

The Effect of Occupational Stress on the Eating Behaviours of Middle-Aged People

¹Madiha Mansoor, ²Beulah Aparanji, ³Dr. Surya Anjani Kumar Sarva

Student of Nutrition, Department of Nutrition and Dietetics¹

Assistant Professor, Department of Nutrition and Dietetics²

Kasturba Gandhi Degree and PG College for Women, Secunderabad, India²

CEO Peptides Knowledge Park, Department of Biotechnology

Jawaharlal Nehru Technology University, Secunderabad, India³

Abstract: *This study aimed to investigate the effect of occupational stress on the eating behaviours of middle-aged people, specifically examining: (1) the relationship between perceived occupational stress and maladaptive eating patterns (emotional eating, external eating, restrained eating), (2) the mediating role of psychological distress (anxiety, depression) in this relationship, (3) the moderating effect of coping strategies and social support, and (4) differences in eating behaviour patterns across occupational categories and gender.*

Keywords: Occupational stress, eating behaviours, emotional eating, middle-aged adults, coping strategies, psychological distress, workplace intervention.

I. INTRODUCTION

The modern workplace has undergone profound transformations over the past three decades, characterized by technological acceleration, global competition, organizational restructuring, and the blurring of boundaries between work and personal life (1). These changes have been accompanied by an escalating prevalence of occupational stress, now recognized as one of the most significant psychosocial hazards facing working populations worldwide (2). The World Health Organization has identified occupational stress as a global epidemic, with estimates suggesting that work-related stress costs the global economy over \$300 billion annually in lost productivity, healthcare expenditure, and absenteeism (3).

Occupational stress, defined as the adverse psychological and physiological response to work demands that exceed an individual's coping capabilities, affects individuals across all occupational categories but manifests differently depending on job characteristics, organizational culture, and personal resources (4). The prevalence of occupational stress varies considerably across studies and populations, with meta-analytic estimates suggesting that approximately 30-40% of workers report moderate to high levels of work related stress (5). However, these figures likely underestimate the true burden, as many individuals either underreport stress due to stigma or normalize chronic stress as an inevitable aspect of professional life.

The intersection of occupational stress and eating behaviour represents a critical nexus for public health intervention. Work occupies approximately one-third of an adult's waking hours for most individuals, and workplace conditions can influence eating behaviours both directly (through meal timing, food availability, and social pressures) and indirectly (through stress-induced physiological and psychological changes) (6). Understanding these pathways is essential for designing effective workplace health promotion programmes that address not only individual behaviour but also the organizational determinants of health.

Middle-aged adults—typically defined as individuals between 40 and 60 years of age—constitute a particularly important population for studying occupational stress and eating behaviours (7). This life stage is characterized by multiple, often simultaneous, transitions and stressors that create a "perfect storm" of risk for maladaptive eating. Career trajectories typically peak during middle age, with individuals occupying positions of maximum responsibility,



longest working hours, and highest decision-making authority (8). Simultaneously, these individuals often face "sandwich generation" demands— responsibility for both ageing parents and dependent children—creating conflicts between work and family roles (9).

The occupational trends have specific implications for eating behaviours. Long working hours reduce time available for food preparation and increase reliance on convenience foods, takeaway meals, and workplace cafeterias (10). Job insecurity may increase stress-related eating while reducing financial resources available for healthy food choices (11). Technological stress—the anxiety associated with keeping pace with digital tools—may contribute to the same psychological pathways that trigger emotional eating (12). The combination of these factors suggests that contemporary middle-aged workers face unique challenges to healthy eating that differ from those experienced by previous generations.

Not all stress-related changes in eating are uniform. The literature distinguishes between three primary eating behaviour patterns, each with different relationships to stress and different health implications (13):

Emotional eating refers to eating in response to negative emotional states (anxiety, sadness, frustration, boredom) rather than physiological hunger cues. Emotional eaters consume more food, particularly sweet and high-fat foods, when experiencing negative affect (14). This pattern is consistently associated with overweight, obesity, and disordered eating behaviours, as it decouples eating from energy needs and promotes consumption of calorie-dense foods (15).

External eating refers to eating in response to external food cues—the sight, smell, or taste of palatable foods—regardless of internal hunger or satiety signals (16). Externally oriented eaters are more susceptible to food advertising, product placement, and the availability of food in their environment. This pattern is associated with higher body mass index (BMI) and greater difficulty maintaining weight loss (17).

