APM RESEARCH FUND SERIES

The wellbeing of project professionals

Association for Project Management
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Authors

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Contents

Executive summary

The awareness of mental health and wellbeing issues in societies is increasing. The Organisation for Economic Co-operation and Development (OECD)'s report shows the whole of Europe is struggling with the burden of mental ill health, which affects an estimated 84 million people – one in six. The cost to the UK economy is in line with the average for Europe at 4 per cent of GDP (approximately costing £94 billion per year).

Against this backdrop, project-based work has long been characterised as frenetic, fast-paced and dynamic. Project professionals typically encounter high expectations and severe pressure to deliver projects on time and within budget, and to reconcile changing expectations of scope due to dynamic factors, such as new initiatives from the project sponsor. Therefore, it is not surprising that project professionals work in a stressful environment. This research not only aims to reflect how this work nature affects the state of wellbeing, but, more importantly, it also proposes solutions and recommendations to improve the situation.

Recommendations

Section 5 of the report sets out the factors why working in projects can lead to challenges to wellbeing for project professionals, which largely relate to the nature of projects, rather than the individuals themselves. This research – details of which are set out below – allows the profession to identify some suggested actions and interventions that can be taken at both an individual and an organisational level. These remedies are set out in section 6 and APM will discuss how to take these forward as part of its commitment to working with members and organisations to address these key issues.

Recommendations on interventions were made with respect to both the organisational and individual levels. Organisational-level interventions are designed to enable the reduction of the adverse impacts of major project professionals' workplace stressors. The interventions were categorised as: *overall strategic interventions* (ie. create a positive workplace culture); *operational planning interventions* (ie. strengths-based management and corporate level project planning); *execution interventions* (ie. performance management); and *continuity and growth* (ie. strategic training programme). Individual-level interventions within the workplace were proposed to help project professionals reduce their adverse response to workplace stressors. These remedies are set out in section 6 and APM is discussing how to take these forward as part of its commitment to working with members and organisations to address these key issues.

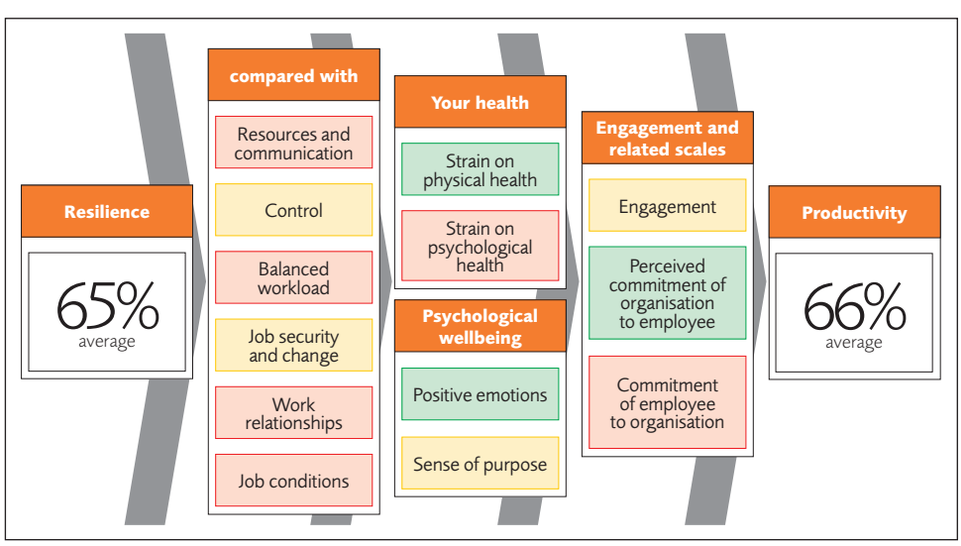

Figure 1: Scales used and outcome of the study

Remarks: relative to the norm group, green = typical; yellow = approaching high risk; red = atypical (high risk)

Findings

The findings of the current study were benchmarked against the norm group that involved approximately 70,000 people surveyed between 2013 and 2017 from various organisations in the private and public sectors, which were collated in a database and referred to in this study as the General Working Population (GWP) 2017 norm, or the 'norm group'. The benchmarking against the norm group makes it possible to evaluate the relative state of wellbeing and resilience in the project management profession, with a view to recommending ways of improving wellbeing and enhancing business outcomes. The results (see Figure 1), although partially positive (green shading), highlight several areas of concern (yellow and red shading).

The benchmarking against the norm group makes it possible to evaluate the relative state of wellbeing and resilience in the project management profession, with a view to recommending ways of improving wellbeing and enhancing business outcomes

Four of the *6 Essentials* subscales, ie. *Resources and communication*, *Balanced workload*, *Work relationships* and *Job conditions*, show project professionals to be atypical, indicating high-risk areas, compared with the norm group. The *Control* and *Job security and change* subscales measured them as approaching high risk.

Regarding the two *Psychological wellbeing* subscales, the *Positive emotions* subscale indicates that project professionals were typical compared with the norm group (despite all aspects of the *6 Essentials* being either in the high-risk area, or approaching high risk), while the *Sense of purpose* subscale showed that it was an approaching high-risk area for project professionals. As for the two *Your health* subscales, although project professionals' level of *Strain on physical health* was typical compared with the norm group, their level of *Strain on psychological health* was atypical, indicating it to be a high-risk area.

