Autonomy, multitasking and well-being: Perceptions in telework

Autonomia, multitarefas e bem-estar: Percepções no teletrabalho

Autonomia, mult tarea y bienestar: Percepciones en teletrabajo

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ABSTRACT
The study aimed to assess workers’ perception of autonomy, attentional control for multitasking, and well-being. The research is a quantitative, descriptive, cross-sectional survey. Administrative technicians in education at the Federal Institute of Santa Catarina responded to the instruments. There is a negative relationship between attentional control for multitasking and well-being at work, that the dimension of autonomous motivation of autonomy is related to well-being and attentional control for multitasking is related to autonomous motivation. The study contributes to advancing the understanding of behavioral, cognitive, and emotional issues in the context of telework.

Keywords: personal autonomy; multitasking behavior; well-being at work; people management; remote work.

RESUMO
O objetivo do estudo consistiu em avaliar a percepção de trabalhadores em relação à autonomia, controle atencional para multitarefas e bem-estar. A abordagem é quantitativa, descritiva, survey, de corte transversal. Técnicos-administrativos em educação do Instituto Federal de Santa Catarina responderam aos instrumentos. Concluiu-se que há relação negativa entre controle atencional para multitarefas e bem-estar no trabalho, que a dimensão de motivação autônoma de autonomia se relaciona com o bem-estar e controle atencional para multitarefas se relaciona com motivação autônoma. O estudo contribui para o avanço da compreensão de temas comportamentais, cognitivos e emocionais no contexto do teletrabalho.

Palavras-chave: autonomia pessoal; comportamento multitarefa; bem-estar no trabalho; gestão de pessoas; teletrabalho.

RESUMEN
El objetivo del estudio fue evaluar la percepción de trabajadores en relación a autonomía, control atencional para la mult tarea y bienestar. El abordaje es cuantitativo, descriptivo, encuesta, transversal. Técnicos administrativos en educación del Instituto Federal de Santa Catarina respondieron a los instrumentos. Se concluyó que existe una relación negativa entre el control atencional para la multitarea y el bienestar en el trabajo, que la dimensión motivación autónoma de la autonomía se relaciona con el bienestar y el control atencional para la multitarea se relaciona con la motivación autónoma. El estudio contribuye al avance de la comprensión de los problemas conductuales, cognitivos y emocionales en el contexto del teletrabajo.

Palabras clave: autonomía personal; comportamiento multitarea; bienestar en el trabajo; gestión de personas; teletrabajo.

How to cite this article:
1 INTRODUCTION

Telework became the best alternative for maintaining the activities of the Federal Institute of Education, Science and Technology of Santa Catarina (IFSC) in a safe manner during the pandemic period. With it, the need to find new ways of carrying out work activities and to adapt to new autonomous forms of work has arisen (Lizote et al., 2021). It was noticed that crises such as the Covid-19 pandemic and the advancement and innovations of technologies require a deepening of the "understanding of the relationship between work activities and the dynamics of the experiences of workers operating in organizations" (Paschoal et al., 2022, p. 9).

The care for the well-being of the worker, formed of positive, negative affects and perception about achievement (Paschoal & Tamayo, 2008) become more important at the time of crisis. The Covid-19 pandemic is associated with increased anxiety symptoms in the university environment (Cao et al., 2020). According to Lopes (2020), the pandemic causes overload of activities, pressure, precariousness, loss of collective sense, among other factors, for employees of Brazilian universities. Therefore, there is a need for appropriate organizational policies, especially during the pandemic period (Prasad et al., 2020).

Telework concerns carrying out work activities outside the company's premises and has specific rules (Law No. 13,467 of 2017). This type of work has challenges and benefits (Lizote et al., 2021). In order to establish a work routine, which is appropriate to this reality, it is necessary for the individual to have autonomy (Aderaldo et al., 2017). Autonomy at work is defined as one or more practices involving the delegation of responsibilities, providing employees with the decision-making power to perform tasks (Lin et al., 2011). Self-determined people voluntarily choose to do another activity besides the main one, making the additional activity a gain in autonomy (Bachmann et al., 2019).

For Salvucci and Taatgen (2008), individuals have an inherent ability to perform multiple tasks at the same time without supervision. And performing multiple tasks concurrently makes people multitasking. Some people reveal more ease or difficulty to perform multitasks according to the characteristics of their attentional control process. Conflicts arise when tasks require the same cognitive resources (Salvucci & Taatgen, 2008). Thus, attentional control is fundamental for the execution of multitasks (Filgueiras et al., 2015).

Telework is a viable alternative for the public service to reduce costs with physical infrastructure, increase productivity, and improve socio-environmental indicators (Mendes et al., 2020). It also helps in reducing absenteeism and turnover of servers, keeping them with greater motivation and quality of life (Mendes et al., 2020). However, it is known that working under a telework regime in the pandemic period required emergency adaptation, and multitasking was routine for several people. In order to verify if there are gains for well-being, it is necessary to perform an evaluation of the attentional control in the context of telework. It is known that there are possible differences between organizations already structured for telework, and those that needed to adapt with emergency due to the pandemic, as it was the case of several educational institutions. In this regard, the general objective of this study is to evaluate the perception of administrative technicians in education (ATE) at IFSC, concerning autonomy, attentional control for multitasking and well-being in the telework period, which occurred due to the Covid-19 pandemic.

The study has a potential contribution to the research conducted by Bachmann et al. (2019), because it expands the public and the region of study about autonomy, adding assessments concerning well-being in telework. It collaborates with Zhou et al. (2019) regarding the reference to work-related characteristics that are also able to exert influence on autonomy and have further impact on workers' self-development. It contributes to Corrêa et al. (2019) which highlight the relevance of the application of research on well-being in public administration, as well as adding new elements to the study by Paschoal et al. (2022), which tested the impacts of quality of life perceptions on telework and work redesign on the well-being of public school teachers. In this sense, this study broadens the discussion especially about well-being in a portion of public workers who are not teachers, but are inserted in educational institutions.

The application and verification of the reliability of the instruments and their dimensions (in the case of attentional control and well-being at work) in different audiences and different regions of the original samples is another contribution of the study. Empirically, the research presents potential for implementing policies and practices of managing people in telework, especially focused on behavioral and emotional aspects, which are accessible to social science professionals.

2 THEORETICAL FRAMEWORK

2.1 Autonomy

The word autonomy, in the Brazilian dictionary of the Portuguese language Michaelis (2021), is described as the ability to govern oneself, to direct oneself by one's own laws or one's own will; sovereignty, and the individual's moral or intellectual freedom; personal independence; the right to take decisions freely, moreover, for philosophy, according to the dictionary (Michaelis, 2021) is portrayed as freedom of man who, by the effort of his own reflection, gives himself his principles of action, not living without rules, but obeying those he chose after examining them. For Martins (2002, p. 207), “the concept of autonomy has historically been constructed in the context of different cultural, economic and political characteristics that shape societies along their path”.

Individual autonomy, in its philosophical sense, is understood as self-governance, self-determination, ability to
build goals and own values, freedom to make choices and plans, and to act in accordance with such values and objectives. This leads to self-fulfillment, a condition for building a meaningful life. "Individual autonomy is a condition for the conception of the human being in a situation of equity, equality. Without it, man cannot function as an equal in moral life" (Rosenfield & Alves, 2011, pp. 210-211).

In the work environment, autonomy seems to need respecting some limits, especially those that define the common organizational objectives. In this context, the perception of autonomy can be related to well-being and be influenced by the set of obligations and tasks. Reis et al. (2000) investigated through an experiment with university students the perception of well-being in daily life and its correlations with autonomy, competence and affinity/relationship. The results revealed that autonomy correlated significantly and positively with humor and vitality (Reis et al., 2000). In addition, autonomy was greater on weekends than on weekdays and was much less on Mondays than from Tuesdays to Fridays (Reis et al., 2000). The findings demonstrate a greater power of choice of activities during the weekend, impacting on the autonomy indexes, as well as a decrease in the perception of autonomy when returning to the weekly routine of chores and studies.

