

# **RELATIONSHIP BETWEEN PSYCHOLOGICAL CAPITAL AND MOTIVATION: STUDY IN HEALTH ORGANIZATIONS OF SOUTHERN BRAZIL**

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## **ABSTRACT**

**Purpose:** *The psychological capital and the self-determination theory are areas related to the research of human behavior in organizations. This study had as objective to verify if there are relations between the categories of Motivation with the dimensions of Psychological Capital.*

**Design/methodology/ approach:** *it was performed a quantitative empirical study. The sample consisted of 235 workers working in the health sector, in south of Brazil. Data collection was obtained through the application of PCQ-24 and MWMS.*

**Findings:** *There is a negative correlation between psychological capital and demotivation as well as a positive correlation between psychological capital and intrinsic motivation. It was observed that the higher level of psycap more the results approached the intrinsic motivation. The results suggest that care professionals have higher levels of motivation for work and psycap than those in administrative area. Likewise, people with a complete undergraduate level had high levels of Motivation and Psychological Capital. In sum, the results suggest that Psycap is an important contribution to motivation at work.*

**Research limitations/implications:** *This empirical research was performed only with a sample of health workers from Brazil. For this reason the results can not be generalized.*

**Practical Implications:** *It is possible to verify the level of Motivation and Psychological Capital of the workers, being able to develop strategies to develop skills that promote better organizational performance.*

**Originality/value:** *It has conducted a research with two instruments still little used in the Brazilian context - PCQ-24 and MWMS - relating these two approaches in a health sample.*

**Keywords:** Psychological Capital. Motivation. Self-determination Theory. Health organizations, PCQ-24.

## **INTRODUCTION**

The globalized market has brought to the organizational world a greater complexity and speed in their relations. Turbulent environments, global competition, business mergers, and continual changes

pressure organizations to seek rapid adaptations, demanding an increasing effort from their employees, compromising individuals' physical and emotional health (Capra, 2002).

In this uncertain and constantly changing context, a group of researchers drew attention to the excessive number of papers and academic research that focus on the diseases, weaknesses and problems of individuals (Myers, 2000).

In the search for new scientific paradigms, Luthans' studies on Positive Organizational Behavior pointed a promising path. Luthans and colleagues (2002), based on the Positive Psychology of Seligman and Csikszentmihalyi (2000, 2014) and on the challenge launched by Seligman himself in 1998 - which was to rescue the studies of Psychology for the potentialities and virtues of individuals – focused their research on the behavior and positive capacities of workers, valuing their contributions, their skills and their relevance in achieving organizational results.

In another context, but also with a concern to rescue the importance of people in the results of companies, Gagné and colleagues (2015) spent their efforts in validating an instrument that measures the degree of motivation of people at work.

This study turned to these two approaches, Psychological Capital and Motivation for work. These approaches contemplate in their theoretical foundations the dimension of human subjectivity, repositioning people as a central theme in research on effective companies.

The Psychological Capital and Work Motivation studies focus on understanding the influence of human behavior in the organizational context (Choi & Lee, 2014). The construct Positive Psychological Capital, or simply Pscap, was developed by Fred Luthans and collaborators, starting in the year 2002. Its dimensions, Self-efficacy, Hope, Optimism and Resilience are combined capabilities that enable individuals to mobilize their psychological resources to an effective result in their work (Luthans & Youssef, 2004).

The Self-Determination Theory (SDT) defines Motivation as an internal psychological process that receives influences from personal needs and interactions with the environment. In other words, it is the relation between the satisfaction of basic needs (autonomy, competence and bond) and the energy used to achieve it (Gagné & Deci, 2005). The purpose of the Self-Determination Theory (Ryan & Deci, 2000a) is to study the motives that drive people to act. The SDT (Self Determination Theory) explains the relationship between Extrinsic Motivation and Intrinsic Motivation, proposing that it is possible to promote situations that mobilize individuals to transform an External Motivation into an Internal Motivation.

Both the Psychological Capital approach and Motivation for work, investigate the behavior of individuals in organizations from the perspective of their subjectivity. Its seminal authors, Luthans and Gagné (respectively), position people as a fundamental strategic differential. Its objectives are to evaluate the impact of the behavior of the subjects in the performance of the organizations, both in the aspect of the accomplishment of the tasks, as in the commitment with the company. Both currents believe that these personality states are not immutable, that is, they can be apprehended and developed (Gagné, Forest, Vansteenkiste, Crevier-Braud, Van den Broeck, Aspeli & Halvari, 2015, Luthans, Youssef-Morgan & Avolio, 2015 ).

