PSYCHOMETRIC EVIDENCES OF THE WORKAHOLISM BATTERY IN A PORTUGUESE SAMPLE

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ABSTRACT

Workaholism, defined as an addiction or dependence on work, is a subject that has become prominent in the literature, although its investigation is still at an early stage. The present study aims to adapt the Spence and Robbins' Workaholism Battery - WorkBat (1992) to the Portuguese reality. The sample of the present study consists of 407 participants (313 women, 92 men, 2 don't answered), aged between 18 and 68 years (M = 39; SD =10.449). The results from confirmatory analysis corroborate the original three factors structure: work involvement; work drive; work enjoyment. At the level of internal consistency, global and by dimension, the obtained values are acceptable; allowing reiterating what was observed in the original scale study. Although none of the models tested guarantees ideal adjustment values, either for the reasonableness of the values or for a better theoretical adequacy, the model considered more suitable meets the threefold solution initially proposed by Spence and Robbins (1992).

Keywords: Workaholism; Adaptation; Psychometric Properties; Portuguese Sample.

JEL Classification: J29

1. INTRODUCTION

The word workaholism reminds us an age-old discussion about the limits of what is perceived at a given moment, in a given society, culture and values as acceptable, desirable and "normal" in terms of dedication, motivation and enthusiasm for work. Some describe it as obsession, addiction, compulsion or vice; others say that this obsession is the word that lazy people use to describe those who work. Oscillating between a vision that goes from the obsession with dedication/commitment and commitment to work, what happens is that the phenomenon of workaholism and the interest in its study, triggered in the 70s, with the so-called crisis of Fordism and, driven by the development of an increasingly competitive, aggressive and globally demanding world (Serva & Ferreira, 2006).

Due to the constant, and increasingly rapid changes in the organizational world and to the needs and demands of the workers, it becomes pertinent to deepen the study of

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workaholism in order to better understand this constantly evolving reality. For the same reason, the investigations, theories and models conceived regarding workaholism are increasing. However, the conclusions are unclear and nonconsensual, which supports the necessity and importance of further studies.

Given the importance of the construct for Organizational Psychology, due to its antecedents and consequents, as well as the lack of a tool for measuring workaholism in Portuguese, it is the objective of this study to contribute to the validation of the Workaholism Battery (Spence & Robbins, 1992), for a Portuguese sample.

2. WORKAHOLISM

The workholism definition did not always have consensus. The first author to investigate the concept of workaholic was Wayne Edward Oates (1971). This author relied on the fact that some individuals work regularly above their limits, which could trigger the so-called addition to work - a phenomenon known as workaholism, which means being addicted or dependent on work. Oates (1971), considered that the characteristics of workaholics' behaviors were similar to any other addition/dependence (e.g., alcoholism), being possible to observe excessive behaviors and neglect of other spheres of life (e.g., family). His work served as a basis for further works, once Oates (1971) identified disturbances in the areas of health, happiness, interpersonal relations and social functioning, as a consequence of the work addition and the extreme need to work.

In the 1980s, Machlowitz (1980) presented the first empirical work devoted to this topic. The author characterizes workaholism as a personality trait, which involves an intrinsic desire to work excessively, in an attempt to achieve greater responsibility, opportunities and recognition at work. In order to remove the connotation of pathology, she emphasized that the posture of the workaholics, expressed in effort and time, represents an extreme involvement with work. Machlowitz (1980) further argues that it is the combination of aspects of work and support received in other areas (e.g., family), which can lead to frustration or achievement of the individual.

In another perspective, guided by the initial conception of Oates (1971), but with a focus on the family perspective, Robinson (1998; 2011) used the addition paradigm to explain the construct. The author defends this addition as a progressive process translated into specific behaviors, framed in five aspects: work more than required; increase levels of self-esteem and productivity at the expense of personal needs; control-perfectionism; difficulties of intimacy/relationship; constant mental worry (difficulty in relaxing). Robinson (1998) considers workaholism as an unconscious attempt to solve unknown psychological needs, which may have as a consequence the family separation, health problems, difficulties in managing everyday life, and even death. In the book, *Chained to the Desk*, Robinson (1980) exposes four major risk factors that can lead to workaholism or the difficulty of overcoming it: everyday environment/daily context (e.g., family context in which the individual grows); interconnections between environments (e.g., company that requires the employee to work too many hours for financial rewards or recognition); neighborhood and community (e.g., stereotypes supporting positive portraits of workaholics); and, culture and societal beliefs (e.g., an economy that requires working long hours to earn enough money to have an acceptable standard of living).