According to Rosenfield and Alves (2011), autonomy at work is synonymous with freedom and power of choice to determine how and when to perform their work activities. The authors also state that the autonomy in the work that shows the theory "is a chimera, because it opposes heteronomy and necessity; the autonomy of an activity marked by necessity is condemned to remain formal" (Rosenfield & Alves, 2011, p. 213).

Autonomy refers to a conjunction between responsibility and authority (Lin et al., 2011). Autonomy at work means the inclusion of one or more practices involving the delegation of responsibilities of the boss, providing employees with the decision-making power to perform tasks (Lin et al., 2011). In other words, the subordinate has the power to define his priorities: which task to accomplish first, in how long, what is the best time of day to perform it, or which day of the week, for example.

With the increased use of technology and changes in work processes and occupational structures in organizations, such as virtual teams, institutions have sought to adapt the work (Theurer et al., 2018). Within this scenario of increased use of technology and change, is telework. In the study by Theurer et al. (2018), we visualize positive aspects in the correlation between telework and autonomy. The authors found that autonomy provides several positive results among employees, such as satisfaction, engagement in work and organizational commitment, as well as positive results for the organization itself, such as customer satisfaction. Regarding the negative side, however, it has also been demonstrated that high levels of autonomy and low monitoring of leaders result in lower team performance (Theurer et al., 2018). This aspect reinforces the importance of constant analyses on the different situations in the work context, which is dynamic and complex, so that adaptations are carried out according to the demands that arise.

For Bachmann et al. (2019), the perception of autonomy is guided by motivation, which can be of two main types, autonomous and controlled motivation. In autonomous motivation, people act for intrinsic reasons, that is, they do things because they like to; or they act for identified reasons, doing things because they consider it important to do them (Bachmann et al., 2019). In controlled motivation, the authors state that people act for introjected reasons, because they feel they need to do them; or they act for external reasons, since they feel that they must, by obligation, do so.

### 2.2 Multitasking (s)

Multitasking, the term originates from computer science. It is understood as the simultaneous execution of two or more tasks within a given time period (Kirchberg et al., 2015). For Salvucci and Taatgen (2008), one of the most impressive aspects of the human cognitive system is the ability to manage and perform several simultaneous tasks. Multitasking is a phenomenon that is present all the time in our lives, from work to leisure and in daily routine tasks. Salvucci and Taatgen (2008) noted that multitasking appears almost effortlessly as, for example, while people are walking and talking; or be extremely difficult, as in trying to read something and pay attention to a conversation or request at the same time. They consider that multitasking performance depends heavily on the individual and/or the environment (for example, singing while playing an instrument or dialing a phone while driving) (Salvucci & Taatgen, 2008).

For Salvucci and Taatgen (2008), individuals have an inherent ability of the human being to perform multiple tasks at the same time and this ability does not require supervision. It is this capability that allows you to perform multiple concurrent tasks, as it is often the case in the daily routine. Conflicts can arise when multiple tasks require the same cognitive resources, for example (Salvucci & Taatgen, 2008). Even when tasks use different perceptual or motor resources, performance can be impaired as a result of potential bottlenecks in the process.

Regarding multitasking in the workplace, for Offer and Schneider (2011) it is not only associated with higher levels of productivity, it is predominantly a negative experience. According to Offer and Schneider (2011), neuropsychological experiments show that multitasking is often an inefficient way of performing tasks and, according to the complexity of the task, wasted time and the possibility of errors when two tasks are repeated alternately increase. Generally, people can quickly and easily perform automatic tasks and daily routines combined with more complex tasks such as eating and listening to music, but when tasks require awareness, thought, attention and planning, the
efficiency in performing the task tends to be greatly reduced (Offer & Schneider, 2011).

According to studies by Salvucci and Taatgen (2011), the average continuous and uninterrupted amount of time spent on a range of common office tasks such as talking on the phone, reading email, organizing and typing documents, interacting with internal and external audiences, and so on, is only three minutes per task before switching to a distinct task. Although about half of the tasks suffer external interruptions, such as the ringing of a phone or an email arriving in the inbox, the other half of the interruptions for workers are interruptions in which the individual himself does. The worker interrupts the current task to focus on a different task (Salvucci & Taatgen, 2011). Thus, people not only multitask at an extremely high level, but are also responsible for initiating multitasking in most situations (Salvucci & Taatgen, 2011).

Multitasking involves complex processes in memory, such as goal management and updating, prioritizing relevant information, eliminating inappropriate operations, and distributing attention. For decades, behavioral and brain research has shown that multitasking is challenging, often stressful and even unproductive (Shih, 2013). These processes involve both working memory and file memory (Mourão Jr. & Melo, 2011). File memory causes records to be stored for some time, months, years, or even their entire life, while working memory is a system that stores information for a short time, only while a task is being performed (Mourão Jr. & Melo, 2011).

With telework, work activities, in a way, compete with residential tasks and social roles, such as those of mother, father, son, brother. In addition, the mandatory access to computers and mobile phones for the execution of work activities, also, make time divided among work, fun and social interaction on social media. Media multitasking becomes increasingly popular, thanks to accessibility to computers, smartphones and tablets, allowing integration among work, fun and social interaction (Xu et al., 2016). As an example, a person can use their computer and smartphone at any given time and view emails and text messages on multiple social networks, concurrently.

Social interaction may be divided into synchronous activity, in the case of phone calls or videoconference; or asynchronous activity, in the case of text messages or even audio. For Xu et al. (2016), multitasking during synchronous social interactions is perceived as less appropriate than multitasking during asynchronous social interactions. The research showed that multitasking during synchronous social interaction causes negative social experiences and, consequently, in the long term, it may decrease the perception of social success. Therefore, social success is negatively correlated with media multitasking during synchronous social interaction, but not during asynchronous interaction. Asynchronous activity, moreover, significantly increased the perception of social success (Xu et al., 2016).

When a job requires important tasks, switching between communication and information research (for instance, in a customer service), it is advisable to use asynchronous media such as text messages or online chat instead of a synchronous mode such as a video chat or phone call (Xu et al., 2016). In this context, the capabilities to perform multitasks seem to be influenced by the social environment, in the case of this study, by the condition of telework. In addition, they also seem to be related to other cognitive phenomena, such as attention.

Filgueiras et al. (2015, p. 173) point out that “the ability to control attention is a complex task that demands different mental processes”. For these authors, the capacity of attentional control to perform multitasks in the context of telework is related to the possibility of achieving predominantly positive emotions, to the detriment of negative ones. According to Posner (1980), the ability to switch attention occurs in two ways: it can be automatic or voluntary. The automatic process is an upward process used to guide attention from environmental tips and to maintain focus depending on its relevance (Posner, 1980). Voluntary attention, on the other hand, is used to monitor and conduct attentional choices when something needs to be privileged over another alternative (Posner, 1980).

When workers receive tasks from their managers, some people feel the need to complete a task before starting work on a new task (low multitasking), while other individuals perform both tasks together (high multitasking) (Kirchberg et al., 2015). A possible explanation for such differences stems from people’s general preference for a certain degree of multitasking, called polychronicity (Kirchberg et al., 2015).

In addition to personal preferences for single-task or multitasking work styles, external conditions influence the level of activity of employees in multitasking (Kirchberg et al., 2015). According to Kirchberg et al. (2015), interruptions and unplanned tasks encountered throughout the working day may become multitasking sources. These interruptions may be internal or external, which means that their occurrence is beyond the control of the employee. The authors report that these discontinuations usually lead to multitasking, because any onset of activity that requires full and immediate attention causes a shift of attention from the original task to a new one and requires another shift, again, later.

