CHAPTER 2

REVIEW OF LITERATURE

It looks like the IT-BPO story has come full circle. Having taken a head start, the Indian BPO industry had grown at a frenetic pace during the 1990s, only to be overtaken by the hardcore IT services industry over the past decade. However, latest data seems to suggest that the BPO business is gathering steam and may well outpace its higher-value cousin in India's outsourcing success story. Contrary to doomsday predictions over the outsourcing industry, Market Research firm Gartner believes that the worldwide BPO market will grow by a robust 6.3 percent while the growth figure in the Asia-Pacific market could be as high as 17.9 percent.

Global back office outsourcing is creating "reasonably good" jobs in poorer countries, but staff are stressed and work conditions have to be improved immensely, according to a United Nations Study. BPO employees in India, which has the world's biggest share of the outsourcing market, earned nearly double the wages of same-age workers in other sectors of the nation's economy, according to the report. But sadly, the BPO industry is one of the highly stressed out industries. BPO workers face heavy workloads backed by performance targets combined with tight rules and procedures. This type of high-strain work organisation is well-known to produce high levels of job related stress.
When the workplace stress is so high, naturally this warrants a lot of research, study, analysis and articulation on the subject. Literature on stress, occupational stress and its effective management are voluminous and vast. Researchers both in India and outside have taken much pains to study the impact of occupational stress on workers and also so much has been studied on the effectiveness of the stress coping strategies of the workers. Because of the enormity of the extensive literature on the subject, the researcher has attempted to review the more widely cited works particularly those that of recent studies.

**Walter Bradford Cannon** (1932), made a significant contribution to psychology and medicine with the discovery of the stress response around 1915, setting the cornerstone for psychosomatic medicine. The author presents a discussion of the steady states (homeostases) of the body, with the explanation, so far as such is possible, of the mechanisms controlling such conditions. The account is closed with analogies between the regulation of the body and the regulation of social processes.

“The Stress of Life” is the definitive work on stress. It is written by the man who first started research into stress and its effects on the body, **Hans Selye** (1956). Selye was responsible for first coining
the term “stress” and was responsible for its introduction as a neologism into various languages, as his work was translated worldwide. He was also the first person to use the term “stressor” to refer to a thing that causes the stress response in animals, thereby introducing a neologism into English as well. Selye discovered and documented that stress differs from other physical responses in that stress is stressful whether one receives good or bad news, whether the impulse is positive or negative. He called negative stress "distress" and positive stress "eustress". The system whereby the body copes with stress, the hypothalamic-pituitary-adrenal axis (HPA axis) system, was also first described by Selye. He also pointed to an "alarm state", a "resistance state", and an "exhaustion state", largely referring to glandular states. Later he developed the idea of two "reservoirs" of stress resistance, or alternatively stress energy.

Another study was by Robert Khan et al in (1964)\(^3\). An investigation into organizational conditions and situations conducive to satisfaction as well as the nature and prevalence of pressures arising from opposing and incompatible institutional demands. By means of the case-study method, interviews, and a nationwide survey the effects of these demands upon roles are examined. These
effects are related to individual personality characteristics and interpersonal relations.

Richard Lazarus (1986)\textsuperscript{4}, had researched enormously on the physiological, psychological and the sociological aspects of stress. “Stress, appraisal and coping” is a monumental work that continues in the tradition pioneered by co-author Richard Lazarus in his classic book "Psychological Stress and the Coping Process." Dr. Lazarus and his collaborator, Dr. Susan Folkman, present here a detailed theory of psychological stress, building on the concepts of cognitive appraisal and coping which have become major themes of theory and investigation.

McGrath, Joseph E (1970)\textsuperscript{5}, in his work, “Social and psychological factors in stress”, identifies crucial issues in the area of stress and seeks potential research approaches to those issues as the focus of the basic contract research program. It gives a conceptual formulation for research on stress, major substantive and methodological issues, an integrative review of some research on social-psychological factors in stress, and a discussion of strategic considerations for future research on stress.
Lawrence R Murphy (1996), has compiled his findings based on sixty four different studies. He has studied in detail the effects of worksite stressors on the employees and also stress coping strategies that best control or rather contain the ill-effects of stress. In general, studies using a combination of different stress management techniques seemed to be more effective across outcome measures than single techniques.

Srivastava, U. R. (2010), has researched elaborately by comparing 100 day workers and 100 night workers employed in the dairy industry. The major stressors affecting them and coping methodologies are also discussed here in depth. The study adds additional support to the notion that shift and night shift work is a potent source of stress. Shift work is opposed to the human circadian system and this conflict creates multiple physiological, psychological and psychosocial problems for shift workers.

Antonovsky, Aaron (1987), in his work “Unraveling the mystery of health: How people manage stress and stay well”, brings together recent studies on health and illness and shows their relationships to the sense of coherence concept. He presents a complete questionnaire that professionals can use to measure the sense of coherence and discusses the evidence for its validity. And he
explores the neurophysiological, endocrinological, and immunological pathways through which the sense of coherence influences health outcomes.

