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The role of general and specific stressors in the health and well-being of call centre operators

Short Title: Call centre stress
Abstract

BACKGROUND: The call centre industry has developed a reputation for generating a highly stressful work environment with high absenteeism and turnover rates. Research has identified role ambiguity, role conflict, role overload, and work-family conflict as common stressors in other settings. Call centre research has additionally identified performance monitoring and job design and job opportunities as call centre specific stressors.

OBJECTIVE AND METHODS: This study investigated the impact of the identified stressors on burnout, somatic symptomology and turnover intent among 126 call centre representatives (CCRs) from 11 call centres in metropolitan Melbourne.

RESULTS: Hierarchical multiple regression found that the common organizational stressors significantly explained between 10% to 44% of the variance in somatic symptomology, burnout (all 3 dimensions) and turnover intent. An additional amount of variance, between 6% and 23% in each of these dependent measures was significantly accounted for by the grouped call centre specific stressors.

CONCLUSIONS: Overall, common organizational stressors and call centre specific stressors both significantly and independently contributed to burnout, somatic symptomology and turnover intent. These findings are discussed in relation to previous research, and suggestions for improved practice within call centres to safeguard the well-being of workers, and future research are provided.

Key words: Call centers, stress, health, turnover
1. Introduction

Occupational stress is a principal workplace concern because of both its deleterious effects on the physical and mental health of employees [1, 2], and the related organizational outcomes [3]. When employees experience poor physical health in the workplace, they are more prone to absenteeism [4], and to reduce their contributions to the organization [5]. Mental health outcomes such as burnout [6], anxiety and depression [7], and emotional exhaustion [8], have also been found to decrease employee efficiency and performance. Such findings are particularly relevant to service industries such as call centres, which generate highly demanding, repetitive and stressful work roles that result in high absenteeism and staff turnover rates [9, 10]. High turnover rates inevitably increase the proportion of inexperienced CCRs and lower the standard of professional services provided to customers [11], and increase the operating costs for the organization [12]. Therefore, while the detrimental outcomes of organizational stress are evident, it is important to identify the organizational stressors that lead to outcomes such as burnout, somatic symptomology and quitting intent in order that they might be modified.

1.1. Common Organizational Stressors

Stressors are defined as environmental demands that exceed a person’s ability to meet the challenge [13]. A review by Firth et al. [3] and other studies of organizational stress [14, 15] have consistently identified role ambiguity, role conflict and role overload as role-stressors at work. In addition, Good, Sisler and Gentry [16], Boyar, Maertz, Pearson and Keough [17], and others have found that work-family conflict contributes uniquely to organizational stress across various occupations. Though several studies on call centres [7,
have considered the personal and organizational consequences of role-stressors, work-family conflict has received negligible attention.

*Role conflict* is defined as the occurrence of incompatible sets of pressures that need to be satisfied simultaneously [19]. *Role ambiguity* results when employees are uncertain of what are expected of them or when they have received inadequate feedback on job performance to reduce their ambiguity [11, 20]. High levels of role conflict and role ambiguity have been associated with increased occupational stress and burnout [21, 22], and emotional exhaustion [23]. In a study of 1251 salespeople, Brown and Peterson [24] found that role ambiguity, but not role conflict, had a significant relationship with turnover intent. Conversely, other studies [25, 26] have found role ambiguity not to be a significant predictor on turnover intent.

*Role overload* is defined as having to accomplish more than is possible in the given time [15]. Some studies [20, 21] have found that role overload contributes to depersonalization and emotional exhaustion among employees. Other studies [27] have shown that role overload increases work stress, and this may make employees more susceptible to physical illnesses such as fatigue, dizziness and nausea.

*Work-family conflict* arises when the compliance to one’s work responsibilities interferes with one’s family commitments [28]. Research [26, 29] has found that when work roles interfere with the more valued family-role, there is an increase in stress and a tendency for employees to quit and seek a job that matches the more salient family role. A recent cross-national study by Netemeyer et al. [26] on job-related outcomes among 684 retail workers, found that work-family conflict was significantly associated with job stress and quitting intent. O’Driscoll and colleagues [30] also provided evidence that work-family conflict contributes to psychological strain, such as nervousness and irritability. A study of
nurses [31] found that work-family conflict is associated with emotional exhaustion, depersonalization and diminished feelings of accomplishment.

