Chronicles of the midnight strain: Exploring graveyard shift stress and its impact on employee burnout in call centers

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Abstract: This study, titled "Chronicles of the Midnight Strain: Exploring Graveyard Shift Stress and Its Impact on Employee Burnout in Call Centers," delves into the intricate relationship between the demanding nature of graveyard shift work in call centers and its potential consequences on employee burnout. The research adopts a comprehensive approach, investigating various factors such as electronic performance monitoring, job demands, physiological indicators, and the role of lifestyle factors in cardiovascular health.
Drawing from a vast array of literature, the study explores the causal links and mechanisms of action, emphasizing the significant role of sleep disruption and circadian rhythm desynchronization in contributing to cardiovascular disease among shift workers. Additionally, it considers the impact of stress, working hours, and dietary patterns on the overall well- being of employees working during the unconventional hours of the night. The study reviews existing theories proposing connections between shiftwork, sleep loss, and cardiovascular diseases. It scrutinizes factors like inflammation, blood coagulation, cardiac autonomic function, and the interplay between stress-related hormones and cardiovascular health. Multiple hypotheses are examined, including the influence of a stressful work environment, disturbed sleep on the immune system, and lifestyle factors such as dietary habits and substance use.
Despite over two decades of continuous research, the findings in this area remain inconclusive regarding the precise role of shiftwork in cardiovascular disease. The study aims to contribute valuable insights into mitigating the potential adverse effects of graveyard shift stress on employee burnout in call centers, providing a foundation for further research and the development of targeted interventions.

Keywords: Graveyard shift, Stress, Burnout, Call centers, Cardiovascular disease, Shiftwork, Sleep disruption, Circadian rhythms, Job demands, Lifestyle factor.

I. INTRODUCTION

The prominence of the service sector has spurred the creation of innovative customer service models, with call centers emerging as a rapidly expanding avenue for sales and service delivery (Holman, 2005). Over the past five years, the proliferation of telephone call centers has led to substantial growth in employment opportunities (Holman, 2005). For instance, statistics from the Associação Portuguesa de Contact Centers (APCC) reveal that in 2003, there were 29,000 contact centers in Europe, the Middle East, and Africa, supporting 1.5 million agent positions. The sector was projected to burgeon to 45,000 contact centers with two million job positions by 2008 (APCC, 2008, p. 35).

Burnout, characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment, is recognized as a syndrome prevalent among individuals engaged in people-oriented professions (Maslach, 1982a). Originally perceived as an adverse consequence of caring in human service occupations, burnout is now acknowledged across various professions, particularly affecting people-oriented professionals (Maslach,1982b). The advent of call centers, a distinctive product of the service economy, has introduced a new dimension to people-oriented professions, presenting unique challenges arising from technological advancements. Call centers, while increasingly recognized as vital for managing customer relationships, have concurrently acquired a reputation as stressful work environment (Proper, 1998). Coined as 'electronic sweatshops,' 'electronic panopticons,' and the 'dark satanic mills of the 21st century' (Fernie and Metcalf, 1998; Garson, 1988; IDS, 1997), call centers epitomize repetitive, intensive, and often stressful work based on Taylorist principles (Bain and Taylor, 1999). Some call centers adopt a sacrificial human resources strategy, tolerating elevated stress levels and emotional burnout among frontline staff, leading to high turnover rates (Wallace et al., 2000). Research indicates that turnover rates are notably high in call centers (Michel,

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2001).

This paper delves into the impact of burnout on psychological outcomes (job satisfaction, organizational commitment, turnover intention) and a behavioral outcome (job performance) within a sample of call center customer service representatives (CSRs) in India. The study aims to establish a theoretical research model to comprehend the intricate relationship between burnout and its consequences in the context of call center environments.

A. Defining workplace stress and burnout.

Burnout, defined as a negative emotional reaction to one's job due to prolonged exposure to a stressful work environment (Maslach & Jackson, 1984; Maslach, Schaufeli, & Leiter, 2001), has considerable negative ramifications for organizations as well as individuals. The individual's physical and mental health is affected (Burke & Deszca, 1986) – for example, headache, gastrointestinal diseases, fatigue, irritability, depression, anxiety, feelings of helplessness, insomnia (Kahill, 1988), cardiovascular diseases (Melamed, Kushnir and Shirom, 1992) and decreased self-esteem (Lee & Ashforth, 1990; Jackson & Maslach, 1982) have all been linked to burnout. Interpersonal consequences like a reduction in socializing (Jackson & Maslach, 1982) and a negative impact on their personal and family lives (Burke & Deszca, 1986) have been identified. In the organizational front, decreased organizational commitment, job dissatisfaction, increased turnover intent (Burke, Shearer & Deszca, 1984; Jackson et al., 1986), absenteeism (Firth & Britton, 1989) and poorer job performance (Maslach & Jackson, 1984) have been linked to burnout.

To understand the concept from a generalist's point of view, burnout has been defined as "the state of being extremely tired or ill, either physically or mentally, because you have worked too hard" by the popular Oxford Advanced Learner's Dictionary (2005). The Merriam-Webster dictionary (2017) describes burnout as "exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration".

B. Job satisfaction

The extensive exploration of job satisfaction has been a focal point in understanding employee behaviors and attitudes. The literature firmly establishes the idea that job satisfaction is a consequential outcome of burnout (Maslach, 1982a; Wolpin et al., 1991). This perspective is grounded in two theoretical arguments. Firstly, as psychological burnout results from an appraisal process wherein an individual assesses the balance between demands and available resources, it is proposed that this appraisal outcome influences an individual's psychological well-being on the job, including job satisfaction. Secondly, given that both burnout and job satisfaction are affective responses, it is hypothesized that feelings of burnout should be connected to job satisfaction (Singh et al., 1994). Lee and Ashforth's meta-analysis in 1996 reveal a significant negative correlation between the depersonalization dimension of burnout and job satisfaction. Further, Brown and Peterson's meta-analysis on salesperson job satisfaction in 1993 suggests the incorporation of job satisfaction into the burnout conceptual model. They posit job satisfaction as an outcome of salesperson job conditions and environment, as well as an antecedent variable with repercussions such as organizational commitment and intentions to leave the organization (Lee & Ashforth, 1996; Brown & Peterson, 1993).

II. CALL CENTER WORK ENVIRONMENT

A. Overview of call center operations

The expansion of the service industry in numerous countries has led to significant growth in call centers, generating a substantial number of jobs in the customer service representative (CSR) field (Baumgartner et al., 2002; Holman, 2003; Wegge et al., 2006). In the United States, call centers account for 70% of customer-business interactions and employ about 3% of the workforce (Call Centre Statistics, 2000). Similarly, European call centers employed 1.3% of the working population in 2002 (Deery et al., 2002). The ACTU Call Centre Unions Group (2001) predicts an annual growth rate of approximately 20% to 25% for call centers in Australia. McKinsey (1999) projects a 50% annual growth rate for the call center industry in India, employing up to 700,000 individuals by 2008. Call centers have become a significant element of the global economy.

Diverse types of call centers are discernible:

i. Inbound Call Centers: Handling incoming calls, addressing customer inquiries and complaints.
ii. Outbound Call Centers: Initiating contacts with a focus on sales efforts for products or services.
iii. Hybrid Call Centers: Performing both inbound and outbound tasks.

B. Unique challenges in call center settings

Frenkel and Donoghue (1996) note the evolution of call centers from basic query handling to managing client relationships. Call centers play a pivotal role in implementing successful customer relationship management strategies and are integral to business operations. Customer service agents (CSRs) in call centers play a crucial role in facilitating communication and building strong connections between organizations and consumers. Pfeffer (1994) argues that, in many service organizations, workers interacting with customers are key differentiators, establishing a competitive edge.

Despite their importance, call centers, often referred to as 'electronic sweatshops,' 'electronic panopticons,' and the 'dark satanic mills of the 21st century' (Fernie and Metcalf, 1998; Garson, 1988; IDS, 1997), are recognized as demanding

work environments (Proper, 1998). The comparison of telephone contact centers to modern industrial production sites implies strict adherence to regulations, regular assessment through statistical performance indicators, and a significant emphasis on efficiency. Research consistently indicates that contact center customer service professionals (CSRs) face substantial expectations (Holman, 2003). To execute their duties accurately, CSRs must adeptly manage multiple tasks simultaneously, including using advanced listening and questioning skills, data entry, information extraction from visual display units, and verbal communication with consumers. Call centers prioritize maximizing call volume per employee while minimizing customer call duration and wrap- up time (Taylor, 1998). Dieckhoff et al. (2002) suggest that a CSR may engage with a range of 60 to 250 customers during an 8-hour shift, depending on the specific characteristics of the firm.

Various factors contribute to the stress associated with contact center jobs. Performance monitoring, described as 'flawless supervisory control' (Fernie and Metcalf, 1998), involves setting specific performance objectives, not only based on call volume but also on the proportion of successful calls (Taylor and Bain, 1999). Multiple normative, bureaucratic, and administrative approaches are used to enhance the significance of achieving objectives (Callaghan & Thompson, 2001). Call centers employ control systems to maintain financially viable operations. Despite sophisticated software for comprehensive monitoring, human oversight remains essential. Additionally, consumers in the workplace may contribute to difficulties, displaying rude behavior and making unreasonable requests. Inbound and outbound operators may face bothersome and offensive phone calls, including instances of sexual harassment, leading to considerable psychological strain (Taylor and Bain, 1999). CSRs are often trained to display positive conduct, even in challenging situations, engaging in 'emotional labor,' which may have adverse consequences for health (Grandey et al., 2004; Totterdell and Holman, 2003).

Call center CSRs experience physical discomfort, characterized by symptoms of 'computer vision syndrome,' due to monotonous, demanding, and high-pressure tasks that align with Taylorist ideals, potentially resulting in 'employee burnout' (Bain and Taylor, 1999). Singh et al. (1994) found a notable susceptibility to burnout among CSRs in telemarketing positions. Turnover and absenteeism rates in call centers suggest a strong correlation with experiencing high levels of stress (Deery et al., 2002; Holman, 2002, 2003). In 1999, Management Today reported a higher absenteeism rate of 5% in contact centers compared to the national average of 3.5%. Baumgartner et al. (2002) discovered turnover rates ranging from 8% to 50%, while Taylor and Bain (1999) found a high occurrence of yearly turnover rates beyond 30%, posing substantial problems. The cost of turnover in call centers was estimated at US$10,000 per employee (James, 1998). The CSR position in a contact center is deemed highly susceptible to burnout according to existing research.

As a result of the technology revolution, customer service representative (CSR) and sales roles are increasingly conducted by telephone communication.

