

CALL CENTRES/BPO INDUSTRY: A CURSE OF ANXIETY AND DEPRESSION

Alok*

One of the fastest-growing industries in India, the call centre sector is driving employment and growth in the country. While working in the business process outsourcing (BPO) industry has allowed young adults to reach their financial and professional milestones much earlier than in the past, surveys and anecdotal evidence indicate that BPO employees suffer from high levels of stress and related disorders, mostly as a result of their modern work environments. Public health professionals have an occupational health issue in protecting the health of young people working in this new and expanding sector. This paper is based on multi-disciplinary studies that range from occupational health psychology, industrial sociology, neurobiology and organizational ethnography, and examines the systemic aetiology of psychological morbidity in the tele-service sector. It examines the intersection of various reinforcing occupational risks, such as the digital Taylorization of white-collar professions through the use of automated call distribution and customer mistreatment, and the neurobiological dysregulation caused by night shifts, and the confinement of the working body. Finally, the treatise uses the Job Demands-Resources framework to highlight the systemic structural, technological and legislative changes needed to rectify this growing public health threat.

Keywords: Call Centres, Business Process Outsourcing (BPO), Emotional Labour, Electronic Performance Monitoring and Occupational Anxiety.

Introduction

The global service economy has experienced a similar structural shift in the last 40 years to what was seen during the Industrial Revolution of the 19th century, one of the most dramatic and significant changes in industrial history. In advanced capitalist economies, corporations increasingly began to resort to tele-mediated service delivery to merge customer service, technical support, telemarketing, debt collection, and back-office administrative tasks. This shift created the modern-day contact centre industry and larger Business Process Outsourcing (BPO) sector overall. The job-producing and middle-class-building promise of these sectors has been celebrated in Global South destinations like India and the Philippines, while the social dynamics of this labour have created an unprecedented

* Legal Consultant, Axis Max Life Insurance Ltd

public health emergency characterized by occupational stress, affective disorders, and chronic anxiety. Individualistic explanations, such as “an employee is vulnerable” or “he/she has poor coping mechanisms,” are not sufficient to explain the negative effects of tele-service work on human psychology. Rather, any psychological distress among the call center employees needs to be understood in the context of the structure of the labour process. It can be said that call center jobs are an “assembly line in the head” as described by industrial sociologists Phil Taylor and Peter Bain.¹ This formulation encapsulates an historiographic continuum between classical factory production and today’s office work.²

In his work *Labour and Monopoly Capital*, Harry Braverman traced the evolution of principles of scientific management that were originally developed by Frederick Winslow Taylor and how they systematically attacked and destroyed artisanal and manual labour processes.³ By dividing the conception of tasks from their execution, and breaking down the intricate craft into repetitive micro-tasks, by inserting a full-scale administrative regime over the worker’s body, Taylorism brought about both cost savings and managerial dominance. The tacit nature of human speech, the subjectivity attached to it, and the interpersonal nature of spoken communication were thought to mean that the job of a white-collared, clerical or communicative worker would not be subject to such extreme rationalization processes as those for other occupations. But the convergence of modern computing and advanced telecommunications, namely Computer-Telephony Integration (CTI), Automatic Call Distribution (ACD) and Interactive Voice Response (IVR) architectures, toppled this barrier. It did so and thus impose a strict economic discipline on communicative interaction.

- 1 Peter Bain Et Al., *An Assembly Line In The Head: Work And Employee Relations In The Call Centre*, Researchgate (2002), https://www.researchgate.net/publication/227613143_An_Assembly_Line_In_The_Head_Work_And_Employee_Relations_Inthe_Call_Centre.
- 2 Phil Taylor & Peter Bain, *Taylorism, Targets, And The Pursuit Of Quantity And Quality By Call Centre Management*, Researchgate (2001), https://www.researchgate.net/publication/227630515_Taylorism_Targets_And_The_Pursuit_Of_Quantity_And_Quality_By_Call_Centre_Management.
- 3 *Developments In The Call Centre Industry: Analysis, Changes And Challenges* (John Burgess & Julia Connell Eds., Routledge 2006).

The technological architecture of a modern call center is like a digital pacemaker, just like the conveyor belts of early motor car assembly plants. In the traditional office, clerks had control over their own their work; they could decide, for example, when to write a letter, file a document, answer a phone call, or take a short mental break.

This configuration represents a way to extinguish natural IPs that humans use to manage emotional stress, shift cognitive attention, and defuse physiological stress reactions. The communicative medium of speech itself, the traditional one of human interaction, creativity, and social interaction, is deeply industrialized, weighed, monitored, and standardized. The scholarly research into this labour process reveals an occupational context in which the human brain is required to function as a fast data processor but also must tackle the challenging interpersonal dynamics, software interfaces and organizational procedures. To really understand the scale of this occupational health problem, a closer look at specific empirical data gathered in key outsourcing areas around the world is needed. Case-control epidemiological evaluations of psychiatric morbidity have been performed in India, one of the world's epicenters of voice-based outsourcing and revealed significant differences between psychiatric morbidity rates of BPO employees and age-matched and socioeconomically similar employees not working in the BPO sector. Clinical evaluations show BPO employees have an average clinical stress rate from 58.3% to 66.0%, which is a much higher rate than the non-BPO control group of 19.3%. Moreover, the rates of clinical depression are extremely high among Indian BPO workers (62.9%) as compared to those of non-BPO control groups (4.6%). The generalized anxiety and clinical panic symptoms also showed a similar pattern, with a prevalence between 33.9% and 45.0% in BPO workers versus 1.4% in non-BPO control subjects.⁴

The trends of severe psychiatric disorders across the region are confirmed by further evaluations in the NCR of Delhi. The overall prevalence of stress, anxiety and depression in Delhi was 46.7%, 57.1% and 62.9%, respectively, from a comprehensive cross-sectional survey of call handlers across all countries.⁵ These high rates of psychiatric morbidity

4 Dinesh Raja Jeyapal Et Al., *Stress, Anxiety, And Depression Among Call Handlers Employed In International Call Centers In The National Capital Region Of Delhi*, 59 Indian J. Pub. Health 95, 95-101 (2015), https://www.researchgate.net/publication/277408830_Stress_Anxiety_And_Depression_Among_Call_Handlers_Employed_In_International_Call_Centers_In_The_National_Capital_Region_Of_Delhi.