### 1.2. Call Centre Specific Stressors

In recent years, the Australian Council of Trade Unions [11] and Holman [32, 33] have identified three other stressors that are highly relevant to the call centre industry, namely, performance monitoring, job design and job opportunities. **Performance monitoring** utilizes technology to access employee-customer interactions, enabling monitoring and recording of employees’ work processes, both on the display screen and over the phone [11]. Supervisors can therefore assess employees’ phone ethics, customer service skills and call-durations. Feedback can then be appropriately provided to the CCRs. The immediacy of feedback, use of constructive criticism and the clarity of rating criteria have been found reduce role ambiguity, and to increase satisfaction with the monitoring system [34]. CCRs could potentially benefit from performance monitoring as it could improve work performance and help them to acquire new skills [32, 35]. Performance monitoring is however often perceived as pervasive and unpleasant for CCRs [11]. It has been found to increase stress [11], increase depression and decrease activity [32] when used excessively for punitive reasons or attached to narrow performance-based salary assessment. This may lead to CCRs devoting their cognitive resources to coping with anxiety rather than focusing on providing quality customer service [36]. There is still a lack of research in how perceptions of performance monitoring could affect burnout and turnover intent.

**Job design** within call centres is defined in terms of job control and job demands. The first of these, job control, represents the extent to which CCRs are given discretion over their work-task [32]. Some call centres require CCRs to adhere to strict call durations and
emphasize the use of scripts, while others allow employees to manage their own call 
durations when interacting with customers. The lack of job control, such as the requirement 
of adherence to scripts, has been found to correlate positively with emotional exhaustion [21, 
37]. Other studies [38] have found a significant negative correlation between job control and 
turnover intent. The second aspect of job design, job demands, refers to unique 
organizational aspects of the CCR’s job that require a sustained physical and mental effort 
[39] such as problem-solving demands and attention demands [32]. A review of 63 demand-
control studies [40] has found that these demands predict adverse psychological outcomes, 
such as depression and burnout. Aronsson and Rissler [41] have also found that increasing 
job demands predicts somatic symptomatology.

*Job opportunity* refers to the potential of promotion within a company [11]. This is a 
major concern for CCRs, due to a bottleneck-effect upon rising to a team-leader level. 
Siegrist [42] found a correlation between the lack of job opportunities and stress and health 
outcomes. Posig and Kickul [20] found a negative association between job career promotion 
opportunities and diminished feelings of personal accomplishment.

1.3. Consequences of Stress

Past research on stress in call centres have found relationships between organizational 
stressors and stress measures like depression, anxiety [32] and emotional exhaustion [8]. This 
study will address two other areas of stress that have received negligible attention in call 
centre research, namely burnout and somatic symptomology. *Burnout* is a stress reaction to 
prolonged exposure to job stressors [43]. It has been shown to be very costly in helping 
professions such as nursing [44] and social work [2]. According to Schaufeli, Leiter, Maslach 
and Jackson [45], burnout comprises of three symptoms: a) emotional exhaustion, which
refer to work-related fatigue; b) depersonalization that results from an indifference to work; and c) diminished feelings of accomplishment, which accounts for a decline in one’s competence and productivity.

Burnout as an overall construct has been linked to employee absenteeism and increased turnover [6, 46]. The symptoms of burnout have also been found to relate uniquely to various organizational stressors. For instance, in a meta-analysis of 61 studies on burnout correlates, Lee and Ashforth [21] found that increased levels of role conflict and role overload consistently related to emotional exhaustion and depersonalization but not to diminished feelings of accomplishment. Elloy, Terpening and Kohls [47] found that emotional exhaustion and depersonalization were associated with increased role conflict and decreased role overload among 320 employees in self-managed work teams. The same study also found that diminished feelings of accomplishment were associated with increased job ambiguity and decreased job control.

