# A study of burnout, presenteeism and absenteeism in an IT firm in Ireland

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**Abstract**

The aim of this paper is to examine the association between burnout, absenteeism, and presenteeism in an Irish IT firm. Particularly, whether people who have a high level of absenteeism and presenteeism are more likely to experience burnout. Simultaneously, the impact of the Coronavirus pandemic on the absenteeism and presenteeism levels was considered for this research, as the research was conducted during the mandatory work from home period established by the government.

This study utilised a cross-sectional survey and a quantitative methodology. The survey was distributed using a snowball and convenience approach. The questionnaire obtained 192 responses from employees of the selected IT firm in Ireland, constituting males and females of a wide range of ages, with and without children, and from different business functions.

The results revealed that absences were more prevalent amongst employees with children during the Coronavirus pandemic. In addition, presenteeism during the pandemic has proven to be more prevalent amongst specific ethnicities and business functions. However, this study was not able to establish burnout as one of the main factors contributing to absenteeism and presenteeism before and during the pandemic.

*Keywords: absenteeism, presenteeism, burnout, covid-19, coronavirus, technology sector, IT.*

# Submission of Thesis and Dissertation

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## 1. Introduction

Burnout has become a more common phenomenon in the workplace in recent years, affecting employees' mental wellbeing, decreasing their productivity and engagement with their employers (World Health Organization, 2019). One of CIPD's latest factsheets (Ayling and Suff, 2020b), states that mental health issues have been a significant reason for long-term absences in the workplace and increased presenteeism; when employees attend the workplace while ill.

Therefore, employers are trying to promote good mental health in the workplace through the services of employee assistance programs (EAP). These services have been proven to lower the absences of employees that use their services (Nunes *et al*., 2018).

There are several multinational tech companies headquartered in Ireland, believed to be leaders in their sector (Enterprise Ireland, 2020), and well known for their generous benefits and flexibility offered to its employees. Although, high levels of burnout are experienced by people employed in tech companies, where the environment and demands are constantly changing at a high pace (McCarthy, 2018).

This study will look at how burnout and the Coronavirus pandemic impacts absenteeism and presenteeism in a multinational information technology firm in Ireland employing approximately 8000 people. Additionally, this study will also investigate, if the workforce demographics influence the results. The chosen research method is quantitative research, and the data will be collected using cross-sectional surveys based on previous research addressing burnout, absenteeism and presenteeism.

## 2. Literature review

The purpose of the literature review is to examine the most recent research on burnout, and its relation to absenteeism and presenteeism. In addition to understanding what information and technology companies are doing to reduce burnout levels and assist their employees. There has been previous research conducted in the areas of burnout and absenteeism (Diestel and Schmidt, 2011; Dyrbye et al., 2019; Jourdain and Chênevert, 2015; Kellman, 2015; Khan *et al.*, 2016; Naughton, 2005; Petitta and Vecchione, 2011; Salvagioni *et al.*, 2017; Schaufeli,

Bakker and Van Rhenen, 2009), nonetheless these studies have focused on a different sector or policies, and several years have passed; consequently it is important to take them into consideration to understand how the situation has evolved, and what other influencing factors might have emerged, such as presenteeism. Furthermore, this study has been conducted during the Coronavirus pandemic and the mandatory work from home period. This situation has fostered an unprecedented work environment for many, increasing personal and professional difficulties not observed in previous studies, that could have exacerbated burnout, absenteeism and presenteeism amongst workers.

### 2.1. Burnout

Maslach and Jackson (1981) defined burnout as a condition caused by emotional fatigue and dissatisfaction that affects many people who work with people in some capacity. Although the definition of burnout has evolved throughout the years, one of the primary changes observed is not only professionals in the human service occupations suffer burnout (Maslach and Schaufeli, 1993). Therefore, burnout can be described as a condition arising from persistent stress at work, with many effects for the well-being and health of workers. It is mainly expressed by severe fatigue, pessimistic behaviours or a lack of customer commitment and work performance dissatisfaction (Salvagioni *et al*., 2017); in other words, when an individual disconnects from the objectives of an organization and fails to achieve the results expected (Petrova, 2019). However, this definition of burnout has been debated whether burnout is a syndrome rather than a condition (Lundkvist, et al. 2014).

Although there has been extensive research about burnout, its impact and effects, it is still considered one of the main career crises in the twenty-first century (Leiter, Bakker and Maslach, 2014). The majority of the studies have found females more prone to burnout symptoms (Maslach and Jackson, 1981; Tipa, Tudose and Pucarea, 2019). Nonetheless, Maslach, Schaufeli and Leiter (2001) observed that females tend to score higher on psychological fatigue than men, while men score higher on depersonalization, this statement is important to ensure burnout is recognized in both genders when reviewing burnout (Purvanova and Muros, 2010). At the same time, future burnout and work commitment are predicted by an increase in job demands and a decrease in job resources (Schaufeli, Bakker and Van Rhenen, 2009), as well as being the most common factor in the IT sector (Nagaraj and Mahadevan,

2015). Mainly resulting in absenteeism as observed in workers who have undergone a large level of stress (Salvagioni et al., 2017; Tipa, Tudose and Pucarea, 2019). There has not been enough research in the topic of burnout in the IT sector in Ireland to determine a general cause or examine its prevalence among its workers.

Company culture plays an important role in burnout and absenteeism; employees working in flexible companies where culture revolves around well-being report lower levels of burnout than those working in more controlling organizations (Jourdain and Chênevert, 2015). Companies across the IT sector invest considerable resources to shape and promote their culture internally and externally, helping them attract and retain talent with numerous benefits and generous well-being policies. Contrarily during the coronavirus pandemic these resources were shifted towards allowing their employees work from home, ensuring they had all equipment necessary including allowances for the purchase of furniture. As mandatory work from home was introduced, some of the perks offered from IT companies, such as on-site gyms, meals or monetary stipends for travelling have been reduced, paused or new virtual perks have been added to the offering as the onsite offering has not been replaced during this period (DNA, 2020). Some IT companies in Ireland offered extra days off to avoid burnout (Elias, 2020; Keogh, 2020)

Furthermore, career dissatisfaction can also prompt burnout in long-term careers when proper departmental support is not available, and the individual believes they are not perceived as adding value to its present employer. If not acted upon, and support systems are not added it can lead to career turnover and reduced job satisfaction, engagement and commitment (Barthauer, Kaucher, Spurk and Kauffeld, 2020). Chatterjee and Das (2019) establish that certain occupations are characterized for higher levels of burnout; these include call-centres and sales jobs amongst others. Notwithstanding their research is focused around women in management positions, yet it adds another layer to take into consideration when reviewing burnout; spending time at home with their families. On the other hand, a study based in Hong Kong reported that the existing work from home system established during the Coronavirus pandemic has several limitations, and as a result, there is more frustration with the shortage of policies and support for conducting successful home working (Vyas and Butakhieo, 2020), and were found to experience more burnout.

Several studies confirm that burnout can be predicted, and preventive solutions can be implemented to enhance engagement and reduce voluntary sickness (Schaufeli, Bakker and Van Rhenen, 2009). Mental wellbeing is an increasing challenge that employers are facing, leading to poor employee performance, higher usage of health benefits, increased turnover. However, a recent survey conducted by Blind reported that almost 60% of technology workers are suffering burnout (McCarthy, 2018), and during the Coronavirus pandemic it seems that it has been triggered by the feelings of isolation, the blurred lines between the workplace and home, and the extended working hours (Riccobono, 2020). During the mandatory work from home period of the pandemic, determining the start and end of the workday has been hard for multiple workers, as well as engaging in work-family multitasking more than normal (Pluut and Wonders, 2020), these blurred lines between work and home life, are adversely affecting well-being and productivity, as well as creating a spike in mental health concerns (O'Connor *et al.*, 2020). Moreover, employees with family responsibilities are more likely than those without to be disrupted by blurred job boundaries (Cho, 2020). Conversely, the existing emphasis on COVID-19 infection transmission around the globe is likely to draw the public attention away from the outbreak's psychosocial effects in both infected people and the general population (Torales, O'Higgins, Castaldelli-Maia and Ventriglio, 2020).

### 2.1.1 Burnout measurement models - The Oldenburg Burnout Inventory (OLBI)

There are different frameworks used to understand the elements contributing to job burnout and its patterns, being the most popular one the Maslach Burnout Inventory (MBI), which has three different models in use. The Maslach Burnout Inventory - General Survey (MBI-GS) is the most common version as a result of its general applicability and suitability to use in a variety of circumstances (Bria, Spânu, Băban and Dumitraşcu, 2014). The survey utilizes three dimensions to assess burnout; emotional exhaustion, depersonalization and lack of personal accomplishment; that have been adapted in accordance to the audience surveyed (Lundkvist, *et al*. 2014). The first version of the MBI was intended for use in the healthcare industry (Al Mutair et al., 2020), its second version replaced the term recipients for students to understand burnout in an educational environment. Later, a context-free general survey was created that was more extensively modified, that can be used in any industry to recognize burnout (Lundkvist, et al. 2014), including the IT sector (Kellman, 2015; Suganya, Pavithra, Pavani and Anu, 2019).

Depending on the instrument used to measure burnout, the emphasis can be on analysing the emotional pressure. However it is important to obtain a comprehensive understanding of the factors generating exhaustion, including physical and cognitive strains (Demerouti, Mostert and Bakker, 2010). Therefore, although the MBI is considered the tool of reference to measure burnout, it has been observed as a uni-directional tool that mainly measures emotional fatigue (Tipa, Tudose and Pucarea, 2019), including mainly negatively phrased items in its questionnaire, making it susceptible to response bias due to its one-sidedness of the questionnaire words and phrases (Langballe, Falkum, Innstrand and Aasland, 2006). The unclarity of the underlying causes of the burnout symptoms assessed by the MBI can account for some of the challenges in developing successful measures to mitigate burnout; as if the individual's symptoms are caused by personal issues, interventions that focus solely on work may not be sufficient (Bianchi, Schonfeld and Laurent, 2019; Schaufeli and Taris, 2005). Kristensen, Borritz, Villadsen and Christensen, (2005) simplify measuring burnout to one dimension that comprises physical and mental exhaustion, and establish that three dimensions are far too many for measuring burnout, as several single-factor instruments have been proven effective. Since the MBI is a proprietary evaluation method with licensing costs, it is prohibitively expensive to use on a regular or widespread basis to measure burnout (Dolan, et al. 2015)

Contrarily, the Oldenburg Burnout Inventory (OLBI), also utilized to measure burnout, as well as work disengagement, comprises two subscales; exhaustion and disengagement (Timms, Brough, and Graham, 2012). The OLBI was built in order to address some of the psychometric and theoretical shortcomings in the MBI (Ádám et al., 2020); covering the emotional, as well as the physical and cognitive dimensions of burnout, by including positive and negative elements, and is freely available (Demerouti, Mostert and Bakker, 2010). Furthermore, unlike the original MBI, the OLBI's disengagement factor applies to distancing oneself from one's job in general, thereby displaying a pessimistic, negative attitude toward it, rather than only distancing oneself from individuals involved in work (e.g. peers, patients, customers). As a result, the OLBI can be used by blue or white collar employees instinctively (Sedlar, Šprah, Tement and Sočan, 2015). The OLBI eliminated a factor that corresponds to what the MBI terms "professional effectiveness," which has been criticized in some studies as not a primary cause of burnout (Demerouti, Mostert and Bakker, 2010). Burnout was assessed in multiple countries and different professions using the OLBI (Demerouti, Mostert and Bakker, 2010;

Sedlar, Šprah, Tement and Sočan, 2015; Timms, Brough, and Graham, 2012) including Ireland (Chernoff et al., 2018) and a variety of professions despite not finding any major variations in burnout rates between occupations. As well as considering its criticisms, where Qiao and Schaufeli (2010) find that a model based on four factors is a more suitable approach than the proposed two-factor model or the single-factor model.

Other burnout questionnaires that are accurate and reliable to measure burnout as well as being more affordable than the MBI are also available, and considered feasible alternatives, such as the Single Item Burnout Measure (Dolan *et al.,* 2015), and the Copenhagen Burnout Inventory (Henriksen and Lukasse, 2016). Nonetheless, they have some limitations as they were mainly validated on a specific population, or to prevent stereotyped answer patterns, questions should be combined with questions on other subjects.

### 2.2 Absenteeism

Absenteeism is the common or chronic lack of presence at work that continually creates disturbance in the smooth running of the company, affects organizational efficiency and productivity and affects employee morale (Rista, Ajdari and Zenuni, 2020). Job frustration, corporate culture, and personal issues are only a few examples of a number of elements contributing to absenteeism (Grigore, 2020). Nevertheless, it is important to differentiate between absenteeism induced by sickness or motivation (Martin and Matiaske, 2017).

Thirteen percent of self-reported work illnesses in Ireland are stress, anxiety and depression; these absences tend to be longer than others (Russell *et al*., 2019). A recent CIPD (2019) survey confirms that stress related leave is constantly increasing in Ireland, as a result of high job requirements and management inefficiency, despite well-being being a priority in the senior leadership agenda. The Irish Business and Employers Confederation (2020) report that four out of five organisations provide a paid sickness benefit, regardless this is not an influential factor for employees to take leave.

Researching absenteeism stems from the idea that a greater understanding of this phenomenon will lead to more successful management of it (Grigore, 2020). A number of recent publications (Ayling and Suff, 2020b; Gray, Davies, and Snowden, 2020; Doki et al., 2016), establish that

mental health problems influence employee well-being and are a significant cause of long-term absence from work. However, a Canadian study discovered that some mental health conditions; such as depression, somatization, anxiety, led more than others to predicting absenteeism and presenteeism (Bailey, Haggarty and Kelly, 2016). These mental health conditions are influenced by high work demands, a lack of control, and a lack of support (Mather, Bergström, Blom and Svedberg, 2015).

Employee absence from work is a significant expense to organizations, in Europe it can account for between 3% and 6% of the total working time, with related costs projected to be about 2.5 percent of a country's gross domestic product (GDP) (Ejebu and Skåtun, 2018). Therefore efficient absence management, providing support and flexibility to employees while returning to work after an illness can reduce non-genuine absence issues from developing (Ayling and Suff, 2020a).

The studies before the pandemic focused on the differences of absenteeism between the private and the public sector (Mastekaasa, 2020; Pfeifer, 2013); and were performed in different countries (Ejebu and Skåtun, 2018; Mastekaasa, 2020; Pfeifer, 2013). However, this research will address a totally different audience, focusing on a specific company within the IT sector in Ireland.

People's decisions on whether or not to continue working or take time off sick are affected by a number of personal, organizational, and occupational factors (Kinman and Grant, 2020). The results of a CIPD (2020) survey confirm that absenteeism due to sickness decreased in professional and other services sectors during the coronavirus pandemic, despite overall absenteeism continuing to increase. Simultaneously, a combination of paid and unpaid leaves were reported from employees in order to mitigate challenges that arose from the pandemic, for instance fulfilling childcare needs, especially in the healthcare sector (Chin *et al.*, 2020; CIPD, 2020) However, Grigore (2020) observed that the Coronavirus pandemic not only modified the definition of absenteeism in the workplace, the causes of absenteeism, and the way absences were handled, it also increased the difficulty to properly record employees' absences. On the other hand, higher rates of absenteeism were reported in companies that required their staff to be onsite as a result of sickness; a study focusing on the UK shows higher levels of sick leave booked amongst healthcare workers in the similar period of 2019 (Appleby, 2021); fear of being exposed and exposing their families to the virus. Whereas employers that

implemented measures to mitigate the risk, such as social distance arrangements, were perceived as safer and as a result experienced less absenteeism (Grigore, 2020).

### 2.3 Presenteeism

As we can see absenteeism has been a continuous issue for employers; however, presenteeism is a new important factor affecting organisations and generally costlier than absenteeism. Presenteeism is defined as when an employee is at work despite having to be at home, either due to illness or because working such long hours resulted in a reduction in productivity at work (Demerouti *et al.*, 2009). Therefore, there are two main interpretations; one refers to productivity loss due to an individual health condition (Lohaus and Habermann, 2019). The second can be identified as when employees attend the workplace while unwell (Yavuz and Kayhan, 2020). Studies have demonstrated that high predominance of presenteeism in the workplace is related to different mental health problems including burnout (Pei *et al*., 2020). In addition, there is plenty of evidence that working while sick will slow down rather than speed up recovery and raise the likelihood of potential health concerns and sick days (Kinman and Grant, 2020), these negative effects are also thought to jeopardize workers' ability to do their jobs (Niven and Ciborowska, 2015).

Kinman and Grant (2020) indicated that presenteeism is more predominant in organizations that have high workloads, significant levels of overtime and are understaffed. Additionally, a systematic review where most studies included were cross-sectional, observed that employees' presenteeism seems to be influenced by a lack of flexible sick leave and a rigid attendance management protocol, including organizational, managerial and peer pressure to work while sick (Webster *et al.,* 2019). In contrast, presenteeism is also related to employees' lack of commitment and work-life balance, as well as to a detriment in workplace relationships for workers (McGregor, Ashbury, Caputi and Iverson, 2018). The main limitations of these studies are the use of only self-reported data to test presenteeism (McGregor, Ashbury, Caputi and Iverson, 2018; Webster et al., 2019); or surveying people with specific health conditions and employed in different places, where their experiences may vary (McGregor, Ashbury, Caputi and Iverson, 2018). Despite the fact that this study would also rely on self-reported results, the survey respondents are all employees of the same organization. Simultaneously, contrary

findings were often discovered and accepted by authors; yet, attempts to clarify such contradictions were rarely made (Webster et al., 2019).

Due to the magnitude and potential costs of presenteeism, proactive measures are needed. A long-term approach should be considered balancing the concerns of the immediate sick leaves and the crucial risk of employees' future wellbeing and performance as a result of presenteeism and its associated costs (Kinman and Grant, 2020). Psychological symptoms including anxiety and physical symptoms as a result of stress, especially stress related to remote working and living situations, resulted in lower work productivity, and higher rates in presenteeism (Van Der Feltz-Cornelis et al., 2020) Moreover, it is crucial to establish the impact of presenteeism to achieve the desired engagement and prevent employee turnover, in addition to obtaining successful results of strategic human resource management practices (Haque, 2018).

Grigore (2020), confirmed that presenteeism was encountered amongst workers employed through the pandemic, demonstrating a compromised focus capacity while being physically present, leading to poor task performance or difficulties reaching targets. Furthermore, the fact that people often go to work when sick with infectious diseases poses major public health concerns throughout the current epidemic (Eisen, 2020; Kinman and Grant, 2020). Nevertheless, previous research observing presenteeism during the Coronavirus pandemic has focused on healthcare professions (Gustafsson Sendén, Schenck-Gustafsson and Fridner, 2016; Kinman and Grant, 2020; Shan *et al.*, 2021) or specific countries (Chen, Lu and Cooper, 2021; Grigore, 2020; Gustafsson Sendén, Schenck-Gustafsson and Fridner, 2016; Shan et al., 2021); the results were not conclusive (Grigore, 2020) or the populations examined were more vulnerable to presenteeism (Chen, Lu and Cooper, 2021; Shan et al., 2021). This research aims to bridge a gap in literature not only by establishing if there are links between burnout and presenteeism in the IT sector in Ireland, but also by understanding if the presenteeism symptoms are more prevalent in these employees throughout the mandatory work from home period or while attending the office. Hence, measuring absenteeism and presenteeism, including the understanding of the benefits and limitations of the different instruments is essential.

### 2.4 Absenteeism and Presenteeism Measurement models

Absenteeism and presenteeism are considered the loss of efficiency at work. At present calculating lost productivity at work has become more relevant., not only for the detriments in mental health, employers are also worried about a workplace intervention's cost efficiency or cost gain (Norito et al., 2020).

There are multiple instruments that have been proven valid to determine productivity loss, such as the Stanford Presenteeism Scale (Koopman et al., 2002) that measures six statements on a five-point scale to measure the effect of health conditions on individual performance and productivity (Noben *et al.*, 2014). Similar to the Work Limitations Questionnaire, its emphasis is on measuring the effects of chronic diseases in the workplace and how they are treated; focusing on time, physical, psychological, and performance requirements (Walker *et al.*, 2017).

Contrarily, the World Health Organization (WHO) - health and work performance questionnaire (HPQ) is a self-report method for calculating the costs of health conditions at work in terms of decreased job efficiency (Dåderman, Ingelgård and Koopmans, 2020). It has been proven to be accurate and reliable in both chronic and non-chronic disease populations (AlHeresh *et al.*, 2017), and its short version assesses both absenteeism and presenteeism from any reason (Norito *et al.*, 2020). It is not without limitations, as Norito *et al.* (2020) test-retest reliability of the absolute presenteeism measure was found to be satisfactory, but there was little support for its construct validity, as well as being set in Japan. AlHeresh *et al.* (2017) on the other hand, observed moderate to weak construct validity when analysing the full HPQ questionnaire. At the same time, due to the population being analysed it is important to consider that cross-cultural challenges have also emerged in interpreting the performance concept, in comparison to other global indicators (Leggett *et al.*, 2016). Despite all these shortcomings, the WHO-HPQ has not been assessed in an Irish population or in workers from the information technology sector, where this study can fill a gap in the literature. This study focuses on a single company within the IT sector the concept of performance is the same for all employees irrespective of the team they work on (Leggett *et al.*, 2016); together with observing absenteeism and presenteeism emerging from any cause, including but not limited to health issues (Norito *et al.*, 2020), reducing the potential of limitations previously observed.

### 2.5 Information technology (IT) companies in Ireland

Ireland's information and communication active businesses have grown in the past years (Central Statistics Office, 2020a), and it is the second largest exporter of computing and IT services worldwide. Well established and newer foreign multinationals have set their European headquarters, alongside their data centers in the country (Enterprise Ireland, 2020). These multinationals employ 293,147 professionals, and generate revenue of €345 billion in Ireland (Central Statistics Office, 2020b), thus attracting local and foreign talent.
The 2016 census data also revealed that the employment in the IT sector has increased exponentially in recent years (Central Statistics Office, 2020d), highlighting it as the second largest sector employing immigrants (Central Statistics Office, 2020c).

The continuous growth in IT, as well as the recent pandemic, have forced technology companies to drive change in their employee's everyday work (Cudahy and Gautam, 2020), with many companies announcing a shift towards permanent work from home (Castrillon, 2020). Together with shifting business priorities (Business Reporter, 2020), including a reduction in office space, investing in cybersecurity and promoting employee engagement (Castrillon, 2020); in spite of talent retention being one of the main challenges for the technology sector (Cudahy and Gautam, 2020).
Notwithstanding, the technology sector has also enabled people to maintain some semblance of a normal lifestyle during the Coronavirus pandemic, by allowing them to perform several daily activities online, such as working, studying, shopping, and receiving health care. In addition to providing the tools and services needed to support these remote operations, as well as efforts to directly resolve the pandemic (Evans, 2020).

Their multicultural and diverse teams boost entrepreneurship, however, the cultural and demographic differences can become a challenge (Goldstein and Gafni, 2019). The key issues affecting the success of these teams are the communication methods, various interaction patterns, trust, problem solving methods, and conflict management (Cagiltay, Bichelmeyer and Kaplan Akilli, 2015). COVID-19's limits on international travel and wider use of telework would almost certainly expand the usage of global virtual teams in businesses (Richter *et al.*, 2021). Therefore, building trust among multicultural teams is critical to improving team success, communication and productivity, since different socio-cultural backgrounds can cause conflict and deteriorate relationships (Altwaian, 2019).

Although the IT sector employs a large number of immigrants in Ireland (Central Statistics Office, 2020c), the current pandemic has fostered the creation and expansion of virtual teams (Richter et al., 2021). Even if previous research focuses on the main challenges these multicultural teams face, in particular when working in a virtual setting, and provide recommendations on how to overcome them (Cagiltay, Bichelmeyer and Kaplan Akilli, 2015), previous studies have not been carried out in the IT sector during a mandatory work from home period to understand if this challenges have increased, together with any correlation between any changes in burnout, absenteeism and presenteeism levels. Therefore, the challenges of working from home have to be considered due to the period this research has been conducted.

### 2.6 Working from home

Telework is characterized as work done from a remote location, such as home, that allows employees to perform their day-to-day job with the aid of technology (Nakrošienė, Bučiūnienė and Goštautaitė, 2019). Some of the benefits of teleworking include increased job control and morale, improved work-life balance, and the elimination of time and space limitations in daily task schedules (Zhang *et al.*, 2020).

Simultaneously, digital technology has become an essential part of the workplace, and the geographical location of a workplace is increasingly losing its significance (Nakrošienė, Bučiūnienė and Goštautaitė, 2019). By contrast, a study exploring the working from home productivity in a Romanian county established that most of the employees surveyed had never worked from home prior to the pandemic (Mirela, 2020); this result is not surprising, as the working from home adoption rate in the European Union is significantly lower than in other regions (Nakrošienė, Bučiūnienė and Goštautaitė, 2019). However, almost half of the IT sector employees have been working from home on a regular basis or with some regularity before the pandemic (Milasi, González-Vázquez and Fernández-Macías, 2020). Ireland is committed to ensure remote working is regulated. The government has been the pioneer in the European Union creating and leveraging legislation that ensures workers have the infrastructure available, the right to disconnect and of course the choice to work from home, creating economic incentives, as well as supporting companies and staff with up-to-date information on remote work on a regular basis (Department of Enterprise, Trade and Employment, 2021).

The Coronavirus pandemic has forced the majority of people to work from home for an extended period of time (Bouziri *et al.*, 2020). Despite being commonly used in several countries and types of businesses, it has been proven to have a range of challenges (Lopez-Leon, Forero and Ruiz-Díaz, 2020). Due to a lack of allocated home office spaces, many people were forced to improvise workstations. Furthermore, school closures required most working parents to work while still monitoring their children. Numerous workers have reported reduced job efficiency, decreased morale, increased stress, and worsened mental health as a result of these changes (Toniolo-Barrios and Pitt, 2021). The Central Statistics Office (CSO) (2020e) reported lower levels of financial difficulties, however the Coronavirus pandemic added new responsibilities, where currently nearly a fifth of the population is caring for a dependent, resulting in increasing the difficulties in working from home, being women the most impacted. The National University of Ireland Galway (NUIG) (2020) ran a study during the pandemic, finding that the majority of people who are currently working from home prefer a hybrid model combining on-site and remote working. In addition, when contrasted to the Healthy Ireland Survey of 2016, the Coronavirus pandemic has had a negative effect on well-being and mental health, with a stronger influence on young people (NUIG, 2020).

The participants of this study were asked questions in relation to their work from home situation, in order to understand if they are facing any challenges or if this has influenced their burnout, absenteeism or presenteeism rate. The questions include: Before Covid-19, have you previously worked from home?, Do you have a suitable and separate space in your home for work?, Do you have all the equipment needed to fulfil your role to the same standard as in the office?, Have you been able to stick to a work routine or schedule?, Do you take regular breaks?; as the blurred boundaries between work and personal life are the most important challenges associated with teleworking (Toniolo-Barrios and Pitt, 2021). At the same time, a set of demographic questions have been added to the questionnaire to account for any correlation to previous studies (Croda and Grossbard, 2021; Del Boca *et al.*, 2020; Nakrošienė, Bučiūnienė and Goštautaitė, 2019; Zhang et al., 2020), as women have been highlighted to be suffering more than men during the pandemic period, that could have been reduced by promoting the Employee Assistance Programs services.

### 2.7 Employee Assistance Programs (EAP)

Employee Assistance Programs (EAPs) are employer-provided services that include mental health and behavioral assistance to workers who are dealing with personal or work-related problems (Brooks and Ling, 2020). Nevertheless, many workers are hesitant to pursue EAP treatment because of their perceptions of mental illness, not because of the issues they're having or how they feel about therapy (McRee, 2017).