Faced with this, the study of these two themes (Psychological Capital and Motivation) highlights the importance of organizations to potentialize and optimize their human resources to achieve a competitive

advantage by increasing the positive capabilities of their employees with consequent increase in functional impairment, satisfaction at work, well-being and creativity (Millette & Gagné, 2008, Rego, Sousa, Marques & Cunha, 2012, Choi & Lee 2014, Luthans & Frey, 2017).

However, when studying these two distinct areas, in the context of human behavior at work, it is perceived that some concepts seem to deal with phenomena similar or complementary to each other. For the authors Verleysen, Lambrechts & Van Acker (2015) there is synergy between these two theoretical approaches revealing a complementary relationship between them. From this, this study had as objective to verify if there are relations between the categories of Demotivation, Extrinsic Motivation and Intrinsic Motivation with the dimensions of Psychological Capital (Self-efficacy, Hope, Optimism and Resilience). For that, an empirical research was carried out with 235 health professionals from the South of Brazil, both in the administrative and care areas. Data collection was obtained by applying the PCQ-24 and MWMS instruments. The results were analyzed through statistical tools, indicating that there is a positive relationship between the dimensions of Psychological Capital and Intrinsic Motivation and a negative relation with the Demotivation dimension. The results, discussion and considerations will be presented in the following sections.

## **THEORETICAL FRAMEWORK**

### **PSYCHOLOGICAL CAPITAL**

Psychological Capital (Psycap) is the central construct of Positive Organizational Behavior (COP), which has its theoretical origins based on Positive Psychology, developed by Seligman and Csikszentmihalyi (2000, 2014). This stream of studies directs the look at the strengths of the people and their positive capacities.

The choice of the word "capital" in this construct is intended to reinforce the idea that people are valuable human resources for organizations. Therefore, the word "Psychological Capital" suggests, for management, that, by investing in people, companies will be 'capitalizing' on their resources, increasing their assets, gaining a unique competitive advantage (Luthans & Youssef, 2004).

Thus, Psycap is defined as a 'state' of positive psychological development, characterized by the individual having a set of attributes: self-efficacy: being confident and self-efficacious, in order to maintain the effort required to succeed in challenging tasks; optimism: make positive attributions about present and future events; hope: persevere in relation to the objectives and, if necessary, redirect the ways to reach the goals to be successful; resilience: to overcome and return to normal emotional state in the face of problems and adversities (Luthans & Youssef, 2007).

Faced with this, Hope, Self Efficacy, Resilience and Optimism, or simply HERO, operate synergistically, becoming a unique component. They act in an integrated and interactive way in the motivational search for expected organizational results (Luthans, Avey & Patera, 2008). The four dimensions combined increase the probability of success in individuals' actions, being associated with greater effort, motivation and perseverance in performance within companies (Avey, Luthans, Smith & Palmer, 2010). Each dimension has been selected from the empirical studies of clinical psychology because they have unique characteristics such as: (a) being a psychologically positive capacity, (b) being a theory

with validation in scientific research, possible to measure and (c) be a state-like, open to change and development that has a positive impact on attitudes, behaviors, performance and well-being at work (Luthans & Youssef, 2004, Youssef & Luthans, 2007, Luthans & Youssef-Luthans & Youssef, 2004, Luthans & Yousset-Morgan, 2015).

Hope can be defined as the ability and determination to pursue a goal (willpower) and the ability to formulate effective plans for achieving it (waypower), even when it is necessary to change routes and create new paths to reach the goal, maintaining motivation (Luthans, 2002, Youssef & Luthans, 2007, Snyder & Lopez, 2009). Self-efficacy represents the individual's belief in being able to mobilize, through motivational and cognitive resources, the actions necessary to successfully execute a specific task in a given context (Bandura, 1977, Luthans, 2002). Resilience, on the other hand, is a set of phenomena that allow individuals to react to situations of risk and adversity assertively and satisfactorily. This characteristic allows the subject to quickly recover from issues that compromise their development, being a positive adaptive system in the face of dramatic changes and failures (Masten, 2007).

Optimism, however, concerns individuals' belief that good things will happen to them (Luthans, Avey & Patera, 2008). It is linked to the form of stress coping, goal orientation, and orientation to the present and future (Carver, Scheie & Segerstrom, 2010).

## MOTIVATION

The concern of the managers with the motivation of their employees is a frequent theme in the Administration area. This is because motivation is associated with good performance, jobless satisfaction, and commitment of employees to organizational goals. But, despite its relevance to management, there is no consensus on this concept (Borges & Filho Alves, 2001).