Employees are also often confronted with unplanned tasks during the working day, which represents additional work to be done. And in general, employees are expected to perform and complete these unplanned tasks (Kirchberg et al., 2015). Individuals who perceive their repetitive tasks or who get bored easily find satisfaction in changing work activity and doing this self-management among the multitasking opportunities that arise during the working day (Kirchberg et al., 2015).

When employees realize that they are free to perform their work their way within a context of support for autonomy, they are more likely to find the work more engaging, to have more favorable evaluations regarding job satisfaction and to be more proactive in the organizational environment (Slemp
et al., 2018). The perception of the autonomy of employees and the sense of well-being that freedom brings them, suggested that they are more susceptible to multitasking.

Bachmann et al. (2019) state that when motivated autonomously, the person tends to feel determined. Self-determined people voluntarily choose to do another task besides the main activity and, thus, an additional activity may be a gain in autonomy for them (Bachmann et al., 2019).

2.3 Well-being

For a better understanding, the theme in subjective well-being (SWB) and well-being at work (WBW) was divided, since the concept of WBW adopted for this research emerged from the assumptions of SWB.

The SWB construct was first used by Diener in 1984 as a way to identify the field of psychology which tries to understand people and their quality of life evaluations, including their cognitive judgments and affective reactions (Proctor, 2014). The bibliography on subjective well-being - SWB, covers studies that use different words and expressions such as happiness, satisfaction with life, morals and positive affections (Diener, 1984). The SWB presents three basic characteristics that distinguish it from other concepts: subjectivity, positive measures and a general evaluation (Diener, 1984).

SWB, in short, is the scientific study of happiness: what is its cause, what is responsible for decimating it and who owns it (Albuquerque & Tróccoli, 2004). Some understandings give rise to concepts and these are employed, in common sense, as synonyms of well-being and happiness. Quality of life is sometimes understood in this way, as synonymous with well-being or happiness. For Albuquerque and Tróccoli (2004), happiness expresses the emotional/affective elements of SWB. The authors also state that quality of life is not only related to health. “For SWB researchers, the subjective element is essential in assessing the quality of life of an individual or group, because social indicators alone would not be able to define it” (Albuquerque & Tróccoli, 2004, p. 154). And “SWB does not necessarily mean psychological health, it is only an aspect of psychological well-being, being necessary, but not enough for the person to be well in life” (Albuquerque & Tróccoli, 2004, p. 154).

Although the daily routine does not encourage people to evaluate their happiness or personal fulfillment, they are routinely encouraged to schedule their day-to-day to tackle the obstacles and challenges of daily routine, such as getting and maintaining a job, feeling safe through protection from violence, owning a healthy financial life, moving away from habits that can compromise health, such as smoking, drinking, being sedentary, and, at the same time, taking care of social well-being. “Researchers across countries are committed to finding out how happy people consider themselves or to what extent they are able to fully realize their potential. These scholars, although they use two distinct perspectives, investigate a complex theme called well-being” (Siqueira & Padovam, 2008, p. 201).

For Siqueira and Padovam (2008), the SWB construct includes two dimensions: positive emotions and negative emotions. For the correlation to represent a dimension of SWB, it is necessary to result in a positive relationship between emotions. Therefore, it means that the individual will need an experience with a greater memory of positive emotions than of negative emotions. However, it is important to emphasize that feeling well-being includes living the negative affects.

Furthermore, in the view of Siqueira and Padovam (2008), when positive and negative affects are studied, it is not a question of identifying only the existence of positive sensations throughout life, but most of the time lived. High-level SWB includes frequent positive emotional experiences; few negative experiences and general satisfaction with life, not only with some aspects of it (Siqueira & Padovam, 2008). To be clearer, some feelings that exemplify positive affects are: joy, contentment, affection, happiness, ecstasy, pride, enthusiasm, and exaltation. Depression, anxiety, sadness, anger, stress, worry, envy, annoyance, pessimism, guilt and shame are examples of negative affects.

There is an understanding on the part of some scholars (Diener et al., 1999) that SWB should be considered as an area of scientific interest that contains two specific dimensions: 1) satisfaction with life and 2) positive and negative affects. In this sense, Siqueira and Padovam (2008) corroborate and report that the concept of SWB links two points of view: one that relies on theories about emotions and affects and another that is based on the foundations of cognition and is operationalized by evaluations of satisfaction with work or with life in general.

On the other hand, well-being at work is a fundamental factor for living well, since people spend most of the day in work activities. Positive and negative influences present in the work routine directly interfere in sustainability for the work exercise. Predominantly positive aspects, which include achievement, tend to provide well-being at work. For Corrêa et al. (2019), factors related to government policies, infrastructure and people management positively influence the work environment.

In the view of Siqueira and Padovam (2008), there are several concepts to represent WBW, both in a positive way and in relation to job satisfaction, or negative concepts such as burnout or stress. In addition, well-being and health are approached interdependently, especially when extrinsic factors are pointed out that can compromise both, such as safety, stress, hours worked, work control and leadership style.

The social well-being dimension includes the behavioral aspect of WBW and two types of conceptual understanding: depersonalization and the quality of social relations in the organization (Von Horn et al, 2004). The dimension of professional well-being, according to Van Horn et al. (2004), encompasses variables such as autonomy,
aspiration and professional competence. For the authors, autonomy highlights the freedom to make their own decisions at work and aspiration is represented by the search for development and challenges in work activity. On the other hand, professional competence refers to the worker's perception that he can deal effectively with work problems (Von Horn et al., 2004). Cognitive tiredness concerns how much the employee can learn and internalize new information, be creative, make decisions or concentrate on work (Von Horn et al., 2004). And lastly, Van Horn et al. (2004), state that the psychosomatic dimension refers to the presence or absence of psychosomatic complaints, such as headaches and stomach pains. WBW, therefore, would be a fairly broad and multidimensional construct.

For Paschoal and Tamayo (2008), despite the importance of the study by Van Horn et al. (2004) the structure proposed by the authors deserves some observations. First, the definition of WBW is broad and difficult to differentiate from other concepts of organizational psychology. "Affirming that work well-being has affective, motivational, behavioral, cognitive and psychosomatic dimensions also does not differentiate it from other concepts; on the contrary, it increases the intersections with diverse constructs" (Paschoal & Tamayo, 2008, p. 14). Furthermore, considering the positive functioning of the subject at work makes WBW a field of study and not only a variable (Paschoal & Tamayo, 2008).

Paschoal and Tamayo (2008) conducted a study that aimed to construct and validate a measure of work well-being. "The basic hypothesis was that well-being at work comprises an affective dimension: emotions and moods at work, and a cognitive dimension: perception of expressiveness and personal fulfillment at work" (Paschoal & Tamayo, 2008, p. 11). The items of affection are derived from the Subjective Welfare Scale of Albuquerque and Tróccoli (2004) for general well-being. Public servants and private companies from the Federal District with different levels of education were interviewed, answering the following questions: "What is "to be happy at work" for you? Is it important to feel fulfilled at work? What is achievement at work?" (Paschoal & Tamayo, 2008, p. 18).

In the public administration environment, Corrêa et al. (2019) point out that the peculiarities of public management increase the relevance of the application of welfare research, because, unlike the private sphere, public organizations aim at the interest of the entire population. In addition to extrinsic factors, intrinsic aspects also influence WBW, as they directly interfere with the mood and happiness of individuals (Corrêa et al., 2019).

WBW is important for promoting competitiveness for institutions, especially with regard to the positive experiences of workers, considering that the individual's productivity depends on his/her physical and psychological health (Corrêa et al., 2019). An employee with autonomy can voluntarily opt for multitasking and feel productive and motivated by it, according to Corrêa et al. (2019).