Somatic symptomology refer to the physiological reactions of employees to stressful work [1]. Such reactions may encompass increased heart rate and blood pressure [1], tension, sleep disturbances and post-work irritability [48]. A study of 312 firefighters also indicated that role conflict exacerbates somatic health symptoms [49]. The poor physical health of CCRs within call centres has been found to decrease the quality of customer service provided and to increase the number of work errors made [11]. This can lead to a lowered first-time call resolution, and can increase the number of redundant calls made [32].

The above review suggests that stressors exert a negative impact upon the physical and psychological well-being of employees, as well as turnover intent. While these consequences have been found to increase organizational cost and decrease productivity, their relationships with stressors are unclear in call centres. This study will specifically
investigate the contribution of the common organizational stressors and call centre specific stressors, to employee burnout and somatic symptomology within call centres. In addition, this study will investigate the impact of these two sets of stressors on turnover intent. Turnover intent has been found to have a strong indirect relationship with actual turnover [50, 51]. However, a longitudinal study of 120 salespeople also found a significant direct link between these two variables [52].

1.4. Hypotheses

On the basis of the above review, this study proposes the following hypotheses:

Hypothesis 1. The common organizational stressors, role ambiguity, role conflict, role overload and work-family conflict, will explain a significant amount of variance in somatic symptomology, burnout and turnover intent.

Hypothesis 2. The call centre specific stressors, performance monitoring, job design and job opportunities, will make a significant contribution to somatic symptoms of stress, burnout, and turnover intent beyond that afforded by the common organizational stressors.

2. Method

2.1. Participants

Participants in this study were 126 CCRs recruited from 11 call centres based in metropolitan Melbourne. The survey respondents ranged in age from 19 to 66 years (\(M = 27.3, \ SD = 8.18\)), and were predominately female (58.7%). Education levels varied from completing some time at high school to completing a degree. Tenure was relatively short with 70.6 % of respondents having worked less than 2 years in their current position. The participating sample consisted of 53.2% inbound CCRs, 37.3% outbound CCRs, with a further 9.5% of participants in mixed roles.
2.2. Measures

Participants completed a questionnaire that assessed demographic characteristics, common organizational stressors, call centre specific stressors, burnout, somatic symptomatology and turnover intent.

**Demographic data** collected related to sex, age, education level, tenure and number of hours worked per week. Participants were also asked if their work predominantly involved making outbound calls, receiving inbound calls or a mixture of both.

**Common organizational stressors** were assessed using scales adapted from Tate, Whatley and Clugston [14] in their tri-nation study of retail sales people. Three items measured each of the following stressors: role ambiguity (e.g., “My job objectives are well-defined”), role conflict (e.g., “To satisfy some people at my job, I have to upset others”), work-overload (e.g., “It seems that I have more work at my job than I can handle”) and work-family conflict (e.g., “My job schedule interferes with my family life”). Participants responded to each item on a five-point Likert scale, from ‘strongly agree’ to ‘strongly disagree’. Role ambiguity was reversed-scored so that high scores indicated high levels of role ambiguity. Tate and colleagues [14] reported adequate reliability coefficients for each sub-scale (α= .61 to .91). The present study similarly found adequate internal consistencies for role ambiguity (α= .85), role conflict (α= .73), role overload (α= .61) and work-family conflict (α= .91).

**Call centre specific stressors** were assessed using a variety of scales. Adapted versions of the Jackson et al. [53] scales were used to measure job design, which comprised of four components: timing control, method control, attention demand and problem-solving demand. Items were reworded when necessary to reflect a call centre environment. Timing
control was measured by a five-item scale (e.g., “Can you decide when to answer or make a call?”). Method control was measured with five-items (e.g., “Can you vary how you talk with customers?”). The attention demand sub-scale consisted of four items (e.g., “Do you have to concentrate all the time to watch for things going wrong?”), and the problem-solving demand sub-scale consisted of five items (e.g., “Are you required to deal with problems that are difficult to solve?”). Participants responded to the items on a five-point scale, from ‘1’ (a great deal) to ‘5’ (not at all). In his study of well-being among 557 CCRs, Holman (2002) reported α-levels ranging from .72 to .82 for each sub-scale. The internal consistencies in the current study were also satisfactory: timing control (α=. 86), method control (α=. 82), attention demand (α=. 77) and problem-solving demand (α=. 84).