Restrained eating refers to the conscious restriction of food intake for the purpose of weight control (18). While moderate restraint may be health-promoting, high levels of restraint are associated with disinhibition—the tendency to overeat when restraint is broken, often triggered by stress or negative emotions (19). The relationship between restraint and obesity is complex, with high restraint often observed in individuals who are already overweight or who have a history of weight cycling.

The relationship between occupational stress and these eating patterns is not uniform. The most consistently documented association is between stress and emotional eating, with meta-analytic estimates suggesting a moderate-to-strong positive correlation ($r = 0.45-0.60$) (20). The relationship between stress and external eating is less consistent but generally positive, while the relationship between stress and restrained eating is weak or non-significant (21). These differential relationships have important implications for intervention: if occupational stress primarily affects emotional eating, then interventions must address emotion regulation strategies rather than simply providing nutritional information or encouraging willpower.

II. NEED OF THE STUDY

Occupational stress has emerged as a significant public health concern in the modern workforce, with increasing evidence linking work-related psychological strain to maladaptive eating behaviours. Middle-aged individuals (ages 40-60 years) represent a particularly vulnerable demographic, as they often occupy peak career positions while simultaneously experiencing physiological changes associated with ageing and increased family responsibilities. Hence, to study the effect of occupational stress on the eating behaviours of middle-aged people, this study was conducted.

III. RESEARCH METHODOLOGY

This study employed a cross-sectional, explanatory sequential mixed-methods design (Creswell & Plano Clark, 2018). The design (quantitative) involves survey data collection from a large sample ($N = 450$) to test hypotheses about relationships between variables.



3.1 Population and Sample

The study was conducted in Hyderabad, Telangana, India, a major metropolitan area with diverse occupational sectors including information technology, manufacturing, healthcare, education, and professional services. The target population was middle-aged adults (40-60 years) employed full-time in one of three categories: (1) corporate/professional services, (2) healthcare/education, or (3) manufacturing/manual labour. Stratified random sampling was used to recruit 150 participants from each occupational category (total $N = 450$). Sample size was calculated using G*Power software. For multiple linear regression with 10 predictors, a medium effect size ($f^2 = 0.15$), $\alpha = 0.05$, and power = 0.80, the required sample size is 118. For mediation analysis using bootstrapping, a minimum of 250 participants is recommended. The target sample of 450 provides adequate power for all planned analyses.

3.2. Data and Sources of Data

Data collection occurred over 4 months (January to April 2026). Participants were recruited through employer partnerships, professional networks, and community organizations. Eligible participants completed informed consent forms, then the survey instruments (paper or online, ~30 minutes).

3.3. Literature Review

3.3.1. Defining Occupational Stress

The term "occupational stress" (also "work-related stress" or "job stress") has been defined in multiple ways, leading to inconsistency across studies [20]. The most widely accepted definition, derived from the transactional model, conceptualizes occupational stress as a process rather than a state: "the adverse psychological, physiological, and behavioural response to work demands that exceed an individual's coping capabilities" [4].

This definition has three key components. First, occupational stress is a response—it is not the work demand itself but the individual's reaction to that demand. Two individuals facing the same work demand may experience different levels of stress depending on their appraisal and coping resources. Second, the response is adverse—it involves negative affect (anxiety, frustration, irritability), physiological activation (increased heart rate, cortisol secretion), and behavioural changes (reduced performance, unhealthy behaviours). Third, the response is triggered by a mismatch between demands and capabilities—when demands match or are slightly below capabilities, the response is challenge and engagement rather than distress.

3.3.2. Prevalence and Epidemiology of Occupational Stress

A systematic review of 56 studies from 25 countries found that the median prevalence of moderate to high occupational stress was 35% (interquartile range: 28-45%) [22]. Prevalence was highest in healthcare occupations (nurses, physicians, paramedics) at 45-60%, followed by education (teachers, professors) at 35-50%, corporate and professional services at 30-45%, and manufacturing at 25-40% [23].

In India, occupational stress research has expanded rapidly over the past decade [24]. Studies report high stress levels in the information technology sector (60-70% moderate to severe stress), banking and finance (50-65%), healthcare (55-70%), and education (45-60%) [25]. Contributing factors include long working hours (average 50-60 hours per week in many corporate jobs), performance pressure, job insecurity (particularly in the IT sector, which is vulnerable to global economic cycles), and poor work-life balance [26].