3 PRESENTATION OF THE HYPOTHESES OF THE STUDY

Filgueiras et al. (2015) point out that the greater the capacity of attentional control to perform multitrasks, the greater the probability of achieving more positive emotions to the detriment of negative ones. Lopes (2020) cites that the pandemic causes overload of activities, pressure, precarization, loss of collective sense, among other factors for employees of Brazilian universities. Thus, the capacity of attentional control in poorly planned and structured telework (Lizote et al., 2021), still without mature policies of people management for the pandemic period (Prasad et al., 2020) may be related to the perception of well-being at work (WBW) but it needs further investigation.

Slemp et al. (2018) reinforced the importance of expanding studies that investigate well-being and attentional control, especially for teleworkers. It is known that multitasking refers to the simultaneous execution of two or more tasks within a given period (Kirchberg et al., 2015) and require attentional control (Filgueiras et al., 2015) so that the preponderant experience (emotional and cognitive) is positive (Paschoal & Tamayo, 2008). Charalampous et al. (2018), Aderaldo et al. (2017) and Filardi et al. (2020) state that although difficulties also occur in remote work, there is a predominantly positive association between the experiences of teleworkers with the perception of well-being, in addition to contributing to indicators of social sustainability (Mendes et al., 2020). Therefore, the first hypothesis of the study is presented.

H1: There is a positive and significant relationship between the attentional control for multitasking and WBW.

Bachmann et al. (2019) state that self-determined people voluntarily choose to do another task besides the main activity and, thus, an additional task is seen as a gain in autonomy. Zhou et al. (2019) describe that when people feel they have control over their behaviors, or they engage in certain jobs or tasks in a discretionary way, they will be highly motivated to work more and more efficiently.

In the context of the pandemic, in which university employees had to adapt and create a work model that leads to precariousness (Lopes, 2020), cognitive aspects – such as attentional control for multitasking and behavioral – as autonomy – are fundamental. It is known that the characteristics of the exercise of work are capable of exerting influence on autonomy (Zhou et al., 2019).

The attentional control originates the perception of autonomy, which involves a sense of choice and freedom in behavior and implies the perception that behavior is in function of its own interests (Slemp et al., 2018). Even if the tasks received have extrinsic status, they are usually internalized after being perceived as important to the point of being performed autonomously (Sheldon et al., 2003). Thus, the attentional control focused on various tasks that need to be performed (Filgueiras et al., 2015) in the context of telework, reinforces that autonomy refers to a context of freedom, but accompanied by responsibility and authority (Lin et al., 2011). Hypothesis 2 (H2) is presented: There is
a positive and significant relationship between the attentional control for multitasking and autonomy.

The study of Reis et al. (2000), positively correlated the constructs of autonomy and well-being in research with university students. Besides, Theurer et al. (2018) found that autonomy predicts several positive results, such as satisfaction among teleworkers. Church et al. (2012) perceived a positive relationship among self-determination, intrinsic aspect of autonomy, and well-being. In addition to contextual characteristics affecting WBW (Corrêa et al., 2019), behavioral characteristics such as autonomy (Lizote et al., 2021) are also related to WBW. Despite the difficulties imposed on university workers during the pandemic (Lopes, 2020), the opportunity to carry out activities under telework favors the exercise of autonomy (Lizote et al., 2021). Next, the third hypothesis of this study is exposed (H3): There is a positive and significant relationship between autonomy and WBW.

The capacity of attentional control to perform multitasking is positively and significantly related to the possibility of achieving well-being (Filgueiras et al., 2015). However, the perception of autonomy can influence this relationship. As we know, the pandemic brings challenges that employees of teaching institutions in telework (Lopes, 2020) need to deal with. The urgency to adapt to telework in Brazil (Lizote et al., 2021) without structured policies for the pandemic period (Prasad et al., 2020) required a quick and forced adaptation.

Some behavioral factors, such as autonomy, facilitate the coexistence with this situation in which several tasks need to be accomplished without face-to-face supervision. Corrêa et al. (2019) state that an employee with autonomy can voluntarily choose multitasking and feel productive and motivated by it. Hypothesis 4 (H4) is presented: Autonomy mediates the relationship between attentional control for multitasking and WBW.

Based on the hypotheses of the study, we have the conceptual model (Figure 1).

Figure 1. Conceptual model. Source: Elaborated by the authors.

4 METHODOLOGY

The research was conducted under quantitative, descriptive, survey and cross-sectional approach. It was carried out with administrative technicians in education of the IFSC. The institution consists of 22 campuses, Rectory and Center for Distance Education and Training, with units in all regions of the state of Santa Catarina and a total of 1,153 servants at the time of the study. A simple random intentional sampling was performed, where the entire population was contacted four times through two strategies. The first strategy consisted of sensitizing the servants through the People Management Board of each institutional campus, making the first contact by email, with a questionnaire being sent. The second strategy consisted of publishing weekly in the institutional newsletter a call with the link to fill out the instruments, at this stage the servants received in three distinct moments the information and the access link. The software G*Power version 3.1.9.4 (Faul et al., 2007; Faul et al., 2009; Kang, 2021) was used to calculate the sample size and the statistical power required. Cohen (1988) and Hair et al. (2014) recommend the use of a statistical power in the order of 80% applied to social sciences and behavior with an effect size (f²) median in the order of 0,15, and 5% of type I error. The calculation used a fixed model with the deviations of the coefficient of determination from zero for the linear multiple regression test using the type of a priori power analysis. The result showed the need for a minimum sample of 68 servants. The data collection lasted 23 days and was performed in October. We obtained 303 servants, which represented 26.28% of the population studied.

The research subjects were not identified with a declaration of the name. According to The Sole Paragraph of Article 1 of Resolution No. 510/16 of the National Health Council (NHC), public opinion consultative research that have their samples composed of unidentified subjects are exempted from ethical analysis by the Research Ethics Committees (REC) and the National Research Ethics Commission (NREC). In the consent form presented before the instrument itself, confidentiality in the name and the voluntary nature of participation in the research were ensured, in addition to the possibility of interrupting the completion of the questionnaire at any time. In addition, information to contact the researchers was made available. Furthermore, the research proposal was submitted for analysis and approval by the Pro-Rectory of Research, Graduate and Innovation of the co-participant institution.

The data collection instrument consisted of three questionnaires. The first questionnaire was based on the instrument validated in Brazil by Filgueiras et al. (2015) for attentional control for multitasking. The second, by Bachmann et al. (2019) for autonomy, and the third was validated by Paschoal and Tamayo (2008) and aims to measure the WBW. In all instruments, a seven-point Likert scale with a positive direction was used considering point 1 as the representation of complete disapproval expressed as “not at all”, and point 7 as a resubmission of complete approval expressed as “extremely”. The instruments have latent (dimensions) and observed (statements) variables, as shown in Figure 2. In addition, sociodemographic variables such as gender, age, education, marital status, sector and campus were surveyed.
<table>
<thead>
<tr>
<th>Autonomous Motivation of Autonomy</th>
<th>Controlled Motivation of Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most of the tasks I do because I like to (AUT1)</td>
<td>Most of the tasks I do because I feel I need to (AUT3)</td>
</tr>
<tr>
<td>Most of the tasks I do because they are important (AUT2)</td>
<td>Most of the tasks I do because I am obliged to (AUT4)</td>
</tr>
</tbody>
</table>