Despite increased diagnosis rates and the emergence of more successful treatments, mental illness remains one of the fastest growing causes of long-term sick leave and absences from work (Milligan-Saville *et al.*, 2017). Employers should encourage good mental health and offer assistance for workers experiencing mental ill health. The usage of EAP has been proven to reduce stress, absenteeism and turnover amongst employees (Hsu, Wang and Lan, 2020); as well as minimizing its associated costs for employers, at no expense for employees and dependents (Milot, 2020). Employees who benefit from EAP decrease their absenteeism at a quicker pace, to those experiencing the same issues. This is achieved through a combination of traditional mental health services and coping strategies to fulfil the employees' particular situational needs (Nunes et al., 2018). At the same time, employers find it difficult to determine the return on investment in EAP, nevertheless, pricing should not be the only consideration. Return on value, such as improved mental health, well-being, life satisfaction and engagement of workers should be taken into account if the overall objective of the organization is improving workplace emotional health (Milot, 2020).

Considering the Covid-19 pandemic and its impacts, such as higher rates of social isolation, the adjustment to remote or telework, increased responsibilities for dependents' home care, health issues, and the planning for reopening and returning to work, EAPs are appealing as they are easy to use, timely, and based on the employee's needs (Brooks and Ling, 2020). Hyland. *et al.*, (2020) discovered higher rates of anxiety and depression in Ireland during the initial stages of the Coronavirus pandemic in Ireland, although it is important to consider that individuals in institutionalized care, such as hospitals, direct provision facilities, and inpatient care, were exempt from the study. At the same time, Brooks and Ling (2020) discovered higher rates of anxiety in 95% of their respondents, contrarily to only 48% the people surveyed reporting increased rates of depression, during the Coronavirus pandemic; yet they only surveyed american adults.

Notwithstanding, EAPs are still used too infrequently (McRee, 2017). Hence, employers often suffer from the negative effects of mental wellbeing through higher rates of absenteeism, presenteeism, work dissatisfaction, and turnover resulting in higher costs and decreased productivity (Milot, 2020).

Although there is not enough research on the impacts of the Coronavirus pandemic amongst IT sector employees or their usage of EAP services during this time; other studies have proven EAP beneficial on treating mental health disorders, and absenteeism (Nunes et al., 2018), in addition to enhancing emotional well-being (Milot, 2020). Recommending EAP services throughout the Coronavirus pandemic to mitigate absenteeism as a result of mental health illnesses, including burnout, should become a priority for all employers, as a result of the unprecedented circumstances and the sudden shift to mandatory work from home.

## 2.8 Summary

IT companies operate in a diverse, multicultural environment where the demands and available resources are constantly changing, leading to burnout of employees. The current unprecedented circumstances created by the Coronavirus pandemic has forced the IT sector workforce to move to a mandatory work from home situation for a prolonged period of time (Bouziri *et al.*, 2020), creating numerous difficulties on both at professional and personal level (Cho, 2020; Lopez-Leon, Forero and Ruiz-Díaz, 2020) together with increasing mental health problems, including burnout (Toniolo-Barrios and Pitt, 2021).
The OLBI (Demerouti, Mostert and Bakker, 2010), became the questionnaire of choice for this research as a result of its acceptable accuracy and reliability proven in multiple studies using various methods (Halbesleben and Demerouti, 2005; Demerouti, Mostert and Bakker, 2010; Ádám *et al.,* 2020); together with the ability of filling a gap in research, as previous studies referring to burnout in the IT sector predominantly used the MBI-GS.

Russell *et al.*, (2019) confirmed that burnout can lead to being more absent from the workplace (Russell *et al.*, 2019). Nonetheless, regardless of the traditional understanding of absenteeism, it is important to note that this study was conducted throughout the Coronavirus pandemic where employees recorded higher levels of absenteeism not only related to sickness, but also to meet the personal challenges that emerged (Chin et al., 2020). Simultaneously, the novel

concept of presenteeism affected workers during the pandemic by decreasing their concentration capability, resulting in a poor performance of tasks or difficulties meeting targets (Grigore, 2020).

Many methods have been established to evaluate both absenteeism and presenteeism within workers, the majority of them are still concentrated on presenteeism. Hence, the WHO-HPQ is the only tool assessing both absenteeism and presenteeism (Kessler *et al.*, 2003) without being connected to assessing any population that has particular health concerns. Its validity and reliability has been analysed in multiple studies (AlHeresh et al., 2017; Kessler et al., 2003), being applicable as well to its short version (Norito et al., 2020). It is also important to understand if the demographics relate to absenteeism and the novel concept of presenteeism.

Furthermore, little research has explored the link between burnout, absenteeism and presenteeism in the IT sector in Ireland, and in particular throughout a global pandemic where long mandatory work from home periods have been implemented. This will allow to explore and determine policies to increase job satisfaction and work-life balance, in addition to establishing any correlation with previous studies in other sectors.

## 3. Research question, aims and objectives

The literature review concludes that burnout is directly linked to absenteeism and presenteeism, and are relevant concerns for IT firms (McCarthy, 2018); it also establishes how EAP services have been proven beneficial on improving overall mental health and reducing absences (Milot, 2020). Despite some research in the areas of absenteeism, presenteeism and burnout (Diestel and Schmidt, 2011; Dyrbye et al., 2019; Jourdain and Chênevert, 2015; Kellman, 2015; Khan *et al.*, 2016; Naughton, 2005; Petitta and Vecchione, 2011; Salvagioni *et al.*, 2017; Schaufeli, Bakker and Van Rhenen, 2009), it is important to explore whether the results of these studies can be replicated in alternate geographical settings and different industries with different populations and whether the widespread transformation of work practices under Covid-19 affected the results to a significant degree. However, no research has specifically attempted to look at the consequences in the IT sector during a mandatory work from home period; despite observing higher absenteeism rates in other professions in order to fulfil family responsibilities (Chin *et al.*, 2020; CIPD, 2020).

Moreover, this study intends to provide businesses with a better understanding on how to better manage burnout, reduce absenteeism and presenteeism amongst their employees. As well as understanding if employees have been more exposed to burnout, absenteeism and presenteeism during the pandemic.

The suggested question directing this research is: How does burnout lead to absenteeism and presenteeism in the workplace and to what extent has the workplace transformation following the outbreak of Covid-19 and the widespread prevalence of working from home impacted upon this relationship ?

The objectives of this research linked to the question are:

- Determine the frequency of employees' absences and presenteeism at work in an IT firm in Ireland.
- Determine the degree that employees experience burnout
- Examine the quantitative relationship between burnout as a key determinant of employee absenteeism and presenteeism.
- Determine the degree Covid-19 affected employees' experience of burnout and whether its quantitative association with absenteeism and presenteeism has changed as a consequence.
- Explore the impact of key socio-demographic population characteristics and a multicultural workforce on absenteeism and presenteeism .

## 4. Methodology

The methodology section will address the research methods and techniques that were selected, as well as the reasons why they are appropriate for the present study. Incorporating the research philosophy and research framework supporting this research, alongside the research aim, including an analysis with a brief overview of research strategies and approaches. Concurrently, a section on data collection and analytical methods have been included, including the sampling methods and conditions for inclusion and exclusion for the sample

selection and testing of the chosen research instrument. Lastly, a review of the questionnaire design, together with addressing any potential ethical issues and study limitations.

### 4.1 Research philosophy

Research philosophy is defined as a set of beliefs and assumptions in relation to knowledge creation. A thorough understanding of the various research philosophies is crucial, as they may help prevent misunderstanding when addressing theoretical debates (Grix, 2002). These assumptions can be ontological; related to the realities found while researching; epistemological; related to what is deemed acceptable, true and legitimate information; and axiological; the degree to which the study is motivated by your own values. The most common philosophies that underpin research are positivism; where a pure objective and analytical approach is designed to generate evidence and facts; and interpretivism; the understanding of meanings and drawing conclusions (Saunders *et al.*, 2019b). Positivism is mainly linked to quantitative research, while interpretivism is mostly used in qualitative research (Baškarada and Koronios, 2018).

The approach to research that is based on positivism is usually that of a natural scientist (Saunders *et al.*, 2019b). In the social sciences, the positivist approach is often used to investigate social reality. Social institutions, social events, and social actors are all part of social reality (Stewart and Rigg, 2011). Moreover, one concern that emerges is whether we can conduct non-laboratory studies in social environments and then make demographic generalizations (Stewart and Rigg, 2011)

The focus on quantifying findings that can be statistically analyzed is characteristic of positivism. To develop theories, most research methods look at current theory. These theories are tested and validated, partially or completely, resulting in the development of a hypothesis that can be tested in future studies (Saunders *et al.*, 2019b). This is defined as a deductive research methodology.

The positivist epistemological method will be used in this research to understand the relation between burnout, absenteeism and presenteeism in an IT firm in Ireland, establishing a set of

facts that can be proved or refuted, that reality is the same for all, and that observations and measurements establishing the reality present during this research (Ryan, 2018).

### 4.2 Research framework

Saunders *et al.*, (2019b) introduce the "research onion" model where the outer layers include research philosophies, approaches, methodological options, techniques, and time horizon. This research paradigm also describes the complications underlying the choice of data collection methods in the inner layers (Saunders *et al.*, 2019b), and has influenced the current study's work, directing its development and aiding in the selection of the most suitable methodology and ensuring its reliability.

An epistemological positivist approach has been pursued; focusing on summarizing identified trends into generalised results, on looking for regularities and causal relationships between various elements of reality using statistical methods (Bonache and Festing, 2020). This research collected information concerning the evident reality of disclosed preferences, sorting out regularities and causative relationships to form universal generalisations (Saunders et al., 2019b). At the same time, the positivist approach treats reality as a constant regardless of the many viewpoints that individuals may adopt in various contexts about the environment (Venturinha, 2020). The research method for this analysis was chosen based on the works found during the literature review. The vast majority of the studies follow a quantitative approach, which is suitable for survey study and, as previously mentioned, is based on a positivist research philosophy. A cross-sectional analysis of one organization was used to conduct the research.

To examine the effects of absenteeism, presenteeism, and burnout on the people working in one business within the Irish IT sector, an objective, independent and neutral position has been taken from the researcher (Saunders *et al.*, 2019b); however, provided that the author has selected the study subject, research goals, and data to collect, this is debatably completely unlikely.

### 4.3 Research approach

In this study, two research methods were considered: induction and deduction. The deductive method is a scientific research method in which the researcher tests a theory or hypothesis (Woiceshyn and Daellenbach, 2018). Deduction is a form of hypothesis testing that goes from broad to specific. Top-down reasoning is the term used to define this research approach (Horn, 2009). Blaikie (2010) defined six sequential steps: after presenting the testable argument and testable propositions, the concept is compared to existing theories. The deductive method requires a well-structured methodology, quantitative data, and wider samples for generalization (Saunders et al., 2019b), to see if the findings are in line with the hypotheses. Contrarily, the inductive approach to research is a scientific method of gathering evidence and knowledge in order to develop a hypothesis. This method favors a more versatile approach, qualitative data collection, and little need for generalization (Saunders et al., 2019b).

Since quantitative analysis methods use data that can be counted and measured, it is possible to explain the frequency, central tendency, and dispersion of a scenario (Field, 2009). As a result, data can be presented visually and related patterns can be depicted. In terms of quantitative analysis, it is evident that the use of a survey is most appropriate in HR research (Anderson, 2013). A survey helps researchers to assess the relationship between variables based on a research goal or hypothesis and data from a large sample. Surveys are known as a deductive method because they accept previous hypotheses and analysis and attempt to draw on them. Therefore, it is clear how the positivist deductive method is used in regards to the theory component of analysis when a survey is applied based on previous theories (Diestel and Schmidt, 2011; Dyrbye et al., 2019; Jourdain and Chênevert, 2015; Kellman, 2015; Naughton, 2005; Petitta and Vecchione, 2011; Schaufeli, Bakker and Van Rhenen, 2009), and how the sample being studied is within an organizational environment and how it can collect quantifiable data, in addition to its objectivity, systematic nature and impartiality.

### 4.4 Research design and strategy

A research design is a model that lays out how a study can progress from the research purpose and questions to the results, guiding the research process. It is a systematic planning process for gathering and analyzing data in order to better understand a subject (Abutabenjeh and Jaradat, 2018). Saunders *et al.*, (2019a) also includes the strategy and implementation in the research design.

Research can be quantitative or qualitative, the main difference between them is the use of numeric and non-numeric data. Quantitative research is regarded as a synonym for any technique of data collection; for example, a questionnaire or data analysis method that produces or utilizes numerical data (Saunders, Lewis and Thornhill, 2019a). On the other hand, qualitative research focuses on defining data features and attributes (Howitt and Cramer, 2014), questionnaires can be used to answer open questions (Saunders *et al.*, 2019a). Conducting a study has time and cost constraints. One of the most significant benefits of quantitative research is that responses are aggregated and numerical assumptions are measured quickly using applications such as Statistical Packages for Social Sciences (SPSS) or Microsoft Excel (Rahman, 2016). Within the positivist paradigm, it is often proposed that a highly structured approach is sufficient, and as a result, this research focus is on quantitative data and statistical analysis (Gill and Johnson, 2010). The study was carried out as a cross-sectional study with a quantitative approach in the form of a self-completed questionnaire. The independent variables being measured are burnout, the person's environment and socio-demographic details. As a result, the dependent variables; absenteeism, presenteeism, and burnout; will be predicted by these independent variables.

Lau (2017) identified three types of research design; explorative, descriptive and explanatory. The descriptive analysis is used to calculate and evaluate relationships between various variables. Questionnaires are effective for descriptive and explanatory analysis that describes previous findings (Saunders *et al.*, 2019a). A questionnaire is a set of standardized questions or statements provided to a group of people in order to determine their behaviors, opinions, principles, or desires (Lau, 2017). Surveys, specifically self-completion questionnaires, have been used in previous research within the areas of burnout, absenteeism and presenteeism.

This research will be descriptive in nature, and it will take the same approach as previous research, using a web-based distribution system as it is better suited to the target audience and industry selected than the traditional paper-based format. A cross-sectional analysis of an IT organization was used to conduct the research, as it has been proven suitable as the method of data collection (Hsu, Wang and Lan, 2020; Carney, 2019; Kellman, 2015; Chirkowska-Smolak and Kleka, 2011; Naughton, 2005). The Oldenburg Burnout Inventory (OLBI) has been proven highly efficient in measuring burnout, and will be used to build the questions in the surveys (Demerouti, Mostert and Bakker, 2010). Together with the World Health Organization (WHO)

- health and work performance questionnaire (HPQ) to measure absenteeism and presenteeism (Dåderman, Ingelgård and Koopmans, 2020), and demographic questions.

### 4.5 Population and sampling

The population of a study can be defined as the collection of individuals or items that are relevant to the research (Quinlan, 2011). The population studied in this research are employees of an IT firm headquartered in Ireland with approximately 8,000 employees. Convenience and snowball sampling strategies were used by the researcher given the large population and the easy and convenient access to them due to the time constraints.

There are two types of sampling methods: probabilistic and non-probabilistic. Quinlan (2011) defined probabilistic sampling as a sampling method in which each person or object has an equal chance of being chosen for the sample. Non-probabilistic sampling, on the other hand, does not pick all members of the population to participate in the sample. The researcher chose non-probability sampling for convenience and time efficiency. Non-probability sampling is based on the availability of the sample's participants or the researcher's judgment and availability (Saunders *et al.*, 2019a). Furthermore, the present study availed of snowball sampling as well as convenience sampling. Quinlan (2011) defines snowball sampling as the approach that allows the researcher to recognize a group of respondents who can then identify additional survey participants. When targeted respondents are not registered as a population and identifying members of the target population is difficult, this approach is often used (Saunders *et al.*, 2019a). However, as a result of the referral, all participants will have similar views and experiences and will react similarly creating a misrepresentation (Allen, 2017).

The sample size refers to the number of people who will be included in a study (Lau and Holbrook, 2017). Saunders *et al.*, (2019c), determine that it's easier to get substantial differences between a sample variable and a comparable normal distribution when the sample size is large, even if the actual differences are small. When selecting a sample size it is important to consider the confidence level and margin error to determine the amount of answers required (Saunders *et al.*, 2019c). The margin error indicates the degree of accuracy and the range in which an estimate's true value falls, while the confidence level is commonly determined as the level of precision the researcher is willing to accept (Kosar, Bohra and

Mernik, 2018). The margin of error and sample size are inversely proportional. This means that the researcher would need a large sample size to achieve a smaller margin of error (Bryman and Bell, 2011).

The company researched are currently employing approximately 8,000 people in Ireland, using the Qualtrics sample size calculator we can determine that a 95% confidence level with a 7% margin error the ideal sample size is 192 respondents. Meaning that if 60% of the respondents agree to finding interesting aspects in their day to day job with a 95 percent confidence level and a 7 percent margin of error, the proportion of respondents who agree to find interesting aspects in their work when measuring burnout will range from 53% to 67% in 95 out of 100 surveys filled. The 95% confidence level is chosen as it defines a set of values within which you can be 95% certain that the population mean is contained. The researcher accepted the 7% margin of error as acceptable as 192 responses is a sample the researcher can achieve in the required time.

### 4.6 Data Collection

Employees from an IT company headquartered in Ireland have been sent a voluntary questionnaire, with the purpose of gathering the relevant information and analysing the correlations with the research question. The coronavirus pandemic has increased the challenges to conduct research, and online questionnaires have been proven cost-effective, easy to distribute and obtain meaningful answers (Mohanty, Radhakrishnan and Jain, 2020). The survey was created in Google forms and emailed to researcher contacts within the company, and they were asked to share it with their internal networks within the same company and country. It was designed to take ten minutes to complete, although there was no time allocated to complete the survey, the questionnaire remained open to collect answers for two weeks. The questionnaire was voluntary, therefore the individuals could decide to take part or not. Nevertheless, it is important to consider that self-selection can trigger answers from participants passionate or dissatisfied about the topic (Khazaal et al., 2014); however, this could have been prevented with probability sampling, or assigning weight to the results to ensure the sample is representative. Nevertheless, weights could not be assigned as the current distribution within the company employees is unknown.

## 4.7 Questionnaire design

Questionnaires were chosen as the research instrument for this study, including mainly close-ended questions. All of the items in the questionnaire were selected from previously published, peer-reviewed, and validated studies, ensuring that the survey questions and scales are reliable and specific to this analysis.

The first section of the questionnaire includes general socio-demographic questions and some specific questions in relation to understand if the respondents worked from home previously and if the conditions of working from home have affected their job. As previous research was not conducted during the Coronavirus pandemic within the tech industry the questions for their work from home period were designed by the researcher to understand if there is any correlation to absenteeism, presenteeism and burnout.

**Demographics**

**How old are you?**
18-24
25-34
35-44
45-54
55 or above

**Gender**
Female
Male
Other
Prefer not to say

**Marital status**
Married
Widowed
Separated
Divorced
Living with partner
Single

**How many children do you have?**
None
One
Two
Three
Four or more

**How would you describe your race or ethnicity?**
Native American
African American or Black
Caucasian or White
Hispanic or Latino
Pacific Islander or Asian
Multiracial or other
Prefer not to answer

**What is your employment status?**
Part-time
Full-time
Contract

**What is your business function?**
Sales
Human Resources
Customer Support
Finance
Engineer
Other

**Do you manage people?**
Team Leader
First-line manager
Middle manager
Top-level manager
No, I am not a manager

**Before Covid-19, have you previously worked from home?**
A few days per year
2-5 months per year
6-12 months per year
All the time
Never

**Do you have a suitable and separate space in your home for work?**
Yes
No

**Do you have all the equipment needed to fulfil your role to the same standard as in the office?**
Yes
No

**Have you been able to stick to a work routine or schedule?**
Yes
No

**Do you take regular breaks?**
Yes
No

### *Appendix 1: Questionnaire*

The second section included the WHO-HPQ short version to assess the levels of absenteeism and presenteeism (Norito *et al.*, 2020). The researcher selected the short version of the questionnaire as it only measures absenteeism and presenteeism. Limited construct validity and adequate reliability of the instrument was reported when used in previous research. The scoring followed the same measures calculated as in the manual and previous research and as per the instrument guide (Norito *et al.*, 2020). The section includes questions on how many entire or partial days participants have been absent from work, and scale to rate their work performance as well as their peers. Some questions have been replicated to assess possible variations between the mandatory work from home period.

**Absenteeism and Presenteeism questions**

- About how many hours altogether did you work in the past 7 days? (If more than 97, enter 97)

- How many hours does your employer expect you to work in a typical 7-day week? (If it varies, estimate the average. If more than 97, enter 97)

**Now please think of your work experiences over the past 4 weeks (28 days). In the spaces provided below, write the number of days you spent in each of the following work situations.In the past 4 weeks (28 days), how many days did you... (enter number of days 00-28)**

- In the past 4 weeks (28 days), how many days did you miss an entire work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.) (enter number of days 0-28)

- In the past 4 weeks (28 days), how many days did you miss an entire work day for any other reason (including vacation)? (enter number of days 0-28)

- In the past 4 weeks (28 days), how many days did you miss part of a work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.) (enter number of days 0-28)

- In the past 4 weeks (28 days), how many days did you miss part of a work day for any other reason (including vacation)? (enter number of days 0-28)

- In the past 4 weeks (28 days), how many days did you come in early, go home late, or work on your day off?(enter number of days 00-28)

- About how many hours altogether did you work in the past 4 weeks (28 days)? (See examples below.) *
*Examples for Calculating Hours Worked in the Past 4 Weeks: 40 hours per week for 4 weeks = 160 hours; 35 hours per week for 4 weeks = 140 hours; 40 hours per week for 4 weeks with 2 8-hour days missed = 144 hours; 40 hours per week for 4 weeks with 3 4-hour partial days missed = 148 hours; 35 hours per week for 4 weeks with 2 8-hour days missed and 3 4-hour partial days missed = 112 hours*

- On a scale from 0 to 10 where 0 is the worst job performance anyone could have at your job and 10 is the performance of a top worker, how would you rate the usual performance of most workers in a job similar to yours?
*Worst performance 0 - Top performance 10*

- Using the same 0 to 10 scale, how would you rate your usual job performance over the past year or two?
Worst performance 0 - Top performance 10

- Using the same 0 to 10 scale, how would you rate your overall job performance on the days you worked during the past 4 weeks (28 days)?
Worst performance 0 - Top performance 10

**Now please think about when you were working in the office, and if there was a change or difference in performance please reflect it on the score you select in the scale.**

- Using the same 0 to 10 scale, how would you rate the usual performance of most workers in a job similar to yours?
Worst performance 0 - Top performance 10

- Using the same 0 to 10 scale, how would you rate your usual job performance over a year you spent most of the time working from the office?
Worst performance 0 - Top performance 10

- Using the same 0 to 10 scale, how would you rate your overall job performance on any days you worked during any 4 weeks (28 days)?
Worst performance 0 - Top performance 10

## *Appendix 1: Questionnaire*

The last section included the OLBI questionnaire to measure burnout (Demerouti, Mostert and Bakker, 2010) the questions comprised positive and negative elements measuring disengagement and exhaustion from the participants' job and use a likert scale to measure the frequency. Its validity and reliability has been validated in previous research (Demerouti, Mostert and Bakker, 2010). All items range from (1) "strongly accept" to (4) "strongly disagree." 1, 3(R), 6(R), 7, 9(R), 11(R), 13, 15 are all disengagement items. 2(R), 4(R), 5, 8(R), 10, 12(R), 14, 16 are exhaustion elements. When the scores should be such that higher scores suggest more burnout, (R) means reversed object (Demerouti, Mostert and Bakker, 2010).

**Burnout**

**Below you find a series of statements with which you may agree or disagree. Using the scale, please indicate the degree of your agreement that corresponds with each statement**

1. I always find new and interesting aspects in my work.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

2. There are days when I feel tired before I arrive at work.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

3. It happens more and more often that I talk about my work negatively.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

4. After work, I tend to need more time than before in order to relax and feel better.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

5. I can tolerate the pressure of my work very well.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

6. Lately, I tend to think less at work and do my job almost mechanically.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

7. I find my work to be a positive challenge.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

8. During my work, I often feel emotionally drained.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

9. Over time, one can become disconnected from this type of work.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

10. After working, I have enough energy for my leisure activities.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

11. Sometimes I feel sickened by my work tasks.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

12. After my work, I usually feel worn out and weary.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

13. This is the only type of work that I can imagine myself doing.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

14. Usually, I can manage the amount of my work well.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

15. I feel more and more engaged in my work.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

16. When I work, I usually feel energized.
*Strongly Disagree 1, Disagree 2, Agree 3, Strongly Agree 4*

### *Appendix 1: Questionnaire*

Rating scale questions are easy for participants to understand and answer. Additionally, Uher (2018) determined rating scales to be beneficial for quantitative research being a popular method for generating data directly by participants. They are essential for measurement since data analyses can only disclose information regarding study phenomena if related properties were embedded in the data in a systematic way (Uher, 2018).

## 4.8 Pilot study

A pilot study was performed prior to launching the survey and collecting responses from the general public. The main goal of such a study is to gather data (implicitly incomplete, since only core research allow for the collection of all required data to validate the theories adopted in the project) to confirm the chosen path, formulate hypotheses for the work, or verify the accuracy of the established questionnaire (Kaur *et al.*, 2017).

Quinlan (2011) establishes that it is preferable to perform pilot tests with participants that are similar to those that will be included in the main analysis. Hence, the pilot study was performed among the author's peers to see how clear the directions and questions were, how appealing the format was, and how long it took to complete the survey. The questionnaire comprised three sections, with the most dense part placed in the middle, to avoid being daunting and deterring respondents from participating. The survey started with the demographic questions, continued to the WHO-HPQ and concluded with the OLBI.

Participants responded positively to the test, finding it easy to follow, clear and concise. Nevertheless, the middle section seemed a bit complex for some individuals; as a result, slight improvements to the structure and instructions were made, such as including a brief summary that explained what the respondents would be asked, making the process of answering easier.

### 4.9 Data Analysis Validity and Reliability

Following the completion of the data collection, the results were converted into numerical code. Since the instrument for measuring Burnout had both negatively and positively formulated questions, reverse coding was needed, which was also completed. SPSS version 27 was then used to conduct statistical research, being the most commonly used software for quantitative analysis amongst students (Ozgur, Kleckner and Li, 2015).

Firstly, determining properties of the metric provides confidence that it is operating properly in order to keep measurement error minimal. The properties are validity; whether or not an instrument tests what it intends to measure; and reliability; when an instrument can be consistently interpreted in a variety of circumstances (Field, 2009).

Field (2009) described the Cronbach's alpha measure as the method used for assessing internal accuracy in the multi-item questionnaires that has been shown to be the most common system as well as reliable. Before analysing the positive framed items were reverse-coded in order to assess burnout (Demerouti, Mostert and Bakker, 2010). Then, when testing the Exhaustion and Disengagement items from the OLBI the Cronbach’s alpha result of .638 indicated a questionable level of internal consistency reliability. This seems to be consistent with previous research using the same instrument (Demerouti, Mostert and Bakker, 2010)

Many statistical procedures, especially parametric tests, require the assumption of normality to be tested because their validity is dependent on it (Ghasemi and Zahediasl, 2012). The findings were then subjected to normality tests in order to extract trends and patterns from the data collection. The significance value for this analysis will be 5%, which is normal in the social sciences.The null hypothesis will be accepted or rejected based on the significance level of the SPSS tests (Greenland *et al.*, 2016). None of the variables displayed a significance level to reach normality.

Consequently a non-parametric test was performed. The Kruskal-Wallis H test is a non-parametric rank-based test that aims to find the statistically significant difference between two or more independent variables on a continuous or ordinal dependent variable (Ostertagová, Ostertag and Kováč, 2014).