The subscales of the *Engagement and related scales* indicate that project professionals' *Perceived commitment of the organisation to employee* was aligned with that of the norm group. However, their level of *Engagement* was approaching high risk, and the level of *Commitment of employee to organisation* was high risk compared with the norm group.

The *Work-related resilience* scale portrays project professionals as a less resilient group (65 per cent average) compared with the norm group (77 per cent average). This means there is much room for improvement in their levels of confidence, adaptability, purposefulness and social support in the face of difficulties. The *Productivity* scale measured project professionals' productivity level as 66 per cent. This level is considerably lower than the range of 70-75 per cent typically measured in the general working population.

Tests for significant differences were conducted between men and women, managers and employees, married and unmarried individuals, people from European and non-European countries, and according to basis of employment. Measured at the composite scale level, two of these, ie. managerial/employee status and basis of employment, accounted for the majority of the significant differences found.

The differences were as follows: for the *6 Essentials* scale they were between managers and employees, people working in European and non-European countries, and according to basis of employment; for both the *Psychological wellbeing* scale and the *Engagement and related scales* they were between managers and employees; and for the *Your health* scale they were according to basis of employment. The significant differences in the *Productivity* scale were according to basis of employment, while in the *Work-related resilience* scale they were between managers and employees, and according to basis of employment. In all cases, managers were better off than employees, and self-employed people were better off than people employed on any other basis.

1. Introduction

In recent decades, nations around the world have recognised that economic measures of success are insufficient to accurately measure how well a country's people are living. Including national measures of wellbeing along with traditional economic measures, such as Gross Domestic Product (GDP), provides a more complete picture of a country's success than economic measures alone (OECD, 2017).

This thinking about having economic and wellbeing components to measurements of national success has been taken up by organisations across sectors and industries as a means of improving workplace performance outcomes. For example, the Department for Business, Innovation and Skills in the UK published a comprehensive report that concluded employees' wellbeing has a significant impact on workplace performance in terms of labour productivity, financial performance, and the quality of output and services (Bryson, Forth & Stokes, 2015).

Project professionals, a subset of the working population, deliver on strategic projects in many sectors and industries, creating key outcomes for their organisations. To date, however, limited research has focused on assessing the level of workplace wellbeing for project professionals in comparison with the general working population, with the aim of identifying key factors that enhance or detract from their workplace wellbeing (Cui et al, 2016). Against this backdrop, the current study, funded by APM, aims to deepen our understanding of:

1. The current level of project professionals' workplace wellbeing compared to a valid benchmark of workplace wellbeing;

2. The factors that support or detract from project professionals' workplace wellbeing;

3. The differences in workplace wellbeing experienced by project professionals on the basis of gender, organisational status, marital status, geographical location of employment and basis of employment; and

4. The preliminary direction of targeted interventions likely to improve project professionals' workplace wellbeing.

2. Purpose

In order to achieve these aims, the analysis in this report includes independent samples t-tests aimed at identifying significant differences between: managers (managers, owners, partners and directors – grouped and hereinafter referred to as 'managers') and employees; men and women; married and unmarried people; and people working in European and non-European countries.

Welch's ANOVA and post-hoc Games-Howell tests were also conducted to identify significant differences between those in self-employment, casual employment, part-time employment, fixed-term employment and full-time employment (hereinafter referred to as 'basis of employment').

Although we did collect data from people who classified themselves as unemployed, we excluded them from the analysis of and discussion about significant differences, because unemployment is out of the scope of this study and the proposed interventions are not targeted at this group of people. The results of these tests are reported in each section of the analysis with the relevant statistics presented as footnotes.

The independent samples t-tests and the Welch's ANOVA and post-hoc Games-Howell tests essentially test hypotheses that assume significantly different responses would not be obtained from these groups, at a 95 per cent confidence level.

Statistical tests were conducted to identify significant differences between managers and employees; men and women; married and unmarried people; people working in European and non-European countries; and different employment basis

3. Method

3.1 Primary data collection

The survey population consisted of members of the APM. Working with psychological wellbeing specialists Robertson Cooper Ltd for the collection of the data, APM assisted by emailing their members details of the URL for online access to the *ASSET* and *Work-related resilience* questionnaires and asked them to participate.

Of the 184 responses received, 183 were suitable for analysis after elimination of missing values cases. Missing values were missing completely at random (MCAR). This represents one per cent of the total professional membership of the APM. Respondents described their job functions as follows: project or programme managers (22 per cent); and academics or trainers (16 per cent). The rest described themselves as project planners and project administrators (62 per cent).

Fifty-five per cent of participants were women. Fifty-seven per cent were unmarried. Most respondents emanated from Europe (55 per cent), followed by Asia (38 per cent), Africa (four per cent), North America (two per cent) and Australia/Oceania (one per cent). The geographical scope of the survey responses reflects the nationality of APM's members, which was skewed towards Europe and Asia.

Most respondents were employed on a full-time basis (54 per cent), with 11 per cent part-time employed, 10 per cent self-employed, six per cent fixed-term employed and two per cent casual employed. Seventeen per cent of participants were unemployed. In addition, the majority (78 per cent) were not in managerial positions.

The industries in which they were employed included construction (20 per cent), education (13 per cent), IT (12 per cent), logistics (10 per cent), consulting (nine per cent) and financial services (seven per cent), defence (six per cent) and 'other' (14 per cent).