### Automatic Dimension of Attentional Control

<table>
<thead>
<tr>
<th>I have trouble concentrating on a difficult task when there is too much noise around (DAU1)</th>
<th>My concentration is good even when there is music playing in a closed environment (DVO1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I need to focus to solve a problem, I find it hard to focus my attention (DAU2)</td>
<td>When I'm concentrating, I can focus my attention so that I no longer realize what's going on around (DVO2)</td>
</tr>
<tr>
<td>When I'm working, I easily get distracted when there are people talking in a closed environment (DAU3)</td>
<td>When I'm focused, I ignore the feelings of hunger and thirst (DVO3)</td>
</tr>
<tr>
<td>When I'm trying to focus on something, I find it hard to block thoughts that distract me (DAU4)</td>
<td>I can quickly switch from one task to another (DVO4)</td>
</tr>
<tr>
<td>I have trouble concentrating when I'm excited about something (DAU5)</td>
<td>I can quickly be interested in another subject when needed (DVO5)</td>
</tr>
<tr>
<td>It takes me a while to really focus on a new task (DAU6)</td>
<td>For me it is easy to read or write at the same time as I speak on the phone (DVO6)</td>
</tr>
<tr>
<td>I have difficulty coordinating my attention between listening and writing tasks when I take note during a meeting (DAU7)</td>
<td>After being interrupted or distracted, I can easily resume my attention to what I was doing (DVO7)</td>
</tr>
<tr>
<td>I have difficulty holding two conversations at the same time (DAU8)</td>
<td>It's easy for me to switch between two different tasks (DVO8)</td>
</tr>
<tr>
<td>When I get distracted by a thought, it's easy to divert my attention from it (DAU9)</td>
<td></td>
</tr>
</tbody>
</table>

### Dimension Achievement of well-being at work

| In my work I develop important skills (REA1)                  | Joyful (AFP1)                           |
| I get important rewards for me (REA2)                        | Anxious (AFN12)                        |
| I realize my potential (REA3)                                | Worried (AFN2)                         |
| I express the best in me (REA4)                              | Happy (AFP13)                          |
| I reach results I value (REA5)                               | Willing (AFP3)                         |
| I perform activities that express my abilities (REA6)        | Frustrated (AFN14)                     |
| I do what I really like to (REA7)                            | Glad (AFP4)                            |
| I advance in the goals I have set for my life (REA8)         | Troubled (AFN15)                       |
| I overcoming challenges (REA9)                               | Irritated (AFN5)                       |
|                                                               | Depressed (AFN6)                       |
|                                                               | Excited (AFP17)                        |
|                                                               | Bored (AFN7)                           |
|                                                               | Tense (AFN18)                          |
|                                                               | Excited (AFP8)                         |
|                                                               | Proud (AFP19)                          |
|                                                               | Upset (AFN9)                           |
|                                                               | Angry (AFN20)                          |
|                                                               | Enthusiastic (AFP11)                   |

### Dimension Affects of well-being at work

<table>
<thead>
<tr>
<th>Dimension Affects of well-being at work</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my work I develop important skills (REA1)</td>
</tr>
<tr>
<td>I get important rewards for me (REA2)</td>
</tr>
<tr>
<td>I realize my potential (REA3)</td>
</tr>
<tr>
<td>I express the best in me (REA4)</td>
</tr>
<tr>
<td>I reach results I value (REA5)</td>
</tr>
<tr>
<td>I perform activities that express my abilities (REA6)</td>
</tr>
<tr>
<td>I do what I really like to (REA7)</td>
</tr>
<tr>
<td>I advance in the goals I have set for my life (REA8)</td>
</tr>
<tr>
<td>I overcoming challenges (REA9)</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Figure 2.** Study variables.
Source: Elaborated by the authors.

The data analysis strategy consisted of five steps. The first was aimed at verifying the bias of the common method in the database by applying the Single Harman factor test (Podsakoff et al, 2003; Sharma, Yetton, & Crawford, 2009). Exploratory factor analysis (EFA) with the method of extraction by main axes and without rotation, carrying in only one factor, revealed, in the result obtained, a percentage of 25.52% of the accumulated variance. The internal consistency of the instruments was also evaluated through reliability analysis and classification using the Cronbach's Alpha test (Cronbach, 1951; Landis & Koch, 1977). The result showed substantial internal consistency (α =0.741) for the autonomy scale, almost perfect (α =0.810) for attentional control for multitasking, and almost perfect (α =0.930) for the work well-being scale. Also, the normality of the distributions of the items was evaluated by the Kolmogorov-Smirnov test. The results showed non-normality in the distributions (p > 0.05).

The second stage characterized the sample using descriptive statistics, relative frequency (%) and absolute frequency (n) in each response category of the sociodemographic variables. The third stage consisted of operationalizing the constructs and dimensions in unique factors. Descriptive statistics were also used to demonstrate the results for the sample. The tests used were mean (m), standard deviation (sd), median (md), minimum value (min) and maximum value (max). The autonomy scale was operationalized following the protocol established by the author (Bachmann et al., 2019), where the autonomy index is the subtraction of the autonomous motivation dimension minus the controlled motivation. The entire procedure is presented in the results. The scale of attentional control and well-being at work underwent the same procedure to validate their dimensions. An exploratory factor analysis was applied (EFA, Fabrigar & Wegener, 2012, Gorsuch, 2015) using as extraction method the residual minimums with promax rotation because of the ordinal scale, and with determination of the number of factors based on parallel analysis (Çokluk & Koçak, 2016). Esferecita criteria were verified by the Bartlett test and by the measure of adequacy of the sample using the Kaiser-Meyer-Olkin criterion (KMO). The percentage of the accumulated variance and the correlation between the factors were determined. In addition, the quality of adjustment of the model was evaluated by different indexes, the first was the Root Mean Squared Error of Approximation (RMSEA;
Steiger, 1990) with the 90% confidence interval, the second Tucker-Lewis index (TLI; Tucker & Lewis, 1973), and the third, the chi-square test (x²) with its degrees of freedom (df) and level of meaning (p). Once the valid model for the instrument was established, the operationalization of each dimension occurred by the mean of the remaining items in each model. With the operationalized dimension, formulas were proposed, following the theoretical positioning adopted, for the operationalization of the constructs. The description of the formulas was presented, as well as the description of the variables produced including asymmetry (a) and curtosis (k) for evaluation of the new distributions.

In the fourth stage, the hypothesis test was started. As a procedure to verify the basic relationship between attentional control for multitasking and well-being at work, first the correlations between the constructs operationalized in the indexes were tested. The normality assumption was verified by the Kolmogorov-Smirnov test (KS). It was used to establish the bivariate correlation between the indexes, both the Pearson’s r test and Spearman’s Rho. Finally, in the fifth stage, a simple mediation test was performed (Hayes, 2018). We estimated the path coefficients and mediation coefficients with direct and indirect effect. The estimation method used was by bootstrap using 5,000 samples due to the non-normality of the distribution of some variables. The confidence interval (CI) used was 95% and a transformation was used to determine the percentage of effects mediation. In all analyses, the significance level adopted was 0.05. Statistical procedures were performed in R language (R Core Team, 2021) with the help of jamovi software (The Jamovi Project, 2021) and Psych package (Revelle, 2019).

5 ANALYSIS OF RESULTS

5.1 Sample characterization

In total, 66% (200) of the respondents are female. According to the answers, 71.3% (216) are servants living with a partner, are between 24 and 68 years old and 54.5% (165) of the participants have children. Regarding education, 51.5% (156) of the respondents have specialization and just over 50% (152) are placed in sectors related to teaching (laboratory, library, secretariat and academic record, teaching department or course coordination). Regarding working time, 3.3% (10) of the servants have been at IFSC for less than one year, 35.3% (107) between one and five years, 45.2% (137) between six and ten years, while 16.2% (49) have been working at the institution for more than ten years.

5.2 Operationalization of single factors

In order to test the hypotheses, it was necessary to perform the operationalization of constructs and dimensions in single factors to perform the single mediation calculation. This was adopted as a standard due to the low number of items (Brown, 2015) of the autonomy scale and the fact that other instruments also offer theoretical interpretations in the same direction about the relationship between their dimensions.