A theoretical model and conceptual structure clarifies a study's direction and anchors it in theoretical frameworks (Adom, Hussein, and Agyem, 2018). Unfortunately, there is not enough research in the IT sector during the Coronavirus pandemic and its impact on burnout, absenteeism and presenteeism, hence this study has followed a statistical approach. As a result, the research model is based primarily on the researcher's method of performing the study.

### 4.10 Ethical Considerations

The term "ethics" refers to a set of guidelines or rules for proper moral conduct (Allen, 2017). Ethical considerations should be taken into account at all times during the research process. It is crucial that participants are safeguarded at all times during the process. Informed consent, respect for anonymity and confidentiality have been some of the primary ethical concerns considered, in order to protect the participants from all sources of harm (Fouka and Mantzorou, 2011). The questionnaire included a consent form, guaranteeing the agreement of the participants to take part in this study, ensuring that their participation is voluntary and their ability to withdraw at any point, as well as maintaining their identities anonymous and their responses confidential. An ethic’s form was also submitted to the National College of Ireland ethics committee in order to gain approval to proceed with the study.

General Data Protection Regulation (GDPR) has also been taken into consideration when collecting, storing and determining the access to the data (Trevelyan, 2018). Participants were informed that all responses will be kept anonymous and confidential and stored in a secure, password protected file. In compliance with the National College of Ireland Ethics Committee's guidelines, all information given will be kept strictly confidential.

### 4.11 Limitations of the research design

There are some shortcomings in the present research. The research was performed solely within one company. As a result, it is impossible to say that it represents the entire technology industry in Ireland.

The data was collected using non-probability sampling as a result of a lack of accessibility in the selected organization to conduct probability sampling. Therefore, there are concerns about the findings' reliability. Since the researcher does not know what population this study represents, it is impossible to generalize the results (Bryman and Bell, 2011). Therefore, the findings of this paper should be investigated further in a specific population using probability sampling techniques. Furthermore, the sampling approach used may have an effect on the validity of the findings (Kosar, Bohra and Mernik, 2018; Quinlan, 2011).

Convenience samples also contain small numbers of underrepresented socio demographic population groups. Despite their small numbers, these underrepresented sociodemographic subgroups introduce moderate amounts of heterogeneity into the study, enough to trigger measurement error in studies but not enough to control or monitor statistically (Bornstein, Jager and Putnick, 2013). Unfortunately the details of the distribution of the population within the company are unknown, the exact number of females and males, managerial positions, etc. Simultaneously, a limitation of snowball sampling is that the method is based on the premise that social networks are made up of individuals with similar social characteristics (Atkinson and Flint, 2001).

Moreover, the use of a cross-sectional survey has limitations as the exposure and result are measured at the same time, there is usually no evidence of a temporal association between the two. Making it impossible to build a true cause and effect relationship without longitudinal

evidence (Solem, 2015). At the same time, this research methodology relies on the honesty and precision of participants answering the questionnaire.

Lastly, the lack of a theoretical model complicates determining the academic position and underlying causes to the researcher's assertions and/or theories (Adom, Hussein, and Agyem, 2018). However, a statistically rigorous approach has been followed providing further insight into burnout, absenteeism and presenteeism within the researched firm.

## 5. Results

The descriptive and exploratory statistics of the survey results are presented in this chapter. The results of both dependent and independent variables' descriptive statistics are presented first, followed by the results of reliability and normality measures. The non-parametric test Kruskal-Wallis H test was used to perform the univariate analysis based on the results of the normality test. Finally, a logistic regression was performed to verify the results.

### 5.1 Descriptive statistics

There were 192 respondents to the questionnaire, no data was deleted from the sample. The statistics for the demographic variables are included in table 1. The sample contains an even split between males and females each accounting for 96 individuals. Majority of respondents were aged between 25-34 years comprising 62.6%. 39% of respondents were living with their partner. Most respondents did not have children, accounting for 92.7% of the respondents. Lastly, it is observed that most respondents were Caucasian or white corresponding to 34%, followed by African Americans or Black at 20.3%.

| Characteristics | Number | Valid Percentage |
|---|---|---|
| **Demographics** | | |
| **Gender** | | |
| Male | 96 | 50 |
| Female | 96 | 50 |
| | | |
| **Age** | | |
| 18-24 | 2 | 1 |
| 25-34 | 120 | 62.6 |
| 35-44 | 68 | 35.4 |
| 45-54 | 2 | 1 |
| | | |
| **Marital status** | | |
| Married | 51 | 26.6 |
| Separated | 1 | 0.5 |
| Living with Partner | 75 | 39 |
| Single | 65 | 33.9 |
| | | |
| **Children** | | |
| None | 178 | 92.7 |
| One | 7 | 3.7 |
| Two | 6 | 3.1 |
| Three | 1 | 0.5 |
| | | |
| **Ethnicity** | | |
| African American or Black | 39 | 20.3 |
| Caucasian or White | 65 | 34 |
| Hispanic or Latino | 35 | 18.2 |
| Pacific Islander or Asian | 26 | 13.5 |
| Multiracial or other | 26 | 13.5 |
| Prefer not to answer | 1 | 0.5 |

***Table 1: Demographic descriptive statistics***

The socio-economic demographics in Table 2 portray that the majority of respondents being full-time employees of the company (98%), as well as not being managers (92.2%). 70 respondents (36.5%) were employed in a sales position.

| Characteristics | Number | Valid Percentage |
|---|---|---|
| **Socio-economic** | | |
| **Employment Status** | | |
| Full-time | 188 | 98 |
| Part-Time | 2 | 1 |
| Contract | 2 | 1 |
| | | |
| **Business Function** | | |
| Sales | 70 | 36.5 |
| Human Resources | 31 | 16 |
| Customer Support | 41 | 21.4 |
| Finance | 8 | 4.2 |
| Engineer | 4 | 2.1 |
| Other | 38 | 19.8 |
| | | |
| **Manager status** | | |
| No, I am not a manager | 177 | 92.2 |
| Team Leader | 5 | 2.6 |
| First-line manager | 5 | 2.6 |
| Middle manager | 5 | 2.6 |

***Table 2: Demographic descriptive statistics***

Table 3 shows that 132 of respondents have previously worked from home at least a few days per year (68.8%). However, despite most of them having the necessary equipment (62%), the majority do not have a dedicated space to work from home (59.4%). At the same time, most of them do not follow a routine (53.6%) and do not take (60.9%).

| Characteristics | Number | Valid Percentage |
|---|---|---|
| **Working from Home** | | |
| **Previously worked from home** | | |
| Never | 58 | 30.2 |
| A few days per year | 132 | 68.8 |
| 2-5 months per year | 2 | 1 |
| **Dedicated space** | | |
| Yes | 78 | 40.6 |
| No | 114 | 59.4 |
| **Equipment** | | |
| Yes | 119 | 62 |
| No | 73 | 38 |
| **Routine** | | |
| Yes | 89 | 46.4 |
| No | 103 | 53.6 |
| **Regular breaks** | | |
| Yes | 75 | 39.1 |
| No | 117 | 60.9 |

***Table 3: Working from home questions***

The burnout measure was aggregated in two variables, exhaustion and disengagement measured with a 4 point Likert scale. Therefore both variables are considered interval types in this research, and as a result the independent variable's mean and standard deviation were measured. The standard deviation is a measure of how evenly scores are distributed over a sample, used together with the mean in order to summarise continuous data. For the dependent continuous variables Exhaustion and Disengagement, descriptive statistics were also determined. The mean for Exhaustion was 17.13 with a standard deviation of 9.848, the range observed is 18. The mean for Disengagement on the other hand was of 19.05 with a standard deviation of 3.132, the range observed is 22.

| Continuous dependent variable | Mean | Standard deviation | Variance |
|---|---|---|---|
| Exhaustion | 17.13 | 3.138 | 9.848 |
| Disengagement | 19.05 | 3.132 | 9.809 |

***Table: 4 Burnout measures***

Absolute absenteeism, using the 4 week estimate, presented a mean of 2.38 with a standard deviation of 45.058. While presenteeism during covid reported 52.14 as mean with a standard

deviation of 24.71, however, before covid the mean and standard deviation was 70.16 and 10.756 respectively.

| Continuous dependent variable | Mean | Standard deviation | Variance |
|---|---|---|---|
| Absolute Absenteeism 4 week Estimate | 2.38 | 45.058 | 2030.257 |
| Absolute Presenteeism During Covid | 52.14 | 24.71 | 610.599 |
| Absolute Presenteeism Before Covid | 70.16 | 10.756 | 115.682 |

***Table 5: Absenteeism and Presenteeism***

## 5.2 Reliability test

The aim of the reliability test is to ensure that the questionnaire items consistently represent the construct being measured. Individual items must produce results that are consistent with the entire sample in statistical terms (Field, 2009). The reliability test was performed for all the questions of the OLBI through a Cronbach Alpha (α) test obtaining a .638 value (Table 6). Demerouti, Mostert and Bakker (2010), also observed a .63 value in the Cronbach alpha test. According to Portney and Watkins (2015), r values between.50 and.75 indicate a moderate to good relationship, whereas those between .75 and above indicate a good to excellent relationship. The corrected item-total correlation element in the table below indicates each item's contribution to the scale, both variables obtained .469 demonstrating a good correlation with the scale (table 7). The Cronbach Alpha column if Item is Deleted are the values of the overall α if that component isn't included in the equation, however we can see in the table below that value is null, meaning that even if deleted one of the values it will not make a change in it’s reliability.

| Reliability Statistics | | |
|---|---|---|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
| 0.638 | 0.638 | 2 |

***Table 6: Cronbach Alpha 1***

| Item-Total Statistics | | | | | |
|---|---|---|---|---|---|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| Exhaustion added values | 19.05 | 9.809 | 0.469 | 0.22 | . |
| Disengagement added values | 17.12 | 9.848 | 0.469 | 0.22 | . |

*Table 7: Cronbach Alpha 2*

## 5.3 Normality test

The normality test is used to determine if the data collected is derived from a group with a normally distributed distribution, the main tests for normality are the Kolmogorov–Smirnov test and Shapiro–Wilk. For the purpose of this study, the Shapiro-Wilk test has been considered to test the normal distribution hypothesis.

Normality tests were conducted for the following variables: absolute absenteeism 4 week estimate, absolute presenteeism during Covid, absolute presenteeism before Covid and the two variables that measure burnout (exhaustion and disengagement). The Shapiro-Wilk statistic in Table 8 shows all variables with a significant value (p) of 0.00. With a significance level of below 0.05 showcases that the data does not follow a normal distribution, indicating that the null hypothesis of the data being normally distributed has been rejected. As a result a non-parametric test was performed.

| Tests of Normality | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Absolute Absenteeism 4 week Estimate | 0.216 | 192 | 0 | 0.651 | 192 | 0 |
| Absolute Presenteeism During Covid | 0.187 | 192 | 0 | 0.923 | 192 | 0 |
| Absolute Presenteeism Before Covid | 0.235 | 192 | 0 | 0.911 | 192 | 0 |
| Exhaustion added values | 0.125 | 192 | 0 | 0.977 | 192 | 0.003 |
| Disengagement added values | 0.121 | 192 | 0 | 0.95 | 192 | 0 |

*Table 8: Test of normality*

## 5.4 Univariate Tests

The correlation of different demographic and continuous independent variables with burnout, absenteeism, presenteeism before Covid and absenteeism during Covid was investigated using exploratory univariate analysis.

### 5.4.1 Mann-Whitney U Test

The statistical methods focused on signs and ranks are known as nonparametric tests. The Mann-Whitney U test is a non-parametric test for determining if two variables are related. The dependent variable must be constant, and the independent variable must be categorical and restricted to two groups, according to this test's assumptions (Nachar, 2008). The null hypothesis states that the independent variable makes no difference to the dependent variable. Therefore, the Mann-Whitney U test goal is to establish if the gap between mean ranks is statistically significant. The p-value determines whether the hypothesis is accepted or denied; if $p \leq 0.05$, the null hypothesis is rejected.

#### 5.4.1.1 Mann-Whitney U Test for the dependent variables and Gender

In the table below (Table 9) all dependent variables (burnout, absolute absenteeism, presenteeism during Covid presenteeism and before Covid) are observed against the gender of the population sample. In the table below we can see that males obtained a higher mean rank in exhaustion, presenteeism before Covid and slightly higher absenteeism than females. Nevertheless, the p-values for all dependent variables reported are all above 0.05 meaning that the null hypothesis cannot be rejected.

| Dependent Variable | Gender | N | Mean Rank | Significant value | Mann-Whitney U |
|---|---|---|---|---|---|
| Exhaustion | Male | 96 | 97.48 | 0.805 | 4513.5 |
| | Female | 96 | 95.52 | | |
| Disengagement | Male | 96 | 96.57 | 0.986 | 4601.5 |
| | Female | 96 | 96.43 | | |
| Absenteeism | Male | 96 | 90.01 | 0.104 | 3984.5 |
| | Female | 96 | 102.99 | | |
| Presenteeism Before Covid | Male | 96 | 99.48 | 0.433 | 4322 |
| | Female | 96 | 93.52 | | |
| Presenteeism During Covid | Male | 96 | 92.97 | 0.372 | 4269.5 |
| | Female | 96 | 100.03 | | |

***Table 9: Mann-Whitney U Test for the dependent variables and Gender.***

### 5.4.1.2 Mann-Whitney U Test for the dependent variables and Work From Home independent variables

The participants were asked some questions in relation to their current work from home situation to understand if they have a suitable space, if they have all the equipment necessary, if they follow a routine and if they take breaks. The different categorical variables were analysed using the Mann-Whitney U Test.

The respondents were asked if they have or not a suitable space while working from home, the same dependent variables reported a p value above 0.05 not rejecting the null hypothesis, excluding presenteeism during covid where p=0.033 rejected the null hypothesis.

| Dependent Variable | Separate space for working from home | N | Mean Rank | Significant value | Mann-Whitney U |
|---|---|---|---|---|---|
| Exhaustion | No | 114 | 96.33 | 0.96 | 4427 |
| | Yes | 78 | 96.74 | | |
| Disengagement | No | 114 | 92 | 0.172 | 3933.5 |
| | Yes | 78 | 103.07 | | |
| Absenteeism | No | 114 | 94.07 | 0.462 | 4169 |
| | Yes | 78 | 100.05 | | |
| Presenteeism Before Covid | No | 114 | 94.43 | 0.51 | 4210 |
| | Yes | 78 | 99.53 | | |
| Presenteeism During Covid | No | 114 | 89.52 | 0.033 | 3650.5 |
| | Yes | 78 | 106.7 | | |

***Table 10: Mann-Whitney U Test for the dependent variables and Work From Home space***

Analysing the necessary equipment to work from home against the dependent variables rejected the null hypothesis in the disengagement and presenteeism during Covid variables with p values of .001 and .036 respectively. Nevertheless, the rest of the dependent variables which p values are greater than 0.05 cannot reject the null hypothesis (Table 11).

| Dependent Variable | Equipment necessary | N | Mean Rank | Significant value | Mann-Whitney U |
|---|---|---|---|---|---|
| Exhaustion | No | 73 | 86.79 | 0.056 | 3634.5 |
| | Yes | 119 | 102.46 | | |
| Disengagement | No | 73 | 80.12 | 0.001 | 3147.5 |
| | Yes | 119 | 106.55 | | |
| Absenteeism | No | 73 | 99.09 | 0.611 | 4154.5 |
| | Yes | 119 | 94.91 | | |
| Presenteeism Before Covid | No | 73 | 95.98 | 0.914 | 4305.5 |
| | Yes | 119 | 96.82 | | |
| Presenteeism During Covid | No | 73 | 85.92 | 0.036 | 3571 |
| | Yes | 119 | 102.99 | | |

***Table 11: Mann-Whitney U Test for the dependent variables and Work From Home equipment.***

However, it is observed in Table 12 that the routine variable encountered statistical significance within the burnout variables (exhaustion and disengagement) and absenteeism, with p values of .017, .001 and .001 respectively. The other dependent variables reject the null hypothesis as their values are higher than 0.05 (Table 12)

| Dependent Variable | Routine | N | Mean Rank | Significant value | Mann-Whitney U |
|---|---|---|---|---|---|
| Exhaustion | No | 103 | 87.69 | 0.017 | 3676.5 |
| | Yes | 89 | 106.69 | | |
| Disengagement | No | 103 | 84.7 | 0.001 | 3368.5 |
| | Yes | 89 | 110.15 | | |
| Absenteeism | No | 103 | 109.34 | 0.001 | 3261 |
| | Yes | 89 | 81.64 | | |
| Presenteeism Before Covid | No | 103 | 92.3 | 0.234 | 4150.5 |
| | Yes | 89 | 101.37 | | |
| Presenteeism During Covid | No | 103 | 91.83 | 0.203 | 4102 |
| | Yes | 89 | 101.91 | | |

***Table 12: Mann-Whitney U Test for the dependent variables and Work From Home routine.***

Lastly, the dependents were asked if they take breaks while working from home, therefore analysing the breaks variable against the dependent variables the null hypothesis has been rejected as their values are higher than 0.05, contrarily presenteeism before covid showed significance (p=0.047) not rejecting the null hypothesis (Table 13)

| Dependent Variable | Breaks | N | Mean Rank | Significant value | Mann-Whitney U |
|---|---|---|---|---|---|
| Exhaustion | No | 117 | 91.59 | 0.123 | 3813.5 |
| | Yes | 75 | 104.15 | | |
| Disengagement | No | 117 | 93.51 | 0.349 | 4038 |
| | Yes | 75 | 101.16 | | |
| Absenteeism | No | 117 | 95.78 | 0.822 | 4303.5 |
| | Yes | 75 | 97.62 | | |
| Presenteeism Before Covid | No | 117 | 90.47 | 0.047 | 3682.5 |
| | Yes | 75 | 105.9 | | |
| Presenteeism During Covid | No | 117 | 91.17 | 0.092 | 3764 |
| | Yes | 75 | 104.81 | | |

***Table 13: Mann-Whitney U Test for the dependent variables and Work From Home Breaks***

### 5.4.2 Kruskal-Wallis H Test

The Kruskal-Wallis test examines whether the median values of three or more separate samples vary. it gathers all data points from the samples and ranks them in ascending order, however, if two scores are identical, the average of the two ranks is used, and then the rank sums are calculated (Nahm, 2016). Several Kruskal-Wallis tests were conducted to see if there were differences across the demographics of the sample, all results are collected in Table 14.

The first Kruskal-Wallis test performed was to understand if there was a difference between the dependent variables (burnout, absolute absenteeism, presenteeism during Covid presenteeism and before Covid) and age, one of the independent variables that comprises 4 categories. The test results show a significant difference for exhaustion and absenteeism as the p-values equal 0.019. For marital status, a significant difference is encountered ($p=0.003$) for the disengagement variable rejecting the null hypothesis. The disengagement and absenteeism variables also displayed a significant difference ($p=0.014$ and $p=0.008$ respectively) for those having children. At the same time, ethnicity showed strong significance across all dependent variables as $p \leq 0.05$, except from disengagement. Similarly, the business function variable showed significance across all dependent variables excluding absenteeism. Management status and previously worked from home only showed significance on the presenteeism during covid variable. The rest of the dependent variables did not reject the null hypothesis as all reported values of $p > 0.05$, revealing no statistically

significant differences in the absenteeism, presenteeism before and during covid, and burnout variables.

| Grouping variable | | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|---|
| Age | Kruskal-Wallis H | 9.997 | 3.478 | 9.957 | 2.156 | 3.987 |
| | df | 3 | 3 | 3 | 3 | 3 |
| | Asymp. Sig. | 0.019 | 0.324 | 0.019 | 0.541 | 0.263 |
| Marital status | Kruskal-Wallis H | 7.354 | 13.945 | 3.405 | 3.967 | 7.068 |
| | df | 3 | 3 | 3 | 3 | 3 |
| | Asymp. Sig. | 0.061 | 0.003 | 0.333 | 0.265 | 0.07 |
| Children | Kruskal-Wallis H | 2.369 | 10.545 | 11.767 | 5.541 | 7.563 |
| | df | 3 | 3 | 3 | 3 | 3 |
| | Asymp. Sig. | 0.499 | 0.014 | 0.008 | 0.136 | 0.056 |
| Ethnicity | Kruskal-Wallis H | 11.295 | 8.234 | 12.826 | 42.087 | 13.447 |
| | df | 5 | 5 | 5 | 5 | 5 |
| | Asymp. Sig. | 0.046 | 0.144 | 0.025 | 0 | 0.02 |
| Employment Status | Kruskal-Wallis H | 0.139 | 0.382 | 5.952 | 1.336 | 5.338 |
| | df | 2 | 2 | 2 | 2 | 2 |
| | Asymp. Sig. | 0.933 | 0.826 | 0.051 | 0.513 | 0.069 |
| Business Function | Kruskal-Wallis H | 15.64 | 13.41 | 8.649 | 32.097 | 19.718 |
| | df | 5 | 5 | 5 | 5 | 5 |
| | Asymp. Sig. | 0.008 | 0.02 | 0.124 | 0 | 0.001 |
| Manager status | Kruskal-Wallis H | 5.033 | 2.188 | 0.696 | 8.132 | 1.287 |
| | df | 3 | 3 | 3 | 3 | 3 |
| | Asymp. Sig. | 0.169 | 0.534 | 0.874 | 0.043 | 0.732 |
| Previously worked from home | Kruskal-Wallis H | 1.551 | 2.176 | 1.96 | 12.299 | 0.661 |
| | df | 2 | 2 | 2 | 2 | 2 |
| | Asymp. Sig. | 0.46 | 0.337 | 0.375 | 0.002 | 0.718 |

***Table 14: Kruskal Wallis Test for dependent variables and Age***

### 5.4.3 Multiple Linear Regression Model Testing Analysis

The multiple linear regression model (MLR) is a statistical technique that predicts the outcome of a response variable by combining multiple explanatory variables. Its main goal is to model the linear relationship between the independent and dependent variables (Field, 2009). MLR allows the researcher to determine the model's overall fit as well as the relative contribution of each variable to the total variance described.

The models observed in this study are the following:

- Model 1: Y(absenteeism) = β0 + β1(age) + β2(children) + β3(ethnicity) + β4(disengagement) + β5(exhaustion) + β6(work from home equipment) + β7(work from home space) + β8(work from home routine) + β9(work from home breaks) + e

- Model 2: Y(presenteeism during covid) = β0 + β1(business function) + β2(management status) + β3(ethnicity) + β4(work from home before Covid) + β5(disengagement) + β6(exhaustion) + β7(work from home equipment) + β8(work from home space) + β9(work from home breaks) + β10(work from home breaks) + e

- Model 3: Y(presenteeism before covid) = β0 + β1(marital status) + β2(business function) + β3(ethnicity) + β4(disengagement) + β5(exhaustion) + β6(work from home equipment) + β7(work from home space) + β8(work from home breaks) + β9(work from home breaks) + e

β0 is the regression line's intercept; it's the expected value when x = 0, while β1 is the regression line's slope, and e is the residual errors commonly defined as the discrepancy between a set of observed values and the mean of those values (Kim, 2019).

#### 5.4.3.1 Model 1 Linear Regression

Model 1 independent variables were entered in blocks using the Enter stepwise method. The first block contained significant; as demonstrated by the univariate testing; socio-demographic variables (age, children and ethnicity) included in the model as predictors, the second block added the burnout variables (exhaustion and disengagement) as predictors and lastly on the third block the work from home questions (equipment, space, routine and breaks) were also incorporated as predictors (these blocks are referenced in the following tables as model).

The statistical independence of findings was tested using the Durbin-Watson test. The Durbin-Watson statistic has a range of 0 to 4, with a value of 2 indicating that there is no association between residuals (Field, 2009).

The Durbin-Watson statistic for model 1 is 2.117 (Table 15) indicating that the residuals had a negative correlation, not rejecting the null hypothesis.

The coefficient of determination, also known as R square, is a measure of how much variation in the dependent variable is explained by the model's independent variables (Field, 2009). The R square values in table 15 for block 1 show that the socio-demographic factors can explain

4.8% of the variation in the four week estimate of absolute absenteeism. In block 2, we observe that the socio-demographic and burnout variables can predict 9.2% of the four-week estimate of absolute absenteeism. Lastly, model 3 determined that 11.5% of the model can be predicted by the socio-demographic, burnout and work from home variables. However, 33.9% of this model is explained by the dependent variable as we can see from the R value under block 3.

| Model Summary | | | | | |
|---|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | .219a | 0.048 | 0.012 | 44.794 | |
| 2 | .304b | 0.092 | 0.047 | 43.976 | |
| 3 | .339c | 0.115 | 0.051 | 43.903 | 2.117 |

***Table 15: Model summary for model 1***

In regression, the F value is the outcome of a test in which the null hypothesis equals all regression coefficients to 0. Results for the Anova test are presented in Table 16 below. The regression including only the first set of independent variables was not significant $F(7,184)=1.323$, $p=0.241$. However, the second and third blocks showed significance as $F(9, 182)=2.057$, $p=0.036$ and $F(13, 178)=1.783$, $p=0.049$.

| ANOVAa | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 18584.342 | 7 | 2654.906 | 1.323 | 0.241 |
| | Residual | 369194.658 | 184 | 2006.493 | | |
| | Total | 387779 | 191 | | | |
| 2 | Regression | 35807.697 | 9 | 3978.633 | 2.057 | 0.036 |
| | Residual | 351971.303 | 182 | 1933.908 | | |
| | Total | 387779 | 191 | | | |
| 3 | Regression | 44688.432 | 13 | 3437.572 | 1.783 | 0.049 |
| | Residual | 343090.568 | 178 | 1927.475 | | |
| | Total | 387779 | 191 | | | |

***Table 16: Anova test for model 1***

The results of the multiple regression analysis are presented in the table 17 below. The independent variable children has a significant effect on the four week estimate of absenteeism as $p < 0.05$. Children has been proven to have the largest impact on absenteeism as indicated by B (B=28.329) in table 17. There are some negative values; as seen in the burnout variables, work from home routine and breaks, and some of the ethnicities (Latino, Asian, Multiracial and prefer not to answer); meaning that the outcome variable; in this model absenteeism; would

decrease by the beta coefficient for every 1-unit increase in the predictor variable; in this case the independent variables.

| Coefficientsa | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 43.349 | 52.944 | | 0.819 | 0.414 | -61.106 | 147.804 |
| | Black Binary | 1.34 | 9.28 | 0.012 | 0.144 | 0.885 | -16.968 | 19.648 |
| | Latino Binary | -15.687 | 9.643 | -0.135 | -1.627 | 0.106 | -34.712 | 3.339 |
| | Asian Binary | -2.399 | 10.537 | -0.018 | -0.228 | 0.82 | -23.188 | 18.389 |
| | Multiracial Binary | -6.603 | 10.5 | -0.05 | -0.629 | 0.53 | -27.318 | 14.112 |
| | No Answer Ethnicity Binary | -24.963 | 45.237 | -0.04 | -0.552 | 0.582 | -114.212 | 64.287 |
| | Age Binary coded | 3.572 | 7.049 | 0.038 | 0.507 | 0.613 | -10.334 | 17.478 |
| | Children Binary | 28.784 | 12.942 | 0.167 | 2.224 | 0.027 | 3.251 | 54.317 |
| 2 | (Constant) | 95.711 | 54.99 | | 1.741 | 0.083 | -12.789 | 204.211 |
| | Black Binary | 1.682 | 9.113 | 0.015 | 0.185 | 0.854 | -16.298 | 19.662 |
| | Latino Binary | -14.477 | 9.521 | -0.124 | -1.521 | 0.13 | -33.262 | 4.308 |
| | Asian Binary | -7.47 | 10.483 | -0.057 | -0.713 | 0.477 | -28.155 | 13.214 |
| | Multiracial Binary | -5.768 | 10.312 | -0.044 | -0.559 | 0.577 | -26.114 | 14.578 |
| | No Answer Ethnicity Binary | -7.914 | 44.831 | -0.013 | -0.177 | 0.86 | -96.368 | 80.541 |
| | Age Binary coded | 1.52 | 7.217 | 0.016 | 0.211 | 0.833 | -12.718 | 15.759 |
| | Children Binary | 34.296 | 12.839 | 0.198 | 2.671 | 0.008 | 8.964 | 59.628 |
| | Exhaustion added values | -1.847 | 1.221 | -0.129 | -1.512 | 0.132 | -4.256 | 0.562 |
| | Disengagement added values | -1.834 | 1.189 | -0.128 | -1.542 | 0.125 | -4.181 | 0.512 |
| 3 | (Constant) | 85.379 | 56.355 | | 1.515 | 0.132 | -25.832 | 196.59 |
| | Black Binary | 2.983 | 9.623 | 0.027 | 0.31 | 0.757 | -16.007 | 21.974 |
| | Latino Binary | -12.526 | 9.626 | -0.108 | -1.301 | 0.195 | -31.523 | 6.47 |
| | Asian Binary | -8.03 | 10.718 | -0.061 | -0.749 | 0.455 | -29.18 | 13.12 |
| | Multiracial Binary | -4.801 | 11.161 | -0.037 | -0.43 | 0.668 | -26.827 | 17.224 |
| | No Answer Ethnicity Binary | -4.097 | 45.54 | -0.007 | -0.09 | 0.928 | -93.964 | 85.771 |
| | Age Binary coded | 3.303 | 7.298 | 0.035 | 0.453 | 0.651 | -11.098 | 17.704 |
| | Children Binary | 28.329 | 13.178 | 0.164 | 2.15 | 0.033 | 2.323 | 54.336 |
| | Exhaustion added values | -1.684 | 1.233 | -0.117 | -1.366 | 0.174 | -4.118 | 0.75 |
| | Disengagement added values | -1.973 | 1.206 | -0.137 | -1.636 | 0.104 | -4.353 | 0.407 |
| | WFHspace | 8.283 | 7.38 | 0.091 | 1.122 | 0.263 | -6.28 | 22.845 |
| | WFHequipment | 8.392 | 7.411 | 0.091 | 1.132 | 0.259 | -6.232 | 23.016 |
| | WFHroutine | -10.345 | 7.782 | -0.115 | -1.329 | 0.185 | -25.701 | 5.012 |
| | WFHbreaks | -1.482 | 7.501 | -0.016 | -0.198 | 0.844 | -16.285 | 13.321 |

***Table 17: Coefficients table for model 1***

### *5.4.3.2 Model 2 Linear regression*

Model 2 independent variables were also entered in blocks using the Enter stepwise method, and were selected based on their significance after the univariate testing. The blocks entered included in block 1 socio-demographic factors (business function, management status, ethnicity and work from home before covid), block 2 and block 3 contained the same variables as model 1. The dependent variable is Presenteeism during Covid.