The Self-Determination Theory defines Motivation as "being moved to do something" (Ryan & Deci, 2000a). This approach argues that individuals have a sense of will and initiative to make decisions. In this way, it postulates that the subjects' actions are oriented by internal issues, external issues and by the use of reason (cognition). For the seminal authors of this theory, Ryan and Deci, a motivated person is who has the energy to perform an activity to the end. They point out that there are different types and levels of motivation. This (the motivation) will be of one nature or another, according to the relation with the personal goals and reasons that the individual has to act.

From this analysis, emerges the theoretical understanding that motivated behavior must be analyzed with a focus on the quality, quantity and intensity of its reasons and actions. Thus, the Self-Determination Theory (SDT) bases its studies on the understanding of motivation in the three focuses (quality, quantity and intensity) and its relations with Intrinsic Motivation and Extrinsic Motivation (Ryan & Deci, 2000b).

According to Gagné and Deci (2005), in Self-Determination Theory (SDT) there are six levels of motivation that go from the Demotivation that represents total absence of motivation and intentionality, with four intermediate levels of Extrinsic Motivation and finally the Intrinsic Motivation, in which the activity is carried out with complete personal intentionality, for pleasure and self-desire.

Figure 1 shows the theoretical framework of Motivation, according to the vision of SDT, which is classified in the three groups and 6 levels: Demotivation, Extrinsic Motivation and Intrinsic Motivation.

Figure 1 – Continuum of Self-determination

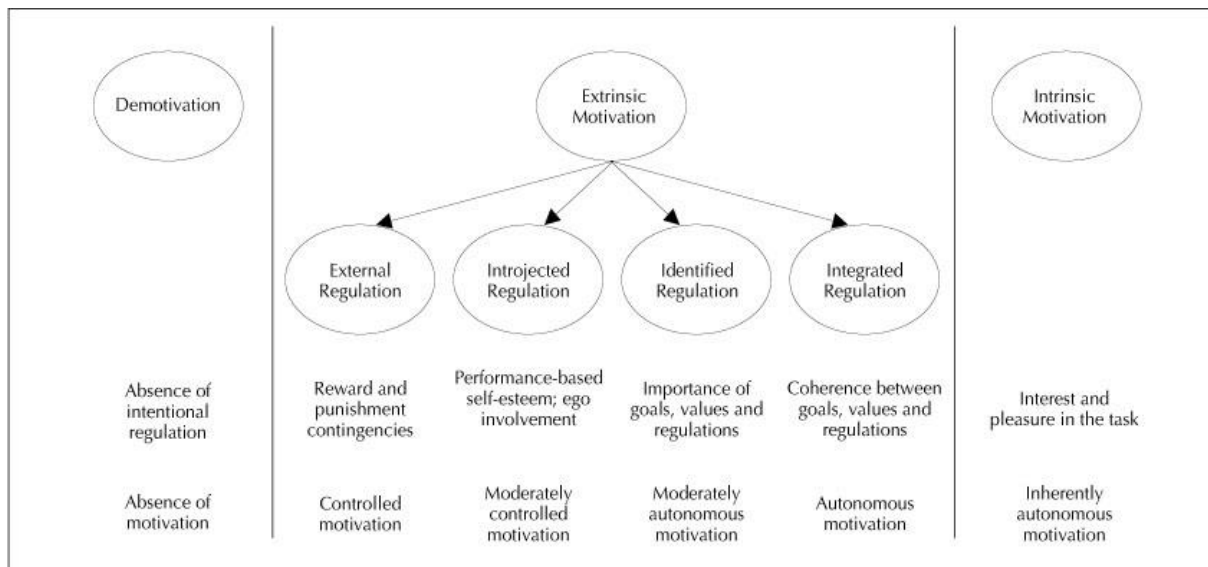


Figure 1 The Self-Determination continuum

Source: Adapted from Gagné and Deci (2005, p. 336).

Demotivation is the absence of motive. The individual has no intention for action, that is, the activity is completely devalued without any personal control for accomplishment.

Extrinsic Motivation is divided into four groups of behavior regulation: a) external regulation: It is the least autonomous form of motivations in which the subject seeks reward or avoid punishment; b) introjected regulation: Actions are performed to avoid negative feelings (guilt or anxiety) and have the expectation of self-approval; c) identified regulation: the action is identified with personal goals. The subject acts to achieve a future goal. There is a conscious appreciation even if the task is not pleasurable; d) integrated regulation: There is consistency between personal goals, values and the action taken. Congruent with the self is the most autonomous form of Extrinsic Motivation. However, behavior is aimed at achieving personal benefits.