III. THE IMPACT OF SHIFT WORK ON HEALTH AND WELL

A. Effects of irregular working hours on sleep patterns

1) Physical health One of the most researched areas in the shiftwork literature is the impact on the physical health of the shift worker. In early research, studies examining the health effects of shift workers considered the risks and effects primarily within a symptomatic framework. More recent research has begun deeper investigation of the causal mechanisms behind the symptoms that shift workers report (Puttonen et al. 2010). Cardiovascular and gastrointestinal health have been the two major areas of research into the effects of shiftwork, particularly since the definition of the shiftwork maladaptation syndrome in 1985, with symptoms including sleep/ wake disorders, gastrointestinal pathology, and an increased risk of cardiovascular disease (Moore-Ede & Richardson 1985). More recently, this syndrome has been known as shiftwork syndrome or shiftwork disorder (Black et al. 2010, Schwartz et al. 2010). Shiftwork disorder is described as a disruption of the circadian sleep/wake cycle, resulting in insomnia, excessive sleepiness, and fatigue (Ftouni et al. 2012). More recently, large- scale studies examined increased risk of breast cancer among shift workers (Schernhammer et al. 2001, Spiegel & Sephton 2002, Viswanathan & Schernhammer 2009). Other studies on cancers such as endometrial cancers (Viswanathan & Schernhammer 2009) and colorectal cancer have been published (Schernhammer et al. 2003). Sleep and its quality and quantity are other areas that have attracted research effort in the literature.

TABLE 1:
RESULTS OF LITERATURE SEARCH FOR SHIFTWORK AND SHIFT WORK

	Search term 'Shiftwork'	Search term 'Shift work'
CINAHL	1719	735
EBSCO Host	3640	244
JSTOR	9	50,479*
Medline/PubMed	349	1331
Google Scholar	411	5770*

2) Cardiovascular disease:

The causal link or mechanism of action forms much of the recent research effort in the area of cardiovascular disease and shiftwork (van Amelsvoort et al. 1999, Frost et al. 2009). Various studies have examined diet (Knutsson 1989), physiological indicators such as cholesterol (Karlsson et al. 2001), stress (Peter et al. 1999), length of working hours (Sokejima & Kagamimori 1998) and the desynchronisation of circadian rhythms (Knutsson 1989). One theory of the causal link between shiftwork and cardiovascular disease proposes that the sleep loss incurred by shift workers is a significant factor because the movement of the circadian rhythms, by either sleep loss or a change in the time of sleep, constitutes a major metabolic challenge to the body (Akerstedt & Knutsson 1997, Frost et al. 2009, Puttonen et al. 2010). This theory encompasses the research that examines inflammation, blood coagulation, cardiac autonomic function and the interaction between cortisol and catecholamine (stress related) and cardiovascular disease (Puttonen et al. 2010). Another premise is that loss of sleep or disturbed sleep affects the immune system, although the exact causal factor here is unknown (Akerstedt & Knutsson 1997). Another hypothesis attributes cardiovascular disease to the effects of a stressful work environment on the cardiovascular system (Akerstedt & Knutsson 1997, Puttonen et al. 2010, Landsbergis et al. 2013). A final theory canvasses the idea that the elevated morbidity/mortality statistics for cardiovascular disease may be directly related to lifestyle factors, such as the type of food eaten and when it is eaten (Frost et al. 2009, Thomas & Power 2010, Nabe-Nielsen et al. 2011) and use of other drugs such as caffeine, alcohol, sleeping aids and other nonprescription drugs (Gordon et al. 1986, Frost et al. 2009). This area has been continuously researched for over two decades, and results are conflicting as to whether shiftwork plays a role in cardiovascular disease.

3) Gastrointestinal disturbances

Gastrointestinal disturbances associated with shiftwork have also been reported in the literature for more than two decades (Sveinsdottir 2006, Burch et al. 2009, Knutsson & Boggild 2010). Symptoms range from dyspepsia, gastritis, colitis and peptic ulcer (Knauth & Harma 1992, Knutsson & Boggild 2010) to indigestion, appetite disturbance (Verhaegen et al. 1987), irregularity of bowel movements, constipation, heartburn, abdominal pains, stomach grumbling, flatulence and gastroduodenoscopy (Knauth & Harma 1992, Costa 1997). Several factors that may be involved in the other gastrointestinal symptoms reported among shiftworkers include circadian rhythm desynchrony of the gastric functions (gastric secretion, enzyme activity and intestinal motility) (Costa 1997), types of food consumed (Costa 1997), drug intake (Gordon et al. 1986, Burch et al. 2009), psychosocial stress (Levenstein 1998), and for female shiftworkers, the menstrual cycle (Simmons et al. 1988). The circadian rhythm of gastric acid secretion has not been examined as closely in relation to shiftwork as have other human circadian rhythms (Moore & Halberg 1986). Circadian rhythm desynchrony has been accepted for some time in the shiftwork literature as a significant part of the sleep disturbances related to shiftwork (Akerstedt 1988, Monk 1991, Costa 1997, Howarth et al. 1999, Cruz et al. 2000). Although the symptoms of digestive disturbances have been widely reported, the causal mechanism is not well understood. The available research on the circadian rhythmicity of gastric secretion is more often related to ulceration than to shiftwork. One such study reported that the circadian rhythm of gastric acid secretion entails high rates of acidity during the evening and low levels in the early morning (Moore & Halberg 1986). If these reported low levels of gastric acid secretion counteract efficient digestion during the early hours of the morning, several previously mentioned symptoms might occur. Gastrointestinal function during the menstrual cycle is another element that may confound the data on digestive disturbances or there may be a cumulative effect of shiftwork and the menstrual cycle. Diarrhea, abdominal pain, nausea and appetite changes have been reported during the premenstrual and menstrual phases of the cycle (Simmons et al. 1988). These symptoms have also been reported in other studies as directly related to shiftwork (Verhaegen et al. 1987, Knauth & Harma 1992, Costa 1997). Other symptoms related to the menstrual cycle include abdominal bloating, weight gain and cramps (Simmons et al. 1988). Although it is difficult to distinguish whether these symptoms are directly related to shiftwork or are in some way related to the menstrual cycle in female shiftworkers, similar symptoms are also reported in male workers. Newer research in the shiftwork area has found impaired glucose metabolism in rotating shift shiftworkers, particularly middle-aged workers (Suwazono et al. 2010) and some evidence of metabolic syndrome in young male shiftworkers ‘due to circadian misalignment’ (Burgueno et al. 2010). No association was reported in another study between metabolic and insulin responses in shift and non-shift workers (Wehrens et al. 2010). Yet, another recent study cannot confirm a relationship between shiftwork and upper gastrointestinal, nonspecific gastrointestinal, peptic ulcer or gastritis (van Mark et al. 2010). Rotating shiftwork including night shifts has been associated with obesity, metabolic syndrome and glucose dysregulation, and a modest increased risk of type 2 diabetes in women (Pan et al. 2011). Abnormal eating behaviour was positively associated with shiftwork in a recent study conducted on nurses (Wong et al. 2010).

4) Cancer

In 2007, The International Agency for Research on Cancer (Press Release N° 180) stated that ‘shiftwork that involved circadian disruption was probably carcinogenic to humans’ (International Agency for Research on Cancer 2007). The postulated causal mechanism is melatonin suppression by night-time light exposure (Schernhammer et al. 2003, Schwartzbaum et al. 2007, Arendt 2010), increasing levels of oestrogens and growth of hormone-dependant tumours (Schernhammer et al. 2003). Breast cancer risk increased for women where the circadian rhythms of cortisol and prolactin did not adjust when the woman worked shiftwork (Lewy et al. 2007). This study is applied research, and its

implications are important for women working shiftwork due to the circadian disruption. Recent research on mechanisms of breast cancer and shiftwork has focused on the role of melatonin and the impact that night shift has on preventing the rise of this hormone while working (Bhatti et al. 2013). The study postulated that the disruption caused by night shift in the normal rise of melatonin which occurs at night results in higher levels of other reproductive hormones, and this may increase the risk of breast cancer.

The authors also theorized that male shiftworkers may also be at a higher risk of prostate cancer due to the same mechanism of increased reproductive hormones (Bhatti et al. 2013). Others have also reported greater risk of breast cancer for those working rotating shifts including night shifts (Hansen & Stevens 2012, Herichova 2013) particularly when they are worked over an extended period of time (Grundy et al. 2011). A study published the same year as the International Agency for Research on Cancer (Press Release N° 180) found no association between breast or prostate cancer and shiftwork (Schwartzbaum et al. 2007), although others dispute this finding based on the limitations of the study (Pukkala & Harma 2007). A recent study reported a strong positive association with shiftwork and elevated prostate specific antigen levels (Flynn-Evans et al. 2013). A number of large-scale studies examining shiftwork and cancer reported an increased risk of breast cancer among shiftworkers (Davis et al. 2001, Schernhammer et al. 2001, Spiegel & Sephton 2002, Viswanathan & Schernhammer 2009, Hansen & Stevens 2012) although no association between breast cancer and shiftwork was found in another study (Pronk et al. 2010), and some argument regarding the methodology of the study has been raised (Girschik et al. 2010). A systematic review and meta- analysis examining night work and breast cancer reported an increased risk for women (Megdal et al. 2005). Other studies linking shiftwork and cancers such as endometrial cancers (Viswanathan & Schernhammer 2009) and colorectal cancer have been published (Schernhammer et al. 2003).

5) Sleep

Sleep has been researched primarily objectively (quantity) and secondarily subjectively (quality). There has also been a research focus on chronic fatigue. Various studies have established that shiftwork affects sleep quality and quantity (Akerstedt et al. 1982, Rutenfranz et al. 1985, Akerstedt 1988, Winwood et al. 2006). The reduction in quantity and quality of sleep is partially related to the need to sleep on schedule at the most inappropriate point in the circadian cycle (Adams et al. 1986).

To study the length of sleep periods or quantity of sleep, instruments such as polysomnography or actigraphy tend to be used (Gale et al. 2005, Morgenthaler et al. 2007) rather than subjective questionnaires. These instruments use computer analysis to determine length of sleep and other sleep characteristics such as mid sleep awakenings and duration of sleep onset. Decreased sleep quantity and quality in male shiftworkers in relation to shiftwork has been established (Rutenfranz et al. 1985, Akerstedt 1988, Sallinen et al. 2003); however, this has not been studied in as much detail in women. More recent studies have tended to focus on women (Florida- James et al. 1996, Cruz et al. 2003, Ha & Park 2005, Garde et al. 2009), filling a previous fairly significant gap in the literature. Longer sleep periods through the day after night shift were reported in one study after exposure to very bright light on night shift (Boivin et al. 2012). The bright light was used to suppress the secretion of melatonin in the low-light settings of some health facilities. While this was reported to assist daytime sleep, it is improbable that it would be used in a majority of shiftwork situations within health care because the promotion of sleep in most settings for the patient/clients is also important. Women, shiftwork and sleep quantity are sometimes explored in relation to other care duties that women need to undertake. The impact of shiftwork on sleep and family life among rotating shift nurses using a time budget method was studied by Kurumatani et al. (1994). This study showed that sleep was decreased if the subject needed to perform other duties (domestic or otherwise). Instead of sleeping for seven or eight hours when they had time off, family responsibilities were undertaken instead of catching up on their sleep debt (Kurumatani et al. 1994). Other studies have reported decreased sleep quantity when workers have children or elders to care for at home (Clissold et al. 2001, Sallinen et al. 2005, Scott et al. 2006). Insufficient sleep was found to have increased reporting of symptoms such as mental tiredness, exhaustion and altered mood (Edell- Gustafsson et al. 2002, Chan 2009).

