, 2012), t-tests were conducted on single samples. Appropriate effect size statistics that adjusted for differences in group size were obtained from Cohen's *d* or Hedges' g (when sample sizes were different) for t-tests. To explore the relationships between variables, correlation analyses were performed. We used multiple linear stepway regressions to calculate the univariate associations between variables.

#### 3. Results

The descriptive statistics of each variable are presented in Table 2 and include means and standard deviations.

	M	SD
	IVI	5D
Burnout (MBI)		
Emotional Exhaustion (EE)	16.18	9.58
Depersonalization (DP)	4.55	4.81
Personal Accomplishment (PA)	34.21	6.93
Work engagement (UWES-9)		
Total score	41.55	8.74
Vigour	12.98	3.24
Dedication	14.48	3.36
Absorption	14.09	3.01
Multidimensional Work Motivation (MWMS)		
Amotivation	1.45	.79
External Regulation (social)	2.47	1.35
External Regulation (material)	2.31	1.40
Introjected Regulation	4.71	1.38

Table 2. Descriptive statistics of variables of the sample (N = 150)

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Identified Regulation	5.86	1.11
Intrinsic Motivation	5.30	1.32
Work-Related Based Need Satisfaction Scale (W-R BNS)		
Need for Autonomy	3.59	.94
Need for Competence	4.38	.52
Need for Relatedness	3.81	.83
Satisfaction with life scale	5.06	1.15

Based on the scores for the Maslach Burnout Inventory, we classified the workers as exhibiting low/moderate/high levels of burnout according to the three dimensions of the test, i.e., Emotional Exhaustion ( $\leq 14$ ; 15-23;  $\geq 24$ ), Depensionalization ( $\leq 3$ ; 4-9;  $\geq 9$ ), and Personal Accomplishment ( $\geq$  37; 30-36;  $\leq$  29). From the cut-off values listed in the Maslach Burnout Inventory test manual, we identified that our participants demonstrated average levels of on all three subscales. Upon comparing the participants' scores to those obtained from the Italian validation scale through the analysis of means for a single sample, we found significant differences between the averages obtained from the participants and those of the normative sample: in particular, our participants presented lower levels of EE (M = 16.18; DS = 9.58) than the normative sample (M = 19.1; SD = 11.3) (t (147) = -3.72; p <.001; Cohen's d=.28). Participants also showed lower DP levels (M = 4.55; SD = 4.81) than the normative sample (M = 9.6; SD = 6.1) (t (147) = -12.77; p <.001; Cohen's d = .92) and higher PA levels (M = 34.21; SD = 6.93) (M = 32.3; SD = 8.6) (t (147) = 3.35; p <.01; Cohen's d = .24). Furthermore, a comparison of scores for the participants declaring themselves employees to those of the normative sample reveals a significant difference between the averages regarding DP: the employees participants present lower levels (M = 5.08; SD = 5.35) than the employees of the normative sample (M = 9.7; SD = 5.8) (t (89) = -8.2; p <.001; Cohen's d = .83); however, no significant differences were found from the EE and PA subscales. A comparison of scores for the participants who declared themselves freelancers to those of the freelancer participants of the normative sample shows significant differences for all three subscales: for the EE subscale, the participants show lower scores (M = 13.34; SD = 8.39) than the normative sample (M = 18.8; SD = 11.6) (t (57) = -4.95; p <.001; Cohen's d = .54); for the DP subscale, the participants also show lower scores (M = 3.72; SD = 3.74) than the normative sample (M = 9.6; SD = 5.7) (t (57) = -11.96; p <.001; Cohen's d = 1.22). On the other hand, for PA, the participants show higher scores (M = 35.45; SD = 7.33) than the normative sample (M = 33.3; SD = 8.3) (t (57) = 2.23; p <.05; Cohen's *d*).

With regard to the UWES-9 scale, a comparison of data for the participants with those of the normative sample reveals a significant difference both in scores of the total scale and for the subdimensions: in particular, for the total scale, the analysis shows that the participants obtain higher scores (M = 41.55; SD = 8.74) than the normative sample (M = 34.33; SD = 14.31) (t (147) = 10.06; p <.001; Hedges' g = .54). Additionally, for the subscales, the participants present higher scores than the normative sample. For Vigour, the participants show an average score of 12.98 (SD = 3.24), while the average of the normative sample is 11.33 (SD = 5.45) (t (147) = 6.19; p <.001; Hedges' g = .32). For the Dedication subscale, the participants present an average score of 14.48 (SD = 3.36), while the average of the normative sample is 10.11 (SD = 5.76) (t (147) = 15.80; p <.001; Hedges' g = .81). Finally, for the Absorption subscale, the participants show an average score of 14.09 (SD = 3.01), while the average for the normative sample is 12.90 (SD = 4.73) (t (147) = 4.83; p <.001; Hedges' g = .27).