The Durbin-Watson test reported a score of 1.52 implying a positive correlation between adjacent residuals, therefore the null hypothesis of non-autocorrelated errors is rejected.

The first set of independent variables account for 34.1% of the variance in the presenteeism during covid scores, when adding the burnout variables increased to 34.7% and adding the

working from home variables raised the percentage to 35.2%. Overall, 59.3% of this model is explained by the dependent variable (Table 18).

| Model Summary | | | | | |
|---|---|---|---|---|---|
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** | **Durbin-Watson** |
| 1 | .584a | 0.341 | 0.297 | 20.722 | |
| 2 | .589b | 0.347 | 0.295 | 20.741 | |
| 3 | .593c | 0.352 | 0.285 | 20.898 | 1.52 |

***Table 18: Model summary for model 2***

Model 2 Anova test obtained F values of 7.716, 6.722 and 5.225 respectively for each of the independent variable blocks. All the blocks for model 2 equation are significant as $p \leq 0.05$, rejecting the null hypothesis.

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 39761.033 | 12 | 3313.419 | 7.716 | .000b |
| | Residual | 76863.446 | 179 | 429.405 | | |
| | Total | 116624.479 | 191 | | | |
| 2 | Regression | 40482.295 | 14 | 2891.592 | 6.722 | .000c |
| | Residual | 76142.185 | 177 | 430.182 | | |
| | Total | 116624.479 | 191 | | | |
| 3 | Regression | 41071.313 | 18 | 2281.74 | 5.225 | .000d |
| | Residual | 75553.166 | 173 | 436.724 | | |
| | Total | 116624.479 | 191 | | | |

***Table 19: Model 2 Anova test***

Block 3 tested the model in full finding significance ($p<0.05$) with African American or black ($p=0.002$), multiracial($p=0.003$), Asian(0.000), customer support ($p=0.017$) and previously worked from home ($p=0.017$) variables, meaning that as the independent variable's value rises, the dependent variable's mean starts to increase as well.

| Coefficients | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | -51.033 | 31.899 | | -1.6 | 0.111 | -113.979 | 11.914 |
| | Black Binary | 14.303 | 4.623 | 0.233 | 3.094 | 0.002 | 5.18 | 23.426 |
| | Latino Binary | 6.376 | 4.637 | 0.1 | 1.375 | 0.171 | -2.774 | 15.525 |
| | Asian Binary | 24.462 | 5.125 | 0.34 | 4.773 | 0 | 14.349 | 34.576 |
| | Multiracial Binary | 15.885 | 5.241 | 0.221 | 3.031 | 0.003 | 5.543 | 26.228 |
| | No Answer Ethnicity Binary | 44.676 | 21.052 | 0.13 | 2.122 | 0.035 | 3.135 | 86.218 |
| | HR Function Binary | -9.923 | 4.85 | -0.148 | -2.046 | 0.042 | -19.494 | -0.352 |
| | Customer Support Business Function | 11.897 | 4.195 | 0.198 | 2.836 | 0.005 | 3.619 | 20.174 |
| | Finance Business Function | 5.828 | 7.873 | 0.047 | 0.74 | 0.46 | -9.708 | 21.364 |
| | Engineer Business Function | -5.96 | 10.832 | -0.035 | -0.55 | 0.583 | -27.335 | 15.415 |
| | Other Business Function | -0.633 | 4.291 | -0.01 | -0.148 | 0.883 | -9.1 | 7.833 |
| | Manager Status Binary | 10.396 | 5.789 | 0.113 | 1.796 | 0.074 | -1.027 | 21.819 |
| | Work From Home Binary | 8.797 | 3.441 | 0.164 | 2.556 | 0.011 | 2.006 | 15.588 |
| 2 | (Constant) | -63.767 | 34.604 | | -1.843 | 0.067 | -132.057 | 4.522 |
| | Black Binary | 14.983 | 4.657 | 0.245 | 3.217 | 0.002 | 5.792 | 24.174 |
| | Latino Binary | 6.286 | 4.658 | 0.098 | 1.349 | 0.179 | -2.907 | 15.479 |
| | Asian Binary | 25.928 | 5.266 | 0.36 | 4.924 | 0 | 15.536 | 36.32 |
| | Multiracial Binary | 16.533 | 5.27 | 0.23 | 3.137 | 0.002 | 6.133 | 26.932 |
| | No Answer Ethnicity Binary | 41.857 | 21.185 | 0.122 | 1.976 | 0.05 | 0.05 | 83.663 |
| | HR Function Binary | -8.173 | 5.083 | -0.122 | -1.608 | 0.11 | -18.205 | 1.859 |
| | Customer Support Business Function | 11.595 | 4.281 | 0.193 | 2.708 | 0.007 | 3.146 | 20.043 |
| | Finance Business Function | 6.267 | 7.957 | 0.051 | 0.788 | 0.432 | -9.437 | 21.971 |
| | Engineer Business Function | -6.411 | 10.852 | -0.037 | -0.591 | 0.555 | -27.827 | 15.005 |
| | Other Business Function | -0.881 | 4.353 | -0.014 | -0.202 | 0.84 | -9.471 | 7.708 |
| | Manager Status Binary | 9.196 | 5.869 | 0.1 | 1.567 | 0.119 | -2.386 | 20.779 |
| | Work From Home Binary | 9.031 | 3.452 | 0.168 | 2.616 | 0.01 | 2.219 | 15.844 |
| | Exhaustion added values | 0.653 | 0.583 | 0.083 | 1.121 | 0.264 | -0.497 | 1.803 |
| | Disengagement added values | 0.051 | 0.564 | 0.007 | 0.091 | 0.927 | -1.062 | 1.165 |
| 3 | (Constant) | -57.743 | 35.371 | | -1.632 | 0.104 | -127.557 | 12.071 |
| | Black Binary | 15.166 | 4.921 | 0.248 | 3.082 | 0.002 | 5.452 | 24.88 |
| | Latino Binary | 6.37 | 4.719 | 0.1 | 1.35 | 0.179 | -2.943 | 15.684 |
| | Asian Binary | 26.154 | 5.414 | 0.363 | 4.831 | 0 | 15.469 | 36.84 |
| | Multiracial Binary | 16.944 | 5.69 | 0.235 | 2.978 | 0.003 | 5.714 | 28.174 |
| | No Answer Ethnicity Binary | 40.585 | 21.746 | 0.119 | 1.866 | 0.064 | -2.337 | 83.508 |
| | HR Function Binary | -8.939 | 5.239 | -0.133 | -1.706 | 0.09 | -19.279 | 1.401 |
| | Customer Support Business Function | 10.801 | 4.469 | 0.18 | 2.417 | 0.017 | 1.979 | 19.623 |
| | Finance Business Function | 5.884 | 8.087 | 0.048 | 0.728 | 0.468 | -10.079 | 21.846 |
| | Engineer Business Function | -9.344 | 11.358 | -0.054 | -0.823 | 0.412 | -31.762 | 13.075 |
| | Other Business Function | -1.645 | 4.469 | -0.027 | -0.368 | 0.713 | -10.465 | 7.176 |
| | Manager Status Binary | 7.999 | 6.125 | 0.087 | 1.306 | 0.193 | -4.09 | 20.089 |
| | Work From Home Binary | 8.547 | 3.556 | 0.159 | 2.404 | 0.017 | 1.529 | 15.565 |
| | Exhaustion added values | 0.668 | 0.593 | 0.085 | 1.128 | 0.261 | -0.502 | 1.838 |
| | Disengagement added values | -0.042 | 0.579 | -0.005 | -0.073 | 0.942 | -1.184 | 1.1 |
| | WFHspace | 0.272 | 3.605 | 0.005 | 0.075 | 0.94 | -6.843 | 7.387 |
| | WFHequipment | 3.898 | 3.648 | 0.077 | 1.069 | 0.287 | -3.302 | 11.098 |
| | WFHroutine | -2.232 | 3.879 | -0.045 | -0.575 | 0.566 | -9.887 | 5.424 |
| | WFHbreaks | 0.147 | 3.646 | 0.003 | 0.04 | 0.968 | -7.05 | 7.343 |

***Table 20: Coefficients for model 2***

### *5.4.3.3 Model 3 Linear regression*

As the previous two models, Model 3 also utilised the significant variables obtained the independent variables from the univariate testing and entered them using the Enter stepwise method, the blocks entered included in block 1 socio-demographic factors (business function, marital status, and ethnicity), block 2 and block 3 included the same variables as the previous models. The dependent variable is Presenteeism before Covid.

The Durbin-Watson score is 1.704 implying an inconclusive correlation between adjacent residuals, hence not rejecting the null hypothesis.

The first set of independent variables account for 14.5% of the variance in the presenteeism during covid scores, when adding the burnout variables increased to 15.6% and adding the working from home variables raised the percentage to 16.9%. Nevertheless, 41.1% of this model is explained by the dependent variable (Table 21).

| Model Summary | | | | | |
|---|---|---|---|---|---|
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** | **Durbin-Watson** |
| 1 | .380a | 0.145 | 0.092 | 10.247 | |
| 2 | .395b | 0.156 | 0.094 | 10.236 | |
| 3 | .411c | 0.169 | 0.088 | 10.271 | 1.704 |

***Table 21: Model summary for model 3***

The results of the anova test for model 3 reported to be significant as $p < 0.05$ and are as follows: $F(11,180)=2.765$, $p=0.002$; $F(13,178)=2.53$, $p=0.003$ and $F(17,174)=2.084$, $p=0.009$ respectively for each of the independent variable blocks, rejecting the null hypothesis.

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 3193.456 | 11 | 290.314 | 2.765 | .002b |
| | Residual | 18901.857 | 180 | 105.01 | | |
| | Total | 22095.312 | 191 | | | |
| 2 | Regression | 3446.283 | 13 | 265.099 | 2.53 | .003c |
| | Residual | 18649.029 | 178 | 104.77 | | |
| | Total | 22095.312 | 191 | | | |
| 3 | Regression | 3738.155 | 17 | 219.891 | 2.084 | .009d |
| | Residual | 18357.157 | 174 | 105.501 | | |
| | Total | 22095.312 | 191 | | | |

***Table 22: Anova test for model 3***

Model 3 only found human resources independent variable ($p=0.001$) as having a statistical significant impact on presenteeism before Covid across all blocks as $p < 0.05$, rejecting the null hypothesis.

| Coefficients | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 81.178 | 15.772 | | 5.147 | 0 | 50.057 | 112.3 |
| | Black Binary | 2.702 | 2.204 | 0.101 | 1.226 | 0.222 | -1.646 | 7.051 |
| | Latino Binary | -0.637 | 2.275 | -0.023 | -0.28 | 0.78 | -5.127 | 3.852 |
| | Asian Binary | 1.487 | 2.511 | 0.047 | 0.592 | 0.554 | -3.467 | 6.441 |
| | Multiracial Binary | 3.499 | 2.576 | 0.112 | 1.358 | 0.176 | -1.585 | 8.582 |
| | No Answer Ethnicity Binary | -11.532 | 10.418 | -0.077 | -1.107 | 0.27 | -32.09 | 9.025 |
| | HR Function Binary | -8.767 | 2.384 | -0.301 | -3.677 | 0 | -13.472 | -4.063 |
| | Customer Support Business Function | -1.56 | 2.043 | -0.06 | -0.764 | 0.446 | -5.591 | 2.471 |
| | Finance Business Function | -2.149 | 3.895 | -0.04 | -0.552 | 0.582 | -9.835 | 5.536 |
| | Engineer Business Function | 5.316 | 5.319 | 0.071 | 0.999 | 0.319 | -5.18 | 15.812 |
| | Other Business Function | -1.069 | 2.096 | -0.04 | -0.51 | 0.611 | -5.205 | 3.068 |
| | Marital Status Binary | 2.32 | 1.593 | 0.103 | 1.456 | 0.147 | -0.823 | 5.463 |
| 2 | (Constant) | 77.4 | 17.036 | | 4.543 | 0 | 43.782 | 111.018 |
| | Black Binary | 2.575 | 2.21 | 0.097 | 1.166 | 0.245 | -1.785 | 6.935 |
| | Latino Binary | -0.294 | 2.283 | -0.011 | -0.129 | 0.898 | -4.8 | 4.212 |
| | Asian Binary | 1.431 | 2.57 | 0.046 | 0.557 | 0.578 | -3.639 | 6.502 |
| | Multiracial Binary | 3.288 | 2.586 | 0.105 | 1.272 | 0.205 | -1.815 | 8.392 |
| | No Answer Ethnicity Binary | -11.183 | 10.462 | -0.075 | -1.069 | 0.287 | -31.829 | 9.464 |
| | HR Function Binary | -8.672 | 2.493 | -0.297 | -3.479 | 0.001 | -13.591 | -3.753 |
| | Customer Support Business Function | -0.947 | 2.079 | -0.036 | -0.456 | 0.649 | -5.049 | 3.154 |
| | Finance Business Function | -1.548 | 3.927 | -0.029 | -0.394 | 0.694 | -9.297 | 6.201 |
| | Engineer Business Function | 5.565 | 5.315 | 0.074 | 1.047 | 0.297 | -4.925 | 16.054 |
| | Other Business Function | -0.561 | 2.12 | -0.021 | -0.265 | 0.792 | -4.744 | 3.622 |
| | Marital Status Binary | 2.625 | 1.611 | 0.116 | 1.63 | 0.105 | -0.554 | 5.804 |
| | Exhaustion added values | -0.346 | 0.287 | -0.101 | -1.205 | 0.23 | -0.912 | 0.22 |
| | Disengagement added values | 0.394 | 0.279 | 0.115 | 1.414 | 0.159 | -0.156 | 0.945 |
| 3 | (Constant) | 75.058 | 17.371 | | 4.321 | 0 | 40.774 | 109.342 |
| | Black Binary | 3.038 | 2.329 | 0.114 | 1.304 | 0.194 | -1.559 | 7.634 |
| | Latino Binary | -0.104 | 2.301 | -0.004 | -0.045 | 0.964 | -4.647 | 4.438 |
| | Asian Binary | 1.237 | 2.638 | 0.039 | 0.469 | 0.64 | -3.97 | 6.444 |
| | Multiracial Binary | 3.447 | 2.778 | 0.11 | 1.241 | 0.216 | -2.035 | 8.929 |
| | No Answer Ethnicity Binary | -9.119 | 10.678 | -0.061 | -0.854 | 0.394 | -30.194 | 11.957 |
| | HR Function Binary | -8.926 | 2.571 | -0.306 | -3.471 | 0.001 | -14.001 | -3.851 |
| | Customer Support Business Function | -1.322 | 2.171 | -0.051 | -0.609 | 0.543 | -5.608 | 2.963 |
| | Finance Business Function | -1.183 | 3.978 | -0.022 | -0.297 | 0.767 | -9.034 | 6.669 |
| | Engineer Business Function | 5.554 | 5.513 | 0.074 | 1.007 | 0.315 | -5.328 | 16.435 |
| | Other Business Function | -0.373 | 2.176 | -0.014 | -0.172 | 0.864 | -4.668 | 3.921 |
| | Marital Status Binary | 2.708 | 1.628 | 0.12 | 1.664 | 0.098 | -0.504 | 5.921 |
| | Exhaustion added values | -0.387 | 0.292 | -0.113 | -1.327 | 0.186 | -0.962 | 0.188 |
| | Disengagement added values | 0.461 | 0.285 | 0.134 | 1.619 | 0.107 | -0.101 | 1.022 |
| | WFHspace | -1.106 | 1.729 | -0.051 | -0.64 | 0.523 | -4.518 | 2.305 |
| | WFHequipment | -1.073 | 1.774 | -0.049 | -0.605 | 0.546 | -4.575 | 2.429 |
| | WFHroutine | -1.308 | 1.891 | -0.061 | -0.692 | 0.49 | -5.041 | 2.425 |
| | WFHbreaks | 2.414 | 1.788 | 0.11 | 1.351 | 0.179 | -1.114 | 5.943 |

***Table 23: Coefficients for model 3***

## 6. Discussion

This chapter discusses the main conclusions based on the statistical analyses that were conducted. A number of statistical studies were carried out, the findings of which were highlighted in chapter 5.

The aim of this study was to find out how burnout triggers absenteeism and presenteeism in the an IT firm in Ireland, and to what degree these associations changed in the new work environment precipitated by the outbreak of Covid, and the mandatory working from home

period. The researcher was able to establish three models that examined how socio-demographic characteristics, burnout, and the work from home situation affected absenteeism and presenteeism after conducting a literature review to determine the critical factors influencing absenteeism and presenteeism.

The results determine that males suffer more presenteeism before the Coronavirus pandemic than females. However, females experienced more presenteeism during Covid and have been more absent. Previous research during the pandemic established that women were more absent from work than men to fulfil childcare needs (Croda and Grossbard, 2021; Del Boca et al., 2020), although the present study does not determine the causes of absenteeism it concurs that women have been more absent than men during a 4 week period. The results reported higher presenteeism in females during Covid coinciding with other studies in other sectors (Gustafsson Sendén, Schenck-Gustafsson and Fridner, 2016). Contrary to other studies before the outbreak of the Coronavirus pandemic (Böckerman and Laukkanen, 2009), males have reported higher presenteeism. Additionally, the burnout results did not discover significant differences between the business functions, as previous research by Chatterjee and Das (2019) reported. Notwithstanding, absenteeism was measured as an absolute score, because if participants worked longer hours or on a day off, these hours would compensate for their absent hours.

The Coronavirus pandemic altered the concept of absenteeism for many workers, as a result of their personal circumstances (Grigore, 2020). One of the main reasons for absenteeism during the pandemic confirmed by Chin *et al.* (2020) was school closures and childcare duties. The results of model 1 affirm that children ($\beta$=28.329, p=0.033) have a significant influence in absenteeism. It is important to note that schools in Ireland fully reopened on the 12th April (O'Brien, 2021) the same date as to when the survey closed for responses. Age, race, burnout, and various work-from-home variables; in relation to room, equipment, routine, and breaks; were also predicted to have a major positive impact on absenteeism. However, the findings did not confirm these theories, and any impact they did have was only indirect according to this model.

Model 2 examined presenteeism during the Coronavirus pandemic, although the literature review confirmed that presenteeism was encountered amongst employees throughout different sectors (Chen, Lu and Cooper, 2021; Grigore, 2020; Shan et al., 2021). The results of the

regression specify that certain ethnicities; African american or black (β=15.166 p=0.002), Pacific Islander or Asian (β=26.154, p=0), Multiracial or other (β=16.944, p=0.003); business functions; Customer Support (β=10.801, p=0.017); and if employees worked from home previously or not; previously worked from home (β=8.547, p=0.0107); experienced higher levels of presenteeism during the coronavirus pandemic. Due to the multicultural environment of the company, it is interesting to note that not all ethnicities proved to have significant levels of presenteeism. Simultaneously, model 2 results corroborated Kinman and Grant's (2020) findings on supporting professions by revealing customer service as the business feature with the highest levels of presenteeism during the covid-19 outbreak. IT workers have previously benefited from the advantages of working from home (Milasi, González-Vázquez and Fernández-Macías, 2020); and although 69.8% of respondents previously worked from home, often for short periods of time, the mandatory work from home period created difficulties in establishing a clear distinction between working time and personal life, resulting in higher levels of presenteeism experienced during the coronavirus pandemic as seen in the literature (Cho, 2020; Pluut and Wonders, 2020).

In contrast, when analysing presenteeism before the Coronavirus pandemic, model 3, only reported significance within the Human Resources business function (β=-8.926, p=0.001), establishing lower amounts of presenteeism experienced.  and did not encounter any significant amount of presenteeism in any of the other variables. The theory, in contrast, reported that presenteeism has been more prevalent and costlier than absenteeism in the workplace (Pei et al., 2020). O'Connor et al. (2020) pointed out that presenteeism can also cause an adverse effect on mental health, however, presenteeism before and during the Coronavirus pandemic did not seem to be significantly affected by the burnout variables (exhaustion and disengagement). This may be attributed to the more flexible work arrangements, where the majority of the workforce has been operating remotely from other countries since the pandemic started, allowing workers to be closer to their loved ones or in a more idyllic location, something they were unable to do for long periods of time previously. Concurrently, burnout did not affect the absenteeism levels during the early months of 2021, differing from previous research (Salvagioni et al., 2017; Tipa, Tudose and Pucarea, 2019).

Nevertheless, the research is focused on a large organization in the IT sector; usually where higher levels of burnout are encountered (Nagaraj and Mahadevan, 2015); its strong focus on employees work-life balance and company culture, some of the factors contributing to less

burnout (Jourdain and Chênevert, 2015). This study has enhanced the existing literature in relation to burnout, absenteeism and presenteeism in the Irish IT sector during the coronavirus pandemic. Most of the current literature focuses on healthcare professionals due to the higher pressure experienced throughout this period. Further research is encouraged in the area of absenteeism and presenteeism in the IT sector, to determine the impact on employees' mental health after the mandatory work from home period as a result of the Coronavirus pandemic. Simultaneously, IT firms are currently supporting more remote working solutions, therefore assessing the impact of new policies and practices in relation to teleworking on mental health must be a priority to create adequate and engaging work environments for employees.

## 7. Conclusion

The purpose of this study was to investigate and propose some conceptual models to describe the relationship between burnout, absenteeism, and presenteeism in an Irish IT firm. The results of these models explained 33.9%, 59.3% and 41.1%, of the variances in absenteeism and presenteeism during and before the pandemic, respectively. Despite rejecting claims from previous studies in relation to absenteeism, it has reaffirmed that the concept of absenteeism during the pandemic has changed (Grigore, 2020), proving that absences are more significant for those who have families and need to care for their children (Chin *et al.,* 2020). The novel concept of presenteeism has been presented as a threat for high demanding companies before the pandemic; nevertheless, this study refuted that the company researched had clear predictors contributing to its levels. Conversely, during the pandemic it became more embedded across different ethnicities of its multicultural environment, as well as specific functions. Employees who previously worked from home also encountered higher levels of presenteeism during this period, demonstrating that despite benefiting from the practice in the past, longer terms isolated from peers are affecting employees.

## 8. CIPD requirements

### 8.1 Recommendations and financial implications

Everything considered, the Coronavirus pandemic has changed not only how employees work but also their priorities, creating space for change. Work-life balance and mental health problems are still prevalent and, as observed, one of the main factors influencing them is more spread over the workplace. In order to prevent the long-term consequences, the researcher designed a plan to promote well-being and reduce presenteeism during the mandatory work from home period.

- Promote EAP services: Encourage employees to use EAP services, ensuring the service is easy to access to promote well-being. As the company already has a dedicated team for the well-being of employees and EAP resources in place, the benefits team could create an internal website with service levels and contact details. The total cost for this implementation is 250€ for the full website design, taking up to two days to build. Subsequently the benefits team can engage with leadership for its promotion across the company. This can be implemented immediately by engaging the internal communications team.
- Work-life balance training: Providing managers with the right training to provide assistance and accommodate employees' needs is an important factor in achieving a healthy work-life balance during these uncertain times. An e-learning, self-paced training can be put in place for managers to minimize micromanaging and promote understanding of complex personal situations the pandemic has created. The learning and development team can design and distribute this training amongst managers. The cost of the e-learning and content design is approximately €5,000 taking up to 3 days to complete.
- Time off: As a result of high presenteeism levels encountered between employees it is important that the company promotes taking time off to promote employee wellbeing. The multicultural workforce might be resistant to use their own vacation allowance as they will prefer to keep their vacation days to visit family or travel back home. Therefore, the company can introduce a day off for all employees per quarter, encouraging them to disconnect. The cost of this initiative for this particular IT firm will be approximately €6,000,000 per year, however, it is important to note that this figure only considers the mean salary of the company employees.

## 8.2 CIPD Personal Learning Reflection

Writing this dissertation has been rewarding and fulfilling, not only because it has allowed me to greatly expand my skills and knowledge in how absenteeism, presenteeism and burnout affect employees in a large IT business. Together with how to apply existing policies and practices that can contribute to promote good health within workers, and reduce the associated costs for the company. As a human resources professional this is an invaluable experience that has contributed to my growth, adding a more analytical approach to my day to day.

The Coronavirus pandemic has been one of the main challenges for me during the completion of this study, being only able to access library resources, workshops and meeting with supervisors or other students online has been difficult as a result of different schedules and working full-time. Never before I conducted any type of research, so the whole process was new to me and despite being previously employed in finance the quantitative research methods was proven a challenge; operating SPSS and understanding all the requirements. However, the more I progressed towards the completion of this research my confidence and understanding of research methods grew.

The topic selected for this study is one which I am really interested in and I've gained a lot of knowledge. Despite being a positive experience, there are areas that I could develop more, such as being more descriptive in my writing and not assuming the reader has extensive knowledge on the topic, by introducing the concepts first and then elaborating. This is something that will benefit me professionally when presenting ideas or working on projects.
I hope to be able to put the information I gathered during this research to good use in the future, whether pursuing further education and exploring more niche aspects of Human Resources.

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## Appendix A: Questionnaire

# A study of absenteeism and presenteeism and its relation to burnout

Participant Information Sheet

An explanatory study of the variables which impact absenteeism and presenteeism employees of a tech company in Ireland.