The concept of the autonomy index points out that the strength of autonomous motivation is opposed to controlled motivation. The score is calculated by weighing and adding scores of the two autonomous types of motivation (intrinsic and identified) and the two controlled types of motivation (introjected and external), before subtracting controlled motivation from autonomous motivation (Bachmann et al., 2019). The calculation predicts a score ranging from -18 to +18. The interpretation consists of understanding that a positive autonomy score reflects autonomous motivation and a negative score reflects controlled motivation. Then, in the deduction of Formula (1) the items of the scale are presented.

Autonomy = Autonomous motivation - Controlled motivation

Autonomy = (Intrinsic ratio with weight 2 + Ratio identified) - (Introjected ratio + External ratio with weight 2)

Autonomy = ((AUT1 x 2) + AUT2) - (AUT3 + (AUT4 x 2))

The model found for the construct of attentional control for multitasking by the EFA met the assumptions of adequacy of measures (KMOgeneral = 0.75, KMOitems ≥ 0.72) and esferecity (x² = 508.96, df = 28, p < 0.001). Two factors were found in the model that represent 40.17% of the accumulated variance and that correlate negatively (r₁,₂ = -0.49). The model adjustment showed results for RMSEA = 0.05 (CI 90%: 0.01-0.08), TLI = 0.95 and x² = 23.56 (df = 13, p = 0.035). Figure 3 shows the graph of parallel analysis for the extraction of the factors of the attentional control construct.

Figure 3. Parallel analysis of the dimensions of attentional control for multitasking.

Source: Elaborated by the authors.

The two factors resulting from the validated model correspond to the automatic and voluntary dimensions of the attentional control. In the automatic dimension remained in the model the items DAU1, DAU2, DAU4 and DAU5. In the voluntary dimension remained the items DVO4, DVO5, DVO6 and DVO8. The attentional control index is theoretically conceived by both dimensions in a complementary and non-competitive way. Thus, the deduction of the formula corresponds to the sum of the two means of the remaining items of each dimension. The predicted score varies between 2 and 14, and the
interpretation consists of understanding that the higher the value of the index, the higher the level of attentional control. Then Formula (2) is represented.

Attentional Control = Automatic dimension + Voluntary dimension
\[ C = \frac{(DAU1 + DAU2 + DAU4 + DAU5)}{4} + \frac{(DVO4 + DVO5 + DVO6 + DVO8)}{4} \]

The model found for the well-being at work construct by the EFA also met the assumptions of adequacy of measures (KMOgeneral = 0.93, KMOitems ≥ 0.83) and esfericity (\( x^2 = 7067.34, df = 406, p < 0.001 \)). Three factors were found in the model that represent 61.91% of the accumulated variance and correspond to the dimensions predicted in the theoretical model. The factor that carries the items of negative affects correlates negatively with the factor that carries positive affects (\( r_{12} = -0.58 \)) and with what carries achievement (\( r_{13} = -0.14 \)), while the positive affect factor correlates positively with the performance factor (\( r_{23} = 0.42 \)). The model adjustment showed results for RMSEA = 0.07 (90% CI: 0.07-0.08), TLI = 0.90 and \( x^2 = 859.35 (df = 322, p < 0.001) \). Figure 4 shows the graph of parallel analysis for the extraction of factors from the well-being at work construct.

![Figure 4](image)

**Figure 4.** Parallel analysis of the dimensions of well-being at work. Source: Elaborated by the authors.

### Table 1

<table>
<thead>
<tr>
<th>Description of indexes</th>
<th>( \bar{x} )</th>
<th>sd</th>
<th>md</th>
<th>min</th>
<th>max</th>
<th>a</th>
<th>k</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attentional Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic attention</td>
<td>4.14</td>
<td>1.15</td>
<td>4.25</td>
<td>1.00</td>
<td>6.88</td>
<td>-0.19</td>
<td>-0.50</td>
</tr>
<tr>
<td>Voluntary attention</td>
<td>4.24</td>
<td>0.91</td>
<td>4.29</td>
<td>1.57</td>
<td>7.00</td>
<td>-0.09</td>
<td>0.13</td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous motivation</td>
<td>0.09</td>
<td>5.51</td>
<td>0.00</td>
<td>-14.00</td>
<td>12.00</td>
<td>-0.04</td>
<td>-0.45</td>
</tr>
<tr>
<td>Controlled motivation</td>
<td>5.20</td>
<td>1.01</td>
<td>5.50</td>
<td>1.50</td>
<td>7.00</td>
<td>-0.73</td>
<td>0.84</td>
</tr>
<tr>
<td><strong>Well-being at work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive affects</td>
<td>4.71</td>
<td>1.36</td>
<td>4.83</td>
<td>1.00</td>
<td>7.00</td>
<td>-0.40</td>
<td>-0.45</td>
</tr>
<tr>
<td>Negative affects</td>
<td>4.29</td>
<td>1.43</td>
<td>4.40</td>
<td>1.10</td>
<td>7.00</td>
<td>-0.06</td>
<td>-0.81</td>
</tr>
<tr>
<td>Achievement</td>
<td>4.97</td>
<td>1.22</td>
<td>5.11</td>
<td>1.11</td>
<td>7.00</td>
<td>-0.65</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors.

Note: m: mean. sd: standard deviation. md: median. min: minimum value. max: maximum value. a: asymmetry. k: curtosis.

### 5.3 Matrix of bivariate correlations

Table 2 shows the correlation matrix for indexes. The KS normality test revealed that the indices of attentional control, automatic and voluntary attention, well-being, positive and negative affects have normal distributions, while the indexes of autonomy, autonomous and controlled motivation, and achievement have non-normal distributions. Therefore, we present the matrix of correlations with the parametric (Pearson r) and non-parametric (Spearman rho) test, as well as the level of meaning.
In order to establish the base relationship for the mediation calculation, it was observed that the relationship between attentional control and well-being, both with normal distributions, showed a significant Pearson correlation coefficient with negative direction and low strength ($r = -0.17$). In addition, it is worth mentioning that the strongest correlation found between different construct indexes was the positive direction between achievement and autonomous motivation ($r = 0.56$). The correlations that did not present significance occurred in the pairs of attentional control with autonomous motivation, positive affects and achievement, automatic attention with autonomous motivation, controlled motivation with voluntary attention, and positive affects with controlled motivation. All the others were significant.

**5.4 Simple mediation model**

To test the relationship between the study constructs, a simple mediation model was used (Hayes, 2018) and the same correlation matrix indicators were considered. Table 3 shows the results of the model’s indicators and paths for mediating the autonomy index. It is possible to notice that H1, where a positive and significant relationship was established between attentional control and well-being at work, is refuted, which, despite being significant ($p = 0.0065$), presented a negative direction ($b = -0.40$). The H2 that proposed the positive and significant relationship between attentional control and autonomy is also refuted, besides not being significant ($p = 0.2166$), presented a negative direction ($b = -0.39$). And H3, which proposed a positive and significant relationship between autonomy and well-being was supported ($p < 0.001, b = 0.24$).

Table 4 shows the results obtained for mediation estimates, it is possible to avoid the indirect, direct and total effects. The indirect effect did not present the level of significance adopted, thus, H4 that set the mediating effect of autonomy on the relationship between attentional control and well-being was refuted. In the model, the mediation of indirect effects represents only 18.7%. Furthermore, the change in the direction of relations in the paths of direct effects prevents the development of the discussion about the indirect effect, which reinforces the idea of H4 as refuted.
Table 5
Path model for mediation of autonomous motivation

<table>
<thead>
<tr>
<th>Paths</th>
<th>Label</th>
<th>b</th>
<th>se</th>
<th>C_{inf}</th>
<th>C_{sup}</th>
<th>z</th>
<th>p-value</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attentional control → Autonomic motivation</td>
<td>a</td>
<td>0.04</td>
<td>0.05</td>
<td>-0.07</td>
<td>0.15</td>
<td>0.73</td>
<td>0.4673</td>
<td>Refuted</td>
</tr>
<tr>
<td>Autonomous motivation → Well-being</td>
<td>b</td>
<td>1.33</td>
<td>0.16</td>
<td>1.02</td>
<td>1.66</td>
<td>8.16</td>
<td>&lt;.0001</td>
<td>Supported</td>
</tr>
<tr>
<td>Attentional control → Well-being</td>
<td>c</td>
<td>-0.54</td>
<td>0.14</td>
<td>-0.82</td>
<td>-0.27</td>
<td>-3.94</td>
<td>&lt;.0001</td>
<td>Refuted</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors.
Note: b: beta. se: standard error. C_{inf}: lower limit of 95% confidence interval. C_{sup}: upper limit of CI95%. z: z score. p-value: significance level.