David Bunce and Michael A. West (1996)9, in their research “Stress Management and Innovation Interventions at Work”, a study among health-care workers, a traditional stress management program \( n = 66 \) was compared with an intervention promoting innovation at work as a form of stress management \( n = 52 \), and a control group \( n = 84 \). Measures relating to both the process of participation in the respective interventions, and outcome in terms of psychological well-being were taken. Increases in levels of innovation, although not apparent post-intervention (3 months), were significant after 1 year. It is concluded that stress management research should focus more on process variables, and that interventions promoting innovation at work, show some promise in addressing occupational strain.

Shauna L. Shapiro, Gary E. Schwartz and Ginny Bonner (1998)10, in his work, “Effects of Mindfulness-Based Stress Reduction on Medical and Premedical Students”, examined the short-term effects of an 8-week meditation-based stress reduction
intervention on premedical and medical students using a well-controlled statistical design. Findings indicate that participation in the intervention can effectively (1) reduce self-reported state and trait anxiety, (2) reduce reports of overall psychological distress including depression, (3) increase scores on overall empathy levels, and (4) increase scores on a measure of spiritual experiences assessed at termination of intervention. These results (5) replicated in the wait-list control group, (6) held across different experiments, and (7) were observed during the exam period.

Cavanaugh, Marcie A.; Boswell, Wendy R.; Roehling, Mark V.; Boudreau, John W. (2000)\textsuperscript{11}, in their study propose that self-reported work stress among U.S. managers is differentially related (positively and negatively) to work outcomes depending on the stressors that are being evaluated. Specific hypotheses were derived from this general proposition and tested using a sample of 1,886 U.S. managers and longitudinal data. Regression results indicate that challenge-related self-reported stress is positively related to job satisfaction and negatively related to job search. In contrast, hindrance-related self-reported stress is negatively related to job satisfaction and positively related to job search and turnover.
C. L. Cooper and S. Cartwright (1994) measured the direct and indirect costs of occupational stress in both humanistic and financial terms. Therefore, financially healthy organizations are likely to be those which are successful in maintaining and retaining a workforce characterized by good physical, psychological, and mental health. In drawing upon recent empirical studies, this paper examines a wide range of issues including: factors intrinsic to the job, corporate culture, managerial style, style of work organization and physical layout, home/work interface, etc., which impact on employee health and well-being, and so determine the financial health and profitability of the organization. It also addresses the efficacy of various intervention strategies in reducing employee stress, and their implications for organizational practices and human resource policies.

Richard S. DeFrank, and Cary L. Cooper (1987), have provided a framework for understanding the different types of stress management interventions and their possible outcomes. The various empirical investigations into worksite stress management interventions are then reviewed within the context of this paradigm. Questions are raised about the efficacy of these interventions in terms of individual and/or organisational outcomes, and where future programmes and research should be undertaken.
L. A. MacDonald, R. A. Karasek, L. Punnett and T. Scharf (2001)\textsuperscript{14}, have analysed covariation between workplace physical and psychosocial stressors. An exploratory factor analysis procedure identified possible common factors linking specific physical and psychosocial stressors. Moderate to high correlations between some physical and psychosocial stressors showed evidence of covariation both across and within groups. Covariation was strongest among blue-collar production and low-status office workers. Factor analysis results showed considerable shared variance between some physical and psychosocial stressors, such as repetition and job control, suggesting that these disparate stressors manifest from common work organization factors that govern the structure of work. While recognizing the conceptual differences between physical and psychosocial stressors, these results call attention to the strong empirical relationships that can exist between some stressors in the workplace setting.

Vickie A Lambert et al (2004)\textsuperscript{15}, have compared the role of stressors and that of coping strategies of nurses in the far eastern countries. In an attempt to cross-culturally compare factors that may contribute to the nursing shortage within countries that have produced a limited number of research findings on role stress in nurses, this research examined work stressors, ways of coping and
demographic characteristics as predictors of physical and mental health among hospital nurses from Japan, South Korea, Thailand and the USA (Hawaii). Subjects (n=1554 hospital-based nurses) were administered four self-report questionnaires: Demographic Questionnaire, “Nursing Stress Scale”, “Ways of Coping Questionnaire” and “SF-36 Health Survey” Findings suggested that nurses indicated similar coping behavior.

Robert A. Karasek, Jr. (1979)\textsuperscript{16}, has developed a stress-management model of job strain and tested it with national survey data from Sweden and the United States. This model predicts that mental strain results from the interaction of job demands and job decision latitude. The model appears to clarify earlier contradictory findings based on separated effects of job demands and job decision latitude. The consistent finding is that it is the combination of low decision latitude and heavy job demands which is associated with mental strain. This same combination is also associated with job dissatisfaction. In addition, the analysis of dissatisfaction reveals a complex interaction of decision latitude and job demand effects that could be easily overlooked in conventional linear, unidimensional analyses. The major implication of this study is that redesigning work processes to allow increases in decision latitude for a broad range of workers could reduce mental strain, and do so without
affecting the job demands that may plausibly be associated with organizational output levels.