In 1992, Spence and Robbins carried out a vast review of the literature on this subject, in order to organize the various studies and theories to date. As a conclusion of the study, the authors defined workaholism as a stable trait, which involves high level of commitment

to work, large amount of time spent on such tasks and a strong compulsion to work, even when it is not necessary.

Based on the work of Machlowitz (1980), these authors created a battery of tests, in order to test the difference between workaholism and work enthusiasm, two close concepts. For these authors, the individuals of the first profile (workaholics) would obtain higher scores on the scales of work involvement and driveness, and low scores on measures of work enjoyment (Spence & Robbins, 1992). That is, the main characteristics that distinguish both types of workers are: the pleasure obtained through work, the involvement with it and the drive to perform this activity. A few years later, Porter (1996) finds results similar to those obtained by Oates (1971), arguing that workaholism translates into excessive involvement with work, even leading to neglect of other areas of life, and that the behaviors are maintained by internal causes, rather than by requirements of the work or organization itself. In 1997, Scott, Moore and Miceli, with the purpose of clarifying the definition of workaholism, also performed a critical analysis of the theme, creating a new conceptual model. According to the authors, workaholics have three main characteristics: they spend many hours in work activities, giving up other important areas of their lives (e.g., family, friends); they resist dropping work activities, and think persistently about self-related matters, even when they are not doing so; and they work harder than they are required and expected, whether at the level their professional functions or at the level of their economic needs. In this same study, the authors identified three types of patterns of workaholic behaviors: the compulsive-dependent; the perfectionist; and the achievement-oriented. The compulsive-dependent workaholic is characterized by the compulsion to work, doing it in an excessive or irrational way and even recognizing this excess, he/she cannot control. Regarding to the perfectionist workaholics, he/she reveals great need to control work and colleagues, seeking to master the environment and work, is rigid and inflexible, caring enough about the details. As for the workaholic achievement-oriented, he/she has great motivation for achievement, identifies with his/her career, has a great capacity to deal with postponing rewards, and strives to achieve excellence in all that he/she does (Scott *et al.*, 1997).

For Shimazu and Schaufeli (2009) workaholism can be conceptualized as an internal force/impulse to which the subject cannot resist, presenting itself as a negative view of the process. Workaholism can be interpreted as an addition, that is, excessive and persistent behavior with negative consequences for the subject (Schaufeli, Taris & Bakker, 2008). In this perspective, we can distinguish two major dimensions of this construct: work excessively (behavioral dimension - investing too much time and energy at work, much more than it is expected) and work compulsively (cognitive dimension - having an uncontrollable impulse to get involved in job issues) (Schaufeli *et al.*, 2008; Shimazu and Schaufeli, 2009; Gorgievski, Bakker & Schaufeli, 2010). From the perspective of some authors (e.g., Schaufeli, Bakker, Van der Heijden & Prins, 2009), it is necessary to combine the two dimensions - cognitive and behavioral - so that one can face with a situation of true workaholism.

McMillan and O'Driscoll (2006), when studying possible predictors of workaholism, proposed the existence of three antecedents: the drive to work, pleasure taken from work and an obsessive personality. In turn, the adjacent behaviors associated with workaholism, have as a consequence, work at any time, and anywhere. These consequences can contribute to an increase of the spiral in which the workaholic is, that is, he/she wants to work even more. Other studies dealing with the analysis of the possible antecedents of workaholism, covered the personal demographic characteristics (Spence & Robbins, 1992; Harpaz & Snir, 2003; Burke, Oberklaid & Burgess, 2004), the personality (Jackson, Fung, Moore & Jackson, 2016) and the organizational values (Burke, 2000; 2008; Schaef & Fassel, 1988). Several studies have shown that the organizational context plays a prominent role in the development and maintenance of workaholism (e.g. Fassel, 1990; Harpaz & Snir, 2003), as

some organizations have the reputation to be a place where people work hard and play hard (Peiperl & Jones, 2001).