Performance monitoring was assessed by a two-question measure that was adapted from Holman [32]. The first question concerned the extent to which the CCRs agreed that they were being overly monitored, and the second measured how much they agreed with the statement: ‘call monitoring is used to punish you rather then develop you’. Participants responded on a five-point scale ranging from ‘1’ (strongly disagree) to ‘5’ (strongly agree). In the current study, internal consistency was satisfactory (α = .76).

Job opportunity was measured by a single item adapted from Tate, Whatley and Clugston [14], and reflected the level of satisfaction expressed by the CCRs with the opportunity for promotion in their job. A five-point scale ranging from ‘1’ (very satisfied) to ‘5’ (very dissatisfied) was used to rate the extent of the CCRs satisfaction with the advancement to a better position since they had commenced their job.

Burnout was measured using the Maslach Burnout Inventory-General Survey (MBI-GS) [45]. The MBI-GS consists of 16 items measuring three symptoms of burnout: emotional exhaustion (five items e.g., “Working all day is really a strain on me”), depersonalization
(five items e.g., “I doubt the significance of my work”), and diminished feelings of accomplishment (six items e.g., “I have accomplished many worthwhile things at work”). All items are scored on a seven-point frequency scale from ‘0’ (never) to ‘6’ (everyday). The diminished feelings of accomplishment sub-scale was reversed-scored so that high scores on all three symptoms are indicative of burnout. Other research has shown this measure to have satisfactory internal reliability (e.g., Allen & Mellor [54] [exhaustion (α=. 80); depersonalization (α=. 80); and diminished feelings of accomplishment (α=. 78)]). The present study found a satisfactory internal consistency for emotional exhaustion (α=. 94), depersonalization (α=. 82) and diminished feelings of accomplishment (α=. 72).

_Somatic symptomatology_ was assessed using a scale adapted from Tate, Whatley and Clugston [14] consisting of four items relating to anxiety and somatic complaints (e.g., “Job-related problems make my stomach upset”). Participants indicated on a six-point scale the degree to which they experience each of these symptoms. Responses ranged from ‘0’ (never) to ‘5’ (almost everyday). In the present study, the internal consistency was satisfactory (α=. 92).

_Turnover intent_ was measured by a scale adapted from Tate, Whatley and Clugston [14]. It consisted of two questions that reflected how participants felt about their leaving their jobs (“How often do you think of leaving your present job?”; “How likely are you to look for a new job within the next year?”). Responses were given on a five-point scale. Other research has shown this measure to have satisfactory internal reliability estimates (e.g., Firth et al [3], α=. 75). The internal consistency in this study was satisfactory (α=. 90).
2.3. Procedure

Following ethics approval from the Deakin University Ethics Committee, participants were recruited from call centres where managers had provided written approval for the distribution of questionnaires. The participating call centres were drawn from a variety of industry sectors, such as financial services, telecommunication services, utility services, information technology services, newspaper companies, non-profit organizations, and travelling and airline services.

Participants were required to complete a self-assessed questionnaire in their own time. A plain language statement was included with each questionnaire, stating the purpose of the study, guaranteeing confidentiality, and emphasizing the voluntary nature of the study. To ensure anonymity, participants were directed to return questionnaires via the replied-paid envelopes provided. Of the 280 questionnaires distributed, 126 questionnaires were returned, representing a response rate of 45%.

3. Results

3.1. Data Screening

Data screening was undertaken with SPSS (version 11.5) for windows. There were no cases with missing data, \((N=126)\). The presence of outliers was examined using SPSS DESCRIPTIVES and SPSS REGRESSION. Role ambiguity had 2 univariate outliers using the criterion \(z\)-score \(\pm 3.29\), and no multivariate outliers were detected with a criterion of \(p<0.001\) for Mahalanobis distance [55].

Normality was assessed using SPSS FREQUENCIES. Role ambiguity had a substantial positive skew and kurtosis using a criterion \(z\)-score \(\pm 3.29\) [55], i.e., \(z\)-score (skew)=5.04, \(z\)-score (kurtosis)=4.80. A logarithmic-transformation produced an acceptable
skew and kurtosis, \( z \)-score (skew) = -0.35, \( z \)-score (kurtosis) = -1.45. The logarithmic transformation additionally resolved the problem of the two outstanding outliers.