**Siegrist, Johannes** (1996)\(^{17}\), in his article discusses relevant issues concerning the link between psychosocial occupational stress and health. The need to identify critical health-related components within the global psychosocial occupational environment is discussed, and 2 theoretical models, the person-environment fit and the demand–control models, are reviewed to help analytically define those components. The maintenance of chronically stressful experience in individuals who are exposed to the psychosocial stressors identified in models is described, and the concepts of threat, status control, and reciprocity of exchange in occupational life are introduced. Based on these concepts, a 3rd theoretical concept is introduced: the model of effort–reward imbalance at work. Results of 2 social epidemiologic and psychophysiologic studies of men are provided to examine the adverse cardiovascular and other health effects of chronically stressful experience in terms of high effort and low reward.

**Matteson, Michael T. and Ivancevich, John M.** (1987)\(^{18}\), researched on "Controlling Work Stress". This is about employees with problems that are the consequence of too much—and in some
cases, too little stress. Composed of three parts, this work discusses how organizations can assist in combatting stress in ways that benefit both the employees involved and the organization itself. Part One provides an introduction to the topic of stress generally and to work-related stress specifically. It explains why stress is an important topic to organizations and to those who are responsible for managing them. It also outlines what dysfunctional stress can cost companies and why these costs should not—and need not—be paid. Finally, it provides a background and framework for the remainder of the book. Part Two focuses on a number of basic guidelines for the prevention, management, and amelioration of work-related stress. It provides guidelines for assessing the extent to which stress is a problem in your organization, suggests ways of improving relationships between individuals and the organization, offers techniques for both individuals and organizations to deal with dysfunctional stress and discusses the possible legal ramifications of work stress. Part Three continues the direction of the previous section, with an emphasis on specific programs of importance to work organizations.

**Jex, Steve M. (1998)**

provides a comprehensive, research-based examination of the relationship between occupational stress and job performance. The author presents an overview of the field, an
explanation of terms and concepts, and a summary of relevant theoretical models of the stress process. Jex examines the relationship between major job-related stressors (such as workload, interpersonal conflict, and lack of control) and a variety of performance indexes. In addition, he explores a number of other factors that may affect the relationship between occupational stress and job performance, including gender differences, age, personality, and job experience.

Spector, Paul E.; Dwyer, Daniel J. and Jex, Steve M. (1988) have studied the relation of job stressors to performance outcomes. It is widely accepted that job conditions are a causal factor in stress outcomes for employees. This conclusion, however, is based almost entirely on single data source, self-report studies, which demonstrate correlations between environmental perceptions and stress outcomes. This study collected stressor data from two sources, the job incumbent and her supervisor. Convergent and discriminant validities were found for four stressors (autonomy, workload, number of hours worked, and number of people worked for) but not for three others (role ambiguity, constraints, and interpersonal conflict). Correlations were found between perception of stressors and outcomes, the latter including both affective and symptoms. Smaller correlations were found between supervisor reports of
stressors and outcomes, the latter including both affective and symptoms. Alternative causal models relevant to these results are discussed. The need for causal research including experimental designs, longitudinal designs, and multiple data sources are also discussed.

Richardson, Katherine M.; Rothstein, Hannah R. (2008)\textsuperscript{21}, in their research work, “Effects of occupational stress management intervention programs: A meta-analysis”, conducted a meta-analysis to determine the effectiveness of stress management interventions in occupational settings. Thirty-six experimental studies were included, representing 55 interventions. Total sample size was 2,847. Of the participants, 59\% were female, mean age was 35.4, and average length of intervention was 7.4 weeks. The overall weighted effect size (Cohen's d) for all studies was 0.526 (95\% confidence interval = 0.364, 0.687), a significant medium to large effect. Interventions were coded as cognitive-behavioral, relaxation, organizational, multimodal, or alternative. Analyses based on these subgroups suggested that intervention type played a moderating role. Cognitive-behavioral programs consistently produced larger effects than other types of interventions, but if additional treatment components were added the effect was reduced. Within the sample of studies, relaxation interventions were most frequently used, and
organizational interventions continued to be scarce. Effects were based mainly on psychological outcome variables, as opposed to physiological or organizational measures. The examination of additional moderators such as treatment length, outcome variable, and occupation did not reveal significant variations in effect size by intervention type.

Bunce, David (1997)\textsuperscript{22}, in his book has analysed, “What factors are associated with the outcome of individual-focused worksite stress management interventions?” There is a need to understand more of the factors governing the effectiveness of individual-focused stress management interventions in the workplace. This article examines research contrasting different approaches to stress management. It is argued that due to design and methodological limitations in the majority of studies, a new generation of research is required which (a) delineates clearly between interventions of differing technical content; (b) includes session process measures to help distinguish the degree of outcome variance associated with specific and non-specific factors; (c) focuses on the moderators of change enabling greater understanding of the circumstances in which a particular stress management intervention is appropriate; and, (d) examines the mediators of change thereby increasing our understanding of the psychological mechanisms underpinning
outcome change. A framework is proposed to help guide future research into these issues.