5 Jeyapal Dinesh Raja & Sanjiv Kumar Bhasin, *Health Issues Amongst Call Center Employees, An Emerging Occupational Group In India*, 39 Indian J. Community Med. 175 (2014), <https://pmc.ncbi.nlm.nih.gov/articles/PMC4134534/>.

were directly associated with chronic sleep problems, long journeys to work, short- or insecure-term working situations, and the near-complete lack of relaxation facilities at work. Cross-sectional studies in Pakistan that examined the stress levels of contact center agents in urban industrial centres of the country such as Karachi, using the DASS-42 scale, found that 63.3% had moderate to severe stress, 48.8% had clinical anxiety and 52.2% had clinical depression. Among these factors, the researchers identified sleep deprivation, longer shifts that lasted longer than 9 hours, less relative wage increases, and no signs of any structured opportunity for rest at work as the main predictive variables in this population.⁶

Voice-based customer support operations support millions of people in psychiatric crisis across Southeast Asia. In Malaysia, Singapore, Indonesia, and the Philippines, workers from various countries were surveyed at a national level across multiple businesses, and the results indicate that the prevalence of occupational burnout is 62.91% overall among full-time workers in the service sector. In the Philippines, the country is one of the biggest contact center destinations; the rate of burnout is 70.71% for full-time agents.⁷ In a public health multivariate logistic regression, call center workers with severe occupational burnout were at tremendous psychiatric risk, with 6.48 times higher adjusted odds ratio for severe clinical depression and 2.22 times higher odds for generalized anxiety disorder compared to those with low occupational burnout. Factors that were found to be key risk drivers in these multi-country studies are: routine working hours over 50 hours, high levels of job dissatisfaction, and high demands for working time throughout the day.

Meta-analytic evaluations and industry-wide workplace mental health audits on a global benchmark level suggest that the overall level of burnout in the worldwide customer support sector is approximately 74%. Constant turnover due to such pervasive burnout represents a remarkable employee turnover rate of 30% to 58% per year for major contact center enterprises. The psychological conditions of the call center agents lead to severe downstream organizational consequences such as high rates of sickness absenteeism, cognitive withdrawal, reduction in call accuracy, and increased error rates during customer transactions. The operational failures only add to the pressures and strain on the remaining staff,

6 Amani Fadzlina Abdul Aziz & Tiffanie Ong, *Prevalence And Associated Factors Of Burnout Among Working Adults In Southeast Asia: Results From A Public Health Assessment*, 12 *Frontiers Pub. Health* (2024), <https://Pmc.Ncbi.Nlm.Nih.Gov/Articles/Pmc10972957/>.

7 *Ibid*

encourage further management of staff workload and result in further staff attrition, creating a vicious circle of stress, exhaustion, and further attrition.

Structural Organization, Digital Taylorism, and Electronic Panopticon

The organizational mechanics of contact centers today are based on invasive measures of operational efficiency. In classical sociological theory, Jeremy Bentham's 18th-century architectural design for what he called the 'Panopticon' was later popularised and philosophically developed by Michel Foucault, who described it as an institutional structure in which an unseen inspector was able to monitor the inmates at all times. They were forced to adopt continuous self-policing with regard to active supervision in order not to know where they were being actively looked after. In their analysis of tele-service workplaces, industrial relations scholars Sue Fernie and David Metcalf suggested that the contact center is a full realization of the ultimate dream of the Panopticon. This 'electronic panopticon' is a computer screen and a telephony headset which act as a constant form of 'surveillance', making the worker's operational output and their 'vocal demeanor' visible to management in real time.

In a contact center, Electronic Performance Monitoring (EPM) goes beyond simply recording output. It is a comprehensive system of total workflow surveillance that is able to capture, classify, and rate all the employees' actions during the working time period. Telephony platforms and workforce management software collect granular telemetry continuously and measure staff with a host of key performance indicators (KPIs) that are extremely demanding.

- **Average Handling Time (AHT):** AHT is a metric that requires a complete customer interaction from greeting to identity verification, diagnostic troubleshooting, resolution, and scripted sign-off to be completed within a tightly regulated window that is typically set between 180 and 300 seconds. Anything above this threshold, even a bit more, lowers a representative's performance level, which directly affects compensation and tenure.⁸
- **After Call Work (ACW) and Wrap-Up Time:** Representatives need to take notes and issue refunds, adjust billing codes, and flag accounts in internal databases after a call is terminated. This administrative

8 Sushma Suri & Saba Rizvi, *Mental Health And Stress Among Call Center Employees*, 34 J. Indian Acad. Applied Psychol. 215, 215-220 (2008), https://www.researchgate.net/publication/295548586_Mental_Health_And_Stress_Among_Call_Center_Employee.

time is typically condensed to fifteen to thirty seconds, requiring individuals to juggle a number of tasks and get ready for the next caller to appear in the headset.