Multicollinearity was assessed using SPSS CORRELATION. No multicollinearity was detected as the highest correlation value was .70, less than the recommended critical-value of .90 [55].

Violations of normality, linearity and homoscedasticity were assessed using SPSS SCATTER. Examinations of residual scatterplots showed that residuals were now normally distributed about the predicted DV scores, they were also linear with regard to the predicted DV scores, and the assumptions for homoscedasticity were met.

Table 1 summarizes the means and standard deviations for the measured variables and Table 2 presents the inter-correlation between these variables.

### 3.2. Regression analyses

Hierarchical regressions were conducted to determine whether the stressors predicted somatic symptomology, burnout symptomology, and turnover intent. In step 1, the common organizational stressors of role ambiguity (logarithm-transformation), role conflict, role overload and work-family conflict were entered together. At Step 2, the call centre specific stressors of performance monitoring, job design (timing control, method control, attention demand and problem-solving demand) and job opportunities were entered together. Tables 3 to 7 display the standardized regression coefficients (\( \beta \)), the semi-partial correlations (\( sr^{2} \)), \( R^{2} \), adjusted \( R^{2} \), \( R^{2} \) change, and significance levels for the dependent variables.
3.2.1. Predictors of Somatic Symptomology

As shown in Table 3, the common organizational stressors that were entered at step 1 of the regression significantly predicted somatic symptomology accounting for 42% of the variance \((F(4, 121)= 21.70, p<.001)\). Of the assessed variables, role overload \((sr^2_i = .30)\), work-family conflict \((sr^2_i = .21)\) and role conflict \((sr^2_i = .15)\) significantly contributed to the variability of this measure. The addition of call centre specific stressors in step 2 explained a reliable increase of 16% of the variance in somatic symptomology \((F(6, 115)= 7.28, p<.001)\). Performance monitoring \((sr^2_i = .36)\) was the only significant unique predictor for somatic symptomology in this step. Positive \(\beta\)-weights suggested that an increase in role conflict, role overload, work-family conflict and performance monitoring would contribute to an increase in somatic symptomology.

3.2.2. Predictors of Emotional Exhaustion

As shown in Table 4, the stressors that were entered at step 1 significantly explained 53% of the variance in emotional exhaustion \((F(4, 121)= 34.52, p<.001)\). Role overload \((sr^2_i = .22)\) and work family conflict \((sr^2_i = .37)\) were the two significant contributors to the variability in this measure. Following step 2, the call centre specific stressors significantly contributed an additional 6% of the variance \((F(6, 115)= 2.64, p<.05)\). The significant contributors were performance monitoring \((sr^2_i = .15)\), job opportunities \((sr^2_i = -.12)\) and work-family conflict \((sr^2_i = .27)\). The \(\beta\)-weights indicate that call centre representatives experiencing high levels of performance monitoring and work-family conflict, as well as a low levels of job opportunities were more likely to score highly on emotional exhaustion.
3.2.3 Predictors of Depersonalization

As shown in Table 5, the stressors that were entered in step 1 significantly explained 44% of variance in depersonalization ($F(4, 121)= 24.17$, $p <.001$). Work-family conflict was the most significant contributor ($sr_i^2 = .34$), followed by role overload ($sr_i^2 = .17$) and role conflict ($sr_i^2 = .14$). The addition of call centre specific stressors in step 2 explained an additional 10% of the variance in depersonalization ($F(6, 115)= 4.02$, $p <.001$). Unique significant predictors were work-family conflict ($sr_i^2 = .21$), job opportunities ($sr_i^2 = -.21$) and performance monitoring ($sr_i^2 = .19$). $\beta$-weights indicate that an increase in role conflict, role overload, work-family conflict, performance monitoring and a decrease in job opportunities contribute to high levels of depersonalization.