B. Health consequences of working the graveyard shift

Shiftwork is a ubiquitous and essential aspect of professional practice for several nurses (Dall' Ora et al., 2016). This is due to the fact that hospitals and nursing services operate continuously for 24 hours. The use of twelve- hour shift rotations is widespread globally; yet, there is increasing apprehension over its influence on the quality of treatment and the safety of patients (Dall' Ora et al., 2016; Ferri et al., 2016). Research examining the adverse effects of night shiftwork has shown its detrimental influence on workers' health, mostly resulting in weariness, drowsiness, alterations in mood, and weight gain (Books et al., 2020; Ferri et al., 2016; Giorgi et al., 2018; Siqueria et al., 2016). Previous research has shown issues pertaining to occupational performance and psychological well-being (Banakhar, 2017; Ferri et al., 2016). Night shiftwork, a schedule that necessitates nurses to work during the night and sleep during the day, has a substantial impact on the circadian rhythm of those involved (Kerkhof, 2018). Some researchers have demonstrated that night shiftwork is related with poor performance and adoption of low safety indicators when such shifts are done within a rotating shift schedule (Han, Trinkoff & Geiger-Brown, 2014; Niu et al., 2013). Burch et al. (2009) demonstrated a potential correlation between fixed night shiftwork and heightened levels of job discontent. Furthermore, the difficulties of working in shifts are linked to a desire to quit the profession, resulting in a high turnover

rate among nurses. Additionally, working night shifts has been identified as a risk factor for future disability retirement, as shown by studies conducted by Park et al. (2019) and Ropponen et al. (2018). These difficulties have prompted demands for the implementation of scheduled periods of sleep during overnight shifts among nursing personnel (Li et al., 2019).

There is a scarcity of research on the effects of night shiftwork on nurses, as shown by a limited number of studies conducted by Dall' Ora et al. (2016), Han et al. (2017), and Niu et al. (2013). A comprehensive analysis revealed that the majority of studies examined both rotational shiftwork and night shifts in conjunction, as these two types of shifts share interconnected characteristics. It is worth noting that the existing research papers have not specifically focused on investigating the impacts of night shiftwork (Dall' Ora et al., 2016). Nurses engaged in nocturnal shiftwork have faced several obstacles in terms of their job efficacy and patient welfare. In randomized research conducted by Niu et al. (2013), it was shown that the mistake rate on a standard exam for night-shift workers was 44% more compared to fixed-day-shift workers. Furthermore, a study conducted by Johnson et al. (2014) revealed that 56% of the 289 nurses who worked night shifts had sleep deprivation. It was also observed that sleep-deprived nurses had a greater average number of patient care mistakes compared to their non- sleep-deprived counterparts. In addition to sleep loss, night shiftwork may also induce other physiological repercussions on nurses. Some studies have reported that adverse effects of night shiftwork on the physiological status of nurses include anxiety, musculoskeletal disorders, stress and development of obesity from poor feeding habit (Banakhar, 2017; Booker et al., 2020; Books et al., 2020; Liu et al., 2018; Thompson et al., 2017). In addition, research conducted by Smith-Coggins et al. (2014) revealed that 36% of healthcare professionals had increased exhaustion as a result of night shifts. Similarly, Burch et al. (2009) showed that workers on night shifts were considerably more prone to expressing job discontent and being absent from work.

In Middle Eastern literature, there has been less attention paid to the physiological state, performance, and safety of nurses (Dall' Ora et al., 2016). A study conducted in Palestine revealed that women engaged in night shiftwork experience greater levels of job distress compared to men (Jaradat et al., 2018). Similarly, in Iraq, Iran, and Turkey, nurses working night shifts reported fatigue, family issues, and reduced job and life satisfaction (Abdulah et al., 2020; Nasrabadi et al., 2009; Yildirim & Aycan, 2008). Two research found a negative correlation between workplace stress and night shiftwork with performance and bad food habits among nurses in the Kingdom of Saudi Arabia (KSA) (Almajwal, 2016; Al-Makhaita et al., 2014). Recent research conducted in Saudi Arabia revealed that as many as 90% of hospital nurses encountered psychological consequences as a result of working night shifts, with a particular emphasis on nurses who had been assigned to night shifts for more than 20 weeks (Alsharari, 2019). Nevertheless, previous studies conducted in KSA have not specifically examined the effects of night shift rotations on nursing performance, patients' safety, and the nurses' physiological complications. Furthermore, these studies were conducted in a limited context that may not accurately represent all nurses in the country.

In recent times, there has been an increasing focus in the Kingdom of Saudi Arabia (KSA) on fostering safer and healthier work environments that cater to the requirements of workers, particularly in the healthcare industry. The Saudi government has included this as part of its Vision 2030 plans, aiming to implement significant improvements to the healthcare sector and improve citizens' lives (Alharbi, 2018). Given that nurses are responsible for the majority of healthcare services and make up the biggest healthcare workforce in the nation, any plans for change should specifically target the many obstacles that nurses now face, which in turn impact the provision of nursing services. This includes addressing concerns related to shiftwork.

IV. PREVIOUS RESEARCH ON STRESS IN CALL CENTERS

A comprehensive investigation has been carried out to analyze employee actions and attitudes in correlation with work satisfaction. Research unequivocally demonstrates that burnout has a substantial influence on work satisfaction (Maslach, 1982a; Wolpin et al., 1991). This viewpoint is based on two theoretical considerations. Psychological burnout occurs when a person assesses the responsibilities and resources present in their work environment. This assessment is expected to have a significant influence on their psychological well-being and work satisfaction. Moreover, it has been postulated that there exists a correlation between feelings of burnout and work satisfaction, since both are emotional reactions (Singh et al., 1994).

In their meta-analysis, Lee and Ashforth (1996) discovered a noteworthy inverse relationship between depersonalization, a component of burnout, and work satisfaction. Brown and Peterson (1993) performed a meta-analysis on the level of work satisfaction among salespeople. Their proposal suggests the inclusion of job satisfaction inside the burnout conceptual framework. According to their suggestion, work happiness is affected by the circumstances and surroundings of the salesperson's employment. Additionally, job satisfaction is a factor that comes before factors like organizational commitment and intents to quit the organization. Commitment to an organization is seen as a measure of the extent to which an individual connects with and actively engages in that organization (Steers, 1977). Several studies have consistently shown a negative association between organizational commitment and emotional exhaustion, as evidenced by the study conducted by Leiter and Maslach in 1988. In their study, Lee and Ashforth (1996) performed a meta-analysis of seven research studies, which uncovered a negative link between organizational commitment and burnout. The research done by Cropanzano et al. (2003) showed a noteworthy

correlation between emotional fatigue and dedication to the organization. Wright and Hobfoll (2004) found that emotional exhaustion, depersonalization, and reduced personal accomplishment were all negatively related to organizational commitment. Sethi et al. (1999) found a connection between burnout and emotional and ongoing commitment in their study of information system experts.

Burnout is often linked to a decrease in work performance, a phenomenon that is generally acknowledged and easily comprehensible (Maslach, 1982a). Singh et al. (1994) provides insights into the influence of burnout on behavioral outcomes, particularly work performance. Fatigue is said to diminish workers' accessible energy and impede their job endeavors. Burnout may precipitate a detrimental loop in which personnel exhibit hesitancy in seeking assistance or making endeavors to enhance their circumstances, therefore leading to persistent ineffectual performance. Burnout eventually hampers workers' performance by eroding their self- assurance in resolving work-related issues (Bakker et al., 2003).

According to Wright and Bonett (1997), there is a scarcity of empirical research examining the relationship between burnout and work performance. Studies indicate that emotional weariness, which is a part of burnout, is likely to be linked to a decline in work performance (Cropanzano et al., 2003; Wright and Bonett, 1997; Wright and Cropanzano, 1998; Wright and Hobfoll, 2004). In 1998, Schaufeli and Enzmann performed a review of five research that examined the relationship between burnout components, as measured by the Maslach Burnout Inventory-Human Services Survey (MBI-HSS), and self-reported performance. Upon further examination, it was found that self-reported performance showed a 5% association with emotional tiredness, a 4% correlation with depersonalization, and a 6% correlation with diminished personal achievement.

Companies have devised novel methods of customer service in response to the increasing importance of the service industry. Call centers have become a widely used method for delivering sales and customer support. Telephone contact centers have seen significant job growth in recent years (Holman, 2005). According to the most reliable estimates, there were 29,000 contact centers in Europe, the Middle East, and Africa in 2003, with a combined total of 1.5 million agent roles. The user's text is empty. According to the Associação Portuguesa de Contact Centers (APCC, 2008), the call center industry was expected to grow to 45,000 contact centers and employ two million people in 2008. The research was carried out in Portugal because of its substantial contact center sector, which employs more than 55,000 agents and contributes around 1% to the country's Gross National Product (Cardoso, 2006). From 2003 to 2006, call centers in Portugal had an annual growth rate of 20%. The predicted growth rate for 2007 and 2008 was 15% according to DBK (2007). As to the APCC (2008) report, the call center business had substantial expansion in 2007, with more than 450 contact centers and a total workforce of over 14,000 people. Several research studies have been carried out in European call centers, with a focus on the United Kingdom (Holman & Wall, 2002; Sprigg & Jackson, 2006), the Netherlands (Bakker, Demerouti, & Schaufeli, 2003), Germany (Zapf, Isic, Bechtoldt, & Blau, 2003; Zapf, Vogt, Seifert, Mertini, & Isic, 1999), and Switzerland (Grebner et al., 2003). Various research has presented data suggesting that working in contact centers entails the simplification of tasks, resulting in heightened levels of job-related stress. Although contact centers in Portugal have seen substantial expansion and have had a considerable economic effect, there is now a dearth of research specifically focused on this subject. It is important to evaluate if prior studies' descriptions and suggestions for call centers may be applied to the Portuguese contact center industry, considering Portugal's limited geographical area and notable expansion in this sector.

Call centers are widespread because they are necessary for delivering services 24/7 and overcoming the limitations of operating within certain business hours and geographical limits (Holman, 2005). Although contact centers provide clear advantages for consumers and companies, the rewards for call center staff are uncertain. Call center staff have described their job as monotonous, repetitive, demanding, and unpleasant, leading to its depiction as a 'cognitive production line' (Taylor & Bain, 1999). Studies have been carried out in two primary domains on the stress experienced by call center employees. The first domain centers on the correlation between human resource practices and employees' stress levels, as well as the adverse impacts of performance monitoring on overall welfare (Aiello & Kolb, 1995; Holman, 2002; Smith et al., 1992). The second area investigates the correlation between employment features of contact center workers and increased levels of strain, as shown by studies conducted by Bakker et al. (2003), Deery et al. (2002), Dormann & Zapf (2004), and Zapf et al. (2001). In recent decades, there have been just a few attempts to combine different study fields in order to comprehend the correlation between human resource practices, work expectations, autonomy, and burnout in contact centers.

Prior studies have mostly focused on exploring the influence of HR practices on employee well-being, with research evaluating these practices separately (Batt, 2002; Deery et al., 2002; Sprigg & Jackson, 2006; Wood, Holman, & Stride, 2006). Prior research has emphasized the substantial influence of HR monitoring techniques (Deery et al., 2002; Sprigg & Jackson, 2006). Some scholars have proposed that more investigation is needed to explore the incorporation of different HR control and engagement approaches in call centers (Holman, 2005; Kinnie, Hutchinson, & Purcell, 2000). They contend that it is crucial to investigate many permutations of HR practices (Batt, 2002; Kinnie et al., 2000) and scrutinize the interconnectedness of these practices (Boselie, Dietz, & Boon, 2005; Lepak, Liao, Chung, & Harden, 2006).