- Telephony Systems will keep track of the condition of an employee's system for the entire working day, including status and auxiliary codes. There must be specific auxiliary codes for the time allocated to the employee that is not spent on taking calls, such as training the system, attending to his or her biological needs, etc., or bathroom breaks. Standard adherence rules typically call for people to be in queue 95% to 98% of the time during their shift. An additional 2 minutes on the toilet is automatically reported as software and is counted as unscheduled non-adherence.⁹
- Since frontline is not an organization with much power to change the system, the two metrics used to gauge their performance are First Call Resolution (FCR) and Customer Satisfaction (CSAT).
- Advanced EPM systems now utilize algorithmic Voice and Speech Analytics, which uses artificial intelligence to measure and monitor vocal pitch, cadence, latency, and sentiment, among other variables, as "dead air," while punishing representatives for vocal inflections considered insufficiently enthusiastic, and even scanning audio files to ensure verbatim delivery of statutory and brand statements.¹⁰

The psychological effect on human cognitive and emotional functions from constant digital surveillance is serious. The results of comprehensive meta-analytic analyses of 94 independent worker samples of 23,461 individual workers demonstrate that electronic monitoring directly enhances worker stress, anxiety, and overall psychological load. Importantly, this meta-analysis showed that negative mental health outcomes of electronic monitoring are independent of technical features, delivery methods, or monitoring system settings. This level of digital monitoring creates the industrial sociologists' "paradox of quantity vs.

9 Diane Banks & Gert Roodt, *The Efficiency And Quality Dilemma: What Drives South African Call Centre Management Performance Indicators?*, 9 S. Afr. J. Hum. Resource Mgmt. 1, 1-12 (2011), <https://Sajhrm.Co.Za/Index.Php/Sajhrm/Article/View/331/306>.

10 Johanna Woydack & Ben Rampton, *Text Trajectories In A Multilingual Call Centre: The Linguistic Ethnography Of A Calling Script*, 45 Lang. In Soc. 709, 709-732 (2016), <https://www.cambridge.org/core/journals/language-in-society/article/abs/text-trajectories-in-a-multilingual-call-centre-the-linguistic-ethnography-of-a-calling-script/69dde58245738603f5860d4c5c752d64>.

quality. It's a truth that's borne out by the call center industry's challenge to deliver personalized, highly empathetic, and quality customer experiences in its management manuals and marketing brochures.

Supervisors regularly remind staff to be engaged listeners and show empathy and warmth. At the same time, however, automated distribution systems and compensation formulas analyze and reward processors for their speed of processing, number of calls, and compliance with strict time limits. It is a contradiction that puts frontline workers into a psychological "double bind" condition, first identified by anthropologist Gregory Bateson as a condition in which a person is subject to contradictory demands and can not escape or win. A representative is placed in a dilemma when he is dealing with an emotionally upset, old, and confused customer. If they need to take too long to comfort the caller, to deal with intricate account histories, and to obtain a comprehensive resolution, their AHT increases, and they could face disciplinary action or even a team leader performance demotion. On the other hand, if they rigidly enforce their time quotas by turning a customer away, skipping steps in diagnostics, and pushing a customer out the door, their Customer Satisfaction scores drop, they may fall short of their First Call Resolution goals, and they're likely to provoke negative customer responses.¹¹ The mental price of functioning in this structural paradox is enormous. Decades of occupational health research are guided by Robert Karasek's model of "Job Demands-Control", which has identified the highest level of psychological and physical strain to take place in: "high-strain" jobs, those with high operational demands and low decision latitude and control. Call center/BPO is an extreme form of this high-strain matrix, and the individual handling the call assumes full responsibility for the outcome of the interaction, while having little control over the workflow, script, technology, or time given to resolve the issue. The ongoing, invisible surveillance of an employee by a supervisor (such as when a supervisor is actively working on a call or watching an employee's screen without either party realizing it) locks the sympathetic nervous system in perpetual high alert, which causes a continuous release of adrenaline and cortisol and consequently a gradual decrease in cognitive function, emotional wellbeing, and neurochemical balance.

11 Ursula Huws, *Service Work Restructuring And The Mass Production Model*, Taylor & Francis (2003), <https://api.taylorfrancis.com/content/chapters/Oa-Edit/Download?Identifiername=Doi&Identifiervalue=10.4324/9780203003008-12&Type=Chapterpdf>.

Epidemiological Dimensions: Empirical Rates of Anxiety, Depression, and Morbidity

The empirical epidemiological and clinical surveys conducted globally among the tele-service sector demonstrate psychological distress due to these work conditions. Contact center workers report psychiatric morbidity levels that are consistently significantly higher than the general population baseline and than scores of other service and office workers on multiple self-report measures across multiple diagnostic instruments: Depression Anxiety Stress Scale (DASS), Occupational Stress Index (OSI), Korean Occupational Stress Scale (KOSS), and Hospital Anxiety and Depression Scale (HADS). This workplace difference was highlighted in a comprehensive, comparative study conducted by occupational health researchers of 600 white-collar knowledge workers (n=300 call center employees; n=300 software engineers), all with the same level of education, and in the same economic context. The resulting comparative data showed that, on each dimension of occupational experience evaluated, call center operators reported a statistically significant, higher stress profile than did software professionals, indicating high levels of occupational strain ($p < 0.001$) in the call center group.¹² In order to better appreciate specific factors contributing to scores, it is useful to review sub-scale scores of the Occupational Stress Index, which reflect a multi-dimensional construct of stress in the workplace: The mean score for role overload among operators of call centers was alarming at 23.28 ± 4.23 , significantly higher than the 19.38 ± 2.87 in the software profession ($p < 0.001$). This is due to a continuous incoming call queue, compression of wrap-up buffers, and the impossibility of catching one's breath during interaction after interaction.