Finally, as regards Satisfaction with Life Scale, comparing the average of the participants with that reported by the normative sample, it emerges that there is a significant difference: our participants reported a higher score (M= 5.06, SD= 1.15) than the normative sample (M=4.84, SD= 1.54) (t(147)=2.29; p<.05; Hedges'g = 0.15)

#### 3.1 Gender differences

Specific analyses of gender differences do not show statistically significant differences for Burnout, Work Engagement, or Life Satisfaction, while for the Work-Related Basic Need Satisfaction Scale we find a significant difference only in the subscale for Autonomy with men showing significantly higher mean scores (M= 3.92; DS=.74) than females in the sample (M= 3.43; DS=.98), (t (118.95) = 3.36; p <.01; Cohen's d = .56). Another significant difference is found for the External Regulation social and material subscale of the Multidimensional Work Motivation Scale (MWMS): for External Regulation-social, men show higher scores (M=2.82; DS=1.46) than women (M=2.31; DS=1.27) (t(146)=2.19; p<.05; Cohen's d = .37) and for External Regulation-material men also show higher scores (M=2.99; DS=1.68) than women (M=1.99; DS=1.12) (t (67.88)=3.76; p <.001; Cohen's d = .70).

#### 3.2 Differences between employees and freelancers

Regarding burnout, the mean scores for PA ( $33.41\pm6.58$  and  $35.45\pm7.33$ ) and DP ( $5.08\pm5.35$  and  $3.72\pm3.74$ ) are not significantly different between the two groups; significant differences between employees ( $18.00\pm9.89$ ) and freelancers ( $13.34\pm8.39$ ) are only found for the EE subscale (t(146)=2.96; p<.001; Cohen's d = .51). Both employees and freelancers show average

levels of risk for the PA and DP subscales, while for EE, employees are at low risk while freelancers are at an average risk.

For the Work Engagement Scale, the mean score obtained for employed individuals (M=39.6; SD=9.02) is significantly lower than that for freelancers (M=44.59; SD=7.39) (t(146)=-3.518; p< .001; Cohen's d = .61), denoting lower levels of work engagement.

For the Multidimensional Work Motivation Scale, freelancers show high scores on all subscales with significantly higher scores for External Regulation (social) (employees M=2.27, SD=1.23; freelancers M=2.78, SD=1.49) (t(104.99)=-2.17; p< .05; Cohen's d = .37); External Regulation (material) (employees M=1.87, SD=1.01; freelancers M=3.01, SD=1.63) (t(85.44)=-4.78; p< .001; Cohen's d = .84); and Intrinsic Motivation (employees M=5.11, SD=1.41; freelancers M=5.59, SD=1.12) (t(146)=-2.21; p<.05; Cohen's d = .38).

With regard to Work-Related Basic Need Satisfaction, statistically significant differences emerged only for the Autonomy subscale, which shows a higher mean score for employees (M=3.25, SD=.91) than for freelancers (M=4.12, SD=.71) (t(140.56)= -6,48; p<.001; Cohen's d = 1.07).

For Satisfaction with Life Scale, although employees present higher scores (M = 4.94; SD = 1.23) than freelancers (M = 5.23; SD = .98), no statistically significant differences emerged.

#### 3.3 Correlations between variables

From our analysis of the data correlations were found between some of the dimensions investigated. For the Burnout scale, Emotional Exhaustion is negatively correlated with the Satisfaction with Life Scale (r=.36, p<.01), while Personal Accomplishment is positively correlated with Satisfaction with Life Scale (r=.32, p<.01).

For the Utrecht Work Engagement Scale, the total scale correlates positively with Intrinsic Motivation (r = .657, p < 0.01), a subscale of Multidimensional Work Motivation Scale, Autonomy (r = .543, p < 0.01), a subscale of Work-Related Basic Needs Satisfaction Scale, Personal Accomplishment (r = .536, p < 0.01), a subscale of the Maslach Burnout Inventory, Competence (r = .361, p < 0.01), a subscale of the Work-Related Basic Needs Satisfaction Scale, and Relatedness (r = .265, p < 0.01), a subscale of the Work-Related Needs Satisfaction Scale. Conversely, the value correlates negatively with the frequency of Emotional Exhaustion (r = .414, p < 0.01). Both Dedication and Absorption dimensions on the UWES-9 scale correlate positively with Autonomy (r = .514 and r = .351, p < 0.01, respectively).

For the Work-Related Based Needs Satisfaction Scale, the Relatedness dimension correlates positively with Autonomy (subscale of the Work-Related Basic Needs Satisfaction Scale) (r = .354, p <0.01) and negatively with the frequency of Emotional Exhaustion (r = -.320, p <0.01). The Competence subdimension correlates positively with the frequency of Personal Accomplishment (r = .411, p <0.01), and Autonomy negatively correlates with the frequency of Emotional Exhaustion (r = -.507, p < 0.01).