3.2.4 Predictors of Diminished Feelings of Accomplishment

From Table 6, it can be seen that the stressors in step 1 significantly contributed 10% of the variance in diminished feelings of personal accomplishment ($F(4, 121)= 3.45$, $p <.01$). Adding the call centre specific stressors in step 2 explained an additional 23% of the variance ($F(6, 115)= 6.32$, $p <.001$). The significant contributors were method control ($sr_i^2 = -.31$), performance monitoring ($sr_i^2 = .21$), job opportunities ($sr_i^2 = -.18$) and timing control ($sr_i^2 = .16$). $\beta$-weights indicate that high levels of performance monitoring and timing control, and low levels of method control and job opportunities contribute to increasing levels of diminished feelings of accomplishment.
3.2.5. Predictors of the Intention to Quit

From Table 7, it can be seen that the stressors in step 1 significantly explained 26% of the variance in turnover intent ($F(4, 121)= 10.87, p<.001$). The only significant contributor in this step was work-family conflict ($sr_1^2 = .25$). Variables entered at step 2 explained a reliable 18% increase in the variance in turnover intent ($F(6, 115)= 6.07, p<.001$). Unique significant predictors were job opportunities ($sr_1^2 = -.41$) and the logarithmic-transformation of role ambiguity ($sr_1^2 = .14$). $\beta$-weights indicate that an increase in work-family conflict and log-role ambiguity and a decrease in job opportunities predict an increase in turnover intent.

4. Discussion

The current study investigated the influence of common organizational stressors (i.e., role ambiguity, role conflict, role overload and work-family conflict) and call centre specific stressors (i.e., performance monitoring, job design and job opportunities) on somatic symptomology, burnout and turnover intent within call centres.

4.1. Hypothesis one

The results provided mixed support for hypothesis one, which proposes that role ambiguity, role conflict, role overload and work-family conflict would have a significant contribution to somatic symptomology, burnout symptomology (all 3 dimensions) and turnover intent. As a set, the common organizational stressors significantly explained between 10% to 44% of the variance in somatic symptomology, burnout symptomology (all 3 dimensions) and turnover intent among the CCRs. Examinations of the regressions however reveal that diminished feelings of accomplishment was not significantly predicted by any individual stressor (see Table 6).
The relationships found between the remaining dependent variables and the common stressors demonstrated inconsistencies with past research. In the current study, somatic symptomology and depersonalization were positively related to role conflict, role overload and work-family conflict. Emotional exhaustion was only affected by the latter two stressors. Together, these findings provided support for prior studies which have found that somatic symptomology had a positive relationship with role conflict [49], role overload [27], and work-family conflict [30]. Results however provided partial support to Lee and Ashforth’s [21] meta-analytic findings that depersonalization and emotional exhaustion were positively related to role conflict and role overload. Contrary to past sales-research [23, 47], emotional exhaustion in this study was found to be associated with neither role conflict nor role ambiguity.

Present findings also indicated that turnover intent had a positive relationship with role ambiguity and work-family conflict. This lends support to Frone et al.’s [29] finding turnover intent was associated with work-family conflict, and also Brown and Peterson’s [24] conclusion that turnover intent was related to increasing role ambiguity but not role conflict. Support was also given for the findings of. At the same time, results contrasted those of other studies that had found that turnover intent was not significantly predicted by role ambiguity [25, 26].

These mixed findings may be attributed to several factors. Firstly, this study focused on the direct contributions of the four specified common stressors to health outcomes and turnover intent within call centres. Findings may therefore indicate the presence of mediating factors that were not tested within this study. Furthermore, results could be particularly reflective of a call centre environment. For example, role ambiguity may be more detrimental to the performance and satisfaction of the CCR in their work (e.g., resolving
customer request) than to perhaps teachers, as in the study by Conley and Woosley [25]. This could explain the higher desire to quit among CCRs should role ambiguity arise.

Work-family conflict was found to have most detrimental impact among the common stressors, on the health outcomes and quitting intentions of the CCRs. Netemeyer et al. [26] suggested that when inter-role conflict is high, stress increases, and maintaining a salient identity may be threatened. This may cause employees to withdraw (high turnover) from the less salient role (work) to maintain identity in the more salient role (family) [29].