Role Ambiguity: Operators registered a mean score of 12.80 ± 3.85 versus 9.66 ± 2.11 for software engineers ($t(598) = 4.488$, $p < 0.001$). This is due directly to conflicting requirements for handling speed and call quality. The mean score for tele-service personnel (16.48 ± 4.00) was higher than the score for their technical peers (13.56 ± 2.92) in the case of Role Conflict. It shows the daily challenge of being a customer advocate and, at the same time, implementing restrictive corporate policies to minimise service costs.

Hyper-competitive floor environments, stacked performance reviews, and forced management of performance were among the factors that drove workers at the call center to score 14.22 ± 3.03 compared to 11.28 ± 2.15 in the

12 Dr. Hita Claudia Rao, *Levels Of Occupational Stress In Call Center Employees And Software Professionals: A Comparative Analysis*, Researchgate (Apr. 8, 2025), https://www.researchgate.net/publication/390586033_L Levels_Of_Occupational_Stress_In_Call_Center_Employees_And_Software_Professionals_A_Comparative_Analysis.

software cohort.¹³ Others, including under participation, showed significant elevations among call handlers as compared to software engineers ($t(598)=3.601$, $p<0.001$): (13.92 ± 2.99) versus (11.82 ± 2.84) . This highlights the fact that there is almost no discretion or authority in making decisions for a front-line phone agent. There is a high level of agreement on the epidemiological status in both developed and developing countries. Tele-service workers are not having minor frustrations in their place of work; they are having high rates of psychiatric and psychosomatic illness. The International Labour Organization (ILO) researchers Jon Messenger and Naj Ghosheh noted that severe psychological stress is directly linked to unsustainable worker turnover in their global research about offshoring and working conditions in India, the Philippines, Argentina, and Brazil.¹⁴ Turnover is a regular occurrence in major BPO centers, often hitting 40% to 50% a year, and it can even exceed 100% a year in high-volume customer-facing and international-facing departments in customer support.¹⁵ In sociological and management literature, this turnover is often interpreted as a form of employment attitudes or disloyalty of young employees. As Premilla D'Cruz and Ernesto Noronha show, in reality, quitting is an institutionalized "exit coping response".¹⁶ The call center is a revolving door, exhausting one generation of educated young workers after another, as their physical and mental well-being and emotional health suffer from prolonged employment.

Psychosocial Pathologies

In addition to structural surveillance and metric enforcement, call center agents have to perform intensive emotional labour on a daily basis. From the perspective of Job Demands-Resources (JD-R) theory, call centers are characterized as having high workloads and low job control, little decision latitude, and little job social support resources. Commodification and control of human emotions are key factors in the BPO sector that cause anxiety and affective exhaustion. However, in her groundbreaking sociological work *Managed Heart*, Hochschild coined the term emotional labour to refer to the practice of "bringing" and "bidding" up a "feeling"

13 *Ibid.*

14 **International Labour Organization (Executive Briefing)** Int'l Labour Org., Offshoring And Working Conditions In Remote Work (Executive Briefing & Data), <https://www.ilo.org/Media/291801/Download>.

15 *Ibid.*

16 Premilla D'Cruz Et Al., *Workplace Bullying, Emotional Abuse, And Harassment*, Researchgate (2025), https://www.researchgate.net/publication/395467764_D'Cruz_Et_Al_Forthcoming_Workplace_Bullying_1_Workplace_Bullying_Emotional_Abuse_And_Harassment.

to create a state of mind in a person.¹⁷ Emotional labour, however, in the context of a contact center is not something that is simply left up to individual choice, but is required, formalized, and regulated by the organization’s “display rules. Contractually, tele-service representatives are expected to be enthusiastic, cheerful, warm, deferential and suppress any negative emotions such as anxiety, frustration, anger, and fatigue.¹⁸

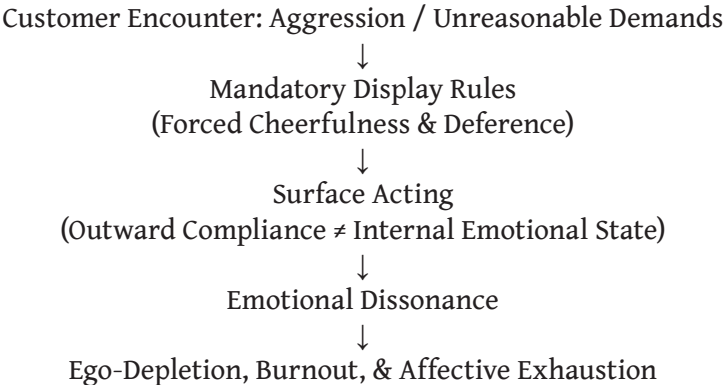


Figure No. 1: Customer Encounter

In organizational psychology, there are two main ways in which employees perform emotional labour:

- * **Deep Acting:** Internal strategy for regulating one’s own affective responses by consciously attempting to change one’s internal feelings to match the desired organizational response. A representative may engage in active cognitive reappraisal, actively imagining that the customer who is abusing them is an “emotionally out of control” person in need of assistance, thus feeling real compassion for the customer. Deep acting is cognitively challenging, but it maintains some degree of internal ‘authenticity ‘ and does not have a strong relationship with lasting psychological harm.
- * **Surface Acting:** When a worker is outwardly manipulated into displaying a prescribed emotion, covering up his or her inner feelings with a false smile, an artificially high vocal pitch and the use of empathy statements. Contact center calls are typically about 100

17 Jung-In Kim & Jin-Wook Kim, *Occupational Stress And Emotional Labor Moderation In Call Center Employees*, Mdpi Sustainability (Apr. 2, 2019), <https://www.mdpi.com/2071-1050/11/7/1886>.