3.2 Questionnaire items

The study employed the psychometrically validated ASSET scale (Faragher, Cooper & Cartwright, 2004), a model of workplace wellbeing, the *Work-related resilience* scale (Robertson Cooper, 2012) and the single-item *Productivity* measure (Donald, Taylor, Johnson, Cooper, Cartwright & Robertson, 2005). Supplementary questions, designed to gather demographic information, respondents' characteristics and details of employment were also included in the survey.

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The core scales of the ASSET model used for this study comprised the *6 Essentials*, *Your health*, *Psychological wellbeing* and *Engagement and related scales* (see Figure 2).

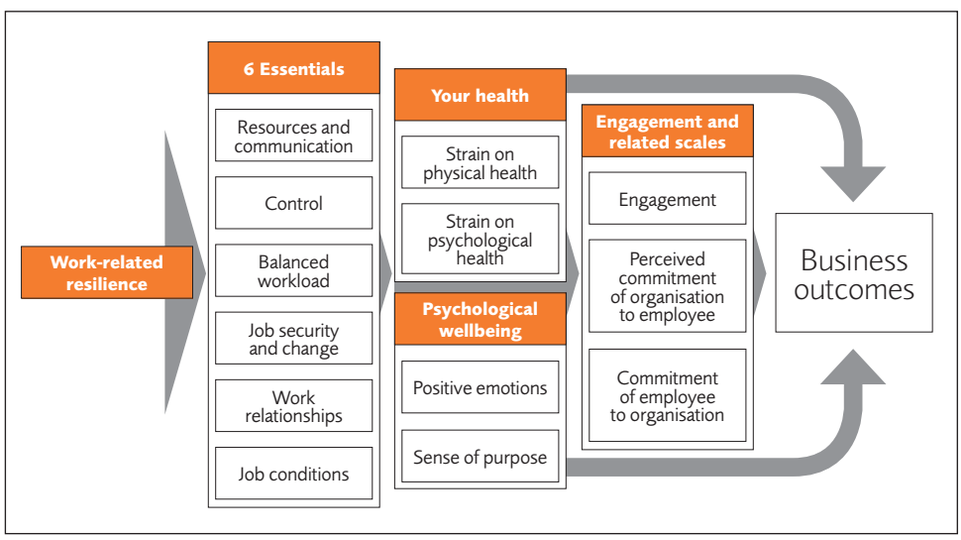

Figure 2: The core scales of the ASSET scale

3.3 The General Working Population comparison (norm) group

The results from the current survey were compared with the results of the *General Working Population (GWP) 2017* data, which includes approximately 70,000 responses to ASSET surveys from a range of organisations and industries in the public and private sectors, between 2013 and 2017. Public sector organisations included local governments, universities, the National Health Service, various police organisations and European Government bodies. The private sector organisations included financial services, pharmaceutical, engineering/construction, retail and manufacturing industries.

The vast majority of the surveys were initiated from the UK, but several private sector companies included employees from other countries. The GWP 2017 norm provides a useful baseline against which to compare the results of the current study, since it can be regarded as a proxy for the general working population. It is a potential limitation of this study that the GWP 2017 norm might not be an appropriate proxy in respect of nationally defined (non-UK) subsets of the current study's population.

3.4 Sten scores

When comparing the data from the current survey to the norm group, a 1 to 10 (sten) score is produced for each *ASSET* scale and for each item within each subscale. Similarly, a sten score is produced for the *Work-related resilience* subscales and items, but not for the *Productivity* scale. Colour shading indicates ranges of responses. Scores in the light-green range indicate a response (eg. to *Positive emotions*) that is typical of the norm group used for comparison. A more extreme score (in the bright-green or red range) indicates that participants have responded atypically (eg. more stressed by *Work relationships*). The bright-green range is more positive (low risk) and the red range is less positive (high risk). Scores in the yellow range are defined as 'approaching high risk'. The scores reported as stens are therefore not absolute scores, but an indication of how the results fare relative to the comparison group.

4. Findings

4.1 The 6 Essentials

4.1.1 Resources and communication

This subscale measured the extent to which respondents were concerned about a lack of resources and/or inadequate communication.

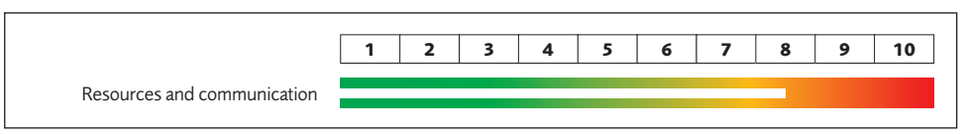

Figure 3: Sten score for the Resources and communication subscale

Overall, this subscale shows a high-risk score relative to the norm group (see Figure 3). It can be seen in Figure 4 that the main cause of this heightened risk was *lack of feedback on performance* and *lack of adequate training to do the job*.