Overall, these findings suggest that quitting intent among CCRs could be reduced by decreasing role ambiguity and work-family conflict. Additionally, levels of somatic symptomology and burnout among CCRs could be reduced by decreasing role conflict, role overload and work-family conflict.

4.2. Hypothesis two

Hypothesis two, which proposed that performance monitoring, job design and job opportunities would contribute significantly to somatic symptomology, burnout, and turnover intent beyond the contributions afforded by the common organizational stressors, was also partially supported by the results. When entered into the regression analyses as a group, the call centre specific stressors significantly accounted for an additional 6% to 23% of the variance in the dependent variables. However the regression analyses showed that none of the dependent variables were significantly related to job demands (attention demands and problem-solving demands). This was contrary to previous research [40, 41] that had found that somatic symptomology and burnout were related to increasing job demands. A plausible explanation could be that the work-roles of the CCRs in this sample were not so demanding as to increase negative health outcomes.
Previous call centre research [32, 36] had found that excessive performance monitoring increased depression and anxiety, and reduced activity. This study found that somatic symptomology and burnout symptomology, especially depersonalization, were significantly predicted by the CCR’s perception of the monitoring system. Specifically, when performance monitoring is viewed as being utilized excessively and for punitive purposes, it can increase outcomes such as work-related fatigue and an indifference to work. This could lead to a decreased productivity and increased absenteeism among CCRs [4].

The current findings additionally indicate that burnout symptomology and turnover intent was significantly predicted by the lack of job opportunities within call centers, after the impact of common workplace stressors was accounted for. This corresponds with reports from the ACTU [11], which found that while newly employed CCRs hold the most expectation of promotions, their confidence in career prospects deteriorates after two years. Coincidentally, that period reflects the average employment duration of CCRs before they depart from a given call centre [11].

The present finding that diminished feelings of accomplishment relate to increased levels of timing control and decreased levels of method control are partially contrary to previous studies. For example, Deery, Iverson and Welsh [37] had found that emotional exhaustion instead of diminished feelings of accomplishment, related negatively to job control. Also contrary to the findings of Beehr, Canali and Wallwey [38], turnover intent did not significantly relate to timing control in this study. The positive relationship between diminished feelings of accomplishment and timing control was also unexpected. This could be attributed to an emphasis on call quantity and duration as important criteria for performance, i.e., CCRs have to meet a targeted amount of call-turnover within an allocated time to have performed well. Having excessive control over call durations may cause CCRs
to fall short of company targets, thus leading them to view themselves as less of a contributor to the company.

In summary, the call centre industry is marked by high absenteeism and turnover rates. While organizational stress has been identified to be a major contributor, this study has isolated several major stressors, namely, role conflict, role overload, work-family conflict, performance monitoring and the lack of job opportunities, as being highly detrimental to specific personal and organizational outcomes. To reduce the experience of somatic symptomatology, burnout and turnover intent among CCRs, it is therefore important that interventions should aim to at least moderate the impact of the aforementioned stressors if they cannot be eliminated. For example, the experience of role conflict and role overload have been found to be frequent in call centre work [11]. Prior research [11] has suggested that having adequate staffing and break-times could alleviate the levels of role overload experienced by the CCR. Developing reasonable workloads in consultation with employees could also prove advantageous. It is also suggested that providing managerial support to CCRs during difficult calls could reduce the conflict of wanting to solve a problem while having to adhere to strict time-based performance evaluations (role-conflict).

Work-family conflict has been often neglected in call centre research, however it had been identified as a significant stressor within this study. Studies [26] have found that the introduction of corporate programs like flextime, family leave and job sharing has been effective in reducing work-family conflict and in improving performance. Such interventions however may prove cost-ineffective and impractical to implement within a call centre. It may be more feasible for managers to adopt coping strategies that are incorporated into organizational culture, such as establishing family-friendly work policies and fostering a
supportive work environment. Allen [56] found that by supporting work-benefits such as flexible work-scheduling, managers can help reduce the occurrence of work-family conflict.