18 Hyeon Park, Hyunjin Oh & Sunjoo Boo, *The Role Of Occupational Stress In The Association Between Emotional Labor And Mental Health: A Moderated Mediation Model*, 11 Sustainability 1886 (2019), <https://www.mdpi.com/2071-1050/11/7/1886>.

to 200 per shift with few breaks in between, making it impossible for staff to have the cognitive time and mental energy to be able to perform at a high level of deep acting. In this way, the majority of call center agents practice surface acting during their working hours.¹⁹ This ongoing, surface-level emotional dissonance, or psychological conflict, between what is felt within and what is required to be expressed, is profound. Organisational psychologists mediated the relationship between surface acting and acute psychological distress with emotional dissonance as an active mediator, supporting the hypothesis. Emotional dissonance is highly positively associated with high DASS levels in depression, generalised anxiety and somatisation.

This effect is explained by a psychological mechanism called “ego depletion” and “self-regulation” theory. Repeatedly suppressing spontaneous emotional responses (for example, when someone insults you, you have to fight it; when you feel confused, you have to suppress it; when you are exhausted, you have to suppress it) takes a tremendous amount of conscious effort and uses up limited glucose and neurochemical reserves in the prefrontal cortex.²⁰ This self-regulatory capacity of a representative starts to gradually drain after a shift of 8-10 hours and when their self-regulatory capacity is depleted, a representative’s brain loses the ability to regulate mood and emotional responses, leading to depersonalization, extreme emotional numbness, loss of personal identity, and an increased susceptibility to panic and depressive states.

This emotional fatigue is further worsened by the repeated experience of customer mistreatment, verbal abuse and hostility. In the absence of the visual cues that are typically present in the traditional office setting, callers tend to be less inhibited and can vent their frustration over service failures, hidden costs, technical issues, etc., directly at the agent. agent is then responsible for absorbing the shock in order to minimize the damage to the organization because of a failure that is beyond the agent’s control. Shouting, using profanity, making personal insults, and threats of violence. Premilla D’Cruz and Ernesto Noronha, in their in-depth ethnographic research on Indian BPOs, presented this structural phenomenon as depersonalized bullying.²¹ A common definition of workplace bullying in regular occupational sociology is that it is a form of harassment carried out by an individual bully from one of the two company groups: an individual

19 *Supra* 10

20 *Supra* 20

21 Premilla D’cruz & Ernesto Noronha, *The Exit Coping Response To Workplace Bullying: The Contribution Of Hrm Strategies*, Empl. Rel., 2010, <https://www.emerald.com/er/article/32/2/102/26422/The-Exit-Coping-Response-To-Workplace-Bullyingthe>.

supervisor or an individual unpleasant colleague. In tele-service work, D'Cruz and Noronha show that the culture of bullying is embedded in the workflow, technical architecture, and operations of the firm.

Depersonalized bullying works in tandem with three different types of pressures:

External Customer Aggression: Callers often use abusive or intimidating language or use a call agent as an anonymous outlet for their anger, treating the agent like a target.

Systemic Managerial Coercion: The floor managers and team leaders who are under pressure from the service level agreement (SLA) to meet the strict time targets in the contract are constantly pushing employees through electronic monitoring dashboards to work at or exceed extremely high handling speeds, to shorten breaks, and to achieve metric scores. Customer abuse is not viewed as a safety violation, but as an operational variable that agents are expected to take on as part of their job.

Institutional display of HR Complicity: When employees find themselves in need of support from Human Resources departments when they report psychological burnout or harassment, organizations may minimise their experience. Rather than tackle structural problems such as too many calls, too rigid a script, or too many abusive callers, HR teams often debate issues of personal resilience, giving glib stress-management advice or assuring the employee that he or she “is not cut out to work with customers under stress.”²²

The organisation's validation of workers' lived reality is denied as it frames structural and institutional failures as personal psychological weaknesses, leaving employees to be coerced into a labour process with no mental security and no internal redress. The depersonalization of bullying creates devastating psychological effects, including increased hypervigilance, social withdrawal, loss of self-esteem, and generalized free-floating anxiety.

Transnational Alienation, Linguistic Subjugation, and Identity Disruption

Offshore outsourcing is located in countries such as India and the Philippines, where psychological stresses associated with tele-service work are compounded by the cultural and linguistic demands. Multinational companies need offshore personnel to disguise their geographical and cultural origins to offer hassle-free customer service to consumers

in the United States, United Kingdom, and Australia. In his thorough ethnographic account, *Dead Ringers: How Outsourcing is Changing Ourselves*, Shehzad Nadeem illustrates institutional systems that BPOs use to make locals into cultural replicas of Western consumers.²³

This process is focused around intensive “accent neutralization” programs. New recruits must learn their native speech patterns, cadences and Mor Tongue Influence (MTI). They are trained to speak standard, flat, mid-Atlantic, or a generic British accent, rather than their own natural speech. Linguistic trainers conduct exercises focusing on regional phonetics, with the aim of getting the workers to change the placement of their tongue, the mouth, and how they breathe so that the callers in the West can hear them as they intend. This linguistic engineering carries over to the commodification of personal identity. Westernized names like “Sean”, “David”, “Jennifer” or “Chloe” are regularly given to workers to use on phones.²⁴

Some BPOs develop complex backstories for the pseudonymous brands, training employees to recall local weather patterns, top sports games in towns such as Dallas, Chicago, Manchester, and more. Representatives are made to believe that they are in domestic call centres in the home country of the callers and will deliberately lie about their true location.