V. GRAVEYARD SHIFT STRESS: A SPECIALIZED EXAMINATION

A. Specific challenges and stressors associated with working during the midnight shift

Numerous studies have investigated the impact of sleep, a fundamental need, on several areas of everyday life that may otherwise seem to be unnecessary to study. It is well recognized that shift workers often significantly stray from their regular eating and sleep habits owing to rotating shifts. Typically, one assigns less importance to the planned events of this kind under regular circumstances. However, these factors are deemed significant since they ascertain the Caliber of an individual's health and overall state of being. Given that the schedules of shift work align well with the natural cycles regulating nutrition and sleep, a significant portion of research on shift tasks has focused on this particular element. The laboratory and outdoor settings have both been used to determine the impact of sleep on its quality and quantity. Tune (1969: a) observed that shift workers had a longer average sleep duration in a laboratory setting compared to non-shift workers. Nevertheless, it was often dispersed and consisted of many instances of lengthy intervals of sleep. It was widely observed that 1110 individuals tended to accumulate sleep debts by oversleeping on their days off or during vacations. According to Mann and Hoffman (1960), the most significant challenges in adjusting sleep patterns were attributed to changes in responsibilities.

Mott et al (1965) posited that individuals engaged in shift employment experience a reduction in sleep duration during nocturnal shifts. After examining several research on this topic, Carpentire and Cazamian (1977:23) determine that night workers not only have lower sleep duration but also have fragmented sleep due to the interference of their hunger and other activities with their sleep cycle. Tune (1969: a) noted that women had a higher frequency of sleep disruptions compared to males, and this inclination became more pronounced with advancing age. Tune (1969: b) posited that the quality of sleep exhibited correlations with age, sex, and temperament. Perry (1992) conducted descriptive research on sleep pattern disturbances among nurses with varying shift patterns. The findings revealed that women working night and rotating shifts had a higher frequency of sleep disruptions and excessive drowsiness compared to nurses working in the other two shifts. The sleep quality of younger women was shown to be inferior than that of older women. Younger women had sleep disruption due to childcare responsibilities, while older women were afflicted by hot flashes. None of the women in the sample often used sleep aids. Unlike male shift workers, there were no discernible variations across the groups in terms of alcohol use, caffeine intake, or use of sleep medicine. In their study, N aitoh et al (1990) discovered that night shift workers in the business often reported experiencing fatigue. A subset of workers also had problems such as sleeplessness, tiredness, and restlessness. Most of these symptoms were mostly ascribed to the absence of sufficient rest during night and evening hours. Folkard et al (1978) noted significant variations in the overall body temperature, vigilance, and sense of well-being among nurses working different shifts. The level of vigilance and subjective state of health shown a significant decrease during night shifts. In their research, Marc and Walker (1968) discovered that some workers had a preference for working in shifts, while others had a hate for it. A certain set of employees expressed a preference for night work, notwithstanding the general disapproval of this shift among other workers. The rationale provided for this inclination was that it aligned with their disposition. It is worth mentioning that in the research conducted by Mare and Walker (1968), the sample consisted only of male workers from the industrial sector.

B. Comparative analysis with stressors in other shifts

Stress is an unavoidable aspect of an individual's existence. At times, it delineates potential dangers or difficulties, whereas in other instances, it pertains to our reactions or countermeasures. Stress is not only a trigger or a reaction. Environmental appraisal and coping refer to the systematic evaluation and management of environmental dangers and difficulties (Myers & Myers, 2004). Stress is the state of discomfort that arises when we are unable to cope with the pressures of our daily lives (Adams & Bromley, 1998). Stress is a prevalent occurrence in daily life, although its intensity may vary based on individual characteristics, circumstances, and the presence of assistance. The bulk of study literature links stress with the rapid pace of modern living in today's globalized globe. The rapid pace of modern living is often attributed to the advancement of contemporary technology by many scholars. These researchers argue that the advent of contemporary technology has permanently transformed the organization of our society and social interactions by accelerating the pace at which we accomplish tasks, thereby contributing to heightened stress levels (Hoffman, Novak, & Venkatesh, 2004). Technology has not only impacted our social life, but it has also transformed our perspectives on several aspects such as our homes, job, lifestyle, values, and the boundaries of what is achievable and unattainable. It has profound effects on us that are difficult to express ((Murray, 1998).

Technology has significantly altered our way of life, but not in a positive manner, since it may induce tension in both its users and those who are apprehensive about it, leading to a phenomenon known as technostress (Weil, 2003). Technostress arises due to the ability of technology to facilitate multitasking and the constant influx of copious quantities of information from many sources such as computers, phones, and other communication devices. This overwhelming situation hinders the individual's ability to effectively digest the excessive information. The advancement of technology has significantly accelerated the processing and acquisition of information, leading to a transformation in our experience of time and a modification of our internal clocks. By accelerating our cognitive processes and fostering impractical aspirations, we experience exhaustion and physiological strain. This, in turn, promotes the inclination to engage in multitasking, which further intensifies stress and anxiety (Weil, 2003). Technology has significantly

revolutionized contemporary global multicultural work environments, like other elements of life. Significantly, machines have mostly supplanted the human labour force, resulting in a limited number of individuals managing intricate mechanical systems. Although this technology has enhanced job efficiency, it has also contributed to work-related anxiety such as information overload, greater pressure for output, and a feeling of insecurity in the office. Consequently, exacerbating the pressure experienced by workers globally.

The advent of technology has transformed our world into a globalized society, enabling easy access to everything. Consequently, companies are engaged in perpetual competition to maintain their position in the market, placing additional strain on their workers. Therefore, employees sometimes feel overwhelmed by the multitude of demands and pressures they face. Consequently, the work-related stress transforms into an incessant and inescapable nightmare, compelling individuals to run at an increasingly accelerated pace. They experience job-related anxiety, leading to decreased work motivation and attempts to escape the issue, ultimately resulting in higher rates of absenteeism and attrition. The dilemma exacerbates in technologically sophisticated contact centers that are rapidly emerging worldwide. In order to meet the demands of a global client base and remain competitive in the market, companies recognize the need of maintaining round-the-clock connectivity with their consumers, 24 hours a day, 7 days a week (24/7). The contact center environment has emerged as one of the most demanding sectors in modern organizations, with significant consequences (Cryer, White & Cryer, 2003).

Call centers are sometimes likened to 18th-century "sweatshops" due to the staff' continuous handling of consumer calls around the clock. High expectations and frequent monitoring have led to stress being a prevalent issue for both contact center personnel and management (Agnew, n.d.). Furthermore, studies indicates that this stress has a more detrimental impact on girls compared to males. According to Canada & Brusca's (1992) study, there is a disparity between men and females in their attitudes towards technology, which influences their incentive to learn how to use it. This is referred to as a "technological gender gap." A study conducted by Dorup (2004) on medical students in Denmark found that males have a more positive attitude towards recent technical breakthroughs. Approximately 47% of men in the sample expressed a desire to substitute conventional teaching methods with computers, in contrast to just 22% of females. In addition, many other academics have also identified a 'technical gender gap' since the 1980s (Young, 2000 as referenced in Hale, 2001).

Consequently, when confronted with the use of contemporary technology, women experience heightened stress levels owing to their perception that it falls beyond their realm of knowledge (influenced by media and society's portrayal of men as technology experts) and their increased likelihood of failure. Nevertheless, despite evidence indicating that females tend to avoid using technology, technostress may have a debilitating impact on both men and females. As the number of call centers worldwide continues to increase, a significant number of workers are being hired in this rapidly growing industry. These workers are compelled to continuously handle incoming and outgoing calls, while remaining seated in front of computer

screens for the entirety of their work shift. Additionally, their performance is constantly monitored by supervisors through electronic means. Consequently, stress is becoming more prevalent in call centers (Sprigg and Jackson, 2006; The Times, 1998). In addition, this stress is further exacerbated based on whether they are working in an incoming or outbound contact center. Inbound call centers primarily handle incoming calls made by customers, specifically for receiving product assistance, information requests, or complaints from consumers. Outbound call centers are characterized by call center agents who initiate calls to clients or sales prospects.

Outbound call centers are used for the purposes of telemarketing, soliciting charity or political contributions, collecting debts, and conducting market research (Rouse, 2007). Studies indicate that inbound call center workers tend to experience higher levels of stress compared to outbound call center workers (Dormann & Zapf, 2004; Goldberg & Grandey, 2007). This is because outbound call center representatives can select which customers they call, giving them some control over their work situation. In contrast, inbound call center employees are required to handle all incoming calls from customers, which reduces their control over their work environment and contributes to increased stress levels (Spector, 2002; Daniels & Guppy, 1994). In addition, outbound contact center personnel are not required to handle irate or hostile consumers like their incoming counterparts, who are obligated to endure the abuse and attempt to pacify the customer, therefore intensifying their stress levels. Studies also indicate that providing round- the-clock customer service, even when clients are not in a positive mood, puts a significant burden on personnel, leading to both customer and employee attrition (Cryer, White & Cryer, 2003; Dormann & Zapf, 2004; Goldberg & Grandey, 2007).

VI CONCEPTUAL FRAMEWORK AND THEORETICAL APPROACHES FOR BURNOUT

The emergence of burnout first occurred as a concern within society, rather than as a formal academic framework. In the first phase of conceptual development, the focus was on offering clinical descriptions of burnout. During the empirical phase, the attention shifted towards conducting a comprehensive investigation on burnout, particularly in regard to assessing this phenomenon.

i. The Pioneer Phase: The groundwork was laid for the development of the burnout concept in the mid-1970s. The focus on burnout mostly lay with practitioners rather than academic scholars, leading to a significant

volume of material on the topic being published in periodicals or academic journals. These practitioners belonged to various human services professions where the link between the provider and receiver is vital to their job, and providing support, care, or education may be emotionally demanding. Burnout was most prominently seen in the fields of education, social services, medicine, the criminal justice system, mental health, religion, and other professions that include interpersonal interactions.

ii. Empirical Phase: During the 1980s, the study on burnout entered a more focused and fruitful phase that relied on empirical data. During this phase, the authors outlined their operational frameworks of the phenomena, proposed various notions and therapies, and presented several forms of supporting evidence (such as survey and questionnaire data, interview responses, and clinical case studies). Research on burnout was restricted to the United States until the early 1980s. Over time, the occurrences attracted attention in several locations around the globe.

A. Cherniss Model of Burnout

In 1980, Cherniss proposed one of the first hypotheses on the development of burnout based on studies done among inexperienced professionals in various disciplines such as mental health, poverty, law, public health, nursing, and education. Cherniss proposed that both the work environment and individual characteristics can contribute to stress. For instance, they can create uncertainty about one's competence, hinder task completion or goal achievement due to bureaucratic interference, and result in a lack of supportive relationships with colleagues. People strive to manage these sources of stress through various methods, some of which may involve adopting negative attitudes, such as lowering work objectives, assuming less accountability for work results, adopting a less idealistic approach to the job, and becoming emotionally disconnected from clients or the job itself. Collectively, these adverse shifts in attitude include Cherniss's characterization of the burnout phenomena. Several research have examined Cherniss's perspective on burnout and have shown some validation for this paradigm. Specifically, Burke and Greenglass (1995) discovered that certain aspects of the work environment, such as insufficient training, limited independence, excessive workload, ineffective management and supervision, and ambiguous objectives, were responsible for causing negative shifts in attitudes among a group of teachers, school department heads, and principals.