Intrinsic Motivation is autonomous motivation by definition. Activity is seen as an end in itself, being carried out with great interest and pleasure (Guntert, 2015, Gagné et al., 2015).

Gagné et al. (2015) highlight that Extrinsic Motivation refers to engaging in activities for instrumental reasons, that is, to avoid punishment or criticism, to receive approval and reinforcement, to increase self-esteem or to achieve a goal of personal worth. However, the possibility of individual effort in transforming this External Motivation into internal (Intrinsic) Motivation places the subject in a position to reorient the path and energy to achieve their personal objectives and goals.

This new postulate places Extrinsic Motivation and Intrinsic Motivation as a continuum, varying in degree and intentionality. In addition to not having a clear boundary between the levels of Motivation, research has proven the possibility of making Intrinsic an Extrinsic Motivation (Van den Broeck, De

Cuyper, De Witte, & Vansteenkiste, 2010; Gagné et al., 2015). This finding has great value for the management area, because through this possibility, organizations can promote situations that help people to motivate themselves to work, resulting in better organizational performance.

#### THEORETICAL RELATIONS BETWEEN PSYCAP AND SDT

As the proposal of this work was to verify if there is a relation of these two approaches, it was necessary to rethink common points that they explore. Therefore, based on the readings made of these two distinct theoretical currents, it is verified that both propose to study the organizational behavior of the individuals, with orientation to the organizational performance (Youseff-Morgan 2014; Gagné & Deci, 2005). Another important factor is that the two approaches have been devoted to developing measurement tools, based on scientific rigor. In the studies of Psychological Capital we have the scale PCQ-24 and in the SDT scale MWMS.

Research topics can also be listed as a point of convergence between theories. The subjects covered are: performance at work, commitment, well-being, intention to leave, stress among others (Avey, Luthans & Jensen, 2009, Luthans et al., 2010, Sun et al., 2012; Fernet et al., Gillette et al., 2013, Gillette et al., 2013).

However, it is in relation to theoretical constructions that we find signs of confluence. In the definitions of Positive Organizational Behavior (POB), the term 'motivation' is widely used. In justifying the importance of POB studies, Youssef-Morgan (2014) points out that the underlying theoretical mechanism, connecting the four constituent dimensions of PsyCap, is based on motivated and persevering effort to achieve success. This statement was originally put by Luthans et al. (2007 p.550), when he explained why some people react to situations through Self-Efficacy, Hope, Optimism and Resilience. In the original the quotation is as follows: "[...] positive appreciation of circumstances and probability of success based on motivated effort and perseverance."

In the original concepts of the four dimensions of Psychological Capital, and especially in Self-Efficacy and Hope, the word 'motivation' is found to compose its definitions. This question demonstrates the importance of this presupposition (motivation) for the psychological resource to manifest itself in the actions of individuals.

By contrast, in Self-Determination Theory, Ryan and Deci (2000b) clarify that the basic needs of individuals (autonomy, competence and bond) are inherent in human nature. The authors state that individuals strive to meet these needs. In this movement, they boost psychological growth, promoting the 'positive' development of people. According to his words, Ryan and Deci (2000b) state that satisfying basic needs promotes psychological development and the full realization of human potential. In this context it can be related that the personal characteristics of the subjects are representing the COP concept of positive psychological states.

Another possible analogy is between the Necessity for Competence and Self-Efficacy. According to Gagné and Deci (2005), Necessity of Competence means recognizing in oneself the ability to accomplish something. This concept resembles that of Self-efficacy, which is confidence in one's own ability to accomplish something (Luthans, 2002).

In empirical studies, relating SDT and work, the concept of 'psychological resources' is explored. In the context of Self-Determination Theory, psychological resources are defined as an individual's ability

to satisfy their basic needs (autonomy, competence, and bonding). However, it is expressed that some people seek more or less hard to reach their personal goals, transposing the mishaps and remaining perseverant (Fernet et al., 2014, Trepanier, Fernet, Austin, 2013, Guntert, 2014). This statement may also lead to the understanding that these internal psychological resources are similar to the Psycap definition (Resilience, Hope, Self-Efficacy, and Optimism).

The authors Gagné de Deci (2005) conceptualize motivation as a relation between the satisfaction of basic needs (autonomy, competence and bond) and the energy employed to reach them. The word 'energy' also opens the authors' comments to state that some people mobilize more energy than others to meet these needs. It conveys the same idea of the authors, mentioned above, on the similarities with the positive psychological states defended by the theory of Psycap.

Taking into account these possible similarities, the following sessions will present the steps of the quantitative research, with the statistical correlations found.