This page provides you with detailed information regarding the present study. Please read it fully prior to completing the questionnaire. Please note that this questionnaire should only be completed by those who are employed at Google Ireland.

Who is conducting this study?

My name is Marta and I am a final year student in the National College of Ireland's Master's of Human Resource Management program. I am completing this study in part fulfilment of my dissertation study.

What is the purpose of the study?

The aim of this study is to analyse the impact of absenteeism and presenteeism on Google Ireland and its relation to burnout.

Do I have to take part? The completion of this questionnaire is entirely voluntary. If you chose to withdraw from the study while completing the questionnaire, please close your browser window. If you do wish to withdraw, the questions you have already answered will not be recorded. However, if you are happy to complete this questionnaire, all responses will be kept anonymous and confidential and will be stored in a secure, password protected file.

What does the questionnaire involve? This questionnaire will take less than ten minutes of your time to complete. It involves three parts; the first to determine some personal information; the second to assess the absenteeism and presenteeism levels; following some questions to review burnout levels.

What will happen to the results of the research study? The results will be analysed and used as part of my postgraduate dissertation for my Master's of Human Resource Management qualification. As explained previously, all information will be gathered anonymously and will not be linked to the candidate in any way. Please feel free to contact me via email if you need additional information or have any questions at the following email address: x18174876@student.ncirl.ie.

*Required

Demographics

1. How old are you? *

*Mark only one oval.*

- ◯ 18-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55 or above

2. Gender *

*Mark only one oval.*

- ◯ Female
- ◯ Male
- ◯ Other
- ◯ Prefer not to say

3. Marital status *

*Mark only one oval.*

- ◯ Married
- ◯ Widowed
- ◯ Separated
- ◯ Divorced
- ◯ Living with partner
- ◯ Single

4. How many children do you have? *

*Mark only one oval.*

- ◯ None
- ◯ One
- ◯ Two
- ◯ Three
- ◯ Four or more

5. How would you describe your race or ethnicity? *

*Mark only one oval.*

- ◯ Native American
- ◯ African American or Black
- ◯ Caucasian or White
- ◯ Hispanic or Latino
- ◯ Pacific Islander or Asian
- ◯ Multiracial or other
- ◯ Prefer not to answer

6. What is your employment status? *

*Mark only one oval.*

- ◯ Part-time
- ◯ Full-time
- ◯ Contract

7. What is your business function? *

*Mark only one oval.*

- ◯ Sales
- ◯ Human Resources
- ◯ Customer Support
- ◯ Finance
- ◯ Engineer
- ◯ Other

8. Do you manage people? *

*Mark only one oval.*

- ◯ Team Leader
- ◯ First-line manager
- ◯ Middle manager
- ◯ Top-level manager
- ◯ No, I am not a manager

9. Before Covid-19, have you previously worked from home? *

*Mark only one oval.*

- ◯ A few days per year
- ◯ 2-5 months per year
- ◯ 6-12 months per year
- ◯ All the time
- ◯ Never

10. Do you have a suitable and separate space in your home for work? *

*Mark only one oval.*

- ◯ Yes
- ◯ No

11. Do you have all the equipment needed to fulfil your role to the same standard as in the office? *

*Mark only one oval.*

- ◯ Yes
- ◯ No

12. Have you been able to stick to a work routine or schedule? *

*Mark only one oval.*

- ◯ Yes
- ◯ No

13. Do you take regular breaks? *

*Mark only one oval.*

- ◯ Yes
- ◯ No

Absenteeism and Presenteeism questions

14. About how many hours altogether did you work in the past 7 days? (If more than 97, enter 97) *

_____

15. How many hours does your employer expect you to work in a typical 7-day week? (If it varies, estimate the average. If more than 97, enter 97) *

_____

**Now please think of your work experiences over the past 4 weeks (28 days). In the spaces provided below, write the number of days you spent in each of the following work situations.In the past 4 weeks (28 days), how many days did you... (enter number of days 00-28)**

16. In the past 4 weeks (28 days), how many days did you miss an entire work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.) (enter number of days 0-28) *

17. In the past 4 weeks (28 days), how many days did you miss an entire work day for any other reason (including vacation)? (enter number of days 0-28) *

18. In the past 4 weeks (28 days), how many days did you miss part of a work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.) (enter number of days 0-28) *

19. In the past 4 weeks (28 days), how many days did you miss part of a work day for any other reason (including vacation)? (enter number of days 0-28) *

20. In the past 4 weeks (28 days), how many days did you come in early, go home late, or work on your day off?(enter number of days 00-28) *

21. About how many hours altogether did you work in the past 4 weeks (28 days)? (See examples below.) *

Examples for Calculating Hours Worked in the Past 4 Weeks: 40 hours per week for 4 weeks = 160 hours; 35 hours per week for 4 weeks = 140 hours; 40 hours per week for 4 weeks with 2 8-hour days missed = 144 hours; 40 hours per week for 4 weeks with 3 4-hour partial days missed = 148 hours; 35 hours per week for 4 weeks with 2 8-hour days missed and 3 4-hour partial days missed = 112 hours

22. On a scale from 0 to 10 where 0 is the worst job performance anyone could have at your job and 10 is the performance of a top worker, how would you rate the usual performance of most workers in a job similar to yours? *

*Mark only one oval.*

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worst performance | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | Top Performance |

23. Using the same 0 to 10 scale, how would you rate your usual job performance over the past year or two? *

*Mark only one oval.*

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worst performance | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | Top Performance |

24. Using the same 0 to 10 scale, how would you rate your overall job performance on the days you worked during the past 4 weeks (28 days)? *

*Mark only one oval.*

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worst performance | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | Top Performance |

**Now please think about when you were working in the office, and if there was a change or difference in performance please reflect it on the score you select in the scale.**

25. Using the same 0 to 10 scale, how would you rate the usual performance of most workers in a job similar to yours? *

*Mark only one oval.*

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worst Performance | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | Top Performance |

26. Using the same 0 to 10 scale, how would you rate your usual job performance over a year you spent most of the time working from the office? *

*Mark only one oval.*

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worst Performance | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | Top Performance |

27. Using the same 0 to 10 scale, how would you rate your overall job performance on any days you worked during any 4 weeks (28 days)? *

*Mark only one oval.*

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worst Performance | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ | Top Performance |

Burnout

28. Below you find a series of statements with which you may agree or disagree. Using the scale, please indicate the degree of your agreement that corresponds with each statement *

*Mark only one oval per row.*

| | Strongly disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| I always find new and interesting aspects in my work. | ◯ | ◯ | ◯ | ◯ |
| There are days when I feel tired before I arrive at work. | ◯ | ◯ | ◯ | ◯ |
| It happens more and more often that I talk about my work negatively | ◯ | ◯ | ◯ | ◯ |
| After work, I tend to need more time than before in order to relax and feel better | ◯ | ◯ | ◯ | ◯ |
| I can tolerate the pressure of my work very well. | ◯ | ◯ | ◯ | ◯ |
| Lately, I tend to think less at work and do my job almost mechanically. | ◯ | ◯ | ◯ | ◯ |
| I find my work to be a positive challenge. | ◯ | ◯ | ◯ | ◯ |
| During my work, I often feel emotionally drained. | ◯ | ◯ | ◯ | ◯ |
| Over time, one can become disconnected from this type of work. | ◯ | ◯ | ◯ | ◯ |
| After working, I have enough energy for my leisure activities. | ◯ | ◯ | ◯ | ◯ |

| | | | | |
|---|---|---|---|---|
| Sometimes I feel sickened by my work tasks. | ⬭ | ⬭ | ⬭ | ⬭ |
| After my work, I usually feel worn out and weary. | ⬭ | ⬭ | ⬭ | ⬭ |
| This is the only type of work that I can imagine myself doing. | ⬭ | ⬭ | ⬭ | ⬭ |
| Usually, I can manage the amount of my work well. | ⬭ | ⬭ | ⬭ | ⬭ |
| I feel more and more engaged in my work | ⬭ | ⬭ | ⬭ | ⬭ |
| When I work, I usually feel energized. | ⬭ | ⬭ | ⬭ | ⬭ |

## Appendix B: Descriptive statistics

**Descriptive Statistics**

| | N | Range | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| Age | 192 | 3 | 1 | 4 | 2.36 | .524 |
| Gender | 192 | 1 | 0 | 1 | .50 | .501 |
| Maritalstatus | 192 | 3 | 1 | 4 | 2.80 | 1.172 |
| Children | 192 | 3 | 1 | 4 | 1.11 | .443 |
| Ethnicity | 192 | 5 | 1 | 6 | 2.68 | 1.334 |
| EmploymentStatus | 192 | 2 | 1 | 3 | 1.03 | .227 |
| BusinessFunction | 192 | 5 | 1 | 6 | 2.79 | 1.870 |
| ManagerStatus | 192 | 3 | 1 | 4 | 1.16 | .585 |
| WorkFromHomeTime | 192 | 2 | 1 | 3 | 1.71 | .478 |
| WFHspace | 192 | 1 | 0 | 1 | .41 | .492 |
| WFHequipment | 192 | 1 | 0 | 1 | .62 | .487 |
| WFHroutine | 192 | 1 | 0 | 1 | .46 | .500 |
| WFHbreaks | 192 | 1 | 0 | 1 | .39 | .489 |
| Exhaustion added values | 192 | 18 | 10 | 28 | 17.13 | 3.138 |
| Disengagement added values | 192 | 22 | 8 | 30 | 19.05 | 3.132 |
| Absolute Absenteeism 4 week Estimate | 192 | 564 | -414 | 150 | 2.38 | 45.058 |
| Absolute Presenteeism During Covid | 192 | 100 | 0 | 100 | 52.14 | 24.710 |
| Absolute Presenteeism Before Covid | 192 | 70 | 30 | 100 | 70.16 | 10.756 |
| Valid N (listwise) | 192 | | | | | |

## Appendix C: Reliability test

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 192 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 192 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .638 | .638 | 2 |

**Item Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| Exhaustion added values | 17.13 | 3.138 | 192 |
| Disengagement added values | 19.05 | 3.132 | 192 |

**Inter-Item Correlation Matrix**

| | Exhaustion added values | Disengagement added values |
|---|---|---|
| Exhaustion added values | 1.000 | .469 |
| Disengagement added values | .469 | 1.000 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Exhaustion added values | 19.05 | 9.809 | .469 | .220 | . |
| Disengagement added values | 17.12 | 9.848 | .469 | .220 | . |

## Appendix D: Test of normality

**Case Processing Summary**

| | Cases | | | | | |
|---|---|---|---|---|---|---|
| | Valid | | Missing | | Total | |
| | N | Percent | N | Percent | N | Percent |
| Absolute Absenteeism 4 week Estimate | 192 | 100.0% | 0 | 0.0% | 192 | 100.0% |
| Absolute Presenteeism During Covid | 192 | 100.0% | 0 | 0.0% | 192 | 100.0% |
| Absolute Presenteeism Before Covid | 192 | 100.0% | 0 | 0.0% | 192 | 100.0% |
| Exhaustion added values | 192 | 100.0% | 0 | 0.0% | 192 | 100.0% |
| Disengagement added values | 192 | 100.0% | 0 | 0.0% | 192 | 100.0% |

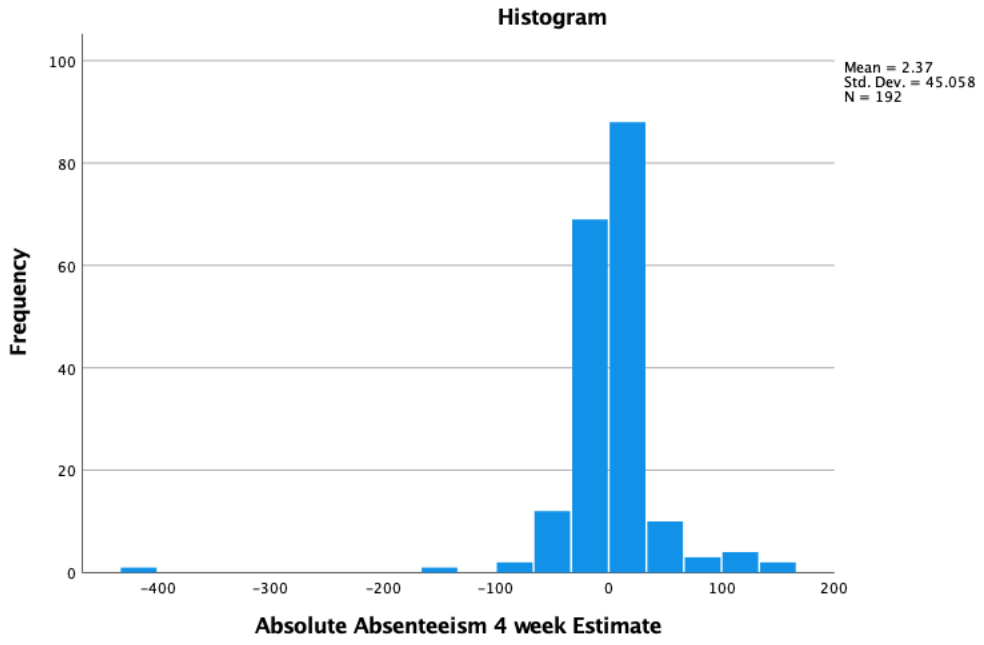
**Tests of Normality**

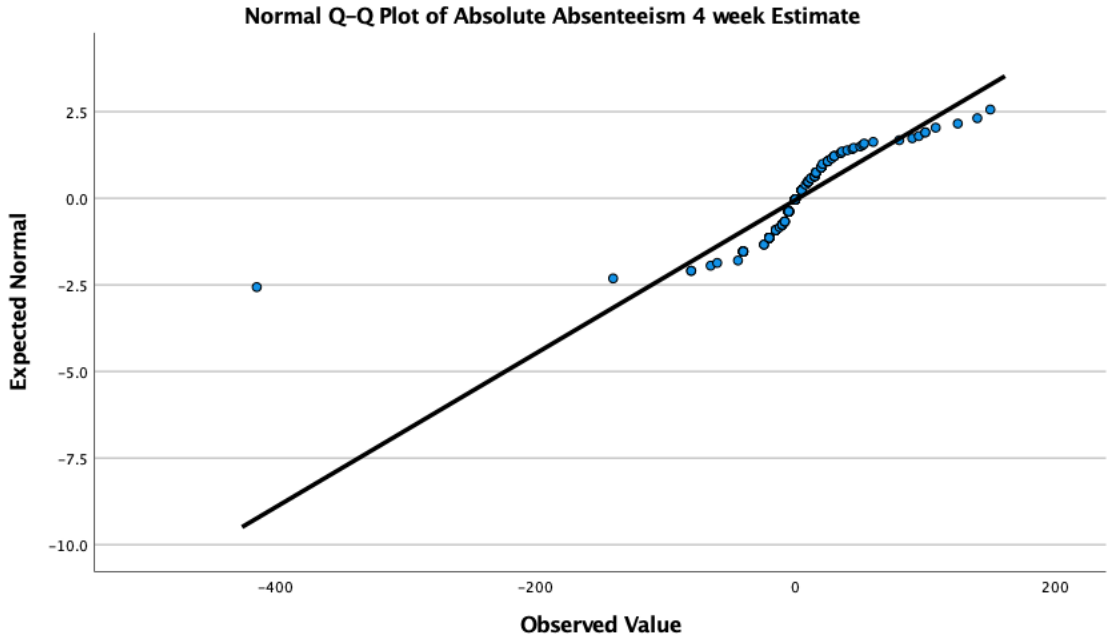
| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Absolute Absenteeism 4 week Estimate | .216 | 192 | .000 | .651 | 192 | .000 |
| Absolute Presenteeism During Covid | .187 | 192 | .000 | .923 | 192 | .000 |
| Absolute Presenteeism Before Covid | .235 | 192 | .000 | .911 | 192 | .000 |
| Exhaustion added values | .125 | 192 | .000 | .977 | 192 | .003 |
| Disengagement added values | .121 | 192 | .000 | .950 | 192 | .000 |

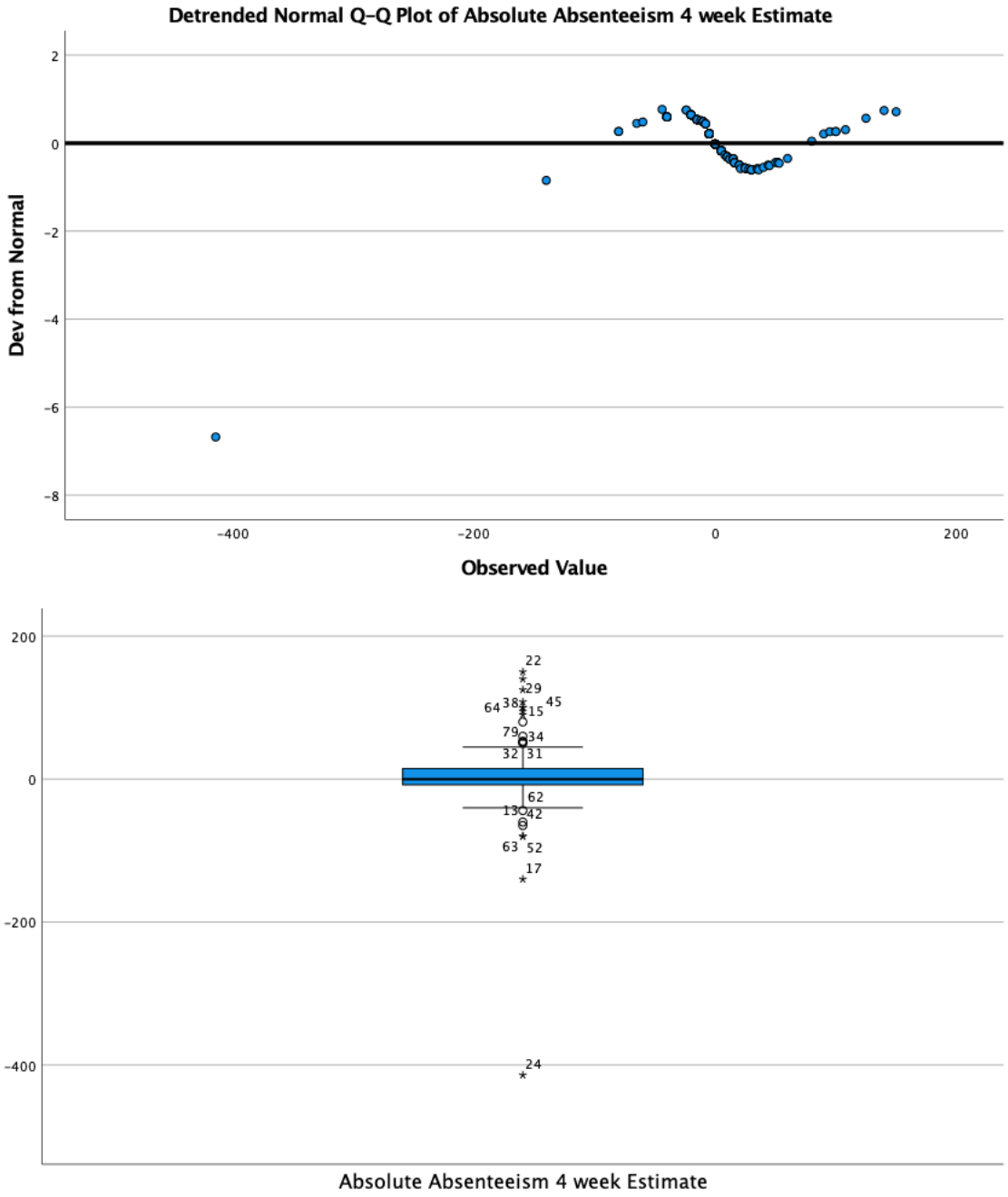
a. Lilliefors Significance Correction

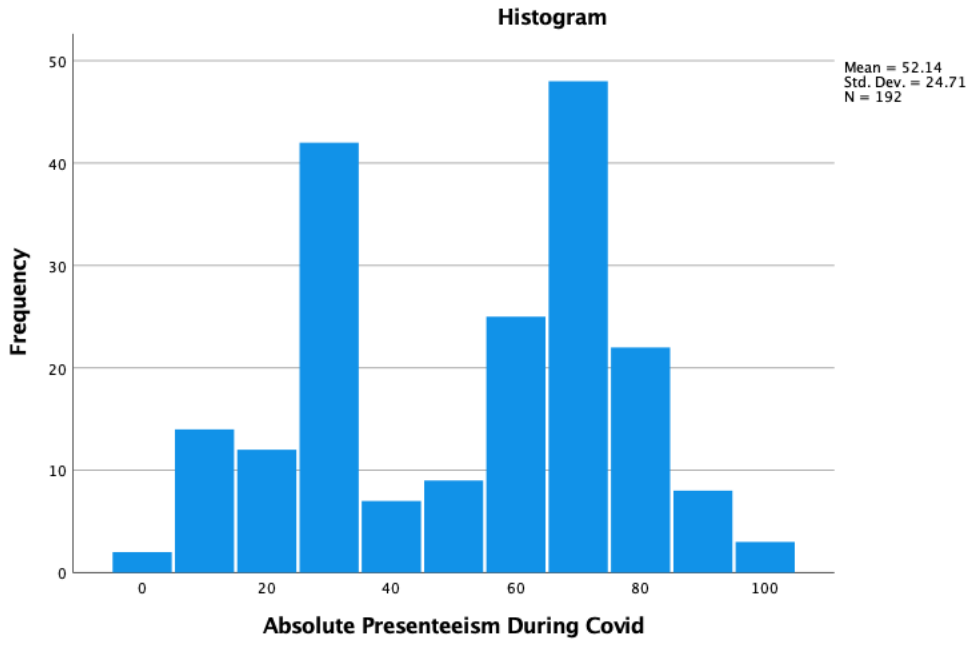
**Descriptives**

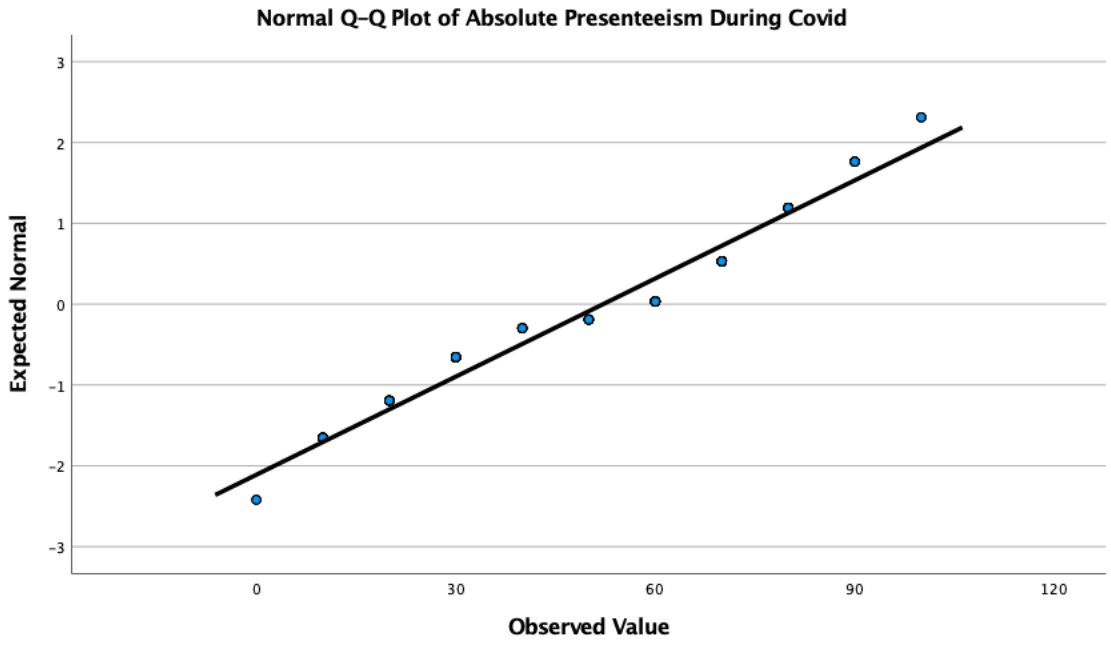
| | | | Statistic | Std. Error |
|---|---|---|---|---|
| Absolute Absenteeism 4 week Estimate | Mean | | 2.38 | 3.252 |
| | 95% Confidence Interval for Mean | Lower Bound | -4.04 | |
| | | Upper Bound | 8.79 | |
| | 5% Trimmed Mean | | 2.42 | |
| | Median | | .00 | |
| | Variance | | 2030.257 | |
| | Std. Deviation | | 45.058 | |
| | Minimum | | -414 | |
| | Maximum | | 150 | |
| | Range | | 564 | |
| | Interquartile Range | | 23 | |
| | Skewness | | -3.702 | .175 |
| | Kurtosis | | 39.177 | .349 |
| Absolute Presenteeism During Covid | Mean | | 52.14 | 1.783 |
| | 95% Confidence Interval for Mean | Lower Bound | 48.62 | |
| | | Upper Bound | 55.65 | |
| | 5% Trimmed Mean | | 52.31 | |
| | Median | | 60.00 | |
| | Variance | | 610.599 | |
| | Std. Deviation | | 24.710 | |
| | Minimum | | 0 | |
| | Maximum | | 100 | |
| | Range | | 100 | |
| | Interquartile Range | | 40 | |
| | Skewness | | -.236 | .175 |
| | Kurtosis | | -1.129 | .349 |
| Absolute Presenteeism Before Covid | Mean | | 70.16 | .776 |
| | 95% Confidence Interval for Mean | Lower Bound | 68.63 | |
| | | Upper Bound | 71.69 | |
| | 5% Trimmed Mean | | 70.17 | |
| | Median | | 70.00 | |
| | Variance | | 115.682 | |
| | Std. Deviation | | 10.756 | |
| | Minimum | | 30 | |
| | Maximum | | 100 | |
| | Range | | 70 | |
| | Interquartile Range | | 20 | |
| | Skewness | | .071 | .175 |
| | Kurtosis | | 1.036 | .349 |
| Exhaustion added values | Mean | | 17.13 | .226 |
| | 95% Confidence Interval for Mean | Lower Bound | 16.68 | |
| | | Upper Bound | 17.57 | |
| | 5% Trimmed Mean | | 17.06 | |
| | Median | | 17.00 | |
| | Variance | | 9.848 | |
| | Std. Deviation | | 3.138 | |
| | Minimum | | 10 | |
| | Maximum | | 28 | |
| | Range | | 18 | |
| | Interquartile Range | | 4 | |
| | Skewness | | .261 | .175 |
| | Kurtosis | | .208 | .349 |
| Disengagement added values | Mean | | 19.05 | .226 |
| | 95% Confidence Interval for Mean | Lower Bound | 18.61 | |
| | | Upper Bound | 19.50 | |
| | 5% Trimmed Mean | | 19.10 | |
| | Median | | 19.00 | |
| | Variance | | 9.809 | |
| | Std. Deviation | | 3.132 | |
| | Minimum | | 8 | |
| | Maximum | | 30 | |
| | Range | | 22 | |
| | Interquartile Range | | 4 | |
| | Skewness | | -.246 | .175 |
| | Kurtosis | | 2.074 | .349 |