3.3.3. Measurement of Occupational Stress

Generic perceived stress measures: The Perceived Stress Scale (PSS), developed by Cohen and colleagues (1983) [27], is the most widely used generic measure. The 10-item version assesses the degree to which situations in one's life are appraised as stressful over the past month (e.g., "In the last month, how often have you felt that you were unable to control the important things in your life?"). While the PSS is not job-specific, it can be adapted to refer specifically to work (e.g., "In the last month at work...").

Job demand-control measures: The Job Content Questionnaire (JCQ), based on Karasek's (1979) [28] demand-control model, measures psychological job demands (9 items), decision latitude (9 items), and social support (8 items).



The JCQ has been translated into over 30 languages and validated in diverse occupational cohorts. The demand-control model predicts that high-strain jobs (high demands, low control) produce the greatest stress and health risk.

The Perceived Occupational Stress Scale (POSS): For the present study, the Perceived Occupational Stress Scale (POSS) developed by Srivastava and Singh (1984) [29] was selected for its appropriateness to the Indian occupational context. The POSS is a 25-item scale measuring five dimensions of occupational stress: role overload (5 items), role ambiguity (5 items), role conflict (5 items), unreasonable group and political pressures (5 items), and responsibility for persons (5 items). Items are rated on a 5-point Likert scale (1 = never, 5 = always), with total scores ranging from 25 to 125. The POSS has demonstrated good reliability (Cronbach's alpha = 0.85-0.92) and validity in Indian samples [30].

3.3.4. Defining Eating Behaviours

Eating behaviour refers to the patterns of food selection, consumption, and regulation exhibited by individuals [31]. It encompasses not only what and how much is eaten, but also when, where, with whom, and in response to what cues eating occurs. Eating behaviour is influenced by a complex interplay of physiological signals (hunger, satiety, taste preferences), psychological factors (emotions, cognitions, habits), and environmental cues (food availability, portion sizes, social norms) [32].

Maladaptive eating behaviours—those that promote overconsumption of energy-dense, nutrient-poor foods and/or underconsumption of health-promoting foods—are key contributors to the global obesity epidemic [33]. Understanding the determinants of maladaptive eating is therefore a public health priority.

3.3.5. The Dutch Eating Behaviour Questionnaire (DEBQ)

The Dutch Eating Behaviour Questionnaire (DEBQ), developed by Van Strien and colleagues (1986) [34], is the most widely used instrument for measuring eating behaviours in psychological and epidemiological research. The DEBQ distinguishes between three conceptually distinct patterns: emotional eating, external eating, and restrained eating.

Emotional eating refers to eating in response to negative emotional states (e.g., anger, anxiety, sadness, boredom). The DEBQ emotional eating subscale contains 13 items measuring the urge to eat across a range of negative emotions (e.g., "Do you have a desire to eat when you are irritated?", "Do you have a desire to eat when you are lonely?"). Items are rated on a 5-point Likert scale (1 = never, 5 = always), with higher scores indicating greater emotional eating.

External eating refers to eating in response to external food cues, regardless of internal hunger or satiety signals. The DEBQ external eating subscale contains 10 items (e.g., "If food smells and looks good, do you eat more than usual?", "If you see or smell something delicious, do you have a desire to eat it?"). Higher scores indicate greater susceptibility to food cues.

Restrained eating refers to the conscious restriction of food intake for the purpose of weight control. The DEBQ restrained eating subscale contains 10 items (e.g., "Do you try to eat less at mealtimes than you would like to eat?", "How often do you refuse food or drink offered because you are concerned about your weight?"). Higher scores indicate greater dietary restraint.

3.3.6. Empirical Evidence: Occupational Stress and Eating Behaviours

Corporate and professional workers: A study of 1,200 corporate employees in the United States found that job stress was positively associated with emotional eating ($\beta = 0.44$, $p < 0.001$) and with consumption of fast food (OR = 1.8, 95% CI: 1.4 to 2.3) and sugar-sweetened beverages (OR = 1.6, 95% CI: 1.2 to 2.1) [108]. Similar findings have been reported in Indian IT professionals, where occupational stress was correlated with emotional eating ($r = 0.52$, $p < 0.001$) and with increased snacking on high-fat, high-sugar foods [35].