Ivancevich, John M. and Ganster, Daniel C (1987), leading theorists and researchers explore the concept of stress in their relevant and well-timed book. Physicians, psychologists, sociologists, and social psychologists who have been engaged in stress-related projects offer exciting and practical suggestions for applying organizational behavior management principles to the problem of stress. They share timely discussions on the causes and implications of job stress, which affects all levels of employees in business and industrial settings. This stimulating volume addresses the major theoretical perspectives and interpretations of job stress—from the diverse fields of medicine, clinical psychology, engineering psychology, and organizational psychology and proposes stress measurement and stress management interventions. A fascinating review of the empirical research on stress indicates the present state of study on the subject and emphasizes the need for more applied research using OBM principles. There is currently a great deal of disagreement about the meaning of job stress, its effects on people and organizations, and strategies for coping with the phenomenon. The effects of stress on individuals and organizations are thoroughly explored in this timely volume.
Tsutsumi Akizumi, Kawakami Norito (2009) have studied on occupational stress reduction. The study reviews empirical studies of a new occupational stress model of effort–reward imbalance at work to examine its validity as an occupational stress measure and the theory-based intervention approach to occupational stress reduction. The effort–reward imbalance model is valid for demonstrating a stressful work environment that reflects the current labor market and predicts health conditions among a wide range of working populations. The stressful aspects of work measured by the effort–reward imbalance model are different from those shown in the job demand–control model, and the adverse health effects are independent of each other, which suggests that the two models are complementary. The evidence indicates that it is efficient to select psychosomatic symptoms as short-range target outcomes and sick leave as a medium-range target outcome of the theory-based intervention. In addition, it would be preferable to simultaneously measure job satisfaction, morale, motivation, and performance as organizational level outcomes. Although employees engaged in diverse occupations can be target populations, high effectiveness is expected, particularly in service occupations that work shifts. Studies are necessary to determine how long and how intensely interventions are implemented. Target work environments are
selected from the perspective of securing or improving employees’

sense of fairness and reciprocity by approaching them. Since the
theory-based intervention depends largely on organizational changes
that are beyond the individual employees’ ability, the cooperation of
employers is necessary.

Murphy, Lawrence R.(Ed) et al (1995)\textsuperscript{25}, have explored in detail
and in depth occupational stress, specifically in the US. Reported
job stress in the US workforce is on the increase. Among the causes
are downsizing, reorganization, the pressures of global competition,
and constantly changing new technology. This edited book of
empirical studies presents models for job stress intervention both at
the individual level and at the organizational and policy level. "Job
Stress Interventions" investigates stress management training, the
promotion of coping strategies among unemployed workers, and
help for workers who experience posttraumatic stress disorder as a
result of their job. It also presents some promising new
developments that enable interventions to be made at the
organizational level and thus promote organizational health. Finally,
the volume examines policy and legislation issues such as workers’
compensation claims, the development of occupational stress
standards, and occupational welfare in the European Community.
Bond, Frank W.; Bunce, David, (2000)\textsuperscript{26}, had researched with a sample of 90 workers observing their stress coping strategies. Ninety volunteers in a media organization were randomly allocated to an Acceptance and Commitment Therapy (ACT, \(n=30\)) group that sought to enhance people's ability to cope with work-related strain, an Innovation Promotion Program (IPP, \(= n=30\)) that helped individuals to identify and then innovatively change causes of occupational strain, or a waitlist control group (\(= n=30\)). Both interventions lasted 9 hr, spread over 3 months. Improvements in mental health and work-related variables were found following both interventions. As hypothesized, changes in outcome variables in the ACT condition were mediated only by the acceptance of undesirable thoughts and feelings. In the IPP condition, outcome change was mediated only by attempts to modify stressors. Discussion focused on the importance of understanding the mechanisms underpinning change in occupational stress management interventions.

Kompier Michiel and Cooper Cary L. (1999)\textsuperscript{27}, have investigated into the stress preventing methods of employees. In a representative study made of European workers, twenty-eight per cent of employees reported that stress affects their health and their performance at work. Occupational stress is a serious problem for the performance of individuals, organisations and as a consequence,
for national economies. Preventing Stress, Improving Productivity investigates the ways in which companies can combat stress by changing the working environment rather than only treating individual employees with stress symptoms. Costs and benefits of stress prevention are discussed, with an emphasis on approaches that involve both the work situation and the individual worker. The heart of the book consists of eleven European country chapters, each overviewing the current status with respect to occupational stress and its prevention in that country and then presenting one detailed case study an example of good preventive practice. Preventing Stress, Improving Productivity identifies five factors that are critical for a stress reduction programme to work, both in terms of employee health and well-being and from a financial point of view. Successful strategies combine participation from workers and support from top management. Useful as a reference for psychologists, human resource managers, occupational physicians, ergonomists and consultants, this book will also be an invaluable aid to managers in the day-to-day running of organisations.