With regard to the possible consequences of workaholism, these affect not only the workaholic, but also those with whom he/she works, because of his/her great need for control over work and others (Porter, 2004). Some studies have evidenced the relationship between workaholism and negative health and well-being outcomes (e.g., Balducci, Avanzi & Fraccaroli, 2016; Gonçalves, Nené, Sousa, Santos & Sousa, 2016), including results related to work, such as burnout (e.g., Gonçalves, Brito, Sousa & Santos, 2017; Schaufeli *et al.*, 2009) or with the work-family conflict (e.g., Pan, 2018; Shkoler, Rabenu & Tziner, 2017).

2.1 The Workaholism Battery

Although there are various measures to evaluate workaholism - Schedule for Non-Adaptive and Adaptive Personality-Workaholism (SNAP-Work: Clark, 1993); Children of Workaholic Parents Screening Test (CWST: Robinson & Carroll, 1999); Work Attitudes and Behaviors Inventory (WABI: Senholzi, 2008) – those who received more empirical attention were the Spence and Robbins´ (1992) Workaholism Battery (WorkBat) and the Robinson´s (1999) Work Addiction Risk Test (WART).

Following workaholism studies, and in order to respond to less consensual aspects in their study, Spence and Robbins (1992) developed a deductive methodology to create a tripartite model of workaholism: (1) Work Involvement (WI); (2) Work Enjoyment (E); and (3) Work Drive (D). The authors tested the three-factor structure in two student pilot samples and one sample of skilled social workers (Spence & Robbins, 1992). The WorkBAT, was used in more than 482 studies (see Patel, Bowler, Bowler & Methe, 2012, for a review) presenting adequate facial validity and internal consistency (α = 0.67-0.86) as well as reasonable convergent validity, either with organizational or with individual variables. In a later analysis, Kanai, Wakabayashi and Fling (1996), with a sample of 1072 employees, could not confirm the three-factor structure of WorkBAT, reporting the WI dimension as indistinct. Thus, there seems to be some uncertainty about the internal structure of the scale (McMilan, Brady, O´Driscoll & Marh, 2002).

From the literature review, and from the various authors and approaches related to workaholism, it is possible to identify divergent views and almost antagonistic positions about the phenomenon. Thus, while some authors attribute a negative connotation to workaholism (e.g., Spence & Robbins, 1992; Robinson, 1998), others give it a positive connotation, as is the case of Gorgievski, Bakker and Schaufeli (2010) (workaholism would be synonymous with passion for work), or even Peirperl and Jones (2001) (workaholics take great gratification from work). Yet, some authors view workaholism as a learned behavior (e.g., Porter, 1996; Robinson, 1998), others see this construct as a personality trait (e.g., Mudrack, 2004).

2.2 The present research

In summary, and given the lack of a reliable and valid Portuguese quantitative tool that allows the evaluation of workaholism, it is the objective of this study to develop and validate the WorkBat (Spence & Robbins, 1992) in a Portuguese sample, through a reliability analysis and a confirmatory factor analysis (CFA)

3. METHODOLOGY

3.1 Sample

The sample of the present study consisted of 407 participants, aged between 18 and 68 years (M=39; SD =10.449), of which 313 (76.9%) were female and 92 (22.6%) were male, and 2 (0.50%) don´t identify the gender. With regard to marital status, the participants are mostly married (n = 241; 59.2%), followed by singles or separated (n=158; 38.8%), and 4 (1%) widowers. The qualifications are, for the most part, higher level (n=231, 56.8%), followed by secondary education (n=106; 26.0%) and basic education (n=63; 15.5%). In terms of professional status, the majority of participants are employed (n=331; 81.3%), followed by entrepreneurs (n=48; 11.8%) and service providers (n=14; 3.4%), the others did not identify.

3.2 Instrument

WorkBat: this scale was originally developed in English by Spence and Robbins (1992). It is a scale composed of 25 items that evaluate three dimensions: (1) Work Involvement (8 items), which refers to the generalized attitude of psychological involvement with work (e.g., item 5 "I spend my free time on projects and other activities"); (2) Work Drive (7 items) which is related to an internal compulsion to work hard and blame when work fails (e.g., item 15 "I seem to have an inner compulsion to work hard"); and (3) Work Enjoyment (10 items) related to the pleasure that comes from work (e.g., item 25 "Sometimes I enjoy work so much I have a hard time stopping"). All items are scored along a 7-point Likert format continuum ranging from strongly disagree (1) to strongly agree (7) and items 1, 2, 3 and 21 are reversible.
Demographics: In order to characterize the sample, participants were asked to provide basic demographic information, including gender, age, marital status, educational level and area, and professional activity.