This institutionalized deception creates a tremendous burden of cognition and psychology:

- The language with which workers speak is heavily monitored and regulated and is used in an artificial accent, separating workers from their true selves, psycholinguistic Alienation and Self-Estrangement.
- Temporal and Cultural Duality: The Transnational staff operates in transnational space, which means that the employees live as citizens of a country one day, and as foreigners the next. This has been described by sociologist Shehzad Nadeem as an “imitative counterpoint”: the young worker’s consumption habits, jargon, and lifestyle become foreign to them, making them less involved in their local communities and families.

23 Shehzad Nadeem, *Dead Ringers: How Outsourcing Is Changing The Way Indians Understand Themselves* (Princeton Univ. Press 2011), Dokumen.Pub, <https://Dokumen.Pub/Download/Dead-Ringers-How-Outsourcing-Is-Changing-The-Way-Indians-Understand-Themselves-Course-Booknbsped-9781400836697.Html>.

24 *Supra* 5

- **Class and Educational Irony:** In India, most of the BPO employees are college-educated engineering, commerce, science, humanities and so on graduates. You're stuck in a calling script, or a catch-all cycle of troubleshooting, instead of meaningful work that makes use of their education. Along with critical post-colonialists, Nadeem points out that these workers are regarded as the vanguard of the modern knowledge economy, but the working conditions of these workers compare with those of "cyber-coolies" carrying out rote-like digital tasks for the eyes of foreign corporate interests.
- As an agent learns a second language and perfects his accent, his synthetic voice is prone to slipping during tougher technical inquiries, where software freezes, or during heated customer disputes. The moment an international customer catches an accent that's not from their country, the interaction often becomes hostile. Representatives get xenophobic rants, racial slurs, and hard demands to be moved to a local agent.²⁵

Agents find themselves in a dilemma that company policy mandates that they keep calm, respond appropriately, and not end the call, and caller satisfaction algorithms reward callers for being angry. Transnational tele-service labour takes a huge psychological price: workers are isolated from their own local community timings, but are regularly disparaged by consumers in the host country whom they are supposed to emulate.

Physiological Correlates

The business need to provide services to Western companies during their working hours brings a significant number of international BPO workers to permanent or alternate graveyard shifts. Biphase effects of working at night on the master circadian pacemaker in the anterior hypothalamus (suprachiasmatic nucleus, SCN). SCN coordinates transcription of circadian clock genes, controls nocturnal melatonin synthesis in the pineal gland, and coordinates systemic cortisol secretion, core body temperature, and autonomic tone.²⁶

Bright fluorescent light in the workplace, combined with eating meals at night, disrupts the circadian apparatus greatly. This leads to reduced melatonin levels and disrupted sleep at night from environmental noise, temperature, and natural light, creating what is known as a biological

25 Premilla D'cruz & Ernesto Noronha, *Customer Cyberbullying: The Experiences Of India's International-Facing Call Centre Agents*, In *Boundary Spanning Elements And The Marketing Function In Organizations* 9, 9-12, 2015.

"sleep debt" that cannot be made up for during the day. This is shown by occupational health surveys in the key tech and outsourcing centers. The study done in Bangalore showed that 83 per cent of the call centre employees on the permanent night shift had a diagnosed sleep disorder, while 39.5 per cent of the general day shift IT employees had a sleep disorder. A parallel study in Delhi-NCR found 51.4% of BPO workers to have excessive daytime sleepiness (EDS) versus 20.5% among workers in the daytime sector.²⁷

Underlying this chronic sleep disruption is the Burnout Stress Syndrome (BOSS), which is a clinical profile that is prevalent within the call center industry and is defined by constant fatigue, lapses in attention, emotional instability, and dysregulated cortisol production. Disruption of the hypothalamic-pituitary-adrenal (HPA) axis strips the central nervous system of its neurochemical buffers. The ability to regulate functional connectivity between the prefrontal cortex and amygdala is impaired by sleep deprivation, making the brain more susceptible to panic reactions, increased irritability, and depression in response to common stressors in the work environment.

In addition to chronobiological damage, tele-service workers are subject to serious physical and sensory occupational hazards. Call center agents are seated for 8-10 hours per shift with static postures, and work at workstations supported by their headsets, which are prone to causing Static Postural Strain and Musculoskeletal Disorders (MSDs). This lack of mobility, combined with repetitive keyboard entry and not-so- ergonomic chairs, leads to chronic musculoskeletal disorders. There is a high prevalence of cervical myofascial pain, lumbar disc compression, and tension headache among workers. In the study of call centre agents conducted in Mumbai, 70.4% of the female agents had daily tension headaches, mostly due to eye strain, poor workstation design, and neck tension, while 55.6% of the male agents had the same.²⁸

The high incidence of physical morbidity among female BPO workers, such as chronic hypertension (60%), persistent sleep disorders (60%), menstrual and endocrine disorders (50%), digestive disorders (50%), and respiratory disorders (45%), observed in the patterns, is a result of the interplay of chronic mental stress and the disruption of shift-work

27 Suri Jc, Sen Mk, Singh P, Kumar R, Aggarwal P. Sleep Patterns And Their Impact On Lifestyle, Anxiety And Depression In Bpo Workers. *Indian J Sleep Med.* 2007;2:64–70.