Lehrer Paul M., Woolfolk Robert L. , Sime Wesley E. (2007)²⁸ have enriched the existing literature by contributing their views and findings on managing stress effectively. Structured for optimal use as a clinical reference and text, this comprehensive work reviews
effective stress management techniques and their applications for treating psychological problems and enhancing physical health and performance. Leading experts present in-depth descriptions of progressive relaxation, hypnosis, biofeedback, meditation, cognitive methods, and other therapies. Tightly edited chapters examine each method's theoretical and empirical underpinnings and provide step-by-step guidelines for assessment and implementation, illustrated with detailed case examples. The volume also explains basic mechanisms of stress and relaxation and offers research-based guidance for improving treatment outcomes.

Israel Barbara A. et al (1989), have presented their ideas in their collective work, “The relation of personal resources, participation, influence, interpersonal relationships and coping strategies to occupational stress, job strains and health: A multivariate analysis” published in Work & Stress: An International Journal of Work, Health & Organisations. Occupational stress has been linked to a diverse set of physiological, psychological and behavioural outcomes. Other psychosocial factors, including personal resources, social relationships and supports, participation and influence and coping behavior have increasingly been found to affect stress and health or to buffer the relationships between stress and health. However there has been a lack of studies that have investigated the
interconnections among these other psychosocial factors in this multivariable stress paradigm. This article addresses this issue through an examination of both the independent and joint impact of these other psychosocial factors on occupational stress, job strains, and physical and mental health status. The findings are collected from 630 salaried and hourly paid workers in a component-parts manufacturing plant. All of the potential moderators showed considerable association with the dependent variables. In addition, an examination of the combined effects of these factors indicate that all of them except satisfaction and participation, are independently consequential for at least some of the stress and health outcomes considered here. The effects of participation are mediating, entirely through satisfaction with influence, suggesting that it is influence that results from participants, rather than participation per se which is consequential for job stress and health. Thus there is evidence that these variables have both direct and indirect effects on the outcomes; and that their mediating effects differ depending upon the outcome being investigated. No evidence for buffering is found in these analyses.

Olsson, K.; Kandolin, I.; Kauppinen-Toropainen, Kaisa (1990)\(^3\), examined stress and coping styles of 3-shift workers (30 male and 30 female paper workers in regular shifts and 30 nursing
professionals working in irregular shifts). The group of nurses in irregular shifts experienced more stress than the paper workers. All the groups used active physical and passive relaxive styles to recover from stress. Nurses used more active cognitive styles compared to the other groups. Both of the female groups used more passive somatizing ways to cope. Results indicate that efforts are needed especially in hospitals to develop new shift systems in which more attention is paid to the health of the worker and to better possibilities of coping with stress.

Babu P. Ramesh (2004)\textsuperscript{31}, based on a study of call center agents, discusses the insecurities and vulnerabilities in the new economic order which is characterized by atypical norms of work and work organization. These insecurities include high attrition rates, increased stress at work and erosion of worker collectivity. The emergence of a new genre of workers, with distinct features and differently conceived identity, enables the firm to draw and maintain a productively docile workforce within the changed frames of work organization and human resource management.

Budhwar Pawan S., Luthar Harsh K. and Bhatnagar Jyotsna (2006)\textsuperscript{32}, have analysed the complexities of HRM in BPO industries. This paper highlights the context within which business process outsourcing (BPO) has rapidly grown in India and the critical need
to investigate the dynamics of human resource management (HRM) practices and systems in this sector. Using a mixed-method approach involving both indepth interviews and self-completing questionnaires, we analyze the nature of HRM systems in BPO organizations operating in India. The analysis is based on a sample of 51 BPO companies, a majority of which are located near the capital of New Delhi. The results focus on the nature and structure of work and organization of Indian BPOs, as well as the strategic role played by HRM in such organizations. Furthermore, the findings highlight the way specific HRM practices such as recruitment, performance appraisal, training and development, and compensations are implemented. Our study suggests the existence of formal, structured, and rationalized HRM systems in Indian BPOs. A number of insights related to HRM policies and practices are shared by the HR managers interviewed shedding more light on the inner workings of the Indian BPO companies and their challenges. The analysis provides original and useful information to both academics and practitioners and opens avenues for future research on the nature of HRM systems and practices in the Indian BPO industry.
Sandhu Amandeep (2006)\textsuperscript{33}, presents his reasons as to “Why Unions Fail in Organising India’s BPO-ITES Industry”, according to him, Call centre employees do not want to be part of trade unions because they associate the latter with “blue-collar workers” and not with their own perceived upward mobility. Also, their work schedules and the highly modernised self-contained work islands they inhabit encourage them to think of unions as unnecessary.

Gupta Santoshi Sen, and Gupta Aayushi (2008)\textsuperscript{34}, furnish their ideas as to the contributors of the vicious circle of attrition in the bpo industry. Business Process Outsourcing (BPO) is growing at a phenomenal pace. It has become a mantra of employment. Despite its momentous growth and bright future, the BPO industry continues to suffer from very high attrition rates. New employees come with a lot of enthusiasm but their motivation gets depleted as job realities unfold with the passage of time. Reviewing the earlier research, the paper identifies the main causal agents responsible for high attrition in the BPO industry and argues that there is a vicious circle of attrition because 'Low Perceived Value' drives the employees to quit which further lowers the perceived value. This has implications for further research on BPO industry.
Raghu Raman S., Pawan Budhwar, Balasubramanian G., (2007)\textsuperscript{35}, have discussed people management issues in their working paper. The business process outsourcing (BPO) industry in India is evolving rapidly, and one of the key characteristics of this industry is the emergence of high-end services offered by knowledge processing outsourcing (KPO) organizations. These organizations are set to grow at a tremendous pace. Given the people-intensive nature of this industry, efficient employee management is bound to play a critical role.