B. Golembiewski's Phase Model

The Golembiewski and colleagues' phase model, first introduced in 1984 and 1988, is a well-known theory that explains the development of burnout. Golembiewski et al. (year) used the Maslach three-component model of burnout and argued that depersonalization, the second component in the model, is the main factor encountered in the sequence. They argued that maintaining a level of professional detachment is crucial while interacting with clients or patients in a professional environment. The maintenance of this separation is supported by the ethical principles and standards of the profession. Excessive role expectations and pressures may lead individuals to go from detachment to depersonalization as they struggle with demands that beyond their capacities.

According to Golembiewski, depersonalization is the first manifestation of burnout and negatively impacts performance. This phenomenon arises when people see a discrepancy between their handling of consumers and the ethical principles of their employment, such as providing support for clients' problems. Consequently, the individual's sense of personal accomplishment in their job is diminished. Golembiewski's concept posits that reduced personal accomplishment is the second stage in the progression of burnout. Ultimately, the fusion of experiencing detachment from one's own self and experiencing a reduced sense of accomplishment results in emotional fatigue due to overwhelming stress that exceeds an individual's ability to cope. According to the Golembiewski model, emotional tiredness is the most potent and last stage of burnout development.

Golembiewski and his colleagues developed a phase model of burnout that expands on the previously explained reasons of burnout. This model highlights the several stages involved in the development of this kind of stress in individuals. This notion encompasses eight distinct phases of burnout. Individuals may be classified as either high or low on each of the three dimensions of burnout, resulting in their assignment to one of the eight phases. Phase I is marked by a minimal level of burnout, with little depersonalization and emotional exhaustion, and a significant sense of personal accomplishment in the work. The distinguishing feature of Phases

II and III is the commencement of depersonalization, subsequently accompanied by a decline in personal accomplishment. Phase IV encompasses both of these symptoms often linked with burnout. Emotional fatigue emerges in Phase V and persists in subsequent stages, indicating a strong correlation between the progression of burnout and the onset of emotional exhaustion. According to the phase model, burnout intensifies as individuals go from depersonalization to reduced personal accomplishment to emotional exhaustion. Individuals in advanced phases are more susceptible to suffering more substantial consequences compared to those in early stages (Golembiewski et al., 1993).

Golembiewski et al. (1993) said that their model does not suggest that individuals would necessarily go through all eight stages, even if these phases are considered to be part of the maturation process. If an individual has extreme depersonalization in phase II but not in phase III, it is unlikely for them to transition from phase II to phase III. During such instances, individuals are prone to bypass a phase in the progression of burnout.

The Golembiewski phase model offers a thorough comprehension of the progression of burnout and establishes a coherent correlation among its primary elements. Additionally, it provides a simple approach of categorizing people according to their placement on the burnout spectrum.

C. Leiter and Maslach's Model of Burnout Development

Leiter and Maslach (1988) first presented an alternate viewpoint to Golembiewski's understanding of burnout formation, which was subsequently revised by Leiter (1991, 1993). Leiter, Maslach, and Golembiewski argue that emotional weariness is a key factor in the burnout phenomenon. Human care providers encounter emotional fatigue due to job-related difficulties linked to extensive interpersonal interaction with clients or persons with substantial challenges. Emotional fatigue may result in depersonalization as employees attempt to cope with their emotions of tiredness. Depersonalization is used as a coping technique when other measures, such as adjusting work requirements, have proven ineffective in reducing stress levels. Depersonalization diminishes work happiness by undermining an individual's professional ideals and ambitions. Depersonalization serves as an intermediary in the relationship between emotional tiredness and reduced personal achievement.

Occupational stress has a substantial role in the development of burnout. The word 'stress' is often used to include many dimensions, such as the external force acting on the organism (stimulus), the physiological changes that occur in response (response), the interplay between the external force and the organism's resistance (interaction), and different combinations of these components. The user's text is empty. Stress encompasses both external and internal factors that pose a threat to the well- being of an organism, leading to a disruption in one's personality. Stress serves as a sign of both weakened self-confidence and decreased external support for one's self. Anxiety may arise from either interpersonal or intrapsychic sources, resulting in stress. People have heterogeneous reactions to stress and possess differing degrees of resilience, both across individuals and within the same person across various circumstances. Stress, like to emotions, is essentially a subjective experience. Stress is a psychological condition marked by the deliberate acknowledgement or existence of items, rather than a causal connection. Hans Selye, a physicist born in 1907 and died in 1982, introduced the global adaption syndrome concept in 1936. This model delineates three stages that exemplify the alleged influence of stress on the human body. Selye, renowned as the trailblazer of stress research, posited that stress plays a crucial role in the development of illness by triggering long-lasting chemical changes in the body. The author observed that the body consistently displays a biological reaction when confronted with external biological stresses, as it endeavors to restore internal balance. The primary physiological reaction to stress is the initiation of the fight or flight stress response. The body's endeavor to maintain balance is known as the general adaption syndrome (GAS). The symptoms are ambiguous, resulting in a broad diagnosis. Adaptation is essential since it allows humans to efficiently meet and handle changed conditions. Syndromes often present as a group of symptoms that may be differentiated from other groups of symptoms.

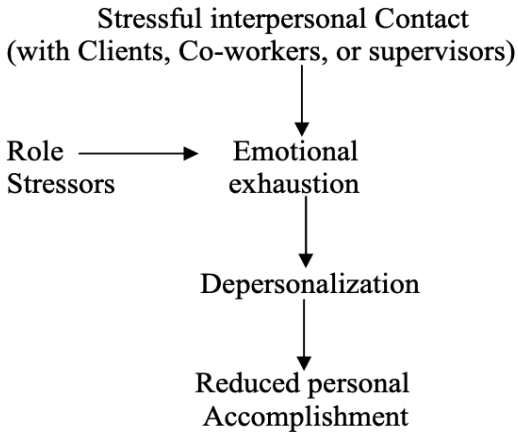

Figure 1: Stressful Interpersonal Contact

The General Adaptation Syndrome (GAS) is a scientific framework that elucidates the effects of stress on humans. It consists of three stages: The first stage of the stress response encompasses a shock phase, characterized by a decrease in resistance, and is followed by a counter-shock phase, in which defensive systems are mobilized. The alarm response is defined by the presence of autonomous excitability, release of adrenaline, heightened heart rate, increased muscular tone, elevated blood content, and the occurrence of gastrointestinal ulcers. The length of resistance and the severity of symptoms may vary based on the kind and degree of the danger, as well as the overall health of the organism. The symptoms might vary from a little increase in energy to a condition of adjustment disorder. Stage 2, referred described as the Stage of Resistance, has distinct traits in contrast to Stage This stage pertains to the organism's acclimatization to the stressor, which might result in amelioration or cessation of symptoms. Extended exposure to stress triggers the body

to adjust by continuously resisting, leading to a persistent state of heightened alertness. Problems occur when a person consistently participates in this activity without enough time for recovery. Ultimately, this change happens during the last phase. The fatigue stage occurs when the capacity to adapt reaches its maximum and resistance to stress becomes imperative if the stressor persists. The body's immunity is weakened as a result of the exhaustion of its adaptive energy reserves. These conditions are sometimes referred to as overload, burnout, adrenal exhaustion, maladaptation, or dysfunction.

VII OCCUPATIONAL STRESS AND BURNOUT

Occupational stress arises from the interaction between the perceived demands of a situation and an individual's perceived resources for dealing with those demands in the work setting. The employment surroundings in most cases are quite demanding. The individual must augment their professional expertise as required to fulfil the requirements of their job. When the expectations beyond the capacity for achievement, the person involved views the high demands as a burden, often leading to work-related stress. Several scholars have conducted several examinations to explore the relationship between job stress and burnout. Occupational stress refers to a condition of psychological and physiological strain that has a detrimental effect on an individual's productivity, efficiency, personal well-being, and work quality (Comish & Swindle, 1994). Aitken and Schloss (1994) investigated the levels of occupational stress and burnout among staff members who provide services to persons with intellectual impairments, in both institutional and community settings. The results indicated that the workers working in community settings had low levels of occupational stress and burnout. "However, the staff working in institutional settings exhibited considerably greater levels of occupational stress and burnout." Plante and Bouchard (1995) discovered that the palliative care nurses who got more professional support had considerably lower levels of occupational stress and burnout compared to their peers in medical oncology units. physicians of South African descent also exhibit a higher prevalence of work stress and symptoms of burnout compared to physicians of other racial backgrounds. Mandy and Tinley (2004) proposed that burnout levels among medical professionals are elevated compared to the normative medical statistics released. Occupational stress was furthermore linked to a dearth of professional standing and to geographical and professional seclusion. Rada et al. (2004) found that dentists are susceptible to experiencing professional burnout, anxiety disorders, and clinical depression due to the demands of clinical practice and the personality features often seen among those who choose to pursue professions in dentistry. Pines and Keinan (2005) hypothesized that occupational stresses, which are considered antecedent factors, would have a stronger correlation with strain compared to burnout.

Conversely, the significance of the work was expected to have a stronger correlation with burnout than with strain. In a study conducted by Lee et al. (2008), it was shown that family doctors have a significant risk of experiencing elevated levels of professional stress and burnout. Dickinson and Wright (2008) demonstrate that forensic mental health nurses who provide care for individuals with severe and persistent mental health issues are susceptible to occupational stress and may potentially experience burnout syndrome. Ogresta et al. (2008) discovered that mental health professionals had a significant level of burnout syndrome. They also observed that both job dissatisfaction and indications of occupational stress were important factors in predicting burnout syndrome. In the 1990s, several studies were carried out in Croatia to examine the impact of occupational stress and burnout on professionals in helping professions. These studies, conducted by Ljubotina and Družić (1996), Ajduković et al. (1997), and Ogresta et al. (2007), revealed that these conditions have detrimental effects on workers' health and result in economic losses due to absenteeism and reduced productivity. Furthermore, certain research has pinpointed individual, social, and institutional elements that are associated with job satisfaction, occupational stress, and burnout syndrome within the healthcare sector (Schaufeli and Enzmann, 1998; Ozyurt et al., 2006). Additionally, these studies have validated a connection between diminished job satisfaction and burnout syndrome (Burisch, 2002; Kalliath and Morris, 2002). Xie et al. (2011) found that nurses exhibited a significant degree of emotional tiredness, a moderate level of depersonalization, and a low level of impaired personal achievement. In addition, nurses in Shanghai were experiencing significant levels of burnout, which had a strong correlation with work-induced stress.