Finally, the Satisfaction with Life Scale dimension shows positive correlations with Autonomy (r = .302, p < 0.01) and Relatedness (r = .286, p < 0.01), subscales of the Work-Related Basic Needs Satisfaction Scale, with Intrinsic (r = .339, p < 0.01) and Identified Motivation (r = .215, p < 0.01), subscales of the Multidimensional Work Motivation Scale and, finally, with Utrecht Work Engagement (r = .362, p < 0.01) and Personal Accomplishment (r = .360, p < 0.01), subscale of the MBI.

#### 3.4 Regression analysis

A further investigation reveals the factors that affect Satisfaction with Life Scale. The results of stepwise model selection via multiple linear regression analysis using Life Satisfaction as a dependent variable are presented below in table 3.

Variables*	В	SE	Beta	t	R <sup>2</sup> Adj
1.Personal Accomplishment (MBI)	.053	.631	.323	4.219	
2.Relatedeness (W-RBNS scale)	.264	.106	.191		.23
3. Emotional Exhaustion (MBI)	027	.009	228		

**Table 3.** Regression analysis. Dependent variable: Satisfaction with Life Scale, while subscales of Workengagement and subscales of Multidimensional Work Motivation and Autonomy and competence W-RBNS are excluded variables

The model shows an Adjr<sup>2</sup> of .23, which means that 23% of the variance in Life Satisfaction is explained by the model. The r<sup>2</sup> value is statistically significant. Personal Accomplishment ( $\beta = .32$ , p <.01) and Emotional Exhaustion ( $\beta = .23$ , p <.01) seems to be the strongest predictor, while Relatedness (W-RBNS scale) ( $\beta = .19$ , p<.05) is a moderate predictor.

#### 4. Discussion

The present study aimed to analyse levels of well-being and work motivation among Italian physiotherapists, including both employees and freelancers. This research is novel in the field, as the scales used have never been administered to physiotherapists except for the Maslach Burnout Inventory (MBI). Regarding burnout, if we consider as reference values those given by Sirigatti et al. (1988) for the Italian adaptation of the MBI scale for healthcare operators, the scores obtained for physiotherapists in the Emotional Exhaustion and Depersonalization subdimensions demonstrate an average level of burnout risk that is balanced by high levels of Personal Accomplishment. Comparisons to the normative sample show that our participants exhibit lower levels of Emotional Exhaustion and Depersonalization but higher levels of Personal Accomplishment. These values are in line with those found by Pustulka-Piwnik et al. (2014) and Fischer et al. (2013).

In comparing the results obtained for physiotherapists in this work to those for other professional categories, we note significantly lower values compared to those for nurses for Depersonalization and Emotional Exhaustion and higher levels for Personal Accomplishment (Cheng et al., 2015; Harkin & Melby, 2014; Ntantana et al., 2017). This difference could be attributed to the higher levels of motivation of those who choosing to participate in this study or the peculiarities that characterize the work of physiotherapists, who give their patients functional autonomy, which is indispensable to everyday life.

A comparison between employed physiotherapists and the normative sample of employed physiotherapists shows only a significant difference regarding levels of Depersonalization: in fact, under the same working conditions (being employees), our participants show lower levels of Depersonalization. A comparison between participants declaring themselves freelancers and the normative sample shows that the participants experience less Emotional Exhaustion and Depersonalization than the normative sample and more Personal Accomplishment.

For the dimension of Utrecht Work Engagement and its subdimensions (Vigour, Dedication, and Absorption), our analysis of the data shows that the participants generated higher scores than the normative sample. Regarding gender differences, the data are in line with the literature (Brake et al., 2003; Bruschini et al. 2018; Gandi et al., 2011) by showing no gender differences in relation to Burnout, while gender seems to influence the Work-Related Basic Needs Satisfaction of and External social and material Motivations to work: men show higher levels on both dimensions than women.

Furthermore, our data analysis shows that employees physiotherapists experience lower levels of work engagement and less perceived Autonomy and External material Motivation than freelancers and more frequently experience Burnout. This trend could be caused, as shown in the literature, by factors such as excessive workloads, coverage of staff on leave and staff shortages, which could be sources of stress for physiotherapists (Lindsay et al., 2008). As found by Rogan et al. (2019) Physiotherapists who work in an acute care hospital, with chronically ill

patients, are more prone to emotional exhaustion and depersonalization. Furthermore, while support from colleagues, as shown in the literature, improves the well-being of employees (van der Heijden et al., 2010), those who are freelancers, having chosen to follow a path independent and free of contractual constraints, show higher levels of Work Engagement and Autonomy and more External material Motivation.