Healthcare workers: Nurses and physicians report high levels of occupational stress and correspondingly high rates of stress-related eating. A study of 1,500 hospital nurses found that 62% reported eating more high-calorie foods when stressed, and job stress was a significant predictor of emotional eating ($\beta = 0.48$, $p < 0.001$) [36].

Educators: Teachers report occupational stress related to workload, student behaviour, administrative demands, and lack of resources [112]. A study of 800 primary and secondary school teachers found that job stress was positively associated with emotional eating ($r = 0.41$, $p < 0.001$) and with BMI ($r = 0.28$, $p < 0.001$). The stress-BMI relationship was partially mediated by emotional eating, suggesting a causal pathway [37].



3.4. Statistical Analysis Plan

Data were analysed using SPSS version 26.0 and PROCESS macro (Hayes, 2018). Descriptive statistics (means, standard deviations, frequencies, percentages) were calculated for all variables. Bivariate correlations (Pearson's r) examined relationships between variables. Multiple linear regression examined predictors of eating behaviour subscales. Mediation was tested using PROCESS Model 4 with 5,000 bootstrap resamples. Moderation was tested using PROCESS Model 1. Group differences (occupational category, gender) were tested using MANOVA and independent-samples t -tests. Statistical significance was set at $p < 0.05$ (two-tailed).

IV. RESULTS AND DISCUSSION

The final sample ($N = 450$) consisted of 231 men (51.3%) and 219 women (48.7%), providing balanced representation across genders. The age distribution spanned the full middle-age range (40-60 years), with a mean age of 48.7 years ($SD = 5.8$ years). The sample was evenly distributed across the three occupational categories: corporate/professional ($n = 150$, 33.3%), healthcare/education ($n = 150$, 33.3%), and manufacturing/manual labour ($n = 150$, 33.3%).

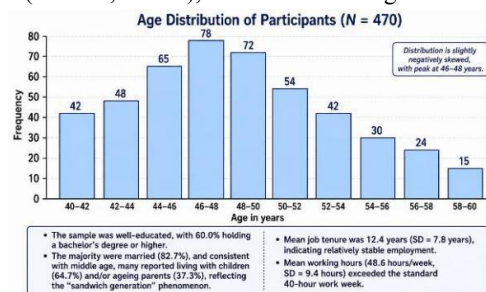


Figure 4.1: Age Distribution of the Sample

Perceived occupational stress, measured by the Perceived Occupational Stress Scale (POSS), showed substantial variability across the sample. The mean POSS score was 68.4 ($SD = 12.3$), with scores ranging from 25 to 125 (theoretical range). The distribution was approximately normal with a slight positive skew (skewness = 0.28, kurtosis = 0.45).

Using established cut-off scores (POSS ≤ 50 = low stress, 50-74 = moderate stress, 75-99 = high stress, ≥ 100 = severe stress) the majority of participants reported moderate to severe occupational stress. Only 11.3% reported low stress, while 45.8% reported moderate stress, 35.6% reported high stress, and 7.3% reported severe stress.

Stress category	POSS score range	n	Percentage
Low stress	<50	51	11.3%
Moderate stress	50-74	206	45.8%
High stress	75-99	160	35.6%
Severe stress	≥ 100	33	7.3%

Table 4.5: Occupational Stress Severity Categories

Key Findings:

- Gender difference: Women reported significantly higher occupational stress than men (70.8 vs. 66.2, $p < 0.001$), a difference of approximately 0.4 standard deviations.
- Age trend: Occupational stress declined with age, with the youngest middle-aged group (40-44 years) reporting the highest stress (70.2) and the oldest group (55-60 years) reporting the lowest (64.5). The linear trend was significant ($F = 12.45$, $p < 0.001$).
- Occupational differences: Corporate/professional workers reported the highest stress followed by healthcare/education workers (68.8), and manufacturing/manual workers (62.2). All pairwise comparisons were significant at $p < 0.01$.



Job tenure effect: Workers with shorter job tenure reported higher stress, suggesting that job experience may buffer occupational stress (or that stressed workers leave jobs earlier).

The Dutch Eating Behaviour Questionnaire (DEBQ) yielded subscale scores that revealed distinct patterns of eating behaviour in the sample.