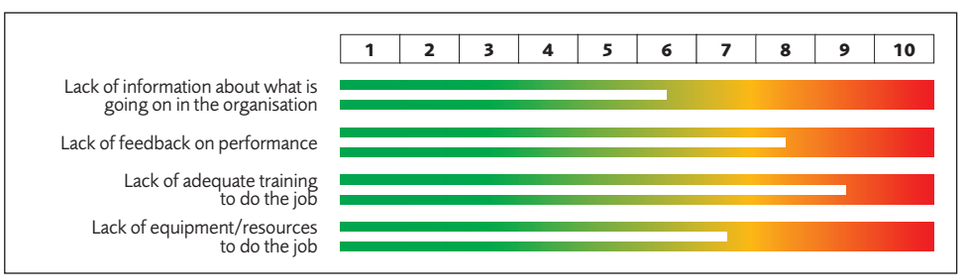

Figure 4: Sten scores for the Resources and communication subscale items

4.1.2 Control

This subscale measured the extent to which a lack of control, ie. feeling unable to influence a situation, was a source of workplace stress.

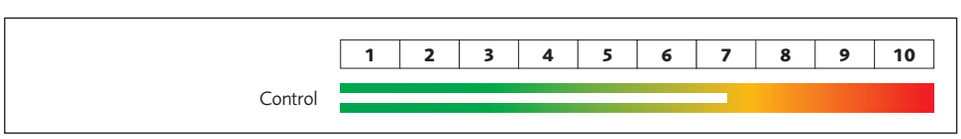

Figure 5: Sten score for the Control subscale

The overall finding for the *Control* subscale was approaching high risk relative to the norm group (see Figure 5). It can be seen in Figure 6 that the main cause of this heightened risk was that respondents felt troubled that their ideas/suggestions about the job were not being taken into account, to a greater extent than the norm group.

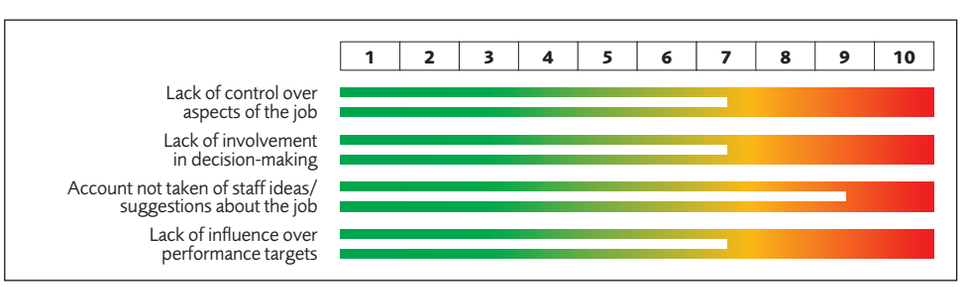

Figure 6: Sten scores for the Control subscale items

4.1.3 Balanced workload

This subscale measured a combination of two related pressures, namely, workload and the work-life balance.

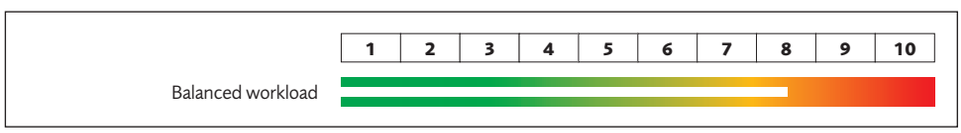

Figure 7: Sten score for the Balanced workload subscale

The score for the *Balanced workload* subscale shows it to be a high-risk area compared with the norm group (see Figure 7). In the following two sections, the scores for this subscale are reported at the level of its subscales, namely, *Work-life balance* and *Workload*.

4.1.3.1 Work-life balance

This subscale measured the extent to which difficulty in maintaining a satisfactory work-life balance was a source of concern for respondents.

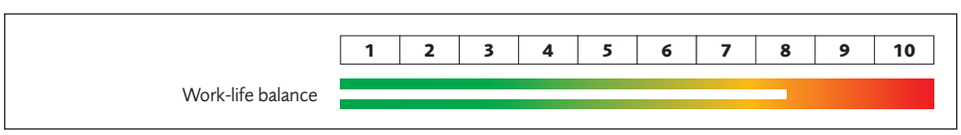

Figure 8: Sten score for the Work-life balance subscale

The *Work-life balance* subscale indicates a high-risk area compared with the norm group (see Figure 8). All of the subscale items, except *long hours* and *work interfering with home/personal life* (which were both approaching high risk), were high risk compared with the norm group (see Figure 9). The most serious problem was *excessive travel time*.

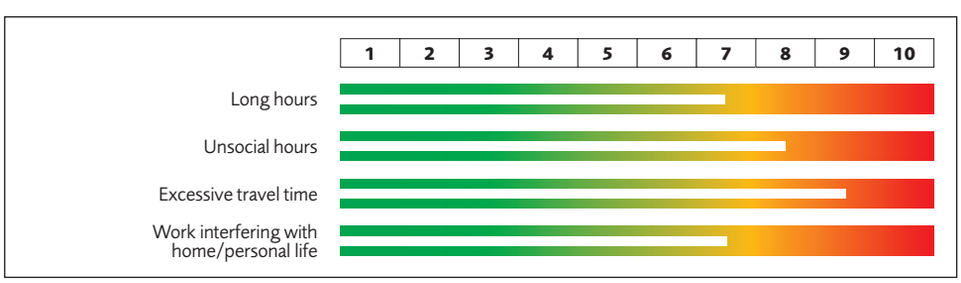

Figure 9: Sten scores for the Work-life balance subscale items

4.1.3.2. Workload

This subscale measured the extent to which individuals felt the demands of their workload and associated time pressures were a source of concern.