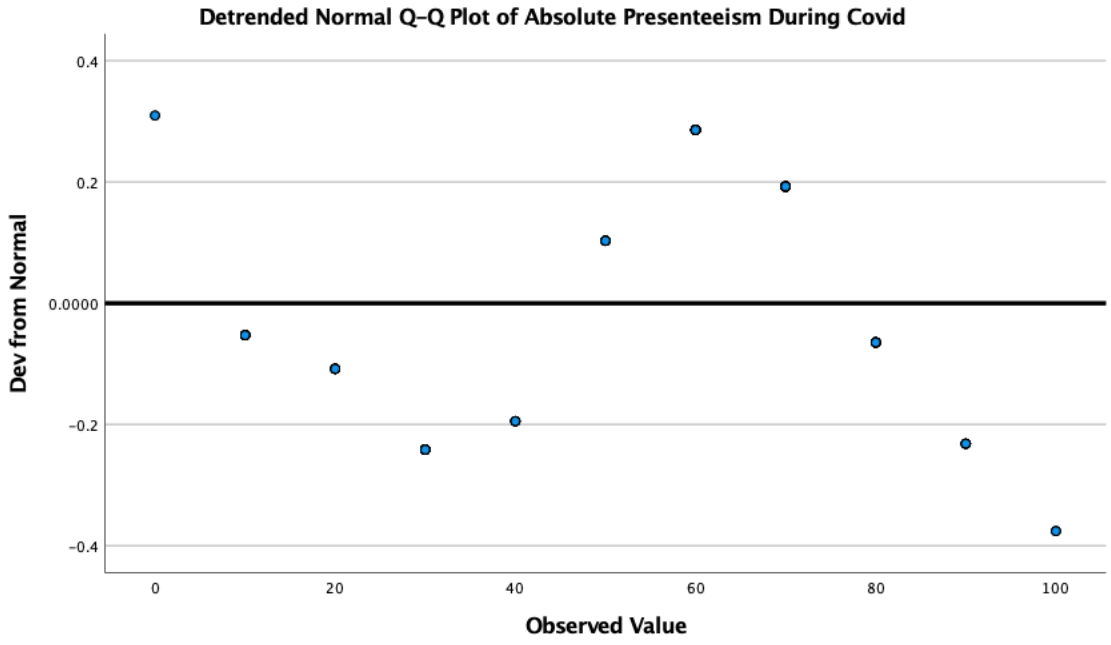

Histogram
Mean = 2.37
Std. Dev. = 45.058
N = 192
Frequency
100
80
60
40
20
0
-400
-300
-200
-100
0
100
200
Absolute Absenteeism 4 week Estimate

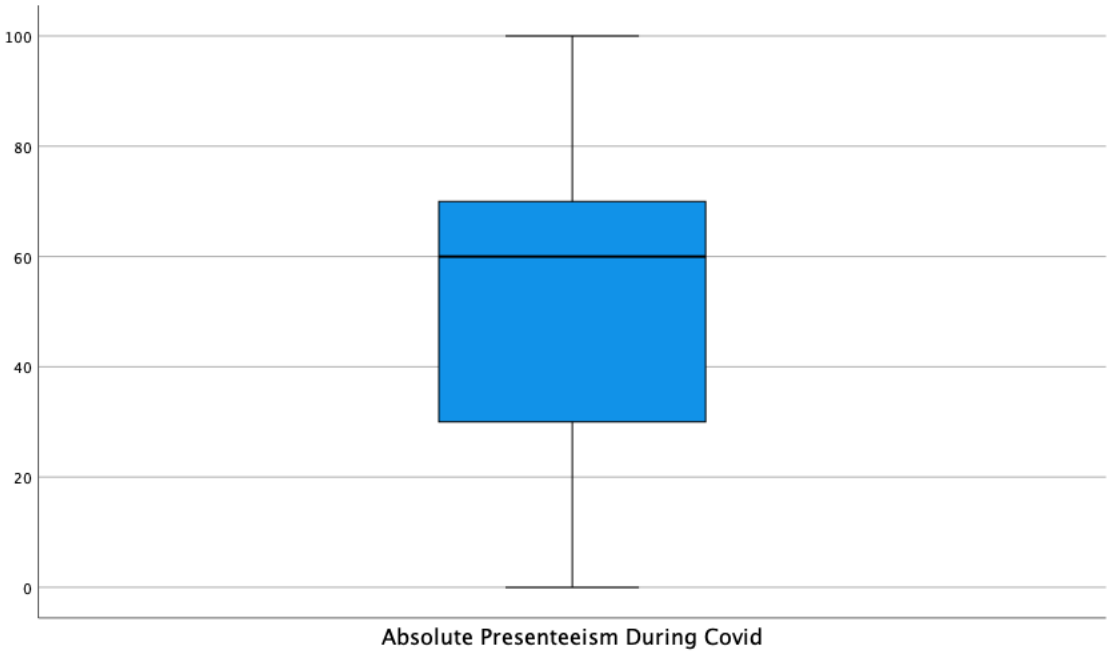

Normal Q-Q Plot of Absolute Absenteeism 4 week Estimate
Expected Normal
2.5
0.0
-2.5
-5.0
-7.5
-10.0
-400
-200
0
200
Observed Value

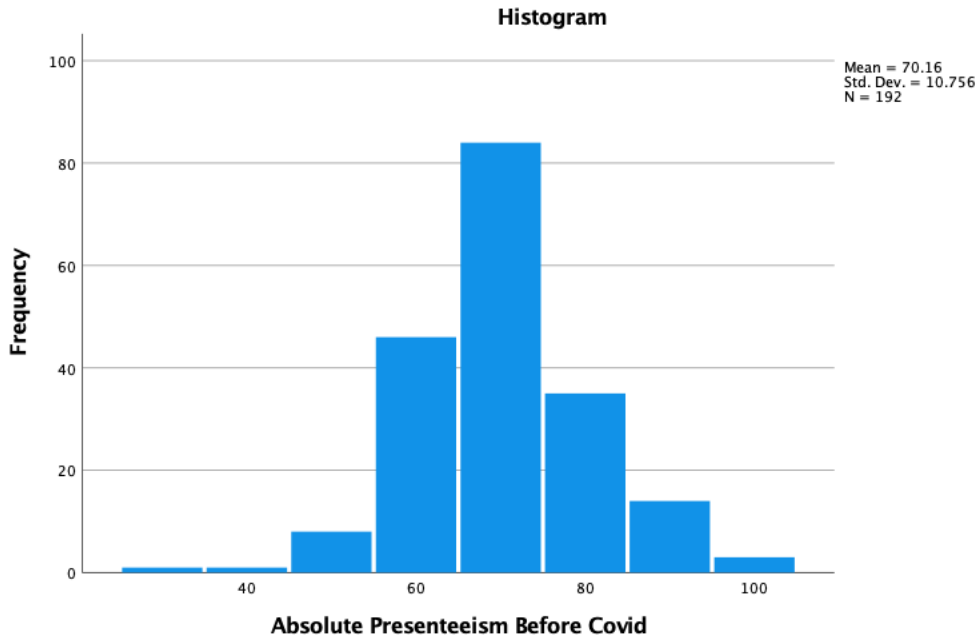

Detrended Normal Q-Q Plot of Absolute Absenteeism 4 week Estimate
Dev from Normal
2
0
-2
-4
-6
-8
-400
-200
0
200
Observed Value
200
0
-200
-400
22
29
64
38
45
15
79
34
32
31
62
13
42
63
52
17
24
Absolute Absenteeism 4 week Estimate

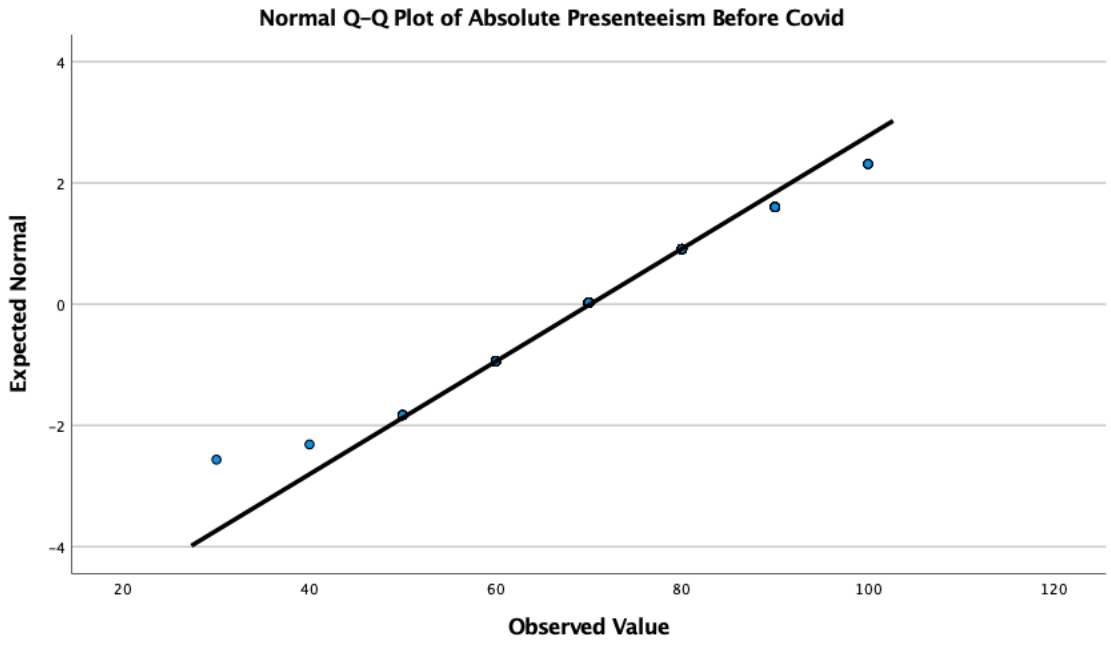

Histogram
Mean = 52.14
Std. Dev. = 24.71
N = 192
Frequency
Absolute Presenteeism During Covid

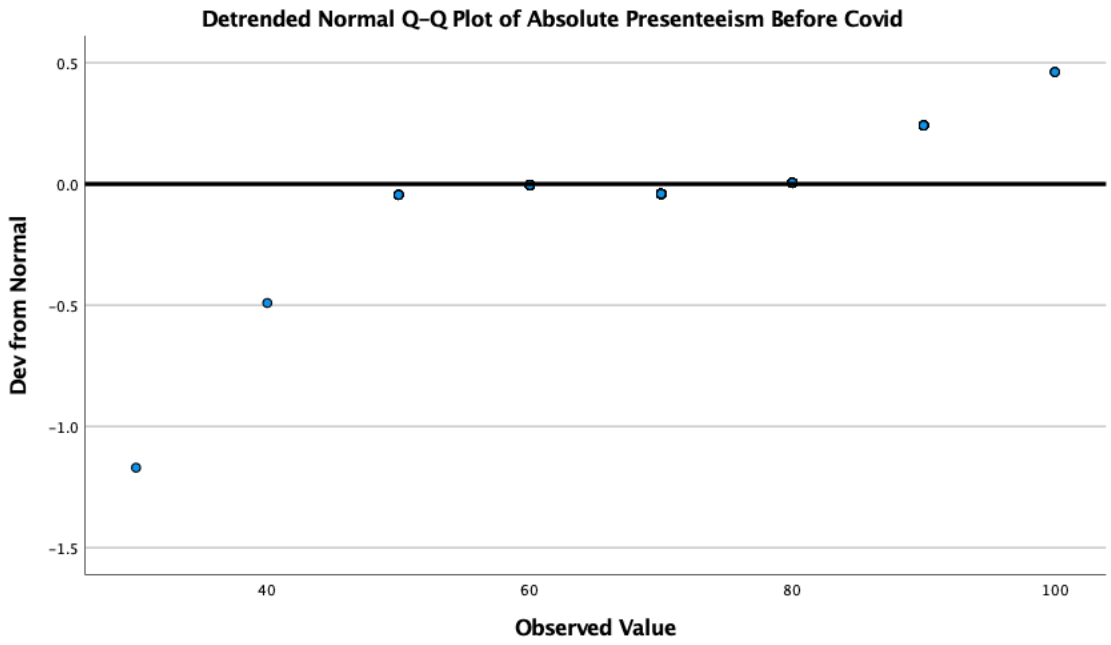

Normal Q-Q Plot of Absolute Presenteeism During Covid
Expected Normal
Observed Value

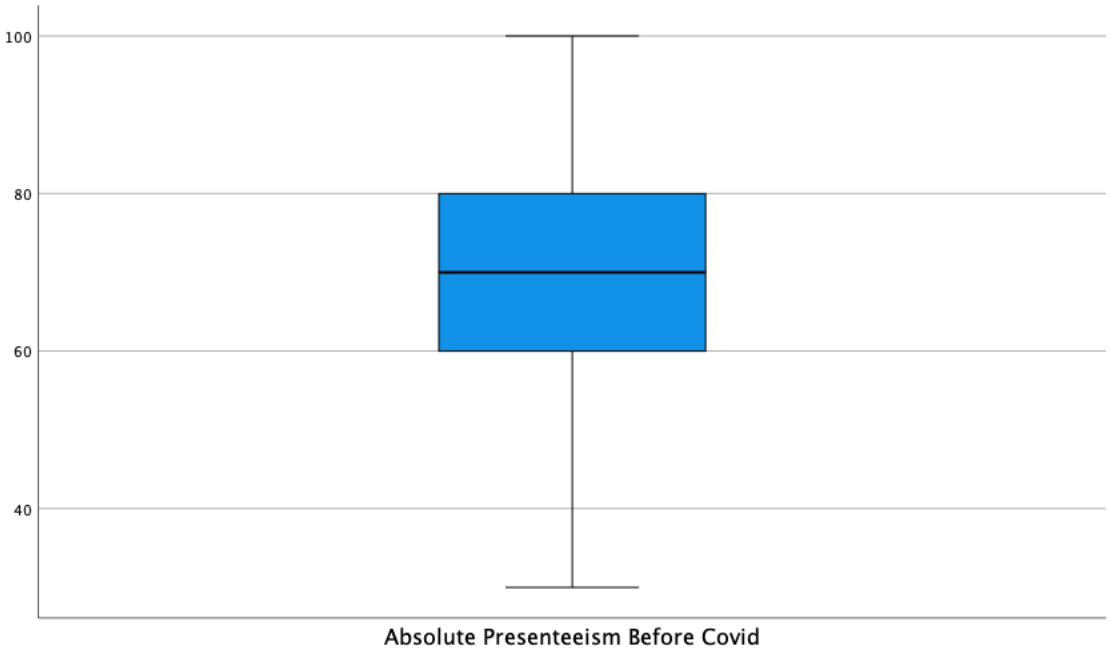

Detrended Normal Q-Q Plot of Absolute Presenteeism During Covid
Dev from Normal
0.4
0.2
0.0000
-0.2
-0.4
0
20
40
60
80
100
Observed Value

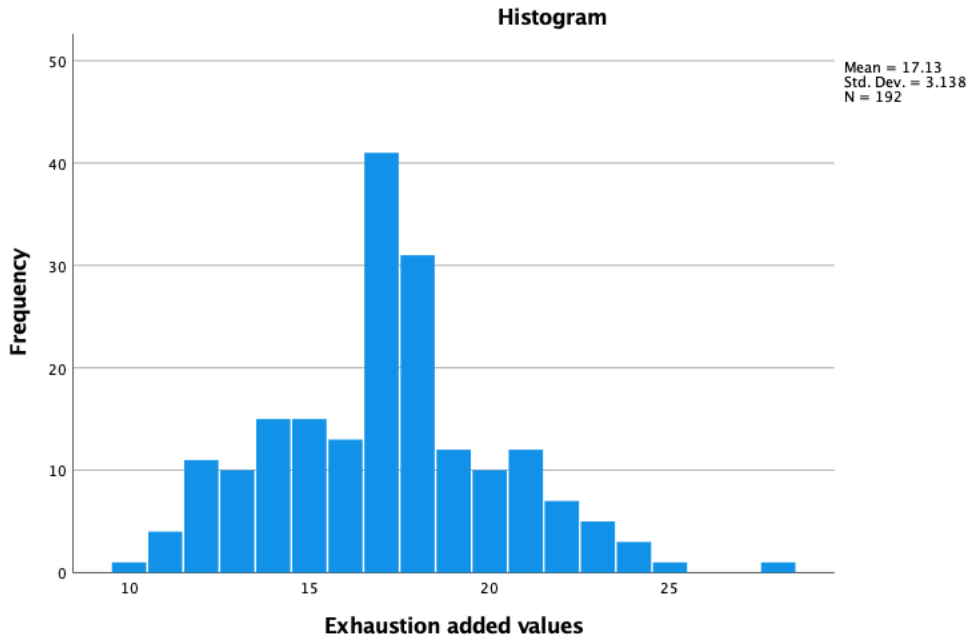

100
80
60
40
20
0
Absolute Presenteeism During Covid

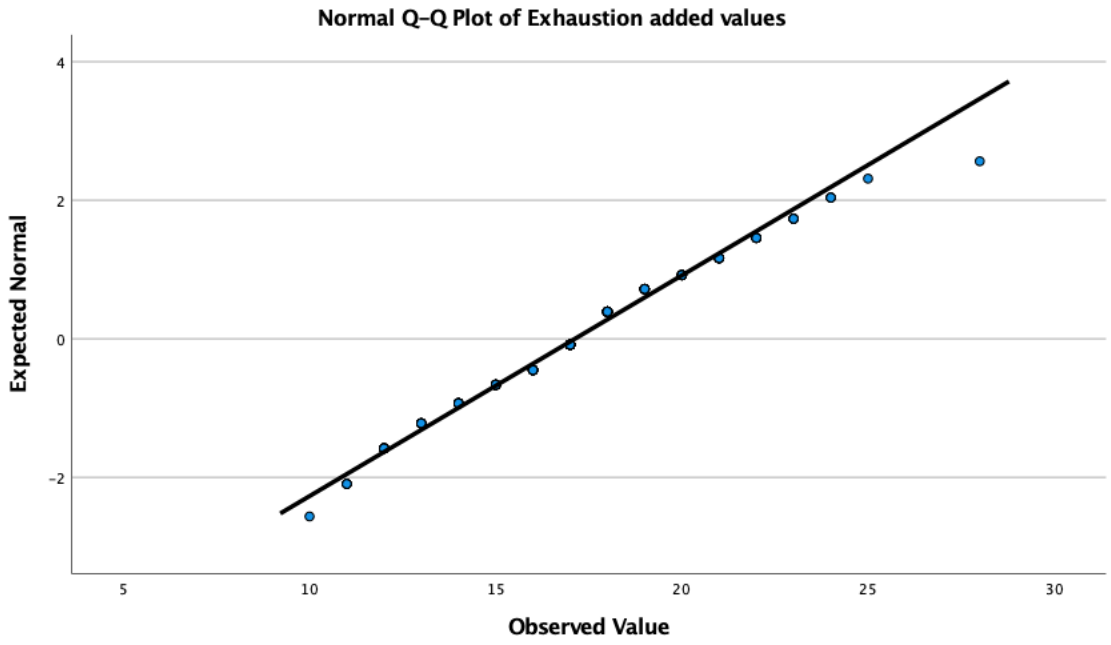

Histogram
Mean = 70.16
Std. Dev. = 10.756
N = 192
Frequency
100
80
60
40
20
0
40
60
80
100
Absolute Presenteeism Before Covid

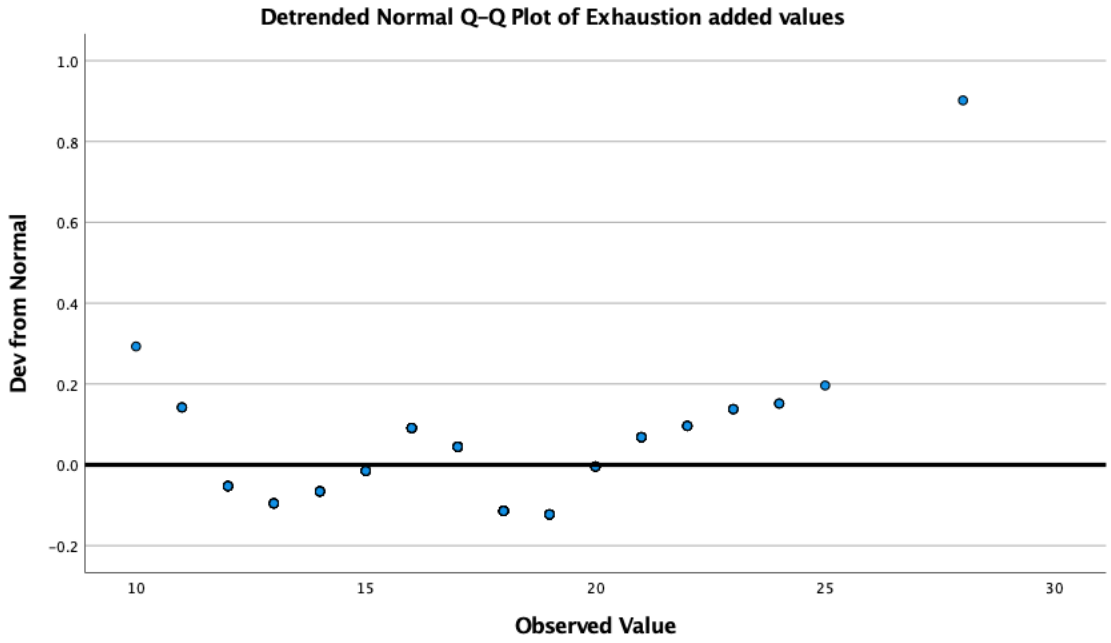

Normal Q-Q Plot of Absolute Presenteeism Before Covid
Expected Normal
4
2
0
-2
-4
20
40
60
80
100
120
Observed Value

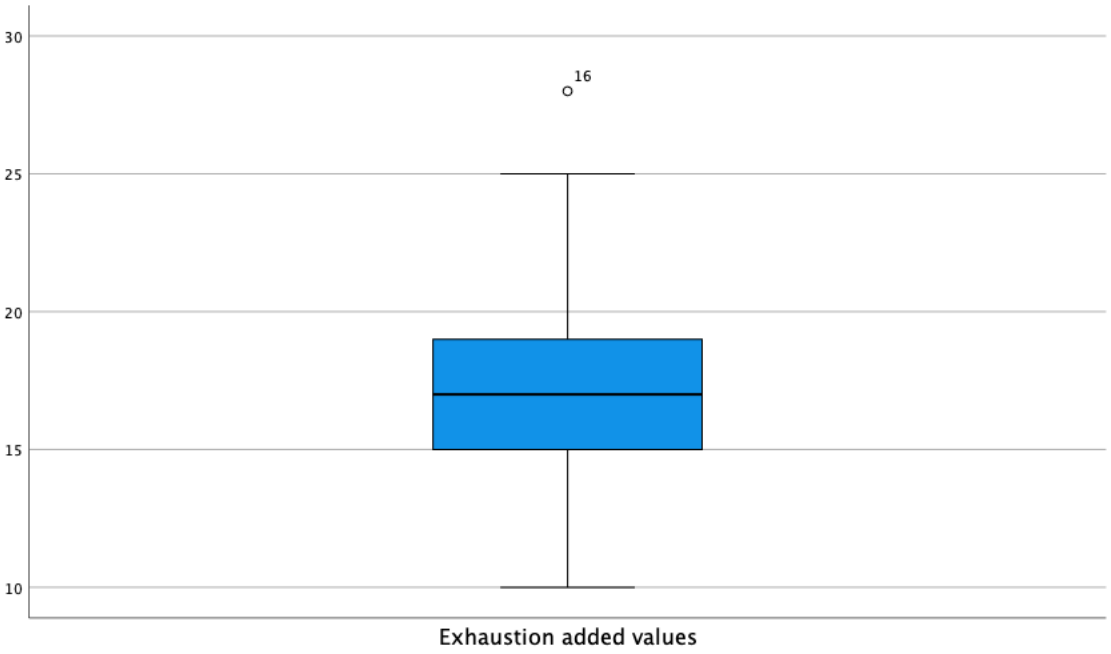

Detrended Normal Q-Q Plot of Absolute Presenteeism Before Covid
Dev from Normal
0.5
0.0
-0.5
-1.0
-1.5
40
60
80
100
Observed Value

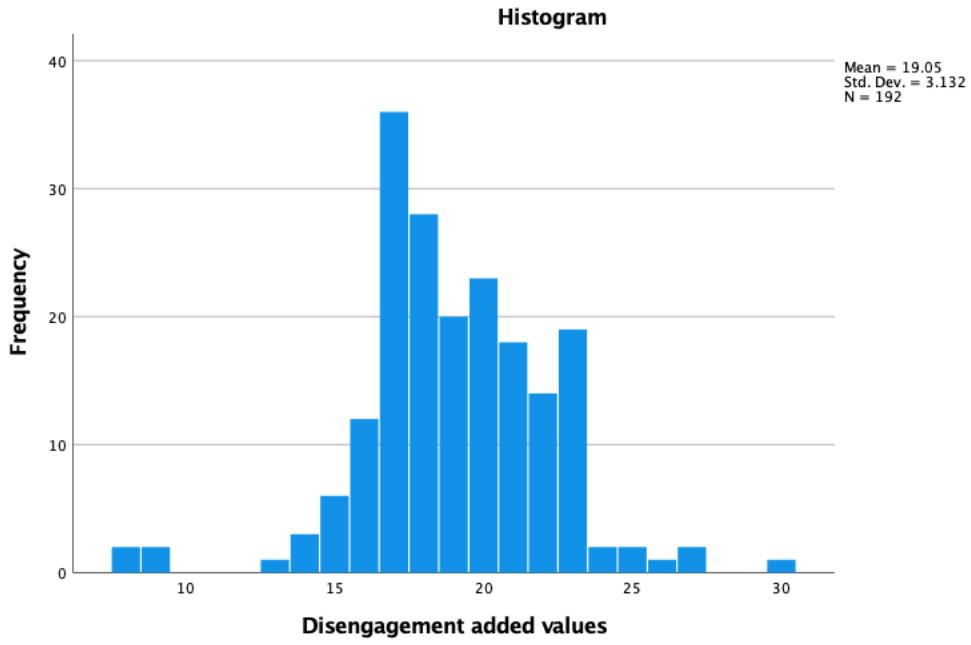

100
80
60
40
Absolute Presenteeism Before Covid

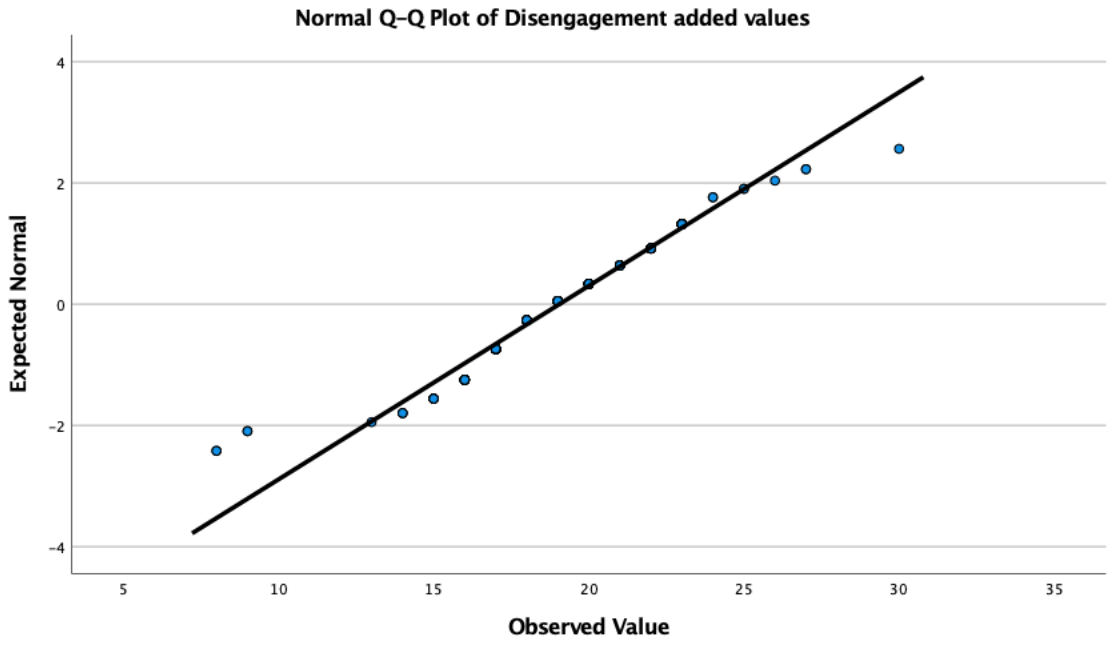

Histogram
Mean = 17.13
Std. Dev. = 3.138
N = 192
Frequency
50
40
30
20
10
0
10
15
20
25
Exhaustion added values