3.3 Item Translation

Two bilingual translators have supported the apparent validity through a back-translation process in accordance to Hambleton, Merenda, and Spielberger's procedure (2006). First, the scale was translated from English into Portuguese by two bilingual specialists working independently. Second, both versions were re-translated into English by two other bilingual specialists, also independently. The translations were compared to the original and two psychologists' experts in this theme adjusted the final version.

3.4 Procedures

Participants were approached individually or in a group for participation in a behavioral study that was guaranteed to be anonymous and voluntary. After the informed consent, the questionnaire was delivered to the participants who filled it in the presence of the investigator. Its application lasted an average of 10 minutes and was carried out either in professional context, in classrooms, libraries or other social contexts that allowed participants to respond quietly to the questionnaire. No compensation was offered to participants and the study subject was blinded. Only the questionnaires completed correctly were considered.

3.5 Data analysis

The data collected were analyzed through the SPSS program (version 20.0) and the SPSS AMOS program (version 20.0). The psychometric properties of the scale were explored

through: a) a statistical description of the scale items that included percentiles, mean, standard deviation and asymmetry; b) internal consistency analysis; and c) testing the structure of the scale through a confirmatory factor analysis. The maximum likelihood estimation method was used, which assumes a multivariate normal distribution, and is robust when this premise is not met (Schermelleh-Engel, Moosbrugger & Müller, 2003), which occurred in our data. The following adjustment indicators were considered:

The χ^2 (Chi-square), corresponds to the probability of adjusting the data to the theoretical model and the higher this value, the weaker the model (e.g., Marôco, 2010). Given that the values may be affected by the sample size, the ratio between the $\chi 2$ and the corresponding degrees of freedom (χ^2/gl) is considered more adequate. Values between 2 and 3 indicate a suitable theoretical model, assuming up to 5. The Comparative Fit Index (CFI), Goodness-of-Fit Index (GFI), Tucker-Lewis Index (TLI), Incremental Fit Index (IFI), which may vary between 0 and 1, considering that the closer to 1 the better the adjustment, with values close to or greater than 0.90 being considered for adequate adjustment (e.g., Bentler & Bonett, 1980; Byrne, 2009). The Root-Mean Square Error of Approximation (RMSEA) is characterized by a confidence interval of 90% (CI90). It is assumed that the ideal value of the RMSEA is between 0.05 and 0.08, accepting values up to 0.10 (e.g., Hu & Bentler 1999; Ullman, 2006). The Standardized Root-Mean Square Residual (SRMR) corresponds to the mean of the standard residuals and an appropriate adjustment of the model is indicated by values less than 0.05 (Hu & Bentler, 1999).

4. RESULTS

The univariate analysis of the scale results, by item, shows an asymmetric distribution (see table 1). According to the results of the Kolmogorov-Smirnov test, the data obtained do not fulfill the assumption of normality. The item means vary between 5.69 (item 6) and 2.61 (item 9) on a 7-point rating scale.

Table 1. Data location, normality and asymmetry

	Percentile							Central tendency		Normality	Asymmetry
	5	10	25	50	75	90	95	M	SD		
Item 1	1.00	1.00	2.00	4.00	6.00	7.00	7.00	4.05	2.286	KS=0.167, p=0.000	-0.015
Item 2	1.00	1.00	1.00	4.00	7.00	7.00	7.00	3.89	2.467	KS=0.196, p=0.000	0.079
Item 3	1.00	1.00	2.00	4.00	5.00	7.00	7.00	3.86	1.992	KS=0.134, p=0.000	0.134
Item 4	1.00	2.00	3.00	5.00	7.00	7.00	7.00	4.70	1.974	KS=0.163, p=0.000	-0.459
Item 5	1.00	2.00	4.00	5.00	6.00	7.00	7.00	4.95	1.757	KS=0.173, p=0.000	-0.668
Item 6	3.00	4.00	5.00	6.00	7.00	7.00	7.00	5.69	1.318	KS=0.216, p=0.000	-0.993
Item 7	1.00	2.00	4.00	6.00	7.00	7.00	7.00	5.09	1.810	KS=0.208, p=0.000	-0.773
Item 8	1.00	1.00	1.00	2.00	5.00	6.00	7.00	3.10	2.093	KS=0.228, p=0.000	0.550
Item 9	1.00	1.00	1.00	2.00	4.00	6.00	7.00	2.61	1.972	KS=0.261, p=0.000	0.974
Item 10	1.00	1.00	2.00	4.00	5.00	7.00	7.00	3.83	1.993	KS=0.154, p=0.000	0.070
Item 11	1.00	2.00	3.00	5.00	6.00	7.00	7.00	4.58	1.888	KS=0.157, p=0.000	-0.441