## SAMPLE AND PROCEDURES

Data from the survey were collected from 249 participants, of whom 101 responded to the instrument in a physical document (printed) and 139 people answered the instrument online. Of this total, 235 valid questionnaires (n = 235) were considered for data analysis.

It is worth mentioning that the respondents were professionals working in public or private health services, such as hospitals, BHU (Basic Health Units) and medical care clinics in south of Brazil. Public health services are those that are administered wholly by the government; private institutions are that have administration and financial resources from the civil initiative, non-public and mixed health are organizations that have private administration with public budget participation.

The sample was health' professionals who performed administrative or care functions. By 'care functions' is meant all employees who works with the patient directly interfering with the treatment. Examples of care functions are Physicians, Nurses, Nutritionists, Pharmacists, Psychologists, Physiotherapists, Nursing Technicians, Technicians in Radiology, Technicians in Collection, among others.

By 'administrative' it is understood the professionals that acted with activities indirect to the care functions but that complement the health service. Examples of these administrative functions are the professionals who works in the following areas: Direction, Human Resources, Financial, Finance, Reception, Laboratory, Internal Pharmacy, Supplies, Purchasing, Maintenance, Hygiene, Kitchen and Hospital Nutrition, among others.

## MEASURES

For the data collection in the quantitative stage, an instrument was used that brings together MWMS and PCQ - 24, also containing demographic questions. The MWMS and the PCQ - 24 are scales used to know the Motivation for work and the Psychological Capital of the employees of the organizations.

Thus, PsyCap was measured using the Psychological Capital Questionnaire (PCQ - 24) which contains 24 questions distributed in: six items that measure Self - efficacy, six items that measure Hope,

six items that measure Optimism, and six items that measure Resilience (Luthans et al., 2007). To use this scale, permission was received from Mind Garden, the legal copyright holder.

Motivation was measured using the Multidimensional Work Motivation Scale (MWMS, Gagné et al., 2015), which comprises nineteen (19) questions in which the individual should answer the questions considering the following observation: "Why do you strive or would strive in your current job?" The answers are organized on a likert scale of 07 points where 01 means 'nothing' and '07' completely.

Both instruments were translated from English to Portuguese (Brazil) through the reverse translation technique.

## RESULTS AND DISCUSSION

The descriptive analysis and the Cronbach's  $\alpha$  were initially performed for the dimensions of this study, the results of which are shown in Table 1.

Table 1 – Descriptive Analysis

	Theoretical Dimension	M	SD	Cronbach's $\alpha$
<b>Motivation</b>	Demotivation	1,21	0,42	0,79
	External Regulation (Social)	3,76	1,79	0,90
	Injected External Regulation (Material)	3,25	1,70	0,83
	Identified External Regulation	4,93	1,57	0,84
	Integrated External Motivation / Intrinsic Motivation	5,68	1,24	0,92
<b>Psycap</b>	Efficiency	5,66	1,04	0,92
	Hope	5,47	1	0,9
	Optimism	5,38	1,07	0,84
	Resilience	5,28	1,12	0,82

Next, the analysis was performed considering the segmentation of the sample, through the demographic data of this study, the t-test was performed for independent samples. The purpose of this verification was to understand if the results found, organized by demographic categories (gender, age, function, schooling and company time) are by chance or result from significant differences. The criterion used was to consider, for levels of significance of assumed equal variances, that the test results  $t > 0.05$  result in differences that are due to chance, that is, it has no statistical significance (Malhotra, 2012).

From this analysis, it was verified that the gender category was the only one that did not present significant differences in their responses. In this way it is possible to conclude that the masculine gender and the feminine gender do not influence the Psychological Capital and the Motivation for the work.

The age category presents significant difference only when related to the External Motivated Introjected (material) factor. The values found up to 35 years are 4.02 and over 35 years, worth 3.44. These results suggest that people up to age 35 believe that work effort will result in more external rewards such



as financial gains, stabilities, and promotions. This type of effort is characterized by the dimension Extrinsic Introjected Motivation, which is one of the forms with less autonomy of motivation (Gagné et al., 2015).

In other words, people over 36 years old, within the concept of a continuum explored by Gagné et al. (2015), are subject to motivations that are also of an Extrinsic nature, but that align the motives to act identified with personal expectations of performance at work.