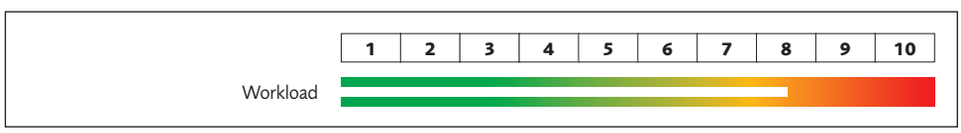

Figure 10: Sten score for the Workload subscale

The *Workload* subscale score (see Figure 10) can be seen to be high risk compared with the norm group. All items in the subscale were high risk or approaching high risk compared with the norm group (see Figure 11), except *lack of time*. The most serious problems were perceived to be *technology overload* and *unrealistic deadlines*.

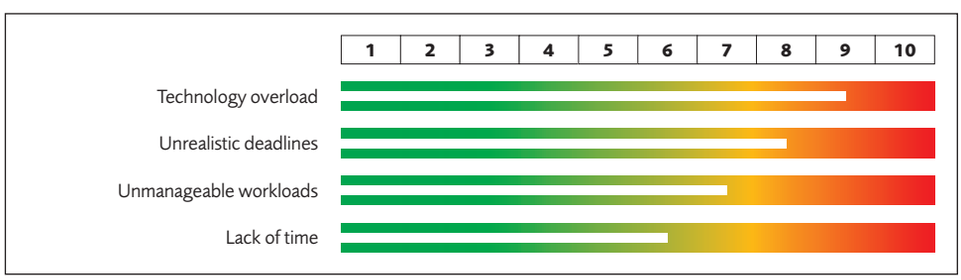

Figure 11: Sten scores for the Workload subscale items

4.1.4 Job security and change

This subscale measured the extent to which job security and change were perceived sources of concern.

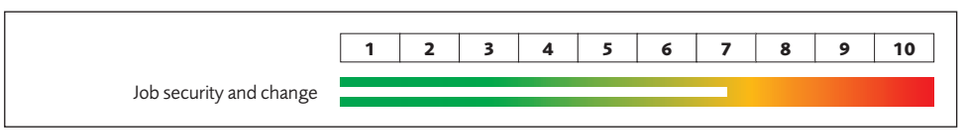

Figure 12: Sten score for the Job security and change subscale

Figure 12 indicates that respondents' concerns over *Job security and change* were approaching high risk compared with the norm group. Although most of the items (see Figure 13) were scored in the typical range, the items *lack of job permanence* and *fear of skill redundancy* were high risk relative to the norm group.

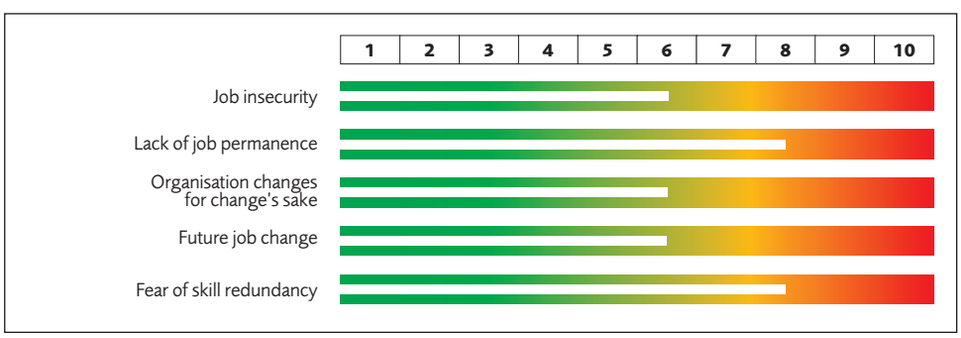

Figure 13: Sten scores for the Job security and change subscale items

4.1.5 Work relationships

This subscale measured the extent to which work relationships were a source of concern.

Figure 14: Sten score for the Work relationships subscale

The *Work relationships* subscale (see Figure 14) shows that project professionals were far more concerned about the quality of work relationships than were respondents in the norm group. All of the subscale items, except *others not pulling their weight* (which was approaching high risk), were found to be high risk compared with the norm group (see Figure 15). The biggest differences between project professionals and the norm group occurred in *aggressive management style*, *isolation at work*, *unclear what boss expects*, *boss is forever finding fault*, *others take credit for my achievements* and *poor relationships with colleagues*.

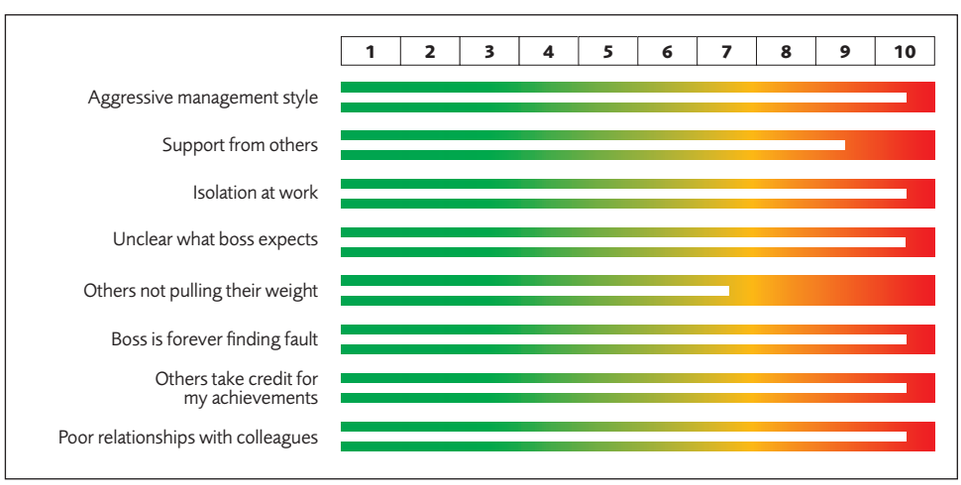

Figure 15: Sten scores for the Work relationships subscale items

4.1.6 Job conditions

This subscale measured concerns about incentives, working conditions and satisfaction.