Item 12	1.00	1.00	3.00	5.00	6.00	7.00	7.00	4.26	1.925	KS=0.160, p=0.000	-0.275
Item 13	1.00	1.80	3.00	5.00	6.00	7.00	7.00	4.60	1.943	KS=0.182, p=0.000	-0.476
Item 14	1.00	1.00	3.00	4.00	6.00	7.00	7.00	4.13	1.941	KS=0.157, p=0.000	-0.227
Item 15	1.00	1.00	2.00	4.00	5.00	6.20	7.00	3.64	1.957	KS=0.139, p=0.000	0.152
Item 16	1.00	1.00	2.00	4.00	5.00	7.00	7.00	3.75	1.980	KS=0.138, p=0.000	0.087
Item 17	1.00	1.00	1.00	2.00	4.00	6.00	7.00	2.80	1.873	KS=0.216, p=0.000	0.791
Item 18	1.00	1.00	2.00	4.00	5.00	6.00	7.00	3.47	1.895	KS=0.139, p=0.000	0.237
Item 19	1.00	1.00	1.00	2.00	4.00	5.00	6.00	2.68	1.681	KS=0.209, p=0.000	0.845
Item 20	2.00	3.00	4.00	5.00	6.00	7.00	7.00	4.73	1.626	KS=0.156, p=0.000	-0.421
Item 21	1.00	1.00	2.00	4.00	7.00	7.00	7.00	4.09	2.333	KS=0.185, p=0.000	-0.010
Item 22	2.00	3.00	4.00	5.00	6.00	7.00	7.00	5.08	1.596	KS=0.192, p=0.000	-0.732
Item 23	1.00	1.00	2.00	3.00	4.00	6.00	6.00	3.07	1.691	KS=0.168, p=0.000	0.589
Item 24	1.40	2.00	3.00	4.00	6.00	7.00	7.00	4.43	1.667	KS=0.133, p=0.000	-0.243
Item 25	1.00	1.00	2.00	4.00	5.00	6.00	7.00	3.61	1.794	KS=0.135, p=0.000	0.248

Source: Own Elaboration

4.1 Reliability analysis

Scale reliability analysis was performed using the Cronbach's alpha, considered the most suitable statistical test for Likert type measurement scales, which can vary from 0 to 1 and values > 0.70 are considered to be acceptable (Nunnally, 1978). The reliability of the scale was 0.81. It was also observed that if any item were eliminated, internal consistency would decrease its value, with the exception of item 3 (alpha would increase to 0.82) and item 21 (alpha would be 0.84). Regarding the values of internal consistency by dimension: Involvement - $\alpha = 0.56$; Drive - $\alpha = 0.82$; Enjoyment - $\alpha = 0.76$.

4.2 Confirmatory factor analysis

In the confirmatory factorial analysis, several models subordinated to three factors were tested, according to the original model, as well as a two-factor model without the involvement dimension, as tested by Kanai and colleagues (1996) (see table 2).