For the analysis comparing the data referring to the function, two groups are distributed: care professionals and administration professionals. Evaluating from the t-test it can be concluded that there are differences in the responses of these groups regarding the dimensions of Demotivation, Intrinsic Motivation / Integrated External Regulation and Hope. The indices can be checked in Table 2 below:

Table 2 – Function and Teste *t*

<b>Dimensions</b>	<b>Function</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error</b>	<b>Significance t-test</b>
Intrinsic Motivation and Integrated External Motivation	Administrative	116	5,41	1,48	0,14	0,001
	Assistance	119	5,95	0,87	0,08	
Identified External Regulation	Administrative	116	4,80	1,59	0,15	0,214
	Assistance	119	5,06	1,55	0,14	
Injected External Regulation (Material)	Administrative	116	3,28	1,82	0,17	0,797
	Assistance	119	3,22	1,76	0,16	
External Regulation (Social)	Administrative	116	3,80	1,69	0,16	0,733
	Assistance	119	3,72	1,72	0,16	
Demotivation	Administrative	116	1,30	0,48	0,04	0,003
	Assistance	119	1,13	0,33	0,03	
Psychological Capital Efficiency	Administrative	116	5,50	1,22	0,11	0,020
	Assistance	119	5,81	0,81	0,07	
Psychological Capital Hope	Administrative	116	5,26	1,16	0,11	0,002
	Assistance	119	5,67	0,79	0,07	
Psychological Capital Resilience	Administrative	116	5,21	1,24	0,12	0,365
	Assistance	119	5,35	1,00	0,09	
Psychological Capital Optimism	Administrative	116	5,28	1,20	0,11	0,142
	Assistance	119	5,48	0,92	0,08	

These results reveal that the professionals who work in the care function have greater Intrinsic Motivation / Integrated External Motivation and a lower rate of Motivation in work. In other words, the employees of the administrative function tend to present greater Job Demotivation and greater need for External Motivations to carry out their work activities.

In this item function, the analysis of Psychological Capital portrays significant difference only in the dimension Hope. Respondents who carry out activities in the care function present greater capacity in this factor than those of the administrative function. Care professionals tend to have clearer goals and objectives in their work, finding alternative ways to perform their tasks, using their cognitive and affective skills in the execution of their tasks (Snyder & Lopez, 2009).

Regarding company time, it can be concluded from the t-test that there is a significant difference only in the Dimension of Psychological Capital Effectiveness. The indices can be found in Table 3.

Table 3 – Company Time

Dimensions	Company Time	N	Mean	Std. Deviation	Std. Error	Significance t-test
Intrinsic Motivation and Integrated External Motivation	Less 3 years	99	5,58	1,36	0,14	0,27
	More 3 years	136	5,76	1,14	0,10	
Identified External Regulation	Less 3 years	99	4,93	1,65	0,17	0,99
	More 3 years	136	4,93	1,52	0,13	
Injected External Regulation (Material)	Less 3 years	99	3,45	1,85	0,19	0,14
	More 3 years	136	3,10	1,73	0,15	
External Regulation (Social)	Less 3 years	99	3,98	1,69	0,17	0,10
	More 3 years	136	3,60	1,70	0,15	
Demotivation	Less 3 years	99	1,24	0,45	0,05	0,38
	More 3 years	136	1,19	0,39	0,03	
Psychological Capital Efficiency	Less 3 years	99	5,47	1,09	0,11	0,02
	More 3 years	136	5,79	0,99	0,09	
Psychological Capital Hope	Less 3 years	99	5,39	1,06	0,11	0,33
	More 3 years	136	5,52	0,97	0,08	
Psychological Capital Resilience	Less 3 years	99	5,21	1,25	0,13	0,41
	More 3 years	136	5,33	1,03	0,09	
Psychological Capital Optimism	Less 3 years	99	5,36	1,17	0,12	0,82
	More 3 years	136	5,40	1,00	0,09	

These results suggest that people with less company time (less than 3 years) have less confidence in the performance of their duties, needing more assistance in the execution of their work tasks. On the other hand, workers with more than three years of work demonstrate that they have the belief in their

personal capacities, mobilizing cognitive and emotional resources to carry out the tasks of their work successfully.

In relation to the data 'Degree of instruction', this showed the greatest significant differences among the respondents. In the Motivation for Work factors, measured by the MWMS, all dimensions have significant difference with the exception of Social Extrinsic Motivation (without relevant meaning). The results show that people with a higher level of education have higher motivation and less demotivation at work than individuals without undergraduate courses. Likewise, as far as Psychological Capital dimensions are concerned, all respondents with higher levels of education have higher levels of Psycap. The dimensions Efficacy and Optimism appear with the greatest differences between these two categories, indicating a possible interpretation that individuals with higher education develop the positive capacities of behavior at work.