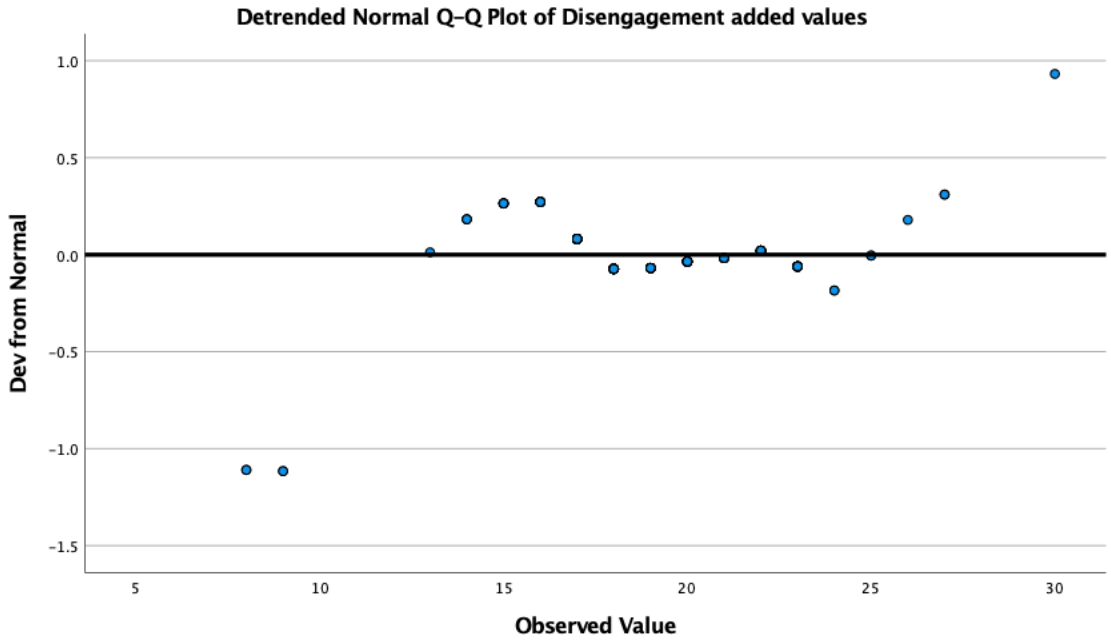

Normal Q-Q Plot of Exhaustion added values
Expected Normal
4
2
0
-2
5
10
15
20
25
30
Observed Value

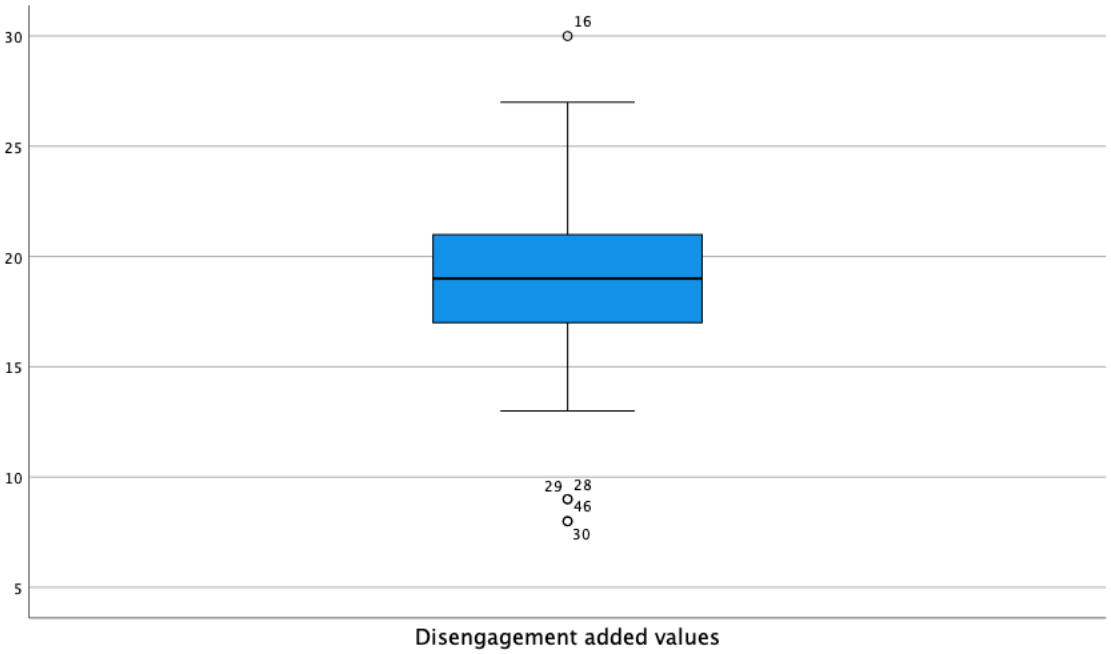

Detrended Normal Q–Q Plot of Exhaustion added values
Dev from Normal
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
10
15
20
25
30
Observed Value


30
25
20
15
10
16
Exhaustion added values


Histogram
Mean = 19.05
Std. Dev. = 3.132
N = 192
Frequency
Disengagement added values


Normal Q–Q Plot of Disengagement added values
Expected Normal
Observed Value


Detrended Normal Q–Q Plot of Disengagement added values
Dev from Normal
1.0
0.5
0.0
-0.5
-1.0
-1.5
5
10
15
20
25
30
Observed Value


30
25
20
15
10
5
16
29
28
46
30
Disengagement added values

## Appendix E: Mann-Whitney U Test

- Dependent variables and Gender

**Descriptive Statistics**

| | N | Mean | Std. Deviation | Minimum | Maximum | Percentiles 25th | 50th (Median) | 75th |
|---|---|---|---|---|---|---|---|---|
| Exhaustion added values | 192 | 17.13 | 3.138 | 10 | 28 | 15.00 | 17.00 | 19.00 |
| Disengagement added values | 192 | 19.05 | 3.132 | 8 | 30 | 17.00 | 19.00 | 21.00 |
| Absolute Absenteeism 4 week Estimate | 192 | 2.38 | 45.058 | -414 | 150 | -8.00 | .00 | 15.00 |
| Absolute Presenteeism Before Covid | 192 | 70.16 | 10.756 | 30 | 100 | 60.00 | 70.00 | 80.00 |
| Absolute Presenteeism During Covid | 192 | 52.14 | 24.710 | 0 | 100 | 30.00 | 60.00 | 70.00 |
| Gender | 192 | .50 | .501 | 0 | 1 | .00 | .50 | 1.00 |

**Ranks**

| | Gender | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Exhaustion added values | Male | 96 | 97.48 | 9358.50 |
| | Female | 96 | 95.52 | 9169.50 |
| | Total | 192 | | |
| Disengagement added values | Male | 96 | 96.57 | 9270.50 |
| | Female | 96 | 96.43 | 9257.50 |
| | Total | 192 | | |
| Absolute Absenteeism 4 week Estimate | Male | 96 | 90.01 | 8640.50 |
| | Female | 96 | 102.99 | 9887.50 |
| | Total | 192 | | |
| Absolute Presenteeism Before Covid | Male | 96 | 99.48 | 9550.00 |
| | Female | 96 | 93.52 | 8978.00 |
| | Total | 192 | | |
| Absolute Presenteeism During Covid | Male | 96 | 92.97 | 8925.50 |
| | Female | 96 | 100.03 | 9602.50 |
| | Total | 192 | | |

**Test Statistics[a]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism Before Covid | Absolute Presenteeism During Covid |
|---|---|---|---|---|---|
| Mann-Whitney U | 4513.500 | 4601.500 | 3984.500 | 4322.000 | 4269.500 |
| Wilcoxon W | 9169.500 | 9257.500 | 8640.500 | 8978.000 | 8925.500 |
| Z | -.247 | -.017 | -1.627 | -.785 | -.893 |
| Asymp. Sig. (2-tailed) | .805 | .986 | .104 | .433 | .372 |

a. Grouping Variable: Gender

- Dependent variables and Work from home space

**Descriptive Statistics**

| | N | Mean | Std. Deviation | Minimum | Maximum | Percentiles 25th | 50th (Median) | 75th |
|---|---|---|---|---|---|---|---|---|
| Exhaustion added values | 192 | 17.13 | 3.138 | 10 | 28 | 15.00 | 17.00 | 19.00 |
| Disengagement added values | 192 | 19.05 | 3.132 | 8 | 30 | 17.00 | 19.00 | 21.00 |
| Absolute Absenteeism 4 week Estimate | 192 | 2.38 | 45.058 | -414 | 150 | -8.00 | .00 | 15.00 |
| Absolute Presenteeism Before Covid | 192 | 70.16 | 10.756 | 30 | 100 | 60.00 | 70.00 | 80.00 |
| Absolute Presenteeism During Covid | 192 | 52.14 | 24.710 | 0 | 100 | 30.00 | 60.00 | 70.00 |
| WFHspace | 192 | .41 | .492 | 0 | 1 | .00 | .00 | 1.00 |

**Ranks**

| | WFHspace | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Exhaustion added values | No | 114 | 96.33 | 10982.00 |
| | Yes | 78 | 96.74 | 7546.00 |
| | Total | 192 | | |
| Disengagement added values | No | 114 | 92.00 | 10488.50 |
| | Yes | 78 | 103.07 | 8039.50 |
| | Total | 192 | | |
| Absolute Absenteeism 4 week Estimate | No | 114 | 94.07 | 10724.00 |
| | Yes | 78 | 100.05 | 7804.00 |
| | Total | 192 | | |
| Absolute Presenteeism Before Covid | No | 114 | 94.43 | 10765.00 |
| | Yes | 78 | 99.53 | 7763.00 |
| | Total | 192 | | |
| Absolute Presenteeism During Covid | No | 114 | 89.52 | 10205.50 |
| | Yes | 78 | 106.70 | 8322.50 |
| | Total | 192 | | |

**Test Statistics[a]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism Before Covid | Absolute Presenteeism During Covid |
|---|---|---|---|---|---|
| Mann-Whitney U | 4427.000 | 3933.500 | 4169.000 | 4210.000 | 3650.500 |
| Wilcoxon W | 10982.000 | 10488.500 | 10724.000 | 10765.000 | 10205.500 |
| Z | -.051 | -1.365 | -.736 | -.659 | -2.137 |
| Asymp. Sig. (2-tailed) | .960 | .172 | .462 | .510 | .033 |

a. Grouping Variable: WFHspace

- Dependent variables and work from home equipment

**Descriptive Statistics**

| | N | Mean | Std. Deviation | Minimum | Maximum | Percentiles 25th | 50th (Median) | 75th |
|---|---|---|---|---|---|---|---|---|
| Exhaustion added values | 192 | 17.13 | 3.138 | 10 | 28 | 15.00 | 17.00 | 19.00 |
| Disengagement added values | 192 | 19.05 | 3.132 | 8 | 30 | 17.00 | 19.00 | 21.00 |
| Absolute Absenteeism 4 week Estimate | 192 | 2.38 | 45.058 | -414 | 150 | -8.00 | .00 | 15.00 |
| Absolute Presenteeism Before Covid | 192 | 70.16 | 10.756 | 30 | 100 | 60.00 | 70.00 | 80.00 |
| Absolute Presenteeism During Covid | 192 | 52.14 | 24.710 | 0 | 100 | 30.00 | 60.00 | 70.00 |
| WFHequipment | 192 | .62 | .487 | 0 | 1 | .00 | 1.00 | 1.00 |

**Ranks**

| | WFHequipment | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Exhaustion added values | No | 73 | 86.79 | 6335.50 |
| | Yes | 119 | 102.46 | 12192.50 |
| | Total | 192 | | |
| Disengagement added values | No | 73 | 80.12 | 5848.50 |
| | Yes | 119 | 106.55 | 12679.50 |
| | Total | 192 | | |
| Absolute Absenteeism 4 week Estimate | No | 73 | 99.09 | 7233.50 |
| | Yes | 119 | 94.91 | 11294.50 |
| | Total | 192 | | |
| Absolute Presenteeism Before Covid | No | 73 | 95.98 | 7006.50 |
| | Yes | 119 | 96.82 | 11521.50 |
| | Total | 192 | | |
| Absolute Presenteeism During Covid | No | 73 | 85.92 | 6272.00 |
| | Yes | 119 | 102.99 | 12256.00 |
| | Total | 192 | | |

**Test Statistics[a]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism Before Covid | Absolute Presenteeism During Covid |
|---|---|---|---|---|---|
| Mann-Whitney U | 3634.500 | 3147.500 | 4154.500 | 4305.500 | 3571.000 |
| Wilcoxon W | 6335.500 | 5848.500 | 11294.500 | 7006.500 | 6272.000 |
| Z | -1.912 | -3.224 | -.508 | -.107 | -2.099 |
| Asymp. Sig. (2-tailed) | .056 | .001 | .611 | .914 | .036 |

a. Grouping Variable: WFHequipment

- Dependent variables and work from home routine

**Descriptive Statistics**

| | N | Mean | Std. Deviation | Minimum | Maximum | Percentiles 25th | 50th (Median) | 75th |
|---|---|---|---|---|---|---|---|---|
| Exhaustion added values | 192 | 17.13 | 3.138 | 10 | 28 | 15.00 | 17.00 | 19.00 |
| Disengagement added values | 192 | 19.05 | 3.132 | 8 | 30 | 17.00 | 19.00 | 21.00 |
| Absolute Absenteeism 4 week Estimate | 192 | 2.38 | 45.058 | -414 | 150 | -8.00 | .00 | 15.00 |
| Absolute Presenteeism Before Covid | 192 | 70.16 | 10.756 | 30 | 100 | 60.00 | 70.00 | 80.00 |
| Absolute Presenteeism During Covid | 192 | 52.14 | 24.710 | 0 | 100 | 30.00 | 60.00 | 70.00 |
| WFHroutine | 192 | .46 | .500 | 0 | 1 | .00 | .00 | 1.00 |

**Ranks**

| | WFHroutine | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Exhaustion added values | No | 103 | 87.69 | 9032.50 |
| | Yes | 89 | 106.69 | 9495.50 |
| | Total | 192 | | |
| Disengagement added values | No | 103 | 84.70 | 8724.50 |
| | Yes | 89 | 110.15 | 9803.50 |
| | Total | 192 | | |
| Absolute Absenteeism 4 week Estimate | No | 103 | 109.34 | 11262.00 |
| | Yes | 89 | 81.64 | 7266.00 |
| | Total | 192 | | |
| Absolute Presenteeism Before Covid | No | 103 | 92.30 | 9506.50 |
| | Yes | 89 | 101.37 | 9021.50 |
| | Total | 192 | | |
| Absolute Presenteeism During Covid | No | 103 | 91.83 | 9458.00 |
| | Yes | 89 | 101.91 | 9070.00 |
| | Total | 192 | | |

**Test Statistics[a]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism Before Covid | Absolute Presenteeism During Covid |
|---|---|---|---|---|---|
| Mann-Whitney U | 3676.500 | 3368.500 | 3261.000 | 4150.500 | 4102.000 |
| Wilcoxon W | 9032.500 | 8724.500 | 7266.000 | 9506.500 | 9458.000 |
| Z | -2.382 | -3.188 | -3.460 | -1.191 | -1.274 |
| Asymp. Sig. (2-tailed) | .017 | .001 | .001 | .234 | .203 |

a. Grouping Variable: WFHroutine

- Dependent variables and work from home breaks

**Descriptive Statistics**

| | N | Mean | Std. Deviation | Minimum | Maximum | Percentiles 25th | 50th (Median) | 75th |
|---|---|---|---|---|---|---|---|---|
| Exhaustion added values | 192 | 17.13 | 3.138 | 10 | 28 | 15.00 | 17.00 | 19.00 |
| Disengagement added values | 192 | 19.05 | 3.132 | 8 | 30 | 17.00 | 19.00 | 21.00 |
| Absolute Absenteeism 4 week Estimate | 192 | 2.38 | 45.058 | -414 | 150 | -8.00 | .00 | 15.00 |
| Absolute Presenteeism Before Covid | 192 | 70.16 | 10.756 | 30 | 100 | 60.00 | 70.00 | 80.00 |
| Absolute Presenteeism During Covid | 192 | 52.14 | 24.710 | 0 | 100 | 30.00 | 60.00 | 70.00 |
| WFHbreaks | 192 | .39 | .489 | 0 | 1 | .00 | .00 | 1.00 |

**Ranks**

| | WFHbreaks | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Exhaustion added values | No | 117 | 91.59 | 10716.50 |
| | Yes | 75 | 104.15 | 7811.50 |
| | Total | 192 | | |
| Disengagement added values | No | 117 | 93.51 | 10941.00 |
| | Yes | 75 | 101.16 | 7587.00 |
| | Total | 192 | | |
| Absolute Absenteeism 4 week Estimate | No | 117 | 95.78 | 11206.50 |
| | Yes | 75 | 97.62 | 7321.50 |
| | Total | 192 | | |
| Absolute Presenteeism Before Covid | No | 117 | 90.47 | 10585.50 |
| | Yes | 75 | 105.90 | 7942.50 |
| | Total | 192 | | |
| Absolute Presenteeism During Covid | No | 117 | 91.17 | 10667.00 |
| | Yes | 75 | 104.81 | 7861.00 |
| | Total | 192 | | |

**Test Statistics[a]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism Before Covid | Absolute Presenteeism During Covid |
|---|---|---|---|---|---|
| Mann-Whitney U | 3813.500 | 4038.000 | 4303.500 | 3682.500 | 3764.000 |
| Wilcoxon W | 10716.500 | 10941.000 | 11206.500 | 10585.500 | 10667.000 |
| Z | -1.540 | -.937 | -.225 | -1.983 | -1.686 |
| Asymp. Sig. (2-tailed) | .123 | .349 | .822 | .047 | .092 |

a. Grouping Variable: WFHbreaks

## Appendix F: Kruskal-Wallis Test

- Dependent and burnout variables and age

**Ranks**

| | Age | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | 18–24 | 2 | 73.75 |
| | 25–34 | 120 | 104.15 |
| | 35–44 | 68 | 81.84 |
| | 45–54 | 2 | 158.50 |
| | Total | 192 | |
| Disengagement added values | 18–24 | 2 | 52.00 |
| | 25–34 | 120 | 93.61 |
| | 35–44 | 68 | 101.63 |
| | 45–54 | 2 | 140.25 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | 18–24 | 2 | 176.50 |
| | 25–34 | 120 | 92.94 |
| | 35–44 | 68 | 97.80 |
| | 45–54 | 2 | 186.00 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | 18–24 | 2 | 74.25 |
| | 25–34 | 120 | 99.09 |
| | 35–44 | 68 | 91.46 |
| | 45–54 | 2 | 134.75 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | 18–24 | 2 | 170.25 |
| | 25–34 | 120 | 95.95 |
| | 35–44 | 68 | 95.24 |
| | 45–54 | 2 | 98.50 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | 9.997 | 3.478 | 9.957 | 2.156 | 3.987 |
| df | 3 | 3 | 3 | 3 | 3 |
| Asymp. Sig. | .019 | .324 | .019 | .541 | .263 |

a. Kruskal Wallis Test

b. Grouping Variable: Age

- Dependent and burnout variables and marital status

**Ranks**

| | Maritalstatus | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | Married | 51 | 99.75 |
| | Separated | 1 | 185.00 |
| | Living with Partner | 75 | 85.54 |
| | Single | 65 | 105.24 |
| | Total | 192 | |
| Disengagement added values | Married | 51 | 117.56 |
| | Separated | 1 | 158.50 |
| | Living with Partner | 75 | 81.93 |
| | Single | 65 | 95.84 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | Married | 51 | 90.50 |
| | Separated | 1 | 182.00 |
| | Living with Partner | 75 | 100.47 |
| | Single | 65 | 95.32 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | Married | 51 | 85.97 |
| | Separated | 1 | 135.50 |
| | Living with Partner | 75 | 95.80 |
| | Single | 65 | 104.97 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | Married | 51 | 99.34 |
| | Separated | 1 | 6.50 |
| | Living with Partner | 75 | 87.85 |
| | Single | 65 | 105.64 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | 7.354 | 13.945 | 3.405 | 3.967 | 7.068 |
| df | 3 | 3 | 3 | 3 | 3 |
| Asymp. Sig. | .061 | .003 | .333 | .265 | .070 |

a. Kruskal Wallis Test

b. Grouping Variable: Maritalstatus

- Dependent and burnout variables and children

**Ranks**

| | Children | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | None | 178 | 95.39 |
| | One | 7 | 112.71 |
| | Two | 6 | 118.42 |
| | Three | 1 | 49.00 |
| | Total | 192 | |
| Disengagement added values | None | 178 | 94.13 |
| | One | 7 | 121.93 |
| | Two | 6 | 152.08 |
| | Three | 1 | 7.00 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | None | 178 | 93.63 |
| | One | 7 | 158.64 |
| | Two | 6 | 94.58 |
| | Three | 1 | 183.00 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | None | 178 | 94.43 |
| | One | 7 | 105.50 |
| | Two | 6 | 146.92 |
| | Three | 1 | 99.00 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | None | 178 | 94.76 |
| | One | 7 | 126.36 |
| | Two | 6 | 128.25 |
| | Three | 1 | 6.50 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | 2.369 | 10.545 | 11.767 | 5.541 | 7.563 |
| df | 3 | 3 | 3 | 3 | 3 |
| Asymp. Sig. | .499 | .014 | .008 | .136 | .056 |

a. Kruskal Wallis Test

b. Grouping Variable: Children

- Dependent and burnout variables and ethnicity

**Ranks**

| | Ethnicity | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | African American or Black | 39 | 97.23 |
| | Caucasian or White | 65 | 99.75 |
| | Hispanic or Latino | 35 | 78.37 |
| | Pacific Islander or Asian | 26 | 119.85 |
| | Multiracial or other | 26 | 91.62 |
| | Prefer not to answer | 1 | 11.00 |
| | Total | 192 | |
| Disengagement added values | African American or Black | 39 | 91.47 |
| | Caucasian or White | 65 | 98.78 |
| | Hispanic or Latino | 35 | 92.40 |
| | Pacific Islander or Asian | 26 | 118.48 |
| | Multiracial or other | 26 | 85.15 |
| | Prefer not to answer | 1 | 11.50 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | African American or Black | 39 | 100.22 |
| | Caucasian or White | 65 | 83.75 |
| | Hispanic or Latino | 35 | 121.40 |
| | Pacific Islander or Asian | 26 | 86.19 |
| | Multiracial or other | 26 | 97.25 |
| | Prefer not to answer | 1 | 157.00 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | African American or Black | 39 | 79.22 |
| | Caucasian or White | 65 | 126.67 |
| | Hispanic or Latino | 35 | 104.66 |
| | Pacific Islander or Asian | 26 | 58.71 |
| | Multiracial or other | 26 | 76.65 |
| | Prefer not to answer | 1 | 22.50 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | African American or Black | 39 | 86.27 |
| | Caucasian or White | 65 | 111.02 |
| | Hispanic or Latino | 35 | 100.51 |
| | Pacific Islander or Asian | 26 | 91.31 |
| | Multiracial or other | 26 | 72.98 |
| | Prefer not to answer | 1 | 158.00 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | 11.295 | 8.234 | 12.826 | 42.087 | 13.447 |
| df | 5 | 5 | 5 | 5 | 5 |
| Asymp. Sig. | .046 | .144 | .025 | .000 | .020 |

a. Kruskal Wallis Test

b. Grouping Variable: Ethnicity

- Dependent and burnout variables and employment status

**Ranks**

| | EmploymentStatus | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | Full-time | 188 | 96.43 |
| | Part-time | 2 | 109.50 |
| | Contract | 2 | 90.00 |
| | Total | 192 | |
| Disengagement added values | Full-time | 188 | 96.70 |
| | Part-time | 2 | 101.50 |
| | Contract | 2 | 73.00 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | Full-time | 188 | 95.14 |
| | Part-time | 2 | 180.00 |
| | Contract | 2 | 140.75 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | Full-time | 188 | 95.86 |
| | Part-time | 2 | 135.50 |
| | Contract | 2 | 117.50 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | Full-time | 188 | 96.18 |
| | Part-time | 2 | 52.50 |
| | Contract | 2 | 170.25 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | .139 | .382 | 5.952 | 1.336 | 5.338 |
| df | 2 | 2 | 2 | 2 | 2 |
| Asymp. Sig. | .933 | .826 | .051 | .513 | .069 |

a. Kruskal Wallis Test

b. Grouping Variable: EmploymentStatus

- Dependent and burnout variables and business function

**Ranks**

| | BusinessFunction | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | Sales | 70 | 91.97 |
| | Human Resources | 31 | 131.42 |
| | Customer Support | 41 | 86.85 |
| | Finance | 8 | 100.69 |
| | Engineer | 4 | 76.88 |
| | Other | 38 | 87.95 |
| | Total | 192 | |
| Disengagement added values | Sales | 70 | 81.11 |
| | Human Resources | 31 | 119.85 |
| | Customer Support | 41 | 105.22 |
| | Finance | 8 | 116.31 |
| | Engineer | 4 | 83.00 |
| | Other | 38 | 93.64 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | Sales | 70 | 103.90 |
| | Human Resources | 31 | 79.65 |
| | Customer Support | 41 | 99.22 |
| | Finance | 8 | 63.50 |
| | Engineer | 4 | 131.13 |
| | Other | 38 | 96.99 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | Sales | 70 | 98.49 |
| | Human Resources | 31 | 137.60 |
| | Customer Support | 41 | 65.51 |
| | Finance | 8 | 99.31 |
| | Engineer | 4 | 120.13 |
| | Other | 38 | 89.66 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | Sales | 70 | 87.89 |
| | Human Resources | 31 | 132.66 |
| | Customer Support | 41 | 95.35 |
| | Finance | 8 | 99.50 |
| | Engineer | 4 | 59.25 |
| | Other | 38 | 87.38 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | 15.640 | 13.410 | 8.649 | 32.097 | 19.718 |
| df | 5 | 5 | 5 | 5 | 5 |
| Asymp. Sig. | .008 | .020 | .124 | .000 | .001 |

a. Kruskal Wallis Test

b. Grouping Variable: BusinessFunction

- Dependent and burnout variables and manager status

**Ranks**

| | ManagerStatus | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | No, I am not a manager | 177 | 94.45 |
| | Team Leader | 5 | 123.30 |
| | First-line manager | 5 | 95.30 |
| | Middle manager | 5 | 143.30 |
| | Total | 192 | |
| Disengagement added values | No, I am not a manager | 177 | 95.16 |
| | Team Leader | 5 | 115.90 |
| | First-line manager | 5 | 94.70 |
| | Middle manager | 5 | 126.30 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | No, I am not a manager | 177 | 96.27 |
| | Team Leader | 5 | 100.80 |
| | First-line manager | 5 | 112.60 |
| | Middle manager | 5 | 84.40 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | No, I am not a manager | 177 | 93.29 |
| | Team Leader | 5 | 124.50 |
| | First-line manager | 5 | 134.50 |
| | Middle manager | 5 | 144.20 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | No, I am not a manager | 177 | 96.18 |
| | Team Leader | 5 | 85.60 |
| | First-line manager | 5 | 94.40 |
| | Middle manager | 5 | 120.70 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | 5.033 | 2.188 | .696 | 8.132 | 1.287 |
| df | 3 | 3 | 3 | 3 | 3 |
| Asymp. Sig. | .169 | .534 | .874 | .043 | .732 |

a. Kruskal Wallis Test

b. Grouping Variable: ManagerStatus

- Dependent and burnout variables and manager status

**Ranks**

| | WorkFromHomeTime | N | Mean Rank |
|---|---|---|---|
| Exhaustion added values | Never | 58 | 102.72 |
| | A few days per year | 132 | 93.40 |
| | 2-5 months per year | 2 | 121.00 |
| | Total | 192 | |
| Disengagement added values | Never | 58 | 103.84 |
| | A few days per year | 132 | 92.83 |
| | 2-5 months per year | 2 | 125.75 |
| | Total | 192 | |
| Absolute Absenteeism 4 week Estimate | Never | 58 | 92.79 |
| | A few days per year | 132 | 97.36 |
| | 2-5 months per year | 2 | 147.00 |
| | Total | 192 | |
| Absolute Presenteeism During Covid | Never | 58 | 77.26 |
| | A few days per year | 132 | 105.66 |
| | 2-5 months per year | 2 | 50.25 |
| | Total | 192 | |
| Absolute Presenteeism Before Covid | Never | 58 | 91.83 |
| | A few days per year | 132 | 98.56 |
| | 2-5 months per year | 2 | 95.75 |
| | Total | 192 | |

**Test Statistics[a,b]**

| | Exhaustion added values | Disengagement added values | Absolute Absenteeism 4 week Estimate | Absolute Presenteeism During Covid | Absolute Presenteeism Before Covid |
|---|---|---|---|---|---|
| Kruskal-Wallis H | 1.551 | 2.176 | 1.960 | 12.299 | .661 |
| df | 2 | 2 | 2 | 2 | 2 |
| Asymp. Sig. | .460 | .337 | .375 | .002 | .718 |

a. Kruskal Wallis Test

b. Grouping Variable: WorkFromHomeTime

## Appendix G: Linear Regression

- Model 1

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary[b] | . | Enter |
| 2 | Disengagement added values, Exhaustion added values[c] | . | Enter |
| 3 | WFHequipment, WFHbreaks, WFHspace, WFHroutine[c] | . | Enter |

a. Dependent Variable: Absolute Absenteeism 4 week Estimate

b. Tolerance = .000 limit reached.

c. All requested variables entered.