Table 6
Effects of autonomous motivation mediation

<table>
<thead>
<tr>
<th>Effect</th>
<th>Label</th>
<th>b</th>
<th>se</th>
<th>C_{inf}</th>
<th>C_{sup}</th>
<th>z</th>
<th>p-value</th>
<th>% Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect</td>
<td>a × b</td>
<td>0.05</td>
<td>0.07</td>
<td>-0.09</td>
<td>0.21</td>
<td>0.71</td>
<td>0.4761</td>
<td>8.88</td>
</tr>
<tr>
<td>Direct</td>
<td>c</td>
<td>-0.54</td>
<td>0.14</td>
<td>-0.82</td>
<td>-0.27</td>
<td>-3.94</td>
<td>&lt;.0001</td>
<td>91.12</td>
</tr>
<tr>
<td>Total</td>
<td>c + a × b</td>
<td>-0.49</td>
<td>0.16</td>
<td>-0.79</td>
<td>-0.17</td>
<td>-3.09</td>
<td>0.002</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors.
Note: b: beta. se: standard error. C_{inf}: lower limit of 95% confidence interval. C_{sup}: upper limit of CI95%. z: z score. p-value: significance level. %: mediation percentage.

Finally, Table 7 shows the results of the model indicators and paths for mediating the controlled motivation dimension. H1 is supported (p < 0.001, b = 0.15). However, H2 was refuted, and despite being significant (p = 0.0063), presented negative meaning (b = -0.42). As well as H3, which was also refuted (p = 0.0089, b = -0.43).

Table 7
Path model for controlled motivation mediation

<table>
<thead>
<tr>
<th>Paths</th>
<th>Label</th>
<th>b</th>
<th>se</th>
<th>C_{inf}</th>
<th>C_{sup}</th>
<th>z</th>
<th>p-value</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attentional control → Autonomic motivation</td>
<td>a</td>
<td>0.15</td>
<td>0.06</td>
<td>0.03</td>
<td>0.27</td>
<td>2.56</td>
<td>0.0104</td>
<td>Supported</td>
</tr>
<tr>
<td>Autonomous motivation → Well-being</td>
<td>b</td>
<td>-0.42</td>
<td>0.15</td>
<td>-0.72</td>
<td>-0.12</td>
<td>-2.73</td>
<td>0.0063</td>
<td>Refuted</td>
</tr>
<tr>
<td>Attentional control → Well-being</td>
<td>c</td>
<td>-0.43</td>
<td>0.16</td>
<td>-0.75</td>
<td>-0.09</td>
<td>-2.62</td>
<td>0.0089</td>
<td>Refuted</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors.
Note: b: beta. se: standard error. C_{inf}: lower limit of 95% confidence interval. C_{sup}: upper limit of CI95%. z: z score. p-value: significance level.

Table 8 shows the results obtained for the mediation estimates of the controlled motivation dimension. The indirect effect did not show significant value, as a result, H4 was refuted. In the model, the mediation of indirect effects represents only 13.03%. The negative direction of the indirect effect is discarded as the calculation does not meet the assumption of relationships with the same direction in the indirect path, this prevents the development of a position, which reinforces the idea of H4 as refuted.

Table 8
Effects of controlled motivation mediation

<table>
<thead>
<tr>
<th>Effect</th>
<th>Label</th>
<th>b</th>
<th>se</th>
<th>C_{inf}</th>
<th>C_{sup}</th>
<th>z</th>
<th>p-value</th>
<th>% Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect</td>
<td>a × b</td>
<td>-0.06</td>
<td>0.03</td>
<td>-0.14</td>
<td>-0.01</td>
<td>-1.89</td>
<td>0.0594</td>
<td>13.03</td>
</tr>
<tr>
<td>Direct</td>
<td>c</td>
<td>-0.43</td>
<td>0.16</td>
<td>-0.75</td>
<td>-0.09</td>
<td>-2.62</td>
<td>0.0089</td>
<td>86.97</td>
</tr>
<tr>
<td>Total</td>
<td>c + a × b</td>
<td>-0.49</td>
<td>0.16</td>
<td>-0.81</td>
<td>-0.16</td>
<td>-3.01</td>
<td>0.0026</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors.
Note: b: beta. se: standard error. C_{inf}: lower limit of 95% confidence interval. C_{sup}: upper limit of CI95%. z: z score. p-value: significance level. %: mediation percentage.
6 DISCUSSION OF RESULTS

Based on the results, it is noted that the ATEs self-evaluate with high levels of autonomy in all statements of the instrument, that is, perform the tasks by autonomous motivation (md=5.50) and controlled motivation (md=5.00). There was a small prevalence of autonomous motivation (0.50) in the results of the sample surveyed. However, as the result is close to zero, it may be affirmed that controlled motivation is also important for the ATEs.

Autonomous motivation refers to the activities for which motivation resides in one's own behavior (Slemp et al., 2018). It is observed that the majority of respondents (88.1%) report that they do most of the tasks because they consider them important. Thus, it is important to work on the site with which there is identification.

ATEs are also motivated by extrinsic factors. For 89.2% of respondents, most tasks are performed because they feel they need to do them. Extrinsic rewards may have different meanings, leading to improvements, decreases, or having no effect on intrinsic motivation (Deci et al., 2017). A slightly more autonomous form of extrinsic motivation is the introjected dimension, which involves people with a focus on approval/disapproval, for example (Deci et al., 2017).

In this context, instructions and regulations about tasks at work are relevant aspects for the ATEs. Having clarity about the importance of task deliveries (goals and/or results) that need to be performed for IFSC seems to be an important factor for the sample. This aspect reveals the importance of the assertive performance of transformational leaders in public education (Gnoatto, 2021), since they feel that they have control over their behaviors or engage in certain jobs or tasks, people will be motivated to work (Zhou et al., 2019).

Moreover, the monitoring of deliveries contributes to the feeling of security of employees who are in telework, especially because autonomy is influenced by extrinsic factors, almost as much as by intrinsic factors. It is known that high levels of autonomy and low levels of monitoring suggest lower team performance (Theurer et al., 2018).

Among the responses to attentional control for multitasking, there is a tendency to difficult execution of activities when there are other concomitant stimuli, since 68.9% report difficulty in concentrating with a lot of noise around, and 61.1% are distracted by other people talking around. These results are caused by the ease they seem to demonstrate in changing from one task to another (62.7%), and by the interest in changing subjects quickly (73.3%). Offer and Schneider (2011) report that, in general, people easily perform automatic and routine tasks in conjunction with more difficult tasks, however when tasks require awareness, efficiency may be significantly reduced. In this regard, the importance of an environment prepared for the performance of telework is emphasized.

It is interesting to recall that, for Offer and Schneider (2011), the multitasking of mothers and fathers in the company of their spouse or children is seen as a positive experience, while multitasking at work, although associated with a greater sense of productivity, is perceived as a negative experience. Although no comparison between demographic data and responses was made, most respondents reported living with a partner (71.3%) and having children (54.5%). Knowing the reality of employees through a diagnosis and promoting adjustments in working conditions is a way to alleviate the challenges of the home office that occurred initially due to an urgent condition (Lizote et al., 2021).