According to Youssef and Luthans (2007), the positive capacities of individuals are 'states' of personality. This condition of 'state' allows people to develop them from their experiences, self-reflection, and the intention of self-improvement. Reflecting on these authors' positions it is possible to suggest that formal education, through the undergraduate course, promotes the development of Psychological Capital in subjects.

One result that caught the attention of the researchers refers to the relationship between the Resilience dimension and schooling. Non-graduate students had an average of 4.88 in this factor that indicates most of the answers as 'I do not agree or disagree'. Considering that the results above score 5 are indicators of positive psychological ability, this result of 4.88 - although very close to 5 - may indicate that ungraded people tend to have difficulty recovering from adverse situations at work, adapt to change. Individuals with Resilience ability have flexibility in solving problems and effective and positive improvisation in times of uncertainty (Luthans, 2002; Youssef & Luthans, 2007).

The results of this research suggest that professionals without complete graduation do not have this capacity developed, indicating a very significant difference in relation to subjects with higher schooling. These results can be verified through Table 4.

Table 4 – Degree of Instrution

<b>Dimensions</b>	<b>'Degree of instruction'</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error</b>	<b>Significance t-test</b>
Intrinsic Motivation and Integrated External Motivation	Non-graduate	91	5,07	1,47	0,15	0,00
	Graduate	144	6,07	0,87	0,07	
Identified External Regulation	Non-graduate	91	4,40	1,73	0,18	0,00
	Graduate	144	5,27	1,36	0,11	

Injected External Regulation (Material)	Non-graduate	91	2,81	1,67	0,18	0,00
	Graduate	144	3,52	1,81	0,15	
External Regulation (Social)	Non-graduate	91	3,51	1,66	0,17	0,08
	Graduate	144	3,92	1,72	0,14	0,07
Demotivation	Non-graduate	91	1,35	0,50	0,05	0,00
	Graduate	144	1,13	0,33	0,03	
Psychological Capital Efficiency	Non-graduate	91	5,05	1,17	0,12	0,00
	Graduate	144	6,04	0,73	0,06	
Psychological Capital Hope	Non-graduate	91	5,02	1,18	0,12	0,00
	Graduate	144	5,75	0,76	0,06	
Psychological Capital Resilience	Non-graduate	91	4,89	1,35	0,14	0,00
	Graduate	144	5,53	0,88	0,07	
Psychological Capital Optimism	Non-graduate	91	5,04	1,30	0,14	0,00
	Graduate	144	5,60	0,83	0,07	

Looking at the analyzes segmented in their total context, the data suggest that the function, educational level, age and company time influence the Motivation for the work and the Psychological Capital of the employees. In particular, the data related to the educational level showed greater significant differences, provoking the need for future research with these variables.

Then the correlation analysis was carried out in which the results suggest a positive relationship between the four dimensions of Psychological Capital and Motivation for Work. Suggesting that the more the motivation results approach the classification of Intrinsic Motivation the greater the degree of Psychological Capital and the greater the scores obtained in its dimensions.

Table 5 – Correlations between Psychological Capital and Motivation

Factors	Intrinsic Motivation and Integrated External	Identified External Regulation	External Regulation (Social)	Injected External Regulation (Material)
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Psychological Capital Efficiency	<b>0,60</b>	0,42	0,25	0,16
Psychological Capital Hope	<b>0,63</b>	0,42	0,16	0,18
Psychological Capital Resilience	<b>0,49</b>	0,37	0,19	0,20
Psychological Capital Optimism	<b>0,62</b>	0,41	0,19	0,13

Observing Table 5 and considering motivation as a continuum process it is possible to conclude that the correlation values of the Psychological Capital' dimensions with the Motivation factors increase as they are directed towards more autonomous types of motivation.

In the conception of the Self-Determination Theory, Motivation is an internal psychological process that receives influences from personal needs and interactions with the environment. It is the relation between the satisfaction of the basic needs (autonomy, competence and bond) and the energy employed to reach them (Gagné & Deci, 2005).

Psychological Capital is considered as an 'internal psychological process', as a unique personal resource. The sharing of these four concepts of Psycap - Self-efficacy, Optimism, Hope and Resilience, endow individuals with cognitive ability that guides and develops people for a positive assessment of reality, giving the possibility to shape affective, cognitive and behavioral functioning of the subjects, through self-motivation, perseverance, and efficient effort that increase the probability of success in the tasks performed (Youssef & Luthans, 2007, Siqueira, Martins & Souza, 2014 and Avey, 2014).