The results of this study highlight the differences in the nature of work characteristics in such organizations as compared to call centres. The study also highlights some of the key people management challenges that these organizations face like attracting and retaining talent. The case company adopts formal, structured, transparent and innovative human resource practices. The study also highlights that such enlightened human resource practices stand on the foundations laid by an open work environment and facilitative leadership.

Kuruvilla Sarosh, Ranganathan Aruna (2010)\textsuperscript{36}, have argued in their article article, that the rapid growth of the outsourcing industry has resulted in both high turnover and labour shortages and at the same time provided employment opportunities to a new group of
employees: young upwardly mobile college graduates. They argue that this particular demographic profile is prone to high turnover and presents new managerial challenges. They then examine the variety of recruitment and retention strategies that companies in the business process outsourcing industry are experimenting with and show that many novel HR strategies are being crafted to address the needs of this young middle-class workforce. They also examine macro efforts by state and central governments and the industry association to help resolve some of these problems.

Subramanian S. and Vinothkumar M. (2009) of Bharathiar University, Coimbatore have done a study of BPO personnel in Coimbatore city. Preoccupation with tight work schedules, offering time bound business solutions to varied and complex problems within deadline etc are a typical work life characteristic of IT professionals. Enhancing the strength of individuals’ internal resources such as hardiness and self-esteem are assumed to act as buffer while encountering any stressful events in occupational life. Present study was conducted to examine relation among hardiness personality, self-esteem and occupational stress index among IT professionals. Data were collected from 140 IT professionals employed in four computer software organizations. The results of correlation showed that hardiness and self esteem tend to have negative and significant correlations with role overload, role
ambiguity, low status and strenuous working conditions. The implications of results are discussed with possible intervention to improve the internal resources among the IT professionals so that their perceived levels of occupational stress can be minimized to the maximum extent possible.

Ramaniah G. and Subrahmanian Mu. (2008), in their research have evaluated stress among IT employees in Chennai City. The employment landscape in India is undergoing structural changes. The largest employers in India are no longer companies in the manufacturing domain but in the IT and BPO domains. Employees working in the IT industry all are termed as Gold Collar Employees. Stress among them is now-a-days increasing due to competition, conflicting expectations from peers, team leaders or clients, etc. They go through a lot of anxiety, depression and loneliness because of their work environment, and often exhibit feelings of inadequacy, lowered self esteem and dissatisfaction. This article examines the relation between organizational role stress (ORS) and demographics of 300 IT professionals working in Chennai city. The ORS scale designed by Udai Pareek was used to study the above. The results show that there is high stress level. Further it was found that there exists a relation between martial status and ORS. The stress among females is due to role isolation, inter role distance and role overload. Bhuyar P, Banerjee A, Pandve H, Padmnabhan P, Patil A,
Duggirala S, Rajan S, Chaudhury S. (2008), provide their findings based on a sample of 100 BPO workers. Call centre workers in BPO face unique occupational hazards - mental, physical and psychosocial. Material & Method: A sample 100 call centre workers of both sexes and from two cities Pune and Mumbai were surveyed by both qualitative and quantitative methods for the above health problems. Results: A high proportion of workers faced sleep disturbances and associated mental stress and anxiety. Sleep disturbance and anxiety was significantly more in international call centres compared to domestic. There was also disturbance in circadian rhythms due to night shift. Physical problems such as musculoskeletal disorders, obesity, eye, and hearing problems were also present. Psychosocial problems included disruption in family life, use of tobacco and alcohol, and faulty eating habits. Conclusion: Better personal management, health education and more research is indicated to study the health problems in this emerging occupation.

Combs Gwendolyn M., Clapp-Smith Rachel and Nadkarni Sucheta (2010), have investigated into the causes and consequences of employee burnout. Much attention has been given to the explosion in business process outsourcing (BPO) operations in India. Little concern, however, has been paid to the performance of Indian service workers in these fast-paced and sometimes
turbulent environments. Using a sample of 160 service workers from a privately held BPO firm in India, we examine the relationship between Indian service workers' hope and their performance outcomes. Regression and structural equation model analyses indicated a significant positive relationship between Indian service workers' levels of hope and their performance. These promising results highlight the importance of measuring and managing employee hope to maximize employee productivity and performance. By effectively developing and managing levels of employee hope, Indian BPO firms can effectively combat employee problems such as attrition, stress, and burnout that have plagued the BPO industry. Hope may also help mitigate the influence of aspects of Indian culture on human resource management practices in Indian BPOs.