Respondents report well-being, with predominant positive affects compared to negative ones, as well as feelings of achievement (Paschoal & Tamayo, 2008). The positive affects with higher means perceived by the servants are: joy (X̅=4.94), happiness (X̅=4.91) and contentment (X̅=4.85). However, it is verified that, as demonstrated by the results of the research by Cao et al. (2020), the ATEs also obtain a high index for concern (X̅=5.60), anxiety (X̅=5.12) and impatience (X̅=4.55). Regarding the performance, the respondents report that they perceive to develop important activities at work (X̅=5.62), reaching results that they value (X̅=5.38), and overcoming challenges (X̅=5.32). However, it is noteworthy that the mean of positive affects (X̅=4.60) and negative affects (X̅=4.22) are very close.

Thus, the condition of telework causes an increase in the feeling of autonomy and satisfaction (Charalampous et al., 2018). However, this same condition may bring negative points, such as overload of working hours or difficulties in work-family relationships (Aderaldo et al., 2017). The results on well-being indexes reinforce the importance of a management model that makes telework more adherent to the public sphere (Filardi et al., 2020). This format of work includes policies, infrastructure and people management (Corrêa et al., 2019).

After analyzing the constructs individually, correlations between the dimensions of the instruments were made. It is observed that, for the construct of attentional control for multitasking, the automatic dimension correlates negatively with the voluntary dimension (r = -0.51). This means that the higher the rates of automatic attention in the responses of the ATEs, the less they have the perception of voluntary attention and vice versa. And voluntary attention is related to well-being (r = 0.37). Therefore, the more tasks promote well-being, the greater the ease of promoting voluntary attentional control for work.

It is considered that the dimension of negative affects correlates negatively with the dimensions of positive affects (r = -0.58) and achievement (r = -0.16). In addition, it is verified that positive affects correlate positively with the dimension of achievement (r = 0.36). The higher the perception of negative affects, the lower the sensation of achievement and positive affects, as well as, the higher the perception of positive affects among the respondents, the greater the notion of achievement. Therefore, promoting well-being at work implies working on people management processes to balance emotions and promote the perception of achievement.
The proposed hypotheses were tested through simple mediation. Based on the verification of H1 (there is a positive relationship between the attentional control for multitasking and theWBW), the hypothesis was confirmed ($p = 0.0065$), but it was refuted in this study because the relationship is negative. This result corroborates the findings of Shih (2013), who stated that attention to multitasking is challenging and often stressful, and even unproductive. Considering the pandemic context marked by the overload of activities, pressure, precariousness, loss of collective sense, among other factors for employees of Brazilian universities (Lopes, 2020), the ability to control the service, especially in the context of poorly planned and structured telework (Lizote et al., 2021), still without mature policies of people management (Prasad et al., 2020) has a negative relationship with the perception of WBW. Thinking and improving people management practices in this context contributes to social sustainability indicators (Mendes et al., 2020).

Regarding H2 (there is a positive relationship between the attentional control for multitasking and autonomy), in this study, no positive and significant correlations between the constructs were found ($p = 0.2166$). The H3 (there is a positive relationship between autonomy and WBW) was supported ($p<0.001$). WBW is positively related to autonomy. Therefore, the greater the perception of autonomy of the ATE, the greater the feeling of well-being in telework. The evidence corroborates the results of the studies by Reis et al. (2000), Church et al. (2012) and Theurer et al. (2018).

H4 was tested (autonomy is tested to support the relationship between attentional control for multitasking and WBW). According to Slemp et al. (2018), through the perception of employee’s autonomy and the sense of well-being that freedom brings them, it is suggested that they are more susceptible to multitasking. It is observed that autonomy does not support the relationship between attentional control for multitasking and WBW ($p = 0.225$). The two dimensions of the autonomy construct were also tested, and the H4 was refuted.

From the results of the mean autonomy in the group, it is noticed that ATEs are motivated by intrinsic and extrinsic factors. And it may explain why the mediation was unconfirmed. In addition, it is inferred that there are other behavioral aspects that mediate the relationship between attentional control and WBW, among them, those aligned to the controlled motivation of autonomy.

In the additional hypothesis tests, it was found that the dimension of autonomous motivation of autonomy has a positive and significant relationship with well-being at work ($p < 0.0001$). In this context, the more motivated the ATEs are to do the activities because they like or consider it important to do them (Bachmann et al., 2019), the greater the perception of well-being. In this regard, attention is drawn to the importance of adapting positions to people and vice versa, as well as the maintenance and promotion of the meaning of work.

In addition, it was found that attentional control also has a positive and significant relationship with the autonomous motivation of autonomy ($p < 0.0104$). The greater the ability to control automatic or voluntary attention to daily demands, the greater the perception of well-being. Perhaps the multi-tasking of media, thanks to the accessibility to computers, smartphones and tablets, caused by telework, allowed the integration among work, fun and social interaction (Xu et al., 2016). However, the positive relationship with well-being only occurs for those who recognize that they have high levels of attentional control.

According to Bachmann et al. (2019) controlled motivation is defined by factors of external influence, such as reward and punishment (external reasons) or internal or external reasons (introjected reasons). Doing an activity beyond the main one may be a gain in autonomy, but the person may feel obliged to do an additional activity. Multitasking may therefore be motivated in a controlled manner (Bachmann et al., 2019).

7 FINAL CONSIDERATIONS

Based on this study, it was concluded that the relationship between attentional control for multitasking and WBW is negative, that the dimension of autonomous motivation of autonomy is related to WBW, and that attentional control for multitasking is related to the autonomous motivation of autonomy.

This research has potential contribution to the study conducted by Bachmann et al. (2019), because it expands the public and the region of study about the constructs of autonomy, adding assessments in relation to the well-being in a telework situation. Collaborates with the study of Zhou et al. (2019) in relation to the reference to work-related characteristics that are also able to exert influences on autonomy and further impact workers' self-development. It also collaborates with the study of Corrêa et al. (2019) that highlights the relevance of the application of research on well-being in public administration, because, unlike the private sphere, these organizations aim at the interest of the entire population. The study expanded the discussion on the well-being of employees of educational institutions, already proposed by Paschoal et al. (2022).

The application and verification of the reliability of the instruments and their dimensions (in the case of attentional control and WBW) in audiences and regions distinct from the original samples is another contribution of the study. The study also presents simple formulas on the constructs that may be used in new data collections from this institution.

Empirically, the research has the potential to implement policies and management practices for people in telework conditions, especially focused on behavioral and emotional aspects, which are accessible to professionals in the field of social sciences. It became evident how much the context demands new dialogues between researchers and
professionals in order to find healthy solutions, and therefore sustainable, care for workers.

One of the limitations of this research was that the data collection was only quantitative. However, due to its behavioral nature, it is interesting for the constructs to be investigated in a qualitative way or through experimental studies in the future. It may be relevant to the IFSC, in addition to contributing empirically and theoretically, to deepen research on the dimension of controlled motivation of autonomy with a qualitative or experimental approach of research involving servants and managers.

For future studies, the suggestion is to compare the results of the constructs with the demographic data presented, and, from this filter, to think about more personalized actions. It is believed that in specific groups the dimension of controlled or autonomous motivation may be confirmed.

It would also be interesting to apply the same research to other professional categories. In the case of IFSC, it could be performed with a sample of teachers. And, it is suggested that the instrument be applied in private institutions, which also needed to organize the work through telework with the Covid-19 pandemic, and many may choose to continue in this work regime even after the pandemic period.

Based on the results, we instigate the development of new research in the themes of organizational behavior in relation to the constructs studied and their dimensions in the telework modality, mainly related to the autonomy of teleworkers. Finally, it is suggested the investigation of other themes related to organizational behavior which may be mediating between attentional control for multitasking and WBW, mainly themes related to controlled motivation.

REFERENCES