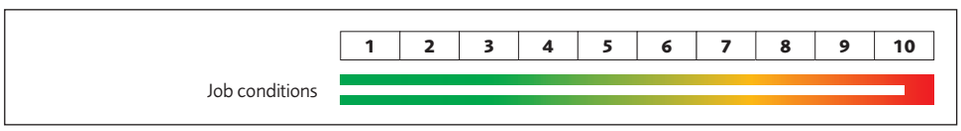

Figure 16: Sten score for the Job conditions subscale

Figure 16 shows concerns among project professionals about *Job conditions* to be at high risk. The main causes of this were *dull and repetitive work*, *dealing with difficult customers/clients* and *lack of enjoyment of job* (see Figure 17). The items *poor physical working conditions*, *risk of physical violence* and *work performance closely monitored* were also found to be causes of concern approaching high risk.

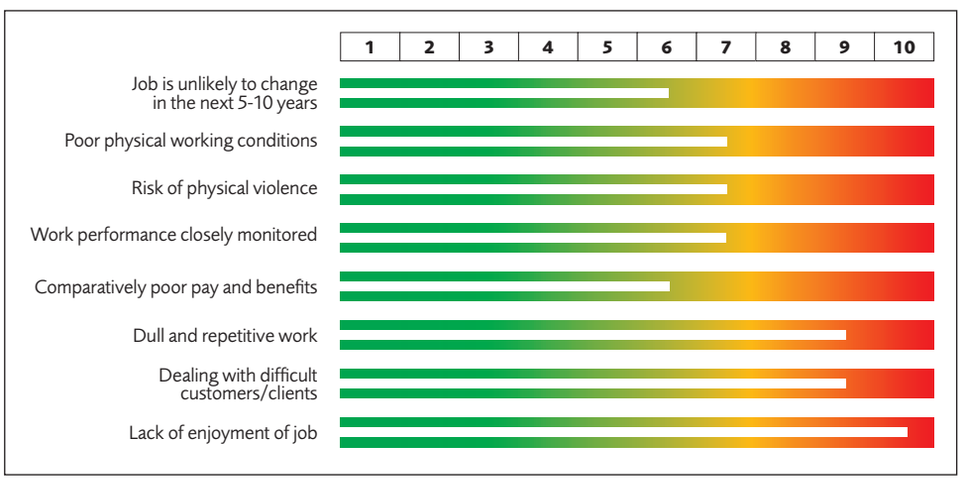

Figure 17: Sten scores for the Job conditions subscale items

4.2 Psychological wellbeing

Starting from this section, the graphical presentation is reversed by illustrating the low-risk score (green) on the right-hand side, and high risk (red) and approaching high-risk score (yellow) on the left-hand side of the figure.

4.2.1 Positive emotions

This subscale measured the extent to which people experienced positive emotions at work.

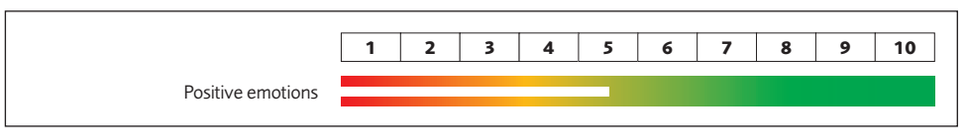

Figure 18: Sten score for the Positive emotions subscale

From Figure 18 it can be seen that project professionals' experience of *positive emotions* at work was typical of the norm group. Figure 19 shows that, although most items were typical of the norm group, feelings of *alert*, *determined* and *happy* were atypical (high risk).

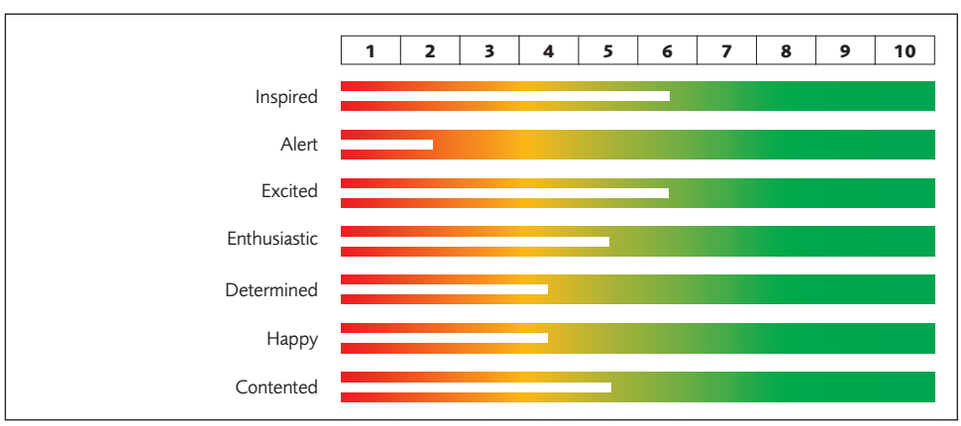

Figure 19: Sten scores for the Positive emotions subscale items

4.2.2 Sense of purpose

This subscale measured the extent to which respondents' views of their work goals gave them a sense of purpose.