Table 2. Confirmatory factorial analysis (tested models)

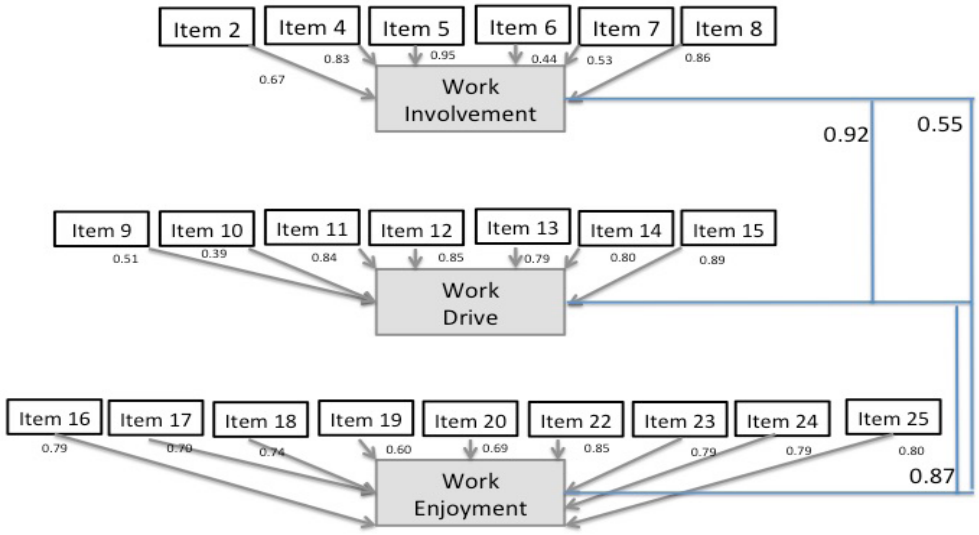
	χ^2/gl	CFI	GFI	IFI	TLI	RMSEA	SRMR
1. Three factor (25 items)	6.178	0.617	0.731	0.620	0.578	0.104	0.104
2. Three factor (without items 1, 3)	5.794	0.674	0.768	0.676	0.637	0.109	0.095
3. Three factor (without items1, 3, 21)	5.125	0.725	0.789	0.727	0.692	0.101	0.093
4. Two factor	6.564	0.757	0.795	0.759	0.720	0.117	0.094

Source: Own Elaboration

The first model tested integrates the totality of the items. In the second model, the items contributing to a decrease in the alpha of the scale (items 3 and 21) were eliminated. In the

third model, in addition to items 3 and 21, the item with the lowest explanatory contribution (item 1) was also eliminated. Although the values obtained are not totally satisfactory, this was the model that presented more adequate adjustment values (see Figure 1).

Figure 1. Proposed model (factorial weights)



Source: Own Elaboration

The observed X^2/gl observed of 5.125 (p = 0.000) is close to the desired values (Marôco, 2010). The CFI (0.73), GFI (0.79), IFI (0.73) and TLI (0.70) present values for a little satisfactory adjustment (Byrne, 2009). As regards the error measures, the SRMR (0.093) and the RMSEA (0.100) values, are indicators of an adjustment close to the acceptable (Hu & Bentler 1999; Ullman, 2006).

5. CONCLUSION

Currently, in an extremely competitive environment, the professional context demands a greater dedication of the employees. The new technologies, which on the one hand are facilitators and have several advantages, on the other, increase the difficulty of the individual to be able to disconnect from the professional activity when leaving the work place. In this scenario, the workaholics, people who constantly think about work, even when they are not working (Schaufelli *et al.*, 2008), are individuals of special interest for studies in the field of Organizational Psychology and Organizational Behavior.

Clark and Baltes (2014) through a meta-analysis, grouped the repercussions of workaholism into three categories: (1) at work (job satisfaction, stress, performance, career prospects); (2) in the family (family functioning, dissatisfaction in marriage, work-family conflict); (3) individual (professional satisfaction, burnout, physical health and mental health). Thus, it is possible to verify that the effects of workaholism go beyond the family sphere and may endanger the individual's psychological health.

The present study aimed to contribute to the adaptation of the scale of Spence and Robbins (1992) in a Portuguese sample. Although none of the models tested guarantees ideal adjustment values, either for the reasonableness of the values or for a better theoretical adequacy, the model considered more suitable meets the threefold solution initially proposed by Spence and Robbins (1992). Internal consistency meets the requirements for its use.

In future research, it is considered interesting to carry out a study, in line with the one developed by Shimazu and colleagues (2015), which shows the two poles of high investment in work, that is, workaholism and work engagement. Specifically, the authors observed that workaholism has negative consequences over a 2-year period, while engaged work has positive consequences in terms of well-being and performance. Workaholism must be prevented and engagement must be stimulated, so it is considered interesting to increase the study of these concepts. Other studies should reinforce the validity of the instrument, including convergent, discriminant and invariant analyzes.

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