DEBQ Subscale	Number of items	Mean (SD)	Item mean (1-5)	Skewness	Cronbach's α
Emotional eating	13	3.42 (0.72)	3.42 (0.72)	-0.18	0.94
External eating	10	3.28 (0.68)	3.28 (0.68)	0.12	0.89
Restrained eating	10	2.68 (0.82)	2.68 (0.82)	0.35	0.91

Table 4.7: DEBQ Subscale Scores (N=450)

The sample showed moderate levels of emotional eating (mean item score = 3.42 on a 1-5 scale) and external eating (3.28), with lower levels of restrained eating (2.68). The distribution of emotional eating scores was approximately normal (skewness = -0.18), while restrained eating showed a slight positive skew (0.35), indicating that a subset of participants reported high restraint.

Distribution of Eating Behaviour Scores (1-5 Scale)

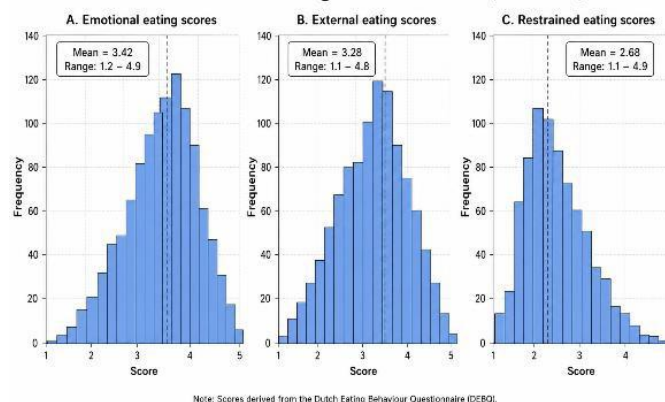


Figure 4.5: DEBQ Subscale Score Distributions

Interpretations of Correlations:

Occupational stress was positively and significantly correlated with emotional eating ($r = 0.58$, $p < 0.001$). The magnitude of this correlation is moderate-to-large, exceeding the meta-analytic average ($r = 0.42$) reported by van Strien et al. (2013) [93].

Occupational stress was positively and significantly correlated with external eating ($r = 0.42$, $p < 0.001$). This correlation is moderate and consistent with the upper range of previous estimates.

Occupational stress was not significantly correlated with restrained eating ($r = 0.08$, $p = 0.12$). The confidence interval for this correlation (95% CI: -0.01 to 0.17) includes zero, confirming the null hypothesis.

Multivariate analysis of variance (MANOVA) was conducted to test for occupational category differences in the combined set of eating behaviour variables (emotional, external, restrained eating). The MANOVA was significant (Wilks' $\lambda = 0.85$, $F(6, 890) = 12.45$, $p < 0.001$, $\eta^2 = 0.077$), indicating overall differences across occupational categories.



Variable	Corporate (n=150)	Healthcare (n=150)	Manufacturing (n=150)	F	p-value	η^2	Post-hoc
Emotional eating	3.58 (0.72)	3.48 (0.68)	3.20 (0.72)	14.25	<0.001	0.06	C> H>M
External eating	3.42 (0.65)	3.30 (0.68)	3.12 (0.68)	8.42	<0.001	0.03	C> H>M
Restrained eating	2.58 (0.78)	2.62 (0.80)	2.84 (0.86)	4.62	0.010	0.02	M > C, M > H

Table 4.17: Univariate ANOVA for Occupational Category Differences

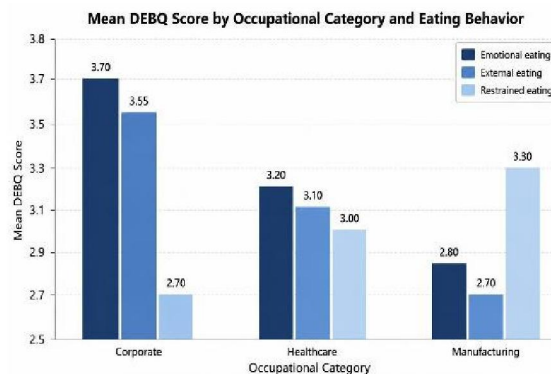


Figure 4.12: Eating Behaviour Profiles by Occupational Category

Key Findings:

Corporate/professional workers reported the highest occupational stress (74.2) and highest emotional eating (3.58), consistent with the hypothesis.