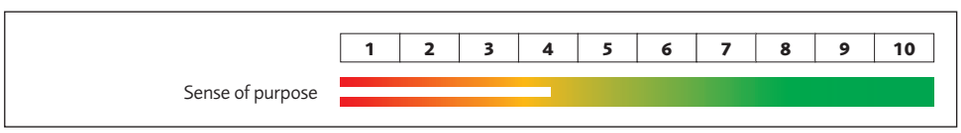

Figure 20: Sten score for the Sense of purpose subscale

Figures 20 and 21 show that project professionals' experience of a *sense of purpose* at work was approaching high risk. This was true for the overall subscale, as well as for all of the constituent items, except for *challenging goals*, which was typical compared with the norm group.

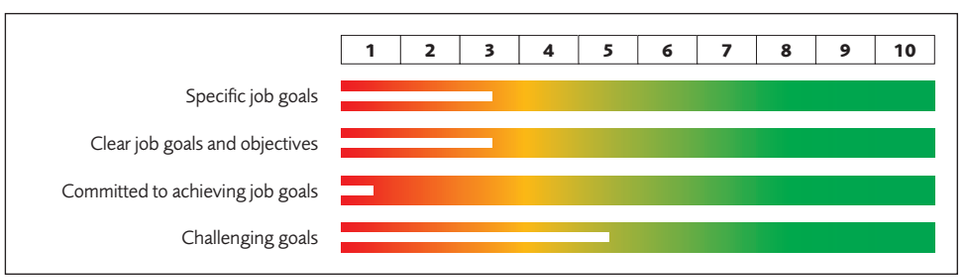

Figure 21: Sten scores for the Sense of purpose subscale items

4.3 Your health

4.3.1 Strain on physical health

This subscale measured the extent to which people experienced physical health-related symptoms over the preceding three months.

Figure 22: Sten score for the Strain on physical health subscale

Figures 22 and 23 show that project professionals' experience of physical health-related symptoms was typical compared with the norm group, for all items except *feeling nauseous or being sick*.

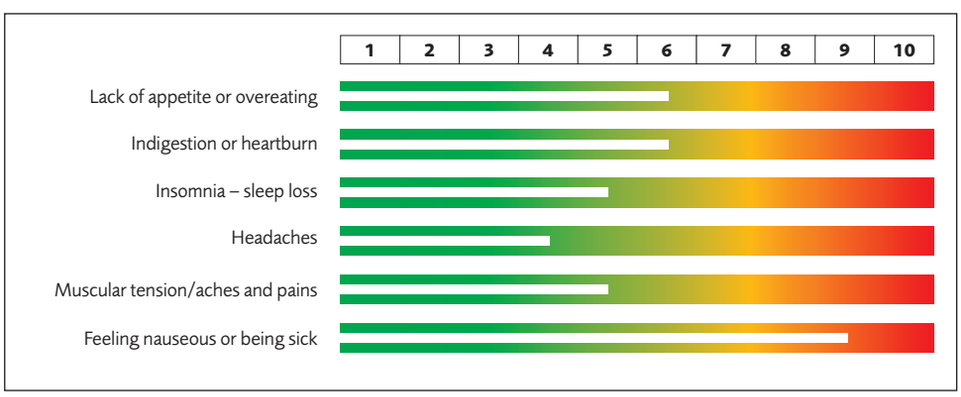

Figure 23: Sten scores for the Strain on physical health subscale items

4.3.2 Strain on psychological health

This subscale measured the extent to which people experienced psychological health-related symptoms over the preceding three months.

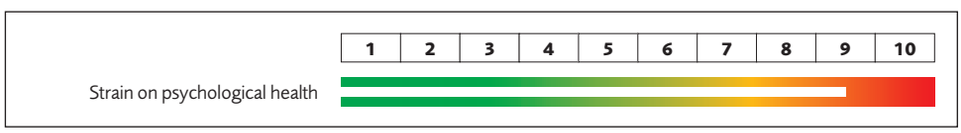

Figure 24: Sten score for the Strain on psychological health subscale

Figures 24 and 25 show that project professionals' experiences of psychological health-related symptoms were high risk compared with the norm group. This was true for all of its items except *constant irritability*, *constant tiredness* and *panic or anxiety attacks*.