Our analysis of the data shows high levels of Work Engagement among the physiotherapists examined, corroborating previous research showing that work engagement promotes achievement, work satisfaction (Alarcon & Edwards, 2011; Bailey et al., 2017; De Simone et al., 2016; Del Libano et al., 2012; Pisanti et al., 2008) and Life Satisfaction (Hakanen & Schaufeli, 2012). Furthermore, the negative correlation between Work Engagement and low levels of Emotional Exhaustion, characteristic of Burnout, is in line with the literature that views Work Engagement and Burnout as overlapping concepts (Taris et al., 2017) or as on opposite ends of the same continuum (Cole et al., 2012).

Furthermore, as demonstrated by other studies (Airila et al., 2014; Bakker & Demerouti, 2007; Van den Broeck et al., 2016), Work Engagement positively correlates with three dimensions of the Work-Related Basic Needs Satisfaction scale (Autonomy, Competence, and Relatedness aspects). These dimensions, which are identified as "work resources" together with other work characteristics such as task variety and significance, challenging objectives, and learning and growth possibilities, are believed to be the strongest predictors of Work Engagement by numerous authors (Albrecht, 2010; Bakker & Demerouti 2008; Christian et al., 2011; Halbesleben, 2010). Furthermore, in agreement with Bakker (2011), the presence of a correlation between work engagement and intrinsic motivation is highlighted. With respect to work motivation, the physiotherapists examined in this study are predominantly driven by Intrinsic Motivation, Identified Motivation and, finally, Introjected Motivation. These three elements, according to Gagnè et al. (2015), constitute the profile of highly motivated workers. This positive correlation between the first two types of motivation and Life Satisfaction agrees with what has been found in other studies: according to the theory of self-determination, high levels of intrinsic motivation or being motivated by pleasure and interesting tasks are associated with more psychological satisfaction of needs (Houkes et al., 2003; Ryan & Deci, 2000), which is a prerequisite for individual well-being (Deci & Ryan, 2000; Migliorini et al., 2019).

Regarding basic needs related to work, our participants show good levels of satisfaction with Competence, relatedness, and Autonomy aspects, in descending order, showing scores above the theoretical average of the scale. With regard to Satisfaction with Life Scale, it emerges that our participants reported a higher score than the normative sample; this is in line with what was found regarding the dimension of Burnout and Work Engagement: in fact our participants reported lower scores in the first case and higher in the second, thus experiencing lower emotional exhaustion and greater Work Engagement, dimensions that influence life satisfaction, as also found in literature (Hakanen & Schaufeli, 2012; Dogan & Tutal, 2015).

Finally, our regression analysis shows how Personal Accomplishment, Work Basic Need Satisfaction Relatedness and Emotional Exhaustion affect the Satisfaction with Life Scale of physiotherapists. This may be the case because, as previously pointed out in the literature (Bruschini et al., 2018), the physiotherapist, as a health professional in constant contact with the suffering and frustration of others, runs the risk of having the emotional and work-related burdens to which he is subjected influence his social and family life.

Although this research contributes to the growing the literature on organizational well-being among physiotherapists and on work engagement and work well-being, some limitations must be reported. The first of these concerns gender differences. Although differences were found, our study involved female participants than male participants. However, as is well known, females are more likely to participate in research activities. Another limitation is related to the methodology used. Our use of an online platform may have excluded those who are not familiar with the use of technological tools; however, the use of these data collection strategy proved instrumental in quickly collecting data from different contexts and diverse areas in Italy.

#### 5. Conclusion

The results of this study suggest the need, on the part of organizations, to invest in the consolidation of individual resources and empowerment and in activities that promote perceptions of professional autonomy to encourage an increase in work involvement and, therefore, job satisfaction and individual well-being. It is therefore important, as suggested by various authors (Castanheira & Chambel, 2010; De Simone, et al., 2016), that managers be trained to listen to the needs of their employees, who can then be held responsible and participate in organizational decisions. Indeed, to address and reduce the negative effects of burnout, it is important to introduce structural measures to prevent negative effects on the personal and family lives of physiotherapists (Kerckhofs & Campenhout, 2015). However, what is most important is that organizations pay special attention to this particular segment of health workers. Despite being confronted with patients of all ages with severe physical and functional limitations that cause various emotional problems, we find physiotherapists to be characterized

by high levels of work engagement, which must be respected and maintained. Finally, in light of our results, we believe that particular attention should also be paid to gender differences. In fact, further research should investigate the factors that influence the differences found between male and female physiotherapists in relation to the satisfaction of basic needs related to work and the motivation to work, since even today, external and material factors hinder the motivation to work to the detriment of women in the workplace.

#### **Conflict of Interest Statement**

The authors declare that the research was conducted in the absence of any potential conflict of interest.

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