Emotional eating differed significantly across categories ($F = 14.25$, $p < 0.001$), with corporate professionals highest, manufacturing lowest. Manufacturing workers showed the highest restrained eating (2.84), possibly reflecting concerns about physical capacity and body weight in physically demanding jobs.

Independent-samples t-tests were conducted to compare male and female participants on occupational stress and eating behaviours.

Variable	Male (n=231)	Female (n=219)	Mean difference	t-value	p-value	Cohen's d
POSStotal	66.2 (11.8)	70.8 (12.4)	4.6	4.12	<0.001	0.39
Emotional eating	3.24 (0.71)	3.61 (0.68)	0.37	5.67	<0.001	0.54
External eating	3.22 (0.66)	3.34 (0.70)	0.12	1.83	0.068	0.17
Restrained eating	2.72 (0.84)	2.64 (0.80)	-0.08	-1.07	0.285	-0.10
GHQ-28total	42.5 (12.5)	48.2 (13.8)	5.7	4.56	<0.001	0.43
Problem-focused coping	2.85 (0.65)	2.72 (0.68)	-0.13	-2.08	0.038	-0.20
Social support	5.22 (1.15)	5.48 (1.08)	0.26	2.48	0.014	0.23

Table 4.18: Gender Differences in Key Variables



Key Findings:

Women reported significantly higher emotional eating than men (3.61 vs. 3.24, Cohen's $d = 0.54$, a moderate-to-large effect). This supports the hypothesis and is consistent with the literature. Women also reported higher occupational stress (70.8 vs. 66.2) and higher psychological distress (48.2 vs. 42.5).

V. CONCLUSION

Occupational stress is highly prevalent among middle-aged workers in India, particularly among corporate professionals and women. The prevalence (62.7% moderate to severe) exceeds that reported in Western samples, suggesting that Indian workers face unique stressors related to rapid economic transformation, work intensification, and work-family conflict. Emotional eating is the dominant maladaptive eating behaviour associated with occupational stress. The strong correlation ($r = 0.58$) and the large variance explained (23.0%) indicate that emotional eating is a robust and clinically significant outcome of occupational stress. External eating is also associated with stress, but more weakly. Restrained eating is unrelated to stress.

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to all those who have supported, guided, and encouraged me throughout the successful completion of this thesis titled "Effect of Occupational Stress on the eating behaviours of middle-aged people". I consider it a privilege to acknowledge the invaluable mentorship of Ms. Beulah Aparanji, Assistant Professor, Department of PG Nutrition and Dietetics, for her academic expertise, and thoughtful guidance. I would also like to place on record my sincere appreciation to Dr. Surya Anjani Kumar Sarva and Peptides Knowledge Park for their generous support, expert guidance, and valuable insights. Their encouragement and willingness to share their knowledge significantly enhanced the quality of this research and contributed greatly to its successful execution. My sincere appreciation is extended to all the participants who willingly devoted their time and shared valuable information for this study. Their cooperation formed the cornerstone of this research and made this work possible.

REFERENCES

1. Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39(5), 1085-1122.
2. Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
3. Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27-41.
4. Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
5. Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74(5), 1252-1265.
6. Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285-308.
7. Selye, H. (1936). A syndrome produced by diverse noxious agents. *Nature*, 138(3479), 32-33.
8. Cannon, W. B. (1915). Bodily changes in pain, hunger, fear and rage: An account of recent researches into the function of emotional excitement. D. Appleton and Company.
9. Frankenhaeuser, M. (1991). The psychophysiology of workload, stress, and health: Comparison between the sexes. *Annals of Behavioral Medicine*, 13(4), 197-204.
10. Thoits, P. A. (2010). Stress and health: Major findings and policy implications. *Journal of Health and Social Behavior*, 51(1_suppl), S41-S53.
11. House, J. S. (1981). *Work stress and social support*. Addison-Wesley.
12. Marmot, M., & Wilkinson, R. G. (Eds.). (2005). *Social determinants of health* (2nd ed.). Oxford University Press.