In his study, Capel (1992) investigated the factors contributing to occupational stress and burnout among teachers in England at various educational levels, including middle, upper, and high school. The study identified role conflict, locus of control, stability of personality, and anxiety as possible drivers of stress and burnout. According to Abel and Sewell (1999), urban schoolteachers have higher levels of occupational stress due to unfavorable working circumstances and bad staff relations. They also suffer greater burnout as a result of student misbehavior and unfavorable working conditions compared to rural schoolteachers. Mearns et al. (2003) conducted a study on the association between stress and burnout among teachers. The study primarily examined environmental and contextual elements, while neglecting to consider the influence of teachers' personality traits on the connection between work stress and its outcomes. Research findings indicate that increased work stress is a significant predictor of higher levels of burnout and discomfort. In a study conducted by Lau et al. (2005), it was discovered that teachers in Hong Kong who had not completed professional training and had lower ranks experienced higher levels of burnout and stress. According to Antoniou et al. (2006), young teachers, particularly females, encountered notably elevated levels of professional stress and burnout, particularly in relation to their interactions with students and colleagues, workload, students' progress, and emotional weariness. Younger educators exhibited elevated levels of burnout, particularly in relation to emotional fatigue and detachment

from their occupation, while older educators expressed heightened levels of concern over the governmental assistance they received. Females and individuals employed in college/university environments were shown to have a greater likelihood of experiencing burnout symptoms, according to Giacobbi's (2008) study. Conversely, men and certified athletic trainers (ATCs) working in clinical/industrial settings had considerably better scores on measures of occupational engagement. Mondal et al. (2011) observed a notable disparity between male and female instructors, as male teachers exhibited higher levels of psychological and physical stress compared to their female counterparts. Furthermore, the study conducted by Rosenblatt et al. (1999) revealed that male teachers exhibited higher levels of insecurity and placed greater emphasis on financial matters, while female instructors voiced worries on the inherent aspects of their profession. In addition, studies have shown that men exhibit greater levels of tension and anxiety compared to females (Cheng and Kelly, 1993; Brember et al., 2002; Gursel et al., 2002; Chaplain, 1995). In addition, research studies have shown that female instructors are more prone to experiencing burnout compared to their male counterparts (Chan and Hui, 1995; Ravichandran and Rajendran, 2007; Bhadoria and Singh, 2010).

In their study, Bhatia and Kumar (2005) examined the relationship between occupational stress and burnout among industrial workers. They found that supervisors, who held positions above the supervisor level, reported higher levels of occupational stress and burnout compared to individuals in lower ranks. This was attributed to the supervisors' increased duty and accountability. The findings suggest that older industrial personnel across all hierarchical levels tend to suffer greater levels of occupational stress and burnout as a consequence of depersonalization and emotional tiredness. In their study titled ‘The role of Human-Computer Interaction Factors as Moderators of Occupational Stress and Work Exhaustion,’ Rajeswari and Anantharaman (2005) discovered that IT professionals experience extended working hours due to dealing with various time zones. They also face the challenge of working in teams, completing tasks within strict deadlines, and meeting client expectations for perfection. These demands necessitate the utilization of interpersonal, technical, and organizational skills. These attributes result in occupational stress and job fatigue, which are components of burnout. The objective of Devi's (2007) study was to determine the level of life stress and role stress encountered by women in professional settings. The findings indicated that older individuals suffer reduced levels of life stress and role stress, whereas younger individuals experience higher levels of stress in comparison to older individuals. An individual's level of role stress increases in direct proportion to the number of years of service they have. There is an inverse relationship between income and experienced stress, meaning that as money increases, stress reduces. In their study, Khattak et al. (2011) investigated the correlation between occupational stress and professional burnout in the banking industry of Pakistan. They discovered that the altering work patterns were causing stress among bank personnel, and organizational stressors were contributing to burnout.

In their study, Violanti et al. (1983) examined three components of the stress process: occupational stressors, individual stress, and coping mechanisms. They discovered a significant and positive correlation between depersonalization and stress, as well as between stressors and cynicism and deviance. In their study, Pines et al. (2006) found that 74% of police officials reported experiencing a traumatic event, such as a terrorist attack. Additionally, 52% of these officials reported high or very high levels of stress, which is significantly higher than the 32% reported by blue police officers. The burnout level among these officials was also found to be high, with a score of 4.15 compared to the national average of 2.8. In comparison, blue police officers had a burnout level of 3.05 during the same period. among their research, Kaur and Kaur (2007) examined the relationship between professional stress and burnout among female police officers. The findings suggest that police employment is the most demanding profession, and as the amount of occupational stress rises, so does the level of burnout. In their study, Mc Cathy et al. (2007) found that although male and female police officers share common factors that contribute to professional stress and burnout, female officers may also face distinct stressors inside the police organization. among their study, Martinussen et al. (2007) investigated the occurrence of burnout among Norwegian police officers and discovered a correlation between burnout and stress with work demands and job resources. Tsai (2009) found a positive correlation between high occupational stress and elevated degrees of personal and work-related burnout among attorneys.

Additionally, there are some researches that demonstrate a lack of substantial correlation between professional stress and burnout across various groups. Miller et al. (1989) examined the occurrence of stress and burnout, as well as the impact of communication factors on occupational stress and burnout, in four different employee groups within a single organization. There was no variation seen across employee groups regarding the degrees of stress, burnout, and contentment. Additionally, no distinctions were found in the connections between stressors and burnout, as well as between burnout and satisfaction. According to Topf (1989), his research did not find evidence to support the stress buffering effect of hardiness. ‘Specifically, the relationship between hardiness and occupational stress did not provide

strong evidence for predicting burnout in nurses.’ In her 2011 study, Laura investigated the correlation between occupational stress, burnout, personality preferences, and job type in adult protective investigators (APIs). The findings revealed that APIs who were classified as perceiving had significantly higher levels of personal accomplishment compared to those who were classified as judging. Moreover, the impact of work-related stress on the overall composite of achievement, depersonalization, and emotional weariness was shown to be insignificant.

Role overload is a component of occupational stress that arises when a person is faced with an excessive number of responsibilities simultaneously or when there is a rapid influx of new duties. Experiencing an excessive workload might

result in heightened levels of stress or burnout. Consequently, this might result in the failure to fulfil all the responsibilities assigned to an individual. Various research has consistently shown that role overload plays a crucial role in the development of occupational stress and burnout. In their professional setting, Local Assistant Social Work Officers, as identified by Tang (1990), often faced difficulties including overwhelming caseloads, inexperienced colleagues, and a frequent turnover of workers. The aforementioned problems finally resulted in the occurrence of burnout among social work personnel. Cordes et al. (1997) investigated the relationship between burnout components and many significant factors that are theoretically linked. The research revealed substantial correlations between (a) excessive workload and emotional fatigue, (b) unconditional penalties and depersonalization, and (c) conditional incentives and personal achievement. This research investigates the applicability of burnout to managers and professionals in business settings. Peiro et al. (2001) found that three indications of role stress are associated with increasing emotional fatigue over time. The occurrence of depersonalization in the long run might be anticipated based on the presence of role conflict and role overload. Job insecurity is an unexpected factor that indicates a decline in personal accomplishment over time. The research conducted by Hasnain et al. (2001) investigated the occurrence of 'role stress and coping mechanisms' across several occupational categories, such as engineers, managers, and teachers. Role overload and role deterioration were shown to be major factors causing role stress in all three groups. Latha and Panchanatham (2007) performed research to determine the causes of occupational stress and assess their impact on the work performance of 40 software professionals. The results suggest that task overload is a major source of stress for software professionals. Extended work hours show an indirect association with psychological distress and occupational strain. Loo (2010) performed research to investigate the possible moderating effects of burnout and role overload on the link between Organizational citizenship behaviour (OCBs) and outcomes such as work satisfaction, turnover intentions, and task performance. The hypothesis posited that elevated levels of burnout and role overload are associated with an increased likelihood of undesirable consequences. Excessive role expectations significantly contributed to role overload, which subsequently impacted organizational citizenship behaviour (OCB).

Byrne (1994) Investigated the impact of organizational factors (such as unclear job responsibilities, conflicting job demands, excessive workload, classroom environment, decision-making processes, support from supervisors, and support from peers) and psychological traits (such as self- esteem and belief in external control) on three dimensions of burnout. The results consistently indicated that role conflict, work overload, classroom climate, decision making, and peer support were key variables that contributed to burnout among teachers, irrespective of the groups under investigation. The research done by Yue (1995) demonstrated that elementary school teachers exhibit elevated levels of occupational stress and burnout in comparison to secondary school teachers. This is mostly linked to reasons such as insufficient resources, ambiguous job requirements, overwhelming workload, and high work pressure. Upadhayay and Singh (1999) investigated the level of occupational stress experienced by college professors and CEOs. The CEOs displayed markedly higher levels of stress in comparison to college professors with regards to work overload, role ambiguity, and role conflict. In her 2011 study titled 'Role Strain, Emotion Management, and Burnout: Homeschooling Mothers' Adjustment to the Teacher Role', Lois found that women who homeschool their children experienced greater difficulty in teaching than they had expected, resulting in emotional burnout.

Hillhouse and Adler (1997) propose that the key factors in assessing the causes of stress among nurses are the specific attributes of the work environment and the amount of work, rather than any variations in practice demands. Piko (2006) emphasized the significance of the psychosocial work environment and the connections between burnout, role overload, role conflict, job satisfaction, and psychosomatic health among Hungarian healthcare personnel. The health care workers exhibited elevated levels of emotional weariness and depersonalization, while their scores on personal achievement were diminished. Triveni et al. (2006) determined that the primary factors contributing to workplace stress and burnout, as reported by

90 veterinary assistant surgeons, were frequent meetings, excessive workload, limited opportunities for personal development, inadequate facilities, and the repetitive nature of the task. Ashill and Rod (2011) discovered notable correlations between stressors related to job demands (such as role overload, role conflict, role ambiguity, and interpersonal conflict), symptoms of burnout (including emotional exhaustion and depersonalization), affective job outcomes (such as job satisfaction and organizational commitment), and behavioral job outcomes (such as service recovery performance and turnover intentions) within the context of non- clinical health service delivery.

Role conflict refers to a kind of professional stress that occurs when an individual has competing expectations in their work environment. This occurs when there are many sets of job criteria that impede the completion of each other. Capacity conflict arises in the workplace when a person in a certain role encounter competing or contradictory expectations that are difficult or impossible to meet simultaneously (Kahn et al., 1964). Conflict has been identified as a robust and dependable indicator of emotional weariness and depersonalization in both teachers (Schwab and Iwanicki, 1982) and those working as 'public-service attorneys' (Jackson et al., 1987). Furthermore, Jayaratne et al. (1991) have established a correlation between this phenomenon and heightened depersonalization among female social workers employed in child-welfare environments. Similarly, Leiter and Maslach (1988) have found a connection between it and emotional tiredness experienced by nurses. workplace conflict leads to uncertainty since workers are uncertain about adequately balancing their workplace duties. Role conflict has been linked to several adverse outcomes, including job

dissatisfaction and psychological strain (Rizzo et al., 1970; Schaubroeck et al., 1989). Most research examining the causes of burnout have mostly focused on the work environment, particularly on stresses related to one's employment, such as uncertainty about responsibilities, excessive workload, and conflicting expectations (Cordes and Doughtery, 1993; Perlman and Hartman, 1982). Hobfoll (1989) and Lazarus (1991) examined the direct and moderating effects of political competence and perceived organizational support on the relationship between role conflict and burnout. Political astuteness and perceived backing inside the organization serve as coping strategies (Hobfoll, 1989) that might potentially avert burnout and have an impact on the relationship between role conflict and burnout (Brotheridge, 2001).