28 Chavan Sr, Potdar B. A Critical Study On Work-Life Balance Of Bpo Employees In India, 2011, www.trikal.org/Ictbm11/Pdf/Ob/D1241-Done.Pdf.

patterns.²⁹ Frontline agents are exposed to a particular sensory danger, known as Acoustic Shock Injury (ASI), and another is called Tonic Tensor Tympani Syndrome (TTTS). All day long, staff are subjected to the unpredictable acoustic spikes that can occur in a telephone line, such as line feedback, high-pitched signaling shrieks, auto-fax tones, and people screaming or blowing whistles into the phone.

Audiological specialist Myriam Westcott has found that loud unexpected noises can cause an involuntary hypercontraction of the tensor tympani muscle in the middle ear. This prolonged muscle spasm can cause Acoustic Shock Disorder (ASD) and Tonic Tensor Tympani Syndrome (TTTS). Symptoms include acute ear pain (otalgia), numbness and/or burning around the ear and jaw, aural fullness, tinnitus, vestibular imbalance, and extreme sensitivity to everyday sounds (hyperacusis) due to trigeminal nerve irritability. Agents often have to raise the volume of the headset in noisy, open-plan call centers to overcome background noise, making them more susceptible to acoustic incidents.

If there is an unexpected acoustic shock superimposed on an already stressful workplace, it can produce an extreme autonomic startle reaction that results in conditioned phonophobia (the brain pairs the headset with unexpected pain). Anticipatory anxiety for workers towards their headsets, with increased heart rates and panic reactions when they put on their headsets. This is a physical injury that frequently leaves individuals disabled, withdrawn, and absent from the workplace. The physical trauma, coupled with corporate denial of injury, can lead to chronic disability, depression, and psychiatric absenteeism.

Behavioural Adaptation

The combination of atypical work hours, high operational demands, and low autonomy negatively affects an employee's personal life and social support networks. Human beings need social engagement to help them withstand psychological stress; with the advent of tele-service work, the disruption of their social structures further contributes to psychological morbidity.

Inverted working hours separate BPO workers from their family and society. Working in graveyard shifts entails a schedule at odds with the typical family routine, family dinners, childcare duties, and weekend events. As many as 90% of the call centre staff have stated that they are incapable of balancing work commitments and family life, as per the

29 Gupta A. Health, Social And Psychological Problems Of Women Employees In Bpo: A Study In [India] 2012. <http://Paa2012.Princeton.Edu/Papers/121676> .

survey carried out in various locations of Delhi-NCR.³⁰ Women have some unique challenges as well: they have to work long, hard hours at night and at the same time take on traditional duties at home in the daytime, which cuts down their chances of getting a good night's rest.³¹ To deal with this isolation and with their inverted sleep cycles, workers often resort to chemical coping, such as:

Regular use of chemical substances is made by employees to artificially alter their ir energy and sleep cycles (Stimulant-Sedative Cycle). At night time, workers drink a lot of caffeine and nicotine to reduce the sleep pressure of their natural circadian rhythm. During the day, they resort to alcohol, over-the-counter sleeping pills, or prescription drugs to induce sleep in an overly bright room.

In an occupational study conducted in Kolkata, 63% of the workers of BPO reported multiple substance dependencies. In the comparative study, 56% of heavy smokers (more than one pack a day) and 61% of frequent drinkers were call center workers.³² Call Center staff may live in a community that is different from the people they work with in the call center due to the different hours of their work, and so they may only interact with those who work with them in the call center during unusual hours, and so have limited interaction with other people in their community. There are lots of unhealthy lifestyle habits that can be reinforced by this peer group, such as late-night drinking, compulsive consumer spending, and irregular rest-day sleep habits. Alternating between night shifts and daytime during days off results in chronic "social jetlag" of the central nervous system, which does not allow the nervous system to recover and exacerbates baseline anxiety and depressive vulnerability.

The Influence of Structural interventions, Organizational redesign and Policy frameworks

It is essential to take a more proactive approach to mental health risks associated with call center and BPO operations, rather than focusing on individual coping strategies, by changing the way work is done. Wellness programs, mindfulness seminars, and stress management apps on-site are frequently unsuccessful because you believe that you are merely guilty

30 *Ibid*

31 Assocham Survey, *Challenges And Health Issues Of Women Working In Bpo*, Int'l J. Econ. Mgmt. & Soc. Sci., Jan. 2021, <https://ijemr.in/Wp-Content/Uploads/2021/01/Challenges-Of-Women-Working-In-Bpo.Pdf>.

32 Jha A, Sadhukhan Sk, Velusamy S, Banerjee G, Banerjee A, Saha A, Et Al. Exploring The Quality Of Life In The Indian Software Industry: A Public Health Viewpoint. *Int J Public Health*. 2012;57:371–81. Doi: 10.1007/S00038-011-0295-Z.

of a personal lifestyle issue. Traditionally, corporate wellness programs have been centered around individual-level experiences that include an Employee Assistance Program (EAP) hotline, one-on-one mindfulness mobile apps, small resilience training sessions or yoga breaks, and even confidential access to help centers.