Folkman, Susan (1984), analyzes the role of personal stress and coping processes from the perspective of a cognitively oriented theory developed by R. S. Lazarus and colleagues, beginning in 1951. Believing that an event is controllable does not always lead to a reduction in stress or to a positive outcome, and believing that an event is uncontrollable does not always lead to an increase in stress or to a negative outcome. The present author shows how 2 forms of control, generalized beliefs about control and situational appraisals
of control, fit into the overall model of Lazarus and colleagues. Situational appraisals of control are explored, especially as they relate to health matters. The theoretical formulation of stress and coping is drawn on to examine 3 important issues: (a) how believing one has control in a stressful transaction can heighten threat, (b) the relationship between control and coping, and (c) pathways through which control can affect the adaptational outcomes of stressful encounters.

**de Ruyter, K., Wetzels, M. and Feinberg, R. (2001)**, explore the role of stress in call centers. Call centers have become an important customer access channel as well as an important source of customer-related information. Frequently, call center employees experience role stress as a result of the conflicting demands of the company, supervisors, and customers. In this article, antecedents and consequences of role stress in a call center setting are examined. Specifically, we investigate which forms of empowerment and leadership styles decrease role stress and how this subsequently effects job satisfaction, organizational commitment, performance, and turnover intentions. It was found that particularly the autonomy dimension of empowerment has a role-stress-reducing effect. Interesting substantive direct positive effects of empowerment competence and leadership consideration on job satisfaction were
found. Job satisfaction was found to be conducive to job performance. Furthermore, it was found that job satisfaction reduces turnover intentions, directly and indirectly via organizational commitment.

**Lawrence R. Murphy** (1995)\(^4^3\), starts from the premises that stress at work is a significant and costly problem, and that the challenge for companies is to manage work stress in order to reduce health-care costs and improve productivity. Suggests that this challenge can be met by greater collaboration among company departments, bringing expertise from different areas to bear on the problem. Describes the conceptual basis for such collaboration and presents a case study of an ongoing partnership between an employee assistance programme and a human resource management group.

**Ofreneo Rene E., Christopher Ng and Leian Marasigan-Pasumbal** (2007)\(^4^4\), have gone deeply into the intricacies of BPO work. The Asia-Pacific region is home to the fast-growing offshored voice sector of the global business process outsourcing (BPO) industry. This voice sector has registered a turnover rate of as much as 50 per cent a year even if wages in this sector are now almost three times the minimum wage in both countries. The authors blame this not only on the nature of a call center job (dedicated character, high call quotas, etc.) but also, and more
importantly, on the failure of the industry to address pressing industrial relations and HRD concerns. The paper ends with IR ‘doables’ for this seemingly unique industry, including a call on the industry players and host governments to allow the voice workers to have a greater say in shaping the labour process in the industry.

Sudhashree. V.P., Rohith. K., Shrinivas. K. (2005)\textsuperscript{45}, present their findings from discussions with HR Managers. The major outcome of the meeting was a perceived need for medical assistance to identify their problems and suggest measures to reduce them and also recommend to the management the importance of pre-employment and periodic medical examination and the need for counseling sessions to tackle the stress at job. Other issues were related to loss of identity, isolation, drug abuse and work pressure due to long hours of work, permanent night shifts, high work targets. 30-40\% of the employees working in the call center had complained of eye problems. Digestive disorders was also common among employees in the call center. Thirty-four percent of employees had complaints on this count as revealed by the HR managers. India is all set to register the highest growth rate in call center services industry in Asia Pacific Region. A recent survey on Information technology enabled services has revealed that currently more than 150 call centers are operating in the country, inclusive
international and domestic. It is widely believed that this industry is expected to compensate for the loss of revenue for the software industry. India's call center industry accounts for a quarter of the software and service exports from the country, according to the National Association of Software and Service Companies.

Mishra. G.A., Majmudar. P.V., Gupta. S.D., Rane. P.S., Hardikar. N.M., Shastri. S.S. (2010)\(^46\), inquire into the relationship between call center employees and smoking. India is known as the Business Process Outsourcing (BPO) capital of the world. Safeguarding health of millions of youngsters employed in this new growing economy is an occupational health challenge. This study was initiated in June 2007 in India with the objectives to assess the prevalence of tobacco use and study the factors responsible for initiating and continuing its use. The main aim, however, was to assess the effect of different tobacco cessation intervention strategies, thus identifying effective methods to assist these employees to quit tobacco. This is a 4-arm cluster randomized trial of 18 months duration among 646 BPO employees, working in 4 different BPO units. The employees were invited to participate in interviews following which tobacco users of each BPO were offered specific tobacco cessation interventions to assist them to quit tobacco use. The prevalence of tobacco dependence is 41%, mainly
cigarette smoking. The tobacco quit rate is similar (nearly 20%) in the 3 intervention arms. Significantly higher reduction in tobacco consumption of 45% is seen in Arm 4 with the use of pharmacotherapy. BPO employees change jobs frequently, hence follow-up remains a major challenge. Inaccessibility of pharmacotherapy in the developing countries should not deter tobacco cessation efforts as good tobacco quit rates can be achieved with health education and behavioral therapy. Tobacco cessation should be an integral activity in all BPOs, so that the employees receive this service continuously and millions of our youths are protected from the hazards of tobacco.