VIII ORGANISATIONAL AND PSYCHOLOGICAL THEORIES RELATED TO BURNOUT AND STRESS

A. Theoretical frameworks explaining stress and burnout in organizational contexts

Stress has been explained as the pattern of negative physiological responses that are experienced in certain situations. These responses are then perceived as threats to their well-being (lazarus & folkman, 1984). Lazarus emphasized that when we study an individual with stress, it is important to focus on the threats that they experience during the phase (spaderna & helwig, 2015). In some studies, the conflicts of individual roles are largely focused on role stress. These role stressors are the factors that strain the behaviour and demands associated with a particular job, include role ambiguity, role conflict, and role overload (malik, 2003). A favorable organizational climate leads to low organizational role stress and high job satisfaction and an unfavorable organizational climate indicates high organizational role stress and low job satisfaction (thakre & shroff, 2016). A cross-sectional data analysis carried on 137 Indian its professionals indicated that mindfulness is chiefly impacted by organizational role stressors like personal inadequacy (pi) and self-role distance (srd). The research also highlighted the fact that srd- is the most impactful stressor on the Indian its professionals (warrier, foropon & chehmi, 2021). There are researches that suggest that psychological well-being is closely related to role stress. Occupational role stress also results in low job satisfaction and inferior levels of motivation, ultimately affecting psychological well-being (seiber, 1974). Thakre & prasad (2017) indicate that print media professionals experience higher work-life balance and lower organizational role stress as compared to non-print media professionals. Work-life is changing with the changing demands of the work environment and organizational role stress occurs when there is a mismatch in one’s work requirements and the individual’s skill set (holmlund & strandvik, 2005).

Bano and jha (2012) stated that employment is itself a source of stress, the increase in workloads, meeting the deadlines increases the functioning demand within the employees. It is found that role conflict, role ambiguity and role overload are positively correlated to burnout situations within employees (ghorpade, lackritz & singh, 2012).

Job burnout is referred to as a phenomenon when negative feelings or emotions are experienced by an individual within the organizational setting. Reduced work-related achievements, lack of enthusiasm to perform roles and duties for the organization, mental exhaustion etc., are some of the symptoms indicating job burnout. Research contemplated that role stress significantly correlates to the dimensions of burnout, emotional exhaustion, depersonalization and decreased personal accomplishment, and affects workplace support. Role stress can result into a reduced perception of workplace support that can lead to high levels of burnout (Tang & Li, 2021). Constant exposure to role stressors can determine physiological and psychological impacts on employee. A study on mental health professionals was targeted to understand the relationship between Organizational role stress and burnout. The findings indicated that professional identity moderated the equation between role stress and burnout. It worked as a protective barrier against burnout (Maor & Hemi, 2021). The question of whether burnout and depression are the same things were studied in different terms and it was found that both the states are different, burnout is a job-specific condition while depression is usually context free (Maslach & Leiter, 2016).

Ensuring a great deal of psychological well-being is very crucial at the workplace. (Holman, Jhonson & Connors, 2018). Psychological well-being consists of having a positive relationship with peers as well as family, personal mastery, autonomy and where one individual contains the feeling of purpose and meaning in his life (Jackson, Beeken, and Wardle, 2015). Ryff defined psychological well-being as “being completely satisfied with oneself, she conceptualized six dimensions of psychological well-being that are: autonomy, personal growth, environmental mastery, positive peer and interpersonal relations with surrounding people, a purpose or an aim in life and accepting oneself that is- self-acceptance (Ryff, 1995). The two most important facets of psychological well- being are: 1) the subjective feelings brought by something or someone, and 2) the feeling in regard to what we are doing that has some meaning and purpose in our lives (Diener, 2000). An exploratory study examined the relationship between burnout and psychological well-being in nursing staff. The study observed and studied 224 nurses and hierarchical regression analyses indicated that burnout is a significant variable that explained variance on most outcome measures (Fick, 2017). Many HR practices focus on enhancing psychological wellbeing of employees at their workplace (Loon, Ebede & Stewart, 2018). A study indicates the impacts of occupational stress and HR practices can reflect psychological wellbeing in employees (Rajeshwari & Magesh, 2017). A study investigated the effect of role stress on employee’s well-being working in a pharmaceutical company suggested that role stress negatively self-acceptance and role stress has a negative correlation with occupational growth (Duygulu, Ciraklar and Bagiran, 2013). A study by Thakre & Barua (2015) states that the level of occupational stress in an employee does have an impact on his/her job involvement and

job satisfaction. This trend will enable organizations to acknowledge the needs of lower occupational stress at workplace.

IX STRATEGIES AND INTERVENTIONS FOR REDUCING STRESS

In its prime, the organization established a work culture that was guided by a clear objective and a set of core principles. The study participants exhibited a high degree of consensus (10 out of 12 individuals) regarding this issue. In his study, Berens (2013) identified four key factors that contribute to employee engagement:

(a) a desire to be part of a larger purpose, (b) a sense of belonging, (c) a meaningful and purposeful journey, and (d) the ability to see the impact of their contributions. According to Byrne (2015), the issues inside an organization that hinder employee engagement include apperceived lack of support from the organization, limitations in physical resources, a hostile or abusive work environment, excessive control over employees' work, the absence or ineffectiveness of leadership, and frequent changes. The organization's executives acknowledge that a culture will inevitably exist within the organization due to the presence of individuals, their distinct personalities, the interplay of their dynamics, and the way they interact.

The organization enabled employees and their managers to work together in identifying obstacles that hindered their ability to achieve optimal work results, developing plans for improvement, and implementing rigorous monitoring and reporting procedures for these plans. The HR department offered managers the chance to engage in leadership training events as a component of their individual growth strategy. They emphasized the importance of equipping managers with 63 tools, talking points, and the contextual understanding of organizational changes. This was done to enable managers to proactively address any concerns raised by employees. The organization demonstrated reciprocal interdependence by offering managers work resources, such as leadership training and training in engagement activities (Cropanzano & Mitchell, 2005). Human resources policies, such as fostering a culture of trust and empowerment, promoting employee development, providing training opportunities, facilitating career growth, and conducting regular performance evaluations, have a significant impact on employee engagement (Bakker, 2017). Employees are more likely to be engaged when they have the necessary resources to perform their job, can effectively manage work stress, feel secure in their work environment, find purpose in their work, have a leader who priorities interpersonal relationships, and have strong connections with their colleagues to support the organization's mission (Byrne, 2015). In a study conducted by Bakker (2017), it was shown that implementing a leadership development intervention resulted in a favorable impact on how followers perceive support for work culture and alignment with strategic goals. In his 2017 study, Schaufeli asserted that by augmenting job resources such as social support, task control, and frequent feedback, organizations may effectively accomplish two objectives: mitigating burnout and enhancing employee engagement. Workplace social exchange relationships develop when companies demonstrate concern for their employees, resulting in favorable outcomes (Cropanzano & Mitchell, 2005).

As mentioned by P4, HR plays a crucial role in fostering leadership development by actively engaging as a partner, rather than just being a superficial member of the team. HR should strive to provide genuine assistance in facilitating meaningful conversations. Being truthful and honest in conversations with employees. Five respondents indicated that the organization implemented a communication strategy that prioritized transparency. This strategy aimed to enhance employees' comprehension of organizational decisions and events, equipped managers with the necessary talking points to disseminate information to their TEAMS AND fostered trust with the employees. Meyer (2017) proposed that establishing good, bilateral communication is crucial for influencing employees' opinions of the organization's endeavors in cultivating a culture based on values and implementing strategies to enhance employee engagement. The role of a communications and culture specialist in the HR department involves ensuring that our colleagues and leaders are well-prepared for success through clear and prompt communication. This includes ensuring that our messages are understandable to people and aligning the messages of our senior leaders with those of our front-line colleagues.

Nevertheless, despite the prevalence of an engagement-oriented culture, there were still isolated groups of employees who were not engaged. According to Shuck, Collins, Rocco, and Diaz (2016), organizations have a role in shaping employee engagement through the establishment and maintenance of an organizational culture. However, people may still become disengaged due to external factors beyond their control that are specific to their work environment.

The organizational reforms during the Change Years, which encompassed leadership changes, reduction of nonessential expenses, and downsizing of workforce, commenced in late 2014. Employees experienced the loss of close friendships due to departures or layoffs. The remaining members of the team experienced a surge in their workloads. Despite the continued integration of employee engagement strategies into business processes, the organization ceased conducting the Gallup Q12 survey after 2015. Subsequently, in 2016, the organization underwent a process of separation from its parent corporation and was subsequently sold. Additional alterations took place in leadership roles. Additional rounds of workforce reductions were implemented throughout the entire organization.

Incorporating employee engagement practices into the organization's culture and processes. The commitment of leaders to establish and sustain a culture of involvement was found to be crucial both before and during the years of transition. A total of six individuals provided feedback regarding the alterations in organizational culture throughout the years of

change. The abrupt erosion of values that began in 2015, coupled with the resulting uncertainty regarding the organization's objective following the acquisition, led to noticeable alterations in the way personnel discussed the organization. The primary cause of stress during the transitional period was from the ambiguity around job role changes, possible redeployment, layoffs, perceptions of the change procedures, inadequate resources, and the lack of consultation and information (Smollan, 2017). Newton and Teo (2013) proposed that organizations should promote strong identification with the organization, its mission, and values TO help employees adapt more effectively to organizational changes and the impact of stressors. When individuals have a strong sense of identification with the organization, they are more likely to show satisfaction and dedication to the organization (Lee, Park, & Koo, 2015). In a study conducted by Newton and Teo (2013), it was discovered that employees who had a strong sense of identification with their organization saw a decline in both their job satisfaction and psychological well-being when they lacked clarity about their role.

Employees seemed to be experiencing an identity crisis due to a perceived lack of connection with the organization. Organizational identification serves as the foundation for the theory of planned behaviour model, which examines attitudes and behaviour inside organizations (Lee, Park, & Koo, 2015). Individuals often derive their identity from the organization they work for, as their involvement and dedication to the organization occupy a substantial amount of their lives (Lee, Park, & Koo, 2015). Balances (2017) discovered that the three motivational variables that inspire employees to stay with their employer were (a) the working environment, (b) relationships with coworkers and supervisors, and (c) identification with the organization. Therefore, it seems that employees who had a strong identification with the organization experienced stress, disengagement, and less commitment to the organization over the years of change due to the decline in their sense of organizational identity. Supervisors played a crucial role in assisting employees in alleviating their stress and restoring their feelings of connection and dedication to the organization.

Providing supervisors with the job resources they require. Seven participants emphasized the significance of fulfilling the psychological contract through employee training and development programmed during the transitional period. A psychological contract refers to the thoughts and views that employees hold on the implicit commitments and obligations that exist between them and their employer in the context of their work relationship (Birtch, Chiang & Van Esch, 2016).

Practicing transparency and honesty when communicating with employees. Throughout the transitional period, the organization amplified its use of communication as a means to alleviate employee disengagement and alleviate stress associated with change. In their study, Straatmann, Kohnke, Hattrup, and Mueller (2016) discovered that the introduction of change- related communication procedures had a positive impact on employees' perception of behavioral control about the change. This was attributed to the employees feeling well-informed about the change. According to Francis, Ramdhony, Reddington, and Staines (2013), the HR department acknowledged that line managers could help mitigate the negative impact of workplace changes on employees by regularly communicating with their staff. This communication would aim to find a balance between individual and organizational needs and interests. Tucker (2017) asserted that managers can effectively mitigate employee dissatisfaction stemming from inadequate guidance and information by proactively strategizing their communications, disseminating information comprehensively within permissible boundaries, and attentively attending to employee feedback.