In the words of Gagné et al. (2015) the SDT seeks to identify and understand the components of Intrinsic Motivation and Extrinsic Motivation and the factors that result in its promotion. Based on these theoretical conceptions and with the results found in this study it is indicated that there is a relationship between the degree of Motivation for work and Psychological Capital of individuals, and Psycap is a possible factor of this promotion.

## CONCLUSIONS AND LIMITATIONS

Through these two theoretical cuts, Psychological Capital and Motivation for work, it was possible to consider a new conception of science that seeks to understand the interconnected and interdependent reality, valuing the whole more than the sum of the parts. The studies deal with intrinsic values, hope, optimism, resilience and trust. Themes surround emotional health, work engagement, authentic leadership, the importance of ethical environments, and the appreciation of ecological awareness of respect for the planet we live in.

Although these studies find a scientific barrier: the difficulty of identifying, measuring and managing the subjective aspect in companies (Stewart, 2002) Self-determination Theory' authors when addressing the theme Motivation for work (Gagné & Deci, 2005) and Psychological Capital' authors (Luthans, 2002), dedicated themselves to developing instruments that filled this gap in organizational studies.

Considering the two theoretical currents: Psychological Capital and Motivation for work, the conclusions of this study can serve as guiding principles for works that wish to explore the relations of human behavior in companies. The data found and the use of the PCQ-24 and MWMS instruments can help further research with the intention of studying the subjectivity dimension of the individuals and their influence on the companies' results and the organizational context.

The results corroborate the claim that there is synergy between these two approaches. It is observed that the dimensions of Psycap are positively related to the more autonomous types of motivation for the work in the sample tested. These data can contribute to approximate the studies of these two theoretical fields of the human behavior in the organizations, being this another important contribution of this research.

Other results found in this study also include aspects that require further discussion and serve as a basis for further research and validation. For example, when relating the data 'Function' to the dimensions surveyed, the conclusions indicated that workers in the administrative area tended to have bigger job Demotivation and a bigger need for External Motivations to exercise their labor activities than those in the care area. Likewise, this administrative function presented a significant difference, for less, in the dimension Hope in relation to the workers of the other area surveyed.

Among other results of this research, which also deserve distinction, two issues marked more deeply. The first one was to identify in the sample studied that people with a college degree with a full course of study presented higher motivation for work and higher level of Psychological Capital. The relationship between this variable and the types of motivation for work resulted in the finding that schooling affects the levels of motivation. The data suggest that individuals with full graduation have higher motivation and lower demotivation at work than individuals without a full undergraduate course.

With regard to the Motivation for Work approach, Gagné et al. (2015) identifies that internal motivation is linked to the possibility of the subject integrating the activity of his work with personal values, endowing it with meaning. Individuals with full graduation may have the tendency to endow their work tasks with a greater personal sense than individuals without this schooling.

Regarding the dimensions of Psychological Capital, the higher the level of education, the higher the Psycap level. The dimensions Efficacy and Optimism appeared with the greatest differences between these two categories.

Recalling the definition of Psycap as a 'state' of positive psychological development, characterized by the individual having a set of attributes: self-efficacy: being confident and self-efficacious, in order to maintain the effort necessary to succeed in challenging tasks; optimism: make positive attributions about present and future events; hope: persevere in relation to the objectives and, if necessary, redirect the ways to reach the goals to be successful; resilience: overcome and return to normal emotional state in the face of problems and adversities (Luthans & Youssef, 2007), point to a possible interpretation that school education assists in the development of positive personality skills in the dimensions of Self-efficacy, Hope, Resilience and Optimism.

Speaking specifically of the Resilience and schooling dimension, people with incomplete graduation, high school and elementary school presented an average of 4.88 in this factor. This index, although close to 5, may suggest that the ability to recover from adverse situations at work, to adapt to changes, to have

flexibility and creativity is less developed than other positive psychological capacities (Luthans, 2002; Youssef & Luthans, 2007).

These data collected in the present study justify a new look to identify the relevance of these findings in the organizational context, presenting significant contributions of this research.

This research allowed to verify a lack of studies using the MWMS and PCQ-24 instruments in the Brazilian context, most of the research being applied in North American and Asian countries, which have as a reference a culture different from the Brazilian one and, the need to develop research involving a greater cultural diversity, from the collection of data in different countries, especially Brazil.

Another point concerns the sample used (health workers). The replication of the same with professionals from other sectors can make possible the generalization and expansion of results, as well as provide relevant information on the subject.

Another opportunity in the statistical exploration of these constructs is to test the interrelationships between the dimensions of Psychological Capital and Motivation for work within a theoretical model from the use of structural equation modeling.

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