Terry A. Beehr. and John E. Newman (1978) probe into the relationship between health and job stress. Job stress (and more generally, employee health) has been a relatively neglected area of research among industrial/organizational psychologists. The empirical research that has been done is reviewed within the context of six facets (i.e., environmental, personal, process, human consequences, organizational consequences, and time) of a seven facet conceptualization of the job stress–employee health research domain. (The seventh facet, adaptive responses, is reviewed in the forthcoming second article of this series.) A general and a sequential model are proposed for tying the facets together. It is concluded that
some of the major problems of the research in this area are: confusion in the use of terminology regarding the elements of job stress, relatively weak methodology within specific studies, the lack of systematic approaches in the research, the lack of interdisciplinary approaches, and the lack of attention to many elements of the specific facets.

**Howell David C. (2009)**, in his book, *Statistical Methods for Psychology*, surveys the statistical techniques commonly used in the behavioral and social sciences, especially psychology and education. To help students gain a better understanding of the specific statistical hypothesis tests that are covered throughout the text, author David Howell emphasize conceptual understanding. Along with a significantly updated discussion of effect sizes and examples on how to write up the results of data analysis, this Sixth Edition continues to focus students on two key themes that are the cornerstones of this book's success: the importance of looking at the data before beginning a hypothesis test, and the importance of knowing the relationship between the statistical test in use and the theoretical questions being asked by the experiment.

**Ravikumar T. (2011)**, has contributed the findings based on his research work analyzing work-life balance. Organizations do not
work in isolation; they function within the main system of society. Businesses take place by taking the inputs from society in the form of people, capital, resources and gives goods and services as output. These outputs influence the life of people and provide the means of improving the lifestyle. We cannot ignore the effect that the society is largely impacted by businesses of various size and operations. Business process outsourcing is the long term contracting out of non-core business activities to the experts who perform the activities with less cost and more efficiency. Today’s business spans the entire globe by their overseas operations and thus they leave a visible change in the societies of various geographies. India has become hub of outsourcing business in the world. Outsourcing has given number of advantages to India. At the same time, few issues like under utilization of human resources, excessive work stress etc also exist, in employees’ points of view, in outsourcing industry. This article analyses the impact of the outsourcing industry on the society and the individuals in India. Both positive and negative impacts have been analyzed in terms of health, society and individual variables.

Pestonjee, D. M. (1992), has continuously worked, studying stress from different angles and he has also explored the effectiveness of the various stress coping strategies. This book provides new
findings and the latest research on stress. Among the topics covered are: Delineation of the different types of stress experienced in organizational settings and by various groups of professionals, coping strategies adopted by individuals to deal with stress, and different techniques to counteract stress such as yoga, relaxation, and meditation. Dealing with an issue of importance to both individuals and organizations in today’s world, this book will be of interest to HRD personnel, management experts, psychiatrists, sociologists, counsellors, psychologists and trainers.

Udai Pareek (1982)\textsuperscript{51}, has developed a technical manual for the ORS Scale. ORS stands for Organisational Role Stress, and the instrument purports to measure the self perceived stress an individual is experiencing in his or hr job. The manual is organized around a discussion of role theory and the development of the scale. The first four parts of the publication constitute a credible integration of theory and research regarding (1) the concept of role (2) the concept of role stress (3) “role space conflicts” (the various roles played by an individual, centered around the self) and (4) “role set” conflicts (the patterns of relationship between the role occupied by the individual and the roles played by significant other people with whom he or she interfaces. Taken together, these opening summaries represent a primer on role and role stress.
Setterlind, S. and Larsson, G. (1995) say, the Stress Profile is a psychosocial instrument for measuring stress in life in general and at work at the levels of the individual, the group and the organization. It has been tested and standardized on more than 4000 men and women. The present article outlines the design and the developmental stages of the Profile. It also describes its use at individual and company levels. The impact of the scientific development of behavioural medicine has greatly improved and extended the application of behavioural methods. The Stress Profile is based on this methodological and scientific development. It is a questionnaire consisting of 224 questions, 20 of which concern background variables and ten criteria. The remaining questions map a number of areas derived from current stress research. The data are computer processed and a graphic profile is produced. This presentation includes illustrations of results from Swedish companies, where the Stress Profile has been used.

Stress in the workplace is now widely recognized as a major problem facing the industry. A growing number of companies are offering some form of stress management intervention. However, for those seeking to introduce stress management activities, too little in the way of guidance and direction has been available.
Though various experts starting from Hans Selye to Udai Pareek have researched on stress, on its role, developed stress measuring scales, yet it is plain fact that stress management itself is a vast area. The review of literature cited above is by no means exhaustive, but to stick on to the mandatory format, the researcher has cited a select few. A lot of researchers are in the process of exploring new areas in job stress and its management; not only new areas, but those areas that have been analysed warrants further studies. This being the case, the researcher here is fully justified in taking up her study in the field of stress management among BPO employees in Puducherry.

References


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