**Model Summary[d]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .219[a] | .048 | .012 | 44.794 | |
| 2 | .304[b] | .092 | .047 | 43.976 | |
| 3 | .339[c] | .115 | .051 | 43.903 | 2.117 |

a. Predictors: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary

b. Predictors: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary, Disengagement added values, Exhaustion added values

c. Predictors: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

d. Dependent Variable: Absolute Absenteeism 4 week Estimate

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 18584.342 | 7 | 2654.906 | 1.323 | .241[b] |
| | Residual | 369194.658 | 184 | 2006.493 | | |
| | Total | 387779.000 | 191 | | | |
| 2 | Regression | 35807.697 | 9 | 3978.633 | 2.057 | .036[c] |
| | Residual | 351971.303 | 182 | 1933.908 | | |
| | Total | 387779.000 | 191 | | | |
| 3 | Regression | 44688.432 | 13 | 3437.572 | 1.783 | .049[d] |
| | Residual | 343090.568 | 178 | 1927.475 | | |
| | Total | 387779.000 | 191 | | | |

a. Dependent Variable: Absolute Absenteeism 4 week Estimate

b. Predictors: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary

c. Predictors: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary, Disengagement added values, Exhaustion added values

d. Predictors: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 43.349 | 52.944 | | .819 | .414 | -61.106 | 147.804 |
| | Black Binary | 1.340 | 9.280 | .012 | .144 | .885 | -16.968 | 19.648 |
| | Latino Binary | -15.687 | 9.643 | -.135 | -1.627 | .106 | -34.712 | 3.339 |
| | Asian Binary | -2.399 | 10.537 | -.018 | -.228 | .820 | -23.188 | 18.389 |
| | Multiracial Binary | -6.603 | 10.500 | -.050 | -.629 | .530 | -27.318 | 14.112 |
| | No Answer Ethnicity Binary | -24.963 | 45.237 | -.040 | -.552 | .582 | -114.212 | 64.287 |
| | Age Binary coded | 3.572 | 7.049 | .038 | .507 | .613 | -10.334 | 17.478 |
| | Children Binary | 28.784 | 12.942 | .167 | 2.224 | .027 | 3.251 | 54.317 |
| 2 | (Constant) | 95.711 | 54.990 | | 1.741 | .083 | -12.789 | 204.211 |
| | Black Binary | 1.682 | 9.113 | .015 | .185 | .854 | -16.298 | 19.662 |
| | Latino Binary | -14.477 | 9.521 | -.124 | -1.521 | .130 | -33.262 | 4.308 |
| | Asian Binary | -7.470 | 10.483 | -.057 | -.713 | .477 | -28.155 | 13.214 |
| | Multiracial Binary | -5.768 | 10.312 | -.044 | -.559 | .577 | -26.114 | 14.578 |
| | No Answer Ethnicity Binary | -7.914 | 44.831 | -.013 | -.177 | .860 | -96.368 | 80.541 |
| | Age Binary coded | 1.520 | 7.217 | .016 | .211 | .833 | -12.718 | 15.759 |
| | Children Binary | 34.296 | 12.839 | .198 | 2.671 | .008 | 8.964 | 59.628 |
| | Exhaustion added values | -1.847 | 1.221 | -.129 | -1.512 | .132 | -4.256 | .562 |
| | Disengagement added values | -1.834 | 1.189 | -.128 | -1.542 | .125 | -4.181 | .512 |
| 3 | (Constant) | 85.379 | 56.355 | | 1.515 | .132 | -25.832 | 196.590 |
| | Black Binary | 2.983 | 9.623 | .027 | .310 | .757 | -16.007 | 21.974 |
| | Latino Binary | -12.526 | 9.626 | -.108 | -1.301 | .195 | -31.523 | 6.470 |
| | Asian Binary | -8.030 | 10.718 | -.061 | -.749 | .455 | -29.180 | 13.120 |
| | Multiracial Binary | -4.801 | 11.161 | -.037 | -.430 | .668 | -26.827 | 17.224 |
| | No Answer Ethnicity Binary | -4.097 | 45.540 | -.007 | -.090 | .928 | -93.964 | 85.771 |
| | Age Binary coded | 3.303 | 7.298 | .035 | .453 | .651 | -11.098 | 17.704 |
| | Children Binary | 28.329 | 13.178 | .164 | 2.150 | .033 | 2.323 | 54.336 |
| | Exhaustion added values | -1.684 | 1.233 | -.117 | -1.366 | .174 | -4.118 | .750 |
| | Disengagement added values | -1.973 | 1.206 | -.137 | -1.636 | .104 | -4.353 | .407 |
| | WFHspace | 8.283 | 7.380 | .091 | 1.122 | .263 | -6.280 | 22.845 |
| | WFHequipment | 8.392 | 7.411 | .091 | 1.132 | .259 | -6.232 | 23.016 |
| | WFHroutine | -10.345 | 7.782 | -.115 | -1.329 | .185 | -25.701 | 5.012 |
| | WFHbreaks | -1.482 | 7.501 | -.016 | -.198 | .844 | -16.285 | 13.321 |

a. Dependent Variable: Absolute Absenteeism 4 week Estimate

**Excluded Variables[a]**

| Model | | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics Tolerance |
|---|---|---|---|---|---|---|
| 1 | Caucasian or white | .[b] | . | . | . | .000 |
| | Exhaustion added values | -.191[b] | -2.545 | .012 | -.185 | .892 |
| | Disengagement added values | -.187[b] | -2.564 | .011 | -.186 | .944 |
| | WFHspace | .083[b] | 1.079 | .282 | .080 | .871 |
| | WFHequipment | .042[b] | .564 | .573 | .042 | .936 |
| | WFHroutine | -.129[b] | -1.644 | .102 | -.121 | .831 |
| | WFHbreaks | -.047[b] | -.624 | .534 | -.046 | .902 |
| 2 | Caucasian or white | .[c] | . | . | . | .000 |
| | WFHspace | .103[c] | 1.361 | .175 | .101 | .863 |
| | WFHequipment | .083[c] | 1.112 | .268 | .082 | .904 |
| | WFHroutine | -.086[c] | -1.082 | .281 | -.080 | .797 |
| | WFHbreaks | -.017[c] | -.229 | .819 | -.017 | .880 |
| 3 | Caucasian or white | .[d] | . | . | . | .000 |

a. Dependent Variable: Absolute Absenteeism 4 week Estimate

b. Predictors in the Model: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary

c. Predictors in the Model: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary, Disengagement added values, Exhaustion added values

d. Predictors in the Model: (Constant), Children Binary, No Answer Ethnicity Binary, Multiracial Binary, Asian Binary, Age Binary coded, Latino Binary, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

**Residuals Statistics[a]**

| | Minimum | Maximum | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Predicted Value | -30.06 | 66.86 | 2.38 | 15.296 | 192 |
| Residual | -390.873 | 138.513 | .000 | 42.383 | 192 |
| Std. Predicted Value | -2.121 | 4.216 | .000 | 1.000 | 192 |
| Std. Residual | -8.903 | 3.155 | .000 | .965 | 192 |

a. Dependent Variable: Absolute Absenteeism 4 week Estimate

- Model 2

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary[b] | . | Enter |
| 2 | Disengagement added values, Exhaustion added values[c] | . | Enter |
| 3 | WFHequipment, WFHbreaks, WFHspace, WFHroutine[c] | . | Enter |

a. Dependent Variable: Absolute Presenteeism During Covid

b. Tolerance = .000 limit reached.

c. All requested variables entered.

**Model Summary[d]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .584[a] | .341 | .297 | 20.722 | |
| 2 | .589[b] | .347 | .295 | 20.741 | |
| 3 | .593[c] | .352 | .285 | 20.898 | 1.520 |

a. Predictors: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary

b. Predictors: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary, Disengagement added values, Exhaustion added values

c. Predictors: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

d. Dependent Variable: Absolute Presenteeism During Covid

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 39761.033 | 12 | 3313.419 | 7.716 | .000[b] |
| | Residual | 76863.446 | 179 | 429.405 | | |
| | Total | 116624.479 | 191 | | | |
| 2 | Regression | 40482.295 | 14 | 2891.592 | 6.722 | .000[c] |
| | Residual | 76142.185 | 177 | 430.182 | | |
| | Total | 116624.479 | 191 | | | |
| 3 | Regression | 41071.313 | 18 | 2281.740 | 5.225 | .000[d] |
| | Residual | 75553.166 | 173 | 436.724 | | |
| | Total | 116624.479 | 191 | | | |

a. Dependent Variable: Absolute Presenteeism During Covid

b. Predictors: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary

c. Predictors: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary, Disengagement added values, Exhaustion added values

d. Predictors: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | | 95.0% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. | Lower Bound | Upper Bound |
| 1 | (Constant) | -51.033 | 31.899 | | -1.600 | .111 | -113.979 | 11.914 |
| | Black Binary | 14.303 | 4.623 | .233 | 3.094 | .002 | 5.180 | 23.426 |
| | Latino Binary | 6.376 | 4.637 | .100 | 1.375 | .171 | -2.774 | 15.525 |
| | Asian Binary | 24.462 | 5.125 | .340 | 4.773 | .000 | 14.349 | 34.576 |
| | Multiracial Binary | 15.885 | 5.241 | .221 | 3.031 | .003 | 5.543 | 26.228 |
| | No Answer Ethnicity Binary | 44.676 | 21.052 | .130 | 2.122 | .035 | 3.135 | 86.218 |
| | Work From Home Binary | 8.797 | 3.441 | .164 | 2.556 | .011 | 2.006 | 15.588 |
| | Manager Status Binary | 10.396 | 5.789 | .113 | 1.796 | .074 | -1.027 | 21.819 |
| | HR Function Binary | -9.923 | 4.850 | -.148 | -2.046 | .042 | -19.494 | -.352 |
| | Customer Support Business Function | 11.897 | 4.195 | .198 | 2.836 | .005 | 3.619 | 20.174 |
| | Finance Business Function | 5.828 | 7.873 | .047 | .740 | .460 | -9.708 | 21.364 |
| | Engineer Business Function | -5.960 | 10.832 | -.035 | -.550 | .583 | -27.335 | 15.415 |
| | Other Business Function | -.633 | 4.291 | -.010 | -.148 | .883 | -9.100 | 7.833 |
| 2 | (Constant) | -63.767 | 34.604 | | -1.843 | .067 | -132.057 | 4.522 |
| | Black Binary | 14.983 | 4.657 | .245 | 3.217 | .002 | 5.792 | 24.174 |
| | Latino Binary | 6.286 | 4.658 | .098 | 1.349 | .179 | -2.907 | 15.479 |
| | Asian Binary | 25.928 | 5.266 | .360 | 4.924 | .000 | 15.536 | 36.320 |
| | Multiracial Binary | 16.533 | 5.270 | .230 | 3.137 | .002 | 6.133 | 26.932 |
| | No Answer Ethnicity Binary | 41.857 | 21.185 | .122 | 1.976 | .050 | .050 | 83.663 |
| | Work From Home Binary | 9.031 | 3.452 | .168 | 2.616 | .010 | 2.219 | 15.844 |
| | Manager Status Binary | 9.196 | 5.869 | .100 | 1.567 | .119 | -2.386 | 20.779 |
| | HR Function Binary | -8.173 | 5.083 | -.122 | -1.608 | .110 | -18.205 | 1.859 |
| | Customer Support Business Function | 11.595 | 4.281 | .193 | 2.708 | .007 | 3.146 | 20.043 |
| | Finance Business Function | 6.267 | 7.957 | .051 | .788 | .432 | -9.437 | 21.971 |
| | Engineer Business Function | -6.411 | 10.852 | -.037 | -.591 | .555 | -27.827 | 15.005 |
| | Other Business Function | -.881 | 4.353 | -.014 | -.202 | .840 | -9.471 | 7.708 |
| | Exhaustion added values | .653 | .583 | .083 | 1.121 | .264 | -.497 | 1.803 |
| | Disengagement added values | .051 | .564 | .007 | .091 | .927 | -1.062 | 1.165 |
| 3 | (Constant) | -57.743 | 35.371 | | -1.632 | .104 | -127.557 | 12.071 |
| | Black Binary | 15.166 | 4.921 | .248 | 3.082 | .002 | 5.452 | 24.880 |
| | Latino Binary | 6.370 | 4.719 | .100 | 1.350 | .179 | -2.943 | 15.684 |
| | Asian Binary | 26.154 | 5.414 | .363 | 4.831 | .000 | 15.469 | 36.840 |
| | Multiracial Binary | 16.944 | 5.690 | .235 | 2.978 | .003 | 5.714 | 28.174 |
| | No Answer Ethnicity Binary | 40.585 | 21.746 | .119 | 1.866 | .064 | -2.337 | 83.508 |
| | Work From Home Binary | 8.547 | 3.556 | .159 | 2.404 | .017 | 1.529 | 15.565 |
| | Manager Status Binary | 7.999 | 6.125 | .087 | 1.306 | .193 | -4.090 | 20.089 |
| | HR Function Binary | -8.939 | 5.239 | -.133 | -1.706 | .090 | -19.279 | 1.401 |
| | Customer Support Business Function | 10.801 | 4.469 | .180 | 2.417 | .017 | 1.979 | 19.623 |
| | Finance Business Function | 5.884 | 8.087 | .048 | .728 | .468 | -10.079 | 21.846 |
| | Engineer Business Function | -9.344 | 11.358 | -.054 | -.823 | .412 | -31.762 | 13.075 |
| | Other Business Function | -1.645 | 4.469 | -.027 | -.368 | .713 | -10.465 | 7.176 |
| | Exhaustion added values | .668 | .593 | .085 | 1.128 | .261 | -.502 | 1.838 |
| | Disengagement added values | -.042 | .579 | -.005 | -.073 | .942 | -1.184 | 1.100 |
| | WFHspace | .272 | 3.605 | .005 | .075 | .940 | -6.843 | 7.387 |
| | WFHequipment | 3.898 | 3.648 | .077 | 1.069 | .287 | -3.302 | 11.098 |
| | WFHroutine | -2.232 | 3.879 | -.045 | -.575 | .566 | -9.887 | 5.424 |
| | WFHbreaks | .147 | 3.646 | .003 | .040 | .968 | -7.050 | 7.343 |

a. Dependent Variable: Absolute Presenteeism During Covid

**Excluded Variables[a]**

| Model | | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics Tolerance |
|---|---|---|---|---|---|---|
| 1 | Caucasian or white | .[b] | . | . | . | .000 |
| | Sales Business Function Binary | .[b] | . | . | . | .000 |
| | Exhaustion added values | .086[b] | 1.295 | .197 | .097 | .834 |
| | Disengagement added values | .042[b] | .648 | .518 | .048 | .893 |
| | WFHspace | .026[b] | .394 | .694 | .030 | .825 |
| | WFHequipment | .072[b] | 1.126 | .262 | .084 | .910 |
| | WFHroutine | -.006[b] | -.083 | .934 | -.006 | .763 |
| | WFHbreaks | .015[b] | .223 | .824 | .017 | .855 |
| 2 | Caucasian or white | .[c] | . | . | . | .000 |
| | Sales Business Function Binary | .[c] | . | . | . | .000 |
| | WFHspace | .025[c] | .369 | .713 | .028 | .814 |
| | WFHequipment | .065[c] | 1.002 | .318 | .075 | .876 |
| | WFHroutine | -.017[c] | -.235 | .814 | -.018 | .750 |
| | WFHbreaks | .003[c] | .047 | .962 | .004 | .839 |
| 3 | Caucasian or white | .[d] | . | . | . | .000 |
| | Sales Business Function Binary | .[d] | . | . | . | .000 |

a. Dependent Variable: Absolute Presenteeism During Covid

b. Predictors in the Model: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary

c. Predictors in the Model: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary, Disengagement added values, Exhaustion added values

d. Predictors in the Model: (Constant), Other Business Function, No Answer Ethnicity Binary, Manager Status Binary, Latino Binary, Finance Business Function, Engineer Business Function, Work From Home Binary, Asian Binary, Multiracial Binary, HR Function Binary, Customer Support Business Function, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

**Residuals Statistics[a]**

| | Minimum | Maximum | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Predicted Value | 20.00 | 84.63 | 52.14 | 14.664 | 192 |
| Residual | -61.089 | 47.568 | .000 | 19.889 | 192 |
| Std. Predicted Value | -2.191 | 2.216 | .000 | 1.000 | 192 |
| Std. Residual | -2.923 | 2.276 | .000 | .952 | 192 |

a. Dependent Variable: Absolute Presenteeism During Covid

- Model 3

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary[b] | . | Enter |
| 2 | Disengagement added values, Exhaustion added values[c] | . | Enter |
| 3 | WFHequipment, WFHbreaks, WFHspace, WFHroutine[c] | . | Enter |

a. Dependent Variable: Absolute Presenteeism Before Covid

b. Tolerance = .000 limit reached.

c. All requested variables entered.

**Model Summary[d]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .380[a] | .145 | .092 | 10.247 | |
| 2 | .395[b] | .156 | .094 | 10.236 | |
| 3 | .411[c] | .169 | .088 | 10.271 | 1.704 |

a. Predictors: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary

b. Predictors: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary, Disengagement added values, Exhaustion added values

c. Predictors: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

d. Dependent Variable: Absolute Presenteeism Before Covid

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 3193.456 | 11 | 290.314 | 2.765 | .002[b] |
| | Residual | 18901.857 | 180 | 105.010 | | |
| | Total | 22095.312 | 191 | | | |
| 2 | Regression | 3446.283 | 13 | 265.099 | 2.530 | .003[c] |
| | Residual | 18649.029 | 178 | 104.770 | | |
| | Total | 22095.312 | 191 | | | |
| 3 | Regression | 3738.155 | 17 | 219.891 | 2.084 | .009[d] |
| | Residual | 18357.157 | 174 | 105.501 | | |
| | Total | 22095.312 | 191 | | | |

a. Dependent Variable: Absolute Presenteeism Before Covid

b. Predictors: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary

c. Predictors: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary, Disengagement added values, Exhaustion added values

d. Predictors: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 81.178 | 15.772 | | 5.147 | .000 | 50.057 | 112.300 |
| | Black Binary | 2.702 | 2.204 | .101 | 1.226 | .222 | -1.646 | 7.051 |
| | Latino Binary | -.637 | 2.275 | -.023 | -.280 | .780 | -5.127 | 3.852 |
| | Asian Binary | 1.487 | 2.511 | .047 | .592 | .554 | -3.467 | 6.441 |
| | Multiracial Binary | 3.499 | 2.576 | .112 | 1.358 | .176 | -1.585 | 8.582 |
| | No Answer Ethnicity Binary | -11.532 | 10.418 | -.077 | -1.107 | .270 | -32.090 | 9.025 |
| | HR Function Binary | -8.767 | 2.384 | -.301 | -3.677 | .000 | -13.472 | -4.063 |
| | Customer Support Business Function | -1.560 | 2.043 | -.060 | -.764 | .446 | -5.591 | 2.471 |
| | Finance Business Function | -2.149 | 3.895 | -.040 | -.552 | .582 | -9.835 | 5.536 |
| | Engineer Business Function | 5.316 | 5.319 | .071 | .999 | .319 | -5.180 | 15.812 |
| | Other Business Function | -1.069 | 2.096 | -.040 | -.510 | .611 | -5.205 | 3.068 |
| | Marital Status Binary | 2.320 | 1.593 | .103 | 1.456 | .147 | -.823 | 5.463 |
| 2 | (Constant) | 77.400 | 17.036 | | 4.543 | .000 | 43.782 | 111.018 |
| | Black Binary | 2.575 | 2.210 | .097 | 1.166 | .245 | -1.785 | 6.935 |
| | Latino Binary | -.294 | 2.283 | -.011 | -.129 | .898 | -4.800 | 4.212 |
| | Asian Binary | 1.431 | 2.570 | .046 | .557 | .578 | -3.639 | 6.502 |
| | Multiracial Binary | 3.288 | 2.586 | .105 | 1.272 | .205 | -1.815 | 8.392 |
| | No Answer Ethnicity Binary | -11.183 | 10.462 | -.075 | -1.069 | .287 | -31.829 | 9.464 |
| | HR Function Binary | -8.672 | 2.493 | -.297 | -3.479 | .001 | -13.591 | -3.753 |
| | Customer Support Business Function | -.947 | 2.079 | -.036 | -.456 | .649 | -5.049 | 3.154 |
| | Finance Business Function | -1.548 | 3.927 | -.029 | -.394 | .694 | -9.297 | 6.201 |
| | Engineer Business Function | 5.565 | 5.315 | .074 | 1.047 | .297 | -4.925 | 16.054 |
| | Other Business Function | -.561 | 2.120 | -.021 | -.265 | .792 | -4.744 | 3.622 |
| | Marital Status Binary | 2.625 | 1.611 | .116 | 1.630 | .105 | -.554 | 5.804 |
| | Exhaustion added values | -.346 | .287 | -.101 | -1.205 | .230 | -.912 | .220 |
| | Disengagement added values | .394 | .279 | .115 | 1.414 | .159 | -.156 | .945 |
| 3 | (Constant) | 75.058 | 17.371 | | 4.321 | .000 | 40.774 | 109.342 |
| | Black Binary | 3.038 | 2.329 | .114 | 1.304 | .194 | -1.559 | 7.634 |
| | Latino Binary | -.104 | 2.301 | -.004 | -.045 | .964 | -4.647 | 4.438 |
| | Asian Binary | 1.237 | 2.638 | .039 | .469 | .640 | -3.970 | 6.444 |
| | Multiracial Binary | 3.447 | 2.778 | .110 | 1.241 | .216 | -2.035 | 8.929 |
| | No Answer Ethnicity Binary | -9.119 | 10.678 | -.061 | -.854 | .394 | -30.194 | 11.957 |
| | HR Function Binary | -8.926 | 2.571 | -.306 | -3.471 | .001 | -14.001 | -3.851 |
| | Customer Support Business Function | -1.322 | 2.171 | -.051 | -.609 | .543 | -5.608 | 2.963 |
| | Finance Business Function | -1.183 | 3.978 | -.022 | -.297 | .767 | -9.034 | 6.669 |
| | Engineer Business Function | 5.554 | 5.513 | .074 | 1.007 | .315 | -5.328 | 16.435 |
| | Other Business Function | -.373 | 2.176 | -.014 | -.172 | .864 | -4.668 | 3.921 |
| | Marital Status Binary | 2.708 | 1.628 | .120 | 1.664 | .098 | -.504 | 5.921 |
| | Exhaustion added values | -.387 | .292 | -.113 | -1.327 | .186 | -.962 | .188 |
| | Disengagement added values | .461 | .285 | .134 | 1.619 | .107 | -.101 | 1.022 |
| | WFHspace | -1.106 | 1.729 | -.051 | -.640 | .523 | -4.518 | 2.305 |
| | WFHequipment | -1.073 | 1.774 | -.049 | -.605 | .546 | -4.575 | 2.429 |
| | WFHroutine | -1.308 | 1.891 | -.061 | -.692 | .490 | -5.041 | 2.425 |
| | WFHbreaks | 2.414 | 1.788 | .110 | 1.351 | .179 | -1.114 | 5.943 |

a. Dependent Variable: Absolute Presenteeism Before Covid

**Excluded Variables[a]**

| Model | | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics Tolerance |
|---|---|---|---|---|---|---|
| 1 | Caucasian or white | .[b] | . | . | . | .000 |
| | Sales Business Function Binary | .[b] | . | . | . | .000 |
| | Exhaustion added values | -.048[b] | -.642 | .522 | -.048 | .843 |
| | Disengagement added values | .071[b] | .979 | .329 | .073 | .896 |
| | WFHspace | -.035[b] | -.470 | .639 | -.035 | .884 |
| | WFHequipment | -.049[b] | -.690 | .491 | -.051 | .928 |
| | WFHroutine | -.040[b] | -.502 | .616 | -.038 | .769 |
| | WFHbreaks | .061[b] | .826 | .410 | .062 | .878 |
| 2 | Caucasian or white | .[c] | . | . | . | .000 |
| | Sales Business Function Binary | .[c] | . | . | . | .000 |
| | WFHspace | -.043[c] | -.581 | .562 | -.044 | .872 |
| | WFHequipment | -.063[c] | -.861 | .391 | -.065 | .889 |
| | WFHroutine | -.043[c] | -.536 | .593 | -.040 | .756 |
| | WFHbreaks | .071[c] | .951 | .343 | .071 | .854 |
| 3 | Caucasian or white | .[d] | . | . | . | .000 |
| | Sales Business Function Binary | .[d] | . | . | . | .000 |

a. Dependent Variable: Absolute Presenteeism Before Covid

b. Predictors in the Model: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary

c. Predictors in the Model: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary, Disengagement added values, Exhaustion added values

d. Predictors in the Model: (Constant), Marital Status Binary, Customer Support Business Function, Latino Binary, No Answer Ethnicity Binary, Engineer Business Function, Finance Business Function, Asian Binary, HR Function Binary, Multiracial Binary, Other Business Function, Black Binary, Disengagement added values, Exhaustion added values, WFHequipment, WFHbreaks, WFHspace, WFHroutine

**Residuals Statistics[a]**

| | Minimum | Maximum | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Predicted Value | 56.94 | 81.22 | 70.16 | 4.424 | 192 |
| Residual | -36.965 | 26.628 | .000 | 9.804 | 192 |
| Std. Predicted Value | -2.987 | 2.501 | .000 | 1.000 | 192 |
| Std. Residual | -3.599 | 2.592 | .000 | .954 | 192 |

a. Dependent Variable: Absolute Presenteeism Before Covid