There are individual coping resources that provide short-term relief; however, systematic reviews and meta-analyses indicate that individual coping experiences have little effectiveness when structural hazards in the workplace are not addressed. Reviews of stress and ICT and telework environments are all in favour of the need for structural and organizational-level reform to realistically aid in improving employee mental health, reducing stress and preventing employee burnout. Rather, effective interventions must offer sufficient job resources, procedural discretion and structural protection to counter high demands on the job, grounded in the Job Demands-Resources (JD-R) theoretical framework.

*** Intervention Level 1: Metric & Algorithmic Reform**

- Eliminate punitive Average Handling Time (AHT)
- Expand post-call wrap-up buffers (>60s)
- Implement algorithmic transparency and privacy protections

*** Intervention Level 2: Task Latitude & Emotional Protection**

- Replace rigid scripts with consultative guidelines
- Grant unilateral rights to terminate abusive calls
- Institutionalize post-incident psychological pauses

*** Intervention Level 3: Environmental & Ergonomic Standards**

- Deploy binaural noise-cancelling headsets with peak limiters (<85 dB)
- Acoustic zoning to bring ambient floor noise below 45 dBA
- Provide dark, soundproof rest environments for circadian workers

*** Intervention Level 4: Labour Protections & Shift Design**

- Enforce forward-rotating, predictable shift schedules
- Cap mandatory graveyard-shift rotations
- Establish independent dispute resolution and collective voice

But there are multiple operational areas that meaningful organizational reform must attempt to address, such as:

- **Get rid of punitive Average Handling Time (AHT):** AHT should not be a key metric used to measure performance. Rather, it is important to evaluate it from a holistic perspective of First Call Resolution (FCR) and customer satisfaction and long-term resolution of client issues. Representatives should have enough time to complete administrative tasks and to mentally relax and prepare for another call by increasing the after-call work buffers. Removing continuous call delivery de-escalates the constant pressure on the nervous system, decreases baseline arousal of the autonomic nervous system and reduces anticipatory anxiety.
- **Add more Procedural Autonomy:** BPOs should remove the word-for-word calling scripts and be more flexible with the conversational guidance. Empowering front-line staff with the authority to refund, alter account settings, and resolve billing disputes directly takes back the sense of control and empowerment. This autonomy diminishes emotional dissonance, as representatives can engage in authentic dialogue, thus limiting psychological exhaustion, which can be triggered by superficial surface acting.³³
- **Protecting Workers from Abusive Customers:** Businesses should have established policies that prescribe a zero-tolerance approach to customer mistreatment. Explicit permission for frontline workers to warn and end calls if the customer is profane, personally insulting, or using discriminatory words.

If an abusive interaction is happening, recovery breaks for the employee should be mandatory and offered, and the employee should be given a minimum of 5 minutes but not more than 10 minutes to recover physiologically before being returned to the queue. Human resource policies should stop pointing the finger at employees when there is conflict with customers and set a true example of psychological safety, which safeguards workers from structural depersonalized bullying.

Further, workspace redesign can be a major factor. Biophilic design, better natural light, high-quality acoustic damping panels, ambient white noise masking systems, and quiet break rooms help to eliminate sensory overload and a high level of autonomic stress. Finally, educating frontline supervisors on identifying early indicators of psychological distress and

33 Johanna Woydack & Ben Rampton, *Text Trajectories In A Multilingual Call Centre: The Linguistic Ethnography Of A Calling Script*, 45 Lang. In Soc. 709, 709–732 (2016), <https://www.cambridge.org/core/journals/language-in-society/article/abs/text-trajectories-in-a-multilingual-call-centre-the-linguistic-ethnography-of-a-calling-script/69dde58245738603f5860d4c5c752d64>.

implementing psychological supports for workers promotes a culture of mental health, decreasing mental health stigma and encouraging earlier seeking of supports. Companies can put in place contact center environments that will manage time according to biological rhythms, provide autonomy in tasks, and prevent workers from being exposed to hostile situations to reduce unsustainable turnover rates as well as reduce the risk of an urgent occupational health crisis.

Conclusion

It is thus evident that poor mental health, including high rates of clinical anxiety, major depression, sleep disorders, and emotional exhaustion, documented throughout the BPO and contact center industries is not an accidental byproduct of modern office employment. Nor is it indicative of a lack of resilience in the frontline staff. Rather, these outcomes are direct, predictable consequences of a rationalized lab process that imposes a pace of communication, algorithmic surveillance, and a constant disruption of the biological system that is extreme. Tele-service operations have taken out the recovery pauses and interpersonal authenticity necessary for psychological recovery through the application of Taylorist techniques to human discourse. They are constantly watched by electronic surveillance, often in an impossible double bind, forced to do 'emotional work', and are required to deal with hostility from customers and linguistic isolation and all this on schedules that are utterly disruptive of human circadian functions. Structural reform is the only solution to this problem of occupational health. Digital Taylorism is not a sustainable model for contact center operations and must shift toward a sustainable human-centered approach to work design. That means breaking free from punitive measurement systems, limiting invasive electronic monitoring, granting procedural discretion and enforcing robust safeguards against customer misuse. To preserve the human sleep and health of workers, shift patterns need to be reconfigured according to known chronobiological principles. Personalized programs, whether they be brief stress management courses or wellness apps, are not enough to solve the underlying causes of this occupational health problem. If contact center mental health is to be improved, then it must be done structurally at work. Systemic changes, such as humanising performance indicators, changing the nature of monitoring to a supportive feedback model, designing shift patterns that take account of human chronobiology, robust measures to prevent customer abuse and the ergonomics of physical offices, should be a key focus for industry leaders, policy makers and public health authorities.