Supportive supervisor behavior is key to minimizing employee stress. Ten participants offered diverse examples illustrating how supportive supervisory behaviour can aid organizations in mitigating employee stress. The transitional years emphasized the significance of providing training and cultivating managers in employee engagement initiatives, as the training effectively alleviated employee stress. Teoh et al. (2016) discovered that the positive correlation between supportive manager behaviour and employee engagement may be explained by social exchange theory. Kang and Kang (2016) argued that the perception of support from supervisors had a substantial impact on reducing job stress among employees and further strengthened the influence of high-commitment HRM practices in diminishing job stress. Kinman and Jones (2005) noted that managers' perceptions and attitudes towards work-related stress and its effects on employees play a crucial role in shaping the organizational culture and influencing the development of policies and procedures for managing stress. Managers had to priorities tactics aimed at reducing employee disengagement and alleviating stress throughout the transitional period. The stress mitigation measures necessitated the establishment and utilization of reliable connections with employees through accessibility, participating in sincere and transparent communication, demonstrating compassionate listening, and assisting employees in managing organizational changes.

According to Mont and Beehr (2014), supervisor communication and social support have a significant positive impact on employees' subjective wellbeing. Managers alleviated employee tension by openly expressing their own emotions to their team, offering instances of how they managed their stress, and redirecting the conversation towards the tasks that both the manager and employee needed to priorities. In a study conducted by Schaufeli (2017), it was shown that enhancing job resources, such as providing social support, job control, and regular feedback to employees, serves two purposes: reducing burnout and enhancing employee engagement. Anthony-McMann et al. (2017) found that organizations can potentially reduce the negative effects of role conflict, role ambiguity, and role-stress fit by enhancing resource allocation, fostering greater team collaboration, improving communication, and cultivating a culture that encourages employees to openly express their concerns.

Tucker (2017) argued that managers can promote ongoing learning and growth among their employees by assisting them in recognizing novel learning prospects and offering them chances to engage with specialists. Most managers dedicated their time to assisting their workers in managing stressors and facilitating their career advancement opportunities.

The objective of this qualitative case study was to investigate the techniques employed by HR leaders to mitigate employee disengagement resulting from stress. Through examining interview responses and reviewing company documents, I have determined that when an organization supplies managers and employees with necessary job resources within a mission-driven and values-based organizational culture, incorporates employee engagement practices into business processes, adopts transparent and honest communication practices, and ensures that managers demonstrate supportive behaviour towards their staff, the organization is likely to effectively manage employee stress, decrease disengagement, and enhance employee engagement in both favorable and unfavorable circumstances. The existing body of literature on stress reduction and employee engagement endorsed these tactics.

The partner organization for my case study, a healthcare company, employed a thorough strategy to alleviate workplace stress. The organization addressed the issue of reducing stress by focusing on employee engagement. The organization's leaders concluded that striving for employee satisfaction was vital but not enough for the organization. The executives recognized the necessity for employees to beyond their job responsibilities and engage in collaborative efforts to achieve the organization's purpose of fostering a healthier planet, one individual at a time. Individuals who possess a strong sense of organizational identification are more inclined to engage in discretionary behaviour that extend beyond their prescribed job responsibilities, and instead focus on actions that contribute to the overall welfare of the organization rather than solely benefiting themselves (Lee, Park, & Koo, 2015).

The executives established a work environment and organizational culture that is centered around employees, motivated by a mission, and founded on values. The organization incorporated this culture into their processes through the implementation of business practices, including hiring, onboarding, continuous employee training, communications, culture development, and leadership development for managers and leaders. The HR department had a pivotal role in executing these strategies. In a study conducted by Bakker (2017), it was found that HR practices, such as fostering a culture of trust and empowerment, implementing performance development programmed, providing training opportunities, supporting career advancement, and conducting regular appraisals, have a significant impact on employee engagement. The organization also engaged line managers, secured their support for the projects, and offered them the requisite training and development opportunities to implement employee engagement with their frontline workforce. Bakker's research also revealed a favorable impact of the leadership development intervention on the job characteristics and well-being of subordinates, in comparison to a control group of leaders. The organization's strategies of incorporating employee engagement into business processes, equipping managers with job resources, promoting transparent and honest communications, and fostering supportive supervisor behaviour effectively reduced employee stress. These strategies provided employees with ample job resources, including clear roles, career opportunities, social support, autonomy in their work, recognition of task importance, and involvement in decision-making processes (Keating & Heslin, 2015). Shuck et al. (2015) found that implementing a strategy that promotes significant employee engagement leads to improved organizational performance in terms of increased productivity, profitability, staff retention, and customer service. Tucker (2017) observed that managers can effectively mitigate employee dissatisfaction stemming from inadequate guidance and information by proactively strategizing their communications, disseminating information comprehensively within permissible limits, and attentively considering employee feedback. Corin and Bjork (2016) contended that by establishing favorable working circumstances for their managers, organizations were effectively impacting the working conditions of all their employees. According to Viitala et al. (2015), leadership, supervisor support, participatory decision- making, and social ties are important elements that contribute to workplace wellbeing The implications for social change lie in the potential of these findings to assist organizations in diminishing employee absenteeism and presenteeism through the implementation of stress mitigation and employee engagement methods. In a study conducted by Jain, Giga, and Cooper (2013), it was discovered that when individuals demonstrate dedication to their organization and perceive a reciprocal commitment, this relationship mitigates the adverse effects of organizational pressures on the employees' health and overall well-being. According to Cheng et al. (2014), the presence of supportive supervisors enhances employee wellbeing by facilitating their ability to effectively manage work-related stress. The outcomes could additionally promote beneficial societal transformation by diminishing individuals' susceptibility to illness and death resulting from stress, hence resulting in a decrease in healthcare expenses for communities. Jackson (2014) found that health claims associated with hypertension, heart disease, depression, and anxiety exacerbated the socioeconomic consequences of work-related stress. Enhancing employees' health and minimizing work-related stress and disengagement can have a positive impact on their work-life interference (Viotti & Converso, 2016) and overall work satisfaction (Viitala et al., 2015). The subsequent section provides specific suggestions for the organization and other entities contemplating the use of employee engagement techniques.

Participants in the survey identified that the lack of clear mission and objectives, as well as the absence of role definition, were leading to stress and disengagement among employees. The organization's management should

contemplate adopting an all- encompassing communications strategy that effectively articulates the parent company's objective, as well as the contributions made by different divisions and teams in attaining that vision. They should consider employing the existing repertoire of change management and communications methods that have been created by the HR department over a period. Considering the ever- changing nature of business environments, it would be wise for senior executives and HR leaders in other organizations to proactively adopt similar strategies to identify and address opportunities for reducing workplace stress, increasing employee engagement, and fostering commitment to the organization. Leaders should actively collaborate with researchers on employee engagement to remain up to date with the latest research on the outcomes of implementation. They might collaborate with organizations such as Gallup to execute a data-centric employee engagement plan

The executives might conduct trials of these tactics inside a reasonably isolated division of the organization to assess the associated costs and benefits prior to complete implementation. Nevertheless, these tactics need substantial and enduring investments, so restricting their accessibility to a restricted group of organizations. Organizations identifying as startups or major firms with regionally distributed divisions must tackle distinct sets of problems while executing these strategies. Byrne (2015) advised against employing a singular method for reducing stress and enhancing employee engagement due to the likelihood of organizational contexts being diverse in terms of organizational climate, job characteristics, and leadership style.

In the context of the physical effects, increasing the frequency of check-ups related to breast screening and cardiovascular disease is warranted from the increased risks of shiftwork, particularly for women, as overwhelmingly the Australian nursing workforce is female, consisting of 90% of the 205,600 Australian registered nurses in the health workforce in 2011 [ABoS (ABS) 2013]. Poorer sleep quality and quantity have been reported (Sallinen et al. 2003, Chan 2009, Garde et al. 2009). The resulting effects included mental tiredness, exhaustion, altered mood and chronic fatigue (Edell-Gustafsson et al. 2002, McGettrick & O'Neill 2006, Chan 2009). As nurses' patient care responsibilities require a high level of vigilance, getting as much good- quality sleep as possible is imperative to providing excellent quality care over the 24-hour period. The psychosocial effects of shiftwork include problems with social disruption (Nasrabadi et al. 2009, West et al. 2009), balancing work/family and personal needs (Duffield et al. 2004, Lallukka et al. 2010). These effects have implications for the emotional and social welfare of nurses whose work requires that they have the capacity to maintain compassion and sensitivity for the people in their care. These findings are relevant to individual nurses but also have relevance for education, service provision and research. A marked lack of attention to the best ways to manage shiftwork and to maintain good health among the nursing workforce suggests a need for increased workplace and professional awareness of the issues this research has raised.

X. FUTURE SCOPE OF RESEARCH

The future scope for the topic "Chronicles of the Midnight Strain: Exploring Graveyard Shift Stress and Its Impact on Employee Burnout in Call Centers" holds considerable potential for further research and development. Several avenues could be explored to deepen our understanding and contribute to the enhancement of employee well-being in call centers operating during graveyard shifts:

i. Intervention Strategies: Investigate and develop targeted intervention strategies to mitigate the impact of graveyard shift stress on employee burnout. Explore innovative approaches such as wellness programs, counseling services, and mindfulness training tailored to the unique challenges of overnight work.
ii. Organizational Policies: Examine the effectiveness of existing organizational policies and explore the development of new policies that promote a healthier work environment during graveyard shifts. This could include considerations such as flexible scheduling, periodic breaks, and workload management.
iii. Technological Solutions: Explore the integration of technology to assist employees in managing stress and preventing burnout during graveyard shifts. This could involve the use of AI-driven tools for workload optimization, fatigue detection, and real-time stress monitoring.
iv. Employee Support Systems: Investigate the impact of social support systems within the workplace and develop strategies to enhance peer and supervisor support during overnight shifts. This could include the implementation of mentoring programs, support groups, and regular check-ins.
v. Health and Well-being Metrics: Develop comprehensive metrics to measure employee health and well- being in the context of graveyard shifts. This could include the creation of standardized assessments, surveys, and health indicators that provide insights into stress levels and burnout risks.
vi. Long-term Health Impacts: Conduct longitudinal studies to understand the long-term health implications of working the graveyard shift in call centers. This could involve tracking physical and mental health outcomes over an extended period to identify potential trends and risk factors.
vii. Comparative Studies: Compare the impact of graveyard shift stress and burnout across different industries and professions. This comparative analysis could offer insights into industry-specific challenges and the effectiveness of sector-specific interventions.
viii. Cultural and Social Factors: Investigate the influence of cultural and social factors on the experience of graveyard shift stress. Explore how cultural nuances and societal expectations contribute to stress levels and burnout, and develop strategies that consider these contextual factors.

ix. Technostress in Call Centers: Explore the concept of technostress specific to call centers operating during graveyard shifts. Investigate how the use of technology, including communication tools and digital platforms, contributes to employee stress, and develop strategies to manage technostress effectively.

x. Remote Work Considerations: Assess the feasibility and impact of remote work options for graveyard shift roles in call centers. Explore how telecommuting or hybrid work models may contribute to stress reduction and increased job satisfaction.

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