Providing a career-path within call centres may be difficult because of its flat-operating structure that provides limited opportunities for promotions to team leader or supervisor. Though it seems that job opportunities are limited, it could be argued that having a greater extent of role breadth could decrease the perception that one remains stagnant in a given job-position. Accordingly, research [57, 58] has found that by engaging in a greater variety of tasks, job satisfaction increases and quitting intent decreases. Call centres should therefore seek to improve the flexibility of workplace designs. For example, allocating CCRs a mixture of customer-related interaction and administration work, or introducing them to work from other company departments, could offer possibilities to improve jobs.

The perception that performance monitoring is used for pervasive and punitive purposes has also been identified as having a detrimental impact on health outcomes for CCRs. Holman, Chissick and Totterdell [59] suggest that reducing the number and non-essentials types of performance monitoring could help alleviate the negative perceptions of the system. Other suggestions [9, 12] include conducting call-monitoring only with the permission of the CCRs and using customer satisfaction surveys for performance evaluation rather than call-monitoring. More active approaches could involve highlighting the benefits of performance monitoring to CCRs, and emphasizing the immediacy of constructive feedback together with clear performance criteria. Furthermore, a positive perception of the monitoring system would increase the importance that CCRs place on performance appraisals [59].
4.3. Limitations and future recommendations

While the above findings are informative, this study suffers from several potential limitations. Firstly, the majority of participants were females. While this might limit the generalizability of the current results, other call centre research [9, 11] had also reported similar sampling distributions. This study relied on self-report questionnaire data. Common method variance, ‘centrality’ effects and other forms of response bias may present a potential source of invalidity to substantive interpretation. A further bias in the sample could be attributed to the possibility that CCRs experiencing burnout may not respond to the questionnaire.

The construct measures used in this study had previously been evaluated, however role overload had a poor internal reliability (α=.61), when compared to an adequacy criterion (α=0.70) [60]. Further research may need to examine whether the items could be better defined or reworded to allow an easy interpretation by the CCRs.

5. Conclusion

In conclusion, the current study expanded on previous call centre research by showing that call centre specific stressors significantly contributed to burnout, somatic symptomology and turnover intent beyond the contributions afforded by common organizational stressors. Taken together, the present findings suggested the relevance of modifying role conflict, role overload, work-family conflict, performance monitoring and the lack of job opportunities, so as to reduce negative personal and organizational outcomes. This requires organizational efforts to provide providing adequate rest-breaks having supportive work environments, redesigning call centre work to yield more variety and improving employee perceptions of the monitoring system.
References


List of Tables

Table 1: Means and standard deviations of the measured variables for call centre representatives (N=126)

Table 2: Inter-correlations of the measured variables within the total call centre representative sample (N=126)

Table 3: Hierarchical regression of the common organizational stressors (step 1) and the call centre specific stressors (step 2) on somatic symptomology

Table 4: Hierarchical regression of the common organizational stressors (step 1) and the call centre specific stressors (step 2) on emotional exhaustion

Table 5: Hierarchical regression of the common organizational stressors (step 1) and the call centre specific stressors (step 2) on depersonalization

Table 6: Hierarchical regression of the common organizational stressors (step 1) and the call centre specific stressors (step 2) on diminished feeling of accomplishment

Table 7: Hierarchical regression of the common organizational stressors (step 1) and the call centre specific stressors (step 2) on turnover intent
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*Means and Standard Deviations of the Measured Variables for Call Centre Representatives (N=126)*

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Significance Level: * p<0.05. ** p<0.01. *** p<0.001.
Table 3

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*Significance Level: * $p<0.05$. **$p<0.01$. ***$p<0.001$. *
Table 4

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Significance Level: * $p<0.05$. ** $p<0.01$. *** $p<0.001$. 
Table 5

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Significance Level: * $p<0.05$. ** $p<0.01$. *** $p<0.001$. 
Table 6

*Hierarchical Regression of the Common Organizational Stressors (Step 1) and the Call Centre Specific Stressors (Step 2) on Diminished Feeling of Accomplishment*

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*Significance level: * $p<0.05$. ** $p<0.01$. ***$p<0.001$.  


Table 7

Hierarchical Regression of the Common Organizational Stressors (Step 1) and the Call Centre Specific Stressors (Step 2) on Turnover Intent

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Significance Level: * $p<0.05$. ** $p<0.01$. *** $p<0.001$. 