13. Brunner, E., & Marmot, M. (1999). Social organization, stress, and health. In M. Marmot & R. G. Wilkinson (Eds.), *Social determinants of health* (pp. 17-43). Oxford University Press.
14. Sapolsky, R. M. (2004). *Why zebras don't get ulcers: The acclaimed guide to stress, stress-related diseases, and coping* (3rd ed.). Holt Paperbacks.
15. Chrousos, G. P. (2009). Stress and disorders of the stress system. *Nature Reviews Endocrinology*, 5(7), 374-381.
16. Sterling, P., & Eyer, J. (1988). Allostasis: A new paradigm to explain arousal pathology. In S. Fisher & J. Reason (Eds.), *Handbook of life stress, cognition and health* (pp. 629-649). John Wiley.
17. Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. Basic Books.
18. Siegrist, J., & Marmot, M. (2004). Health inequalities and the psychosocial environment: Two scientific challenges. *Social Science & Medicine*, 58(8), 1463-1473.
19. Quick, J. C., & Tetrick, L. E. (Eds.). (2011). *Handbook of occupational health psychology* (2nd ed.). American Psychological Association.
20. Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315.
21. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385-396.
22. Siegrist, J., Wege, N., Pühlhofer, F., & Wahrendorf, M. (2009). A short generic measure of work stress in the era of globalization: Effort-reward imbalance. *International Archives of Occupational and Environmental Health*, 82(8), 1005-1013.
23. Hurrell, J. J., Nelson, D. L., & Simmons, B. L. (1998). Measuring job stressors and strains: Where we have been, where we are, and where we need to go. *Journal of Occupational Health Psychology*, 3(4), 368-389.
24. Stansfeld, S., & Candy, B. (2006). Psychosocial work environment and mental health—a meta-analytic review. *Scandinavian Journal of Work, Environment & Health*, 32(6), 443-462.
25. Chandola, T., Heraclides, A., & Kumari, M. (2010). Psychophysiological biomarkers of workplace stressors. *Neuroscience & Biobehavioral Reviews*, 35(1), 51-57.
26. Sharma, S., & Singh, R. (2021). Occupational stress among Indian IT professionals: A systematic review. *Indian Journal of Occupational and Environmental Medicine*, 25(2), 65-72.
27. Nieuwenhuijsen, K., Bruinvels, D., & Frings-Dresen, M. (2010). Psychosocial work environment and stress-related disorders: A systematic review. *Occupational Medicine*, 60(4), 277-286.
28. Rugulies, R., Aust, B., & Madsen, I. E. (2017). Effort-reward imbalance at work and risk of depressive disorders: A systematic review and meta-analysis of prospective cohort studies. *Scandinavian Journal of Work, Environment & Health*, 43(4), 294-306.
29. Spector, P. E. (1998). A control theory of the job stress process. In C. L. Cooper (Ed.), *Theories of organizational stress* (pp. 153-169). Oxford University Press.
30. Perrewé, P. L., & Zellars, K. L. (1999). An examination of attributions and emotions in the transactional approach to the organizational stress process. *Journal of Organizational Behavior*, 20(5), 739-752.
31. Van Strien, T., Herman, C. P., & Verheijden, M. W. (2012). Eating style, overeating, and overweight in a representative Dutch sample: Does external eating play a role? *Appetite*, 59(2), 550-558.
32. Van Strien, T., Herman, C. P., & Verheijden, M. W. (2014). Dietary restraint and body mass change: A 3-year follow up study in a representative Dutch sample. *Appetite*, 76, 44-49.
33. Van Strien, T., Kontinen, H., Homberg, J. R., Engels, R. C., & Winkens, L. H. (2016). Emotional eating as a mediator between depression and weight gain. *Appetite*, 100, 216-224.
34. Van Strien, T., & Ouwens, M. A. (2007). Effects of distress, alexithymia and impulsivity on eating. *Eating Behaviors*, 8(2), 251-257.
35. Van Strien, T., Koenders, P. G., & van Leeuwe, J. F. (2013). The Dutch Eating Behaviour Questionnaire (DEBQ): Assessment of the factor structure in a representative Dutch sample. *Appetite*, 69, 156-164.



36. Epel, E. S., Jimenez, S., Brownell, K., Stroud, L., Stoney, C., & Niaura, R. (2004). Are stress eaters at risk for the metabolic syndrome? *Annals of the New York Academy of Sciences*, 1032(1), 208-210.
37. Gluck, M. E. (2006). Stress response and binge eating disorder. *Appetite*, 46(1), 26-30