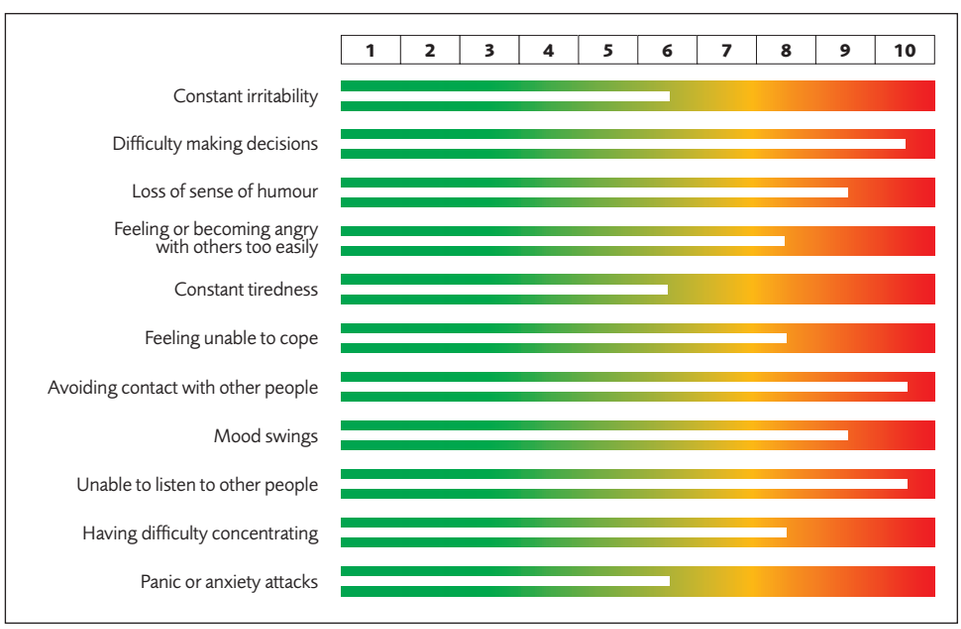

Figure 25: Sten scores for the Strain on psychological health subscale items

4.4 Engagement and related scales

4.4.1 Engagement

This subscale measured the extent to which respondents engaged with their work.

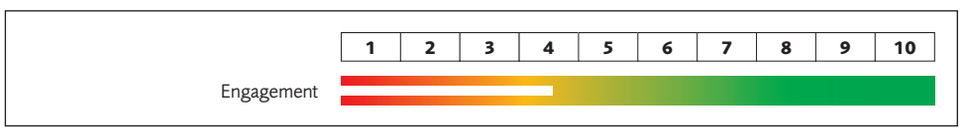

Figure 26: Sten score for the Engagement subscale

Figure 26 shows that project professionals' engagement levels were approaching high-risk level. This was true for all of its items except for *organisation is motivating* and *work hard for this organisation*.

4.4.2 Perceived commitment of organisation to employee

This subscale measured the extent to which respondents perceived their organisations to be committed to them.

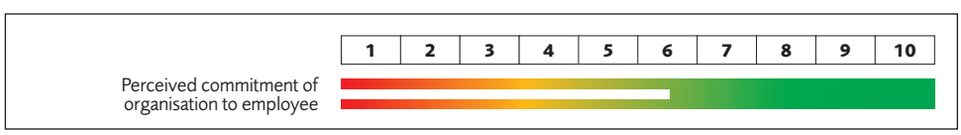

Figure 27: Sten score for the Perceived commitment of organisation to employee subscale

Figure 27 shows that project professionals' perceived levels of organisational commitment to employee were typical compared with the norm group, for both items of the subscale.

4.4.3 Commitment of employee to organisation

This subscale measured the extent to which respondents perceived themselves to be committed to their organisation.

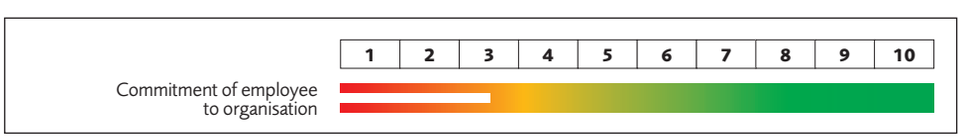

Figure 28: Sten score for the Commitment of employee to organisation subscale

Figure 28 shows that project professionals' perceived levels of *commitment of employee to organisation* were at high risk compared with the norm group. It can be seen in Figure 29 that the main cause of this heightened risk was the extent to which respondents were *committed to their organisation*.

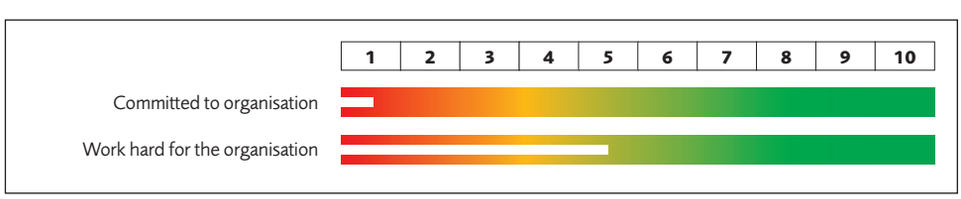

Figure 29: Sten scores for the Commitment of employee to organisation subscale items

4.5 Summary

The overall findings of the *ASSET* survey are shown below in Figures 30, 31, 32 and 33, where, respectively, the sten scores for the *6 Essentials*, *Psychological wellbeing*, *Your health*, and *Engagement and related scales* are presented.

All the *6 Essentials* subscales show that project professionals were either at high risk or approaching high-risk levels compared with the norm group (see Figure 30). The *Resources and communication*, *Balanced workload*, *Work relationships* and *Job conditions* subscales were found to be at high risk, and the *Control* and *Job security and change* subscales were approaching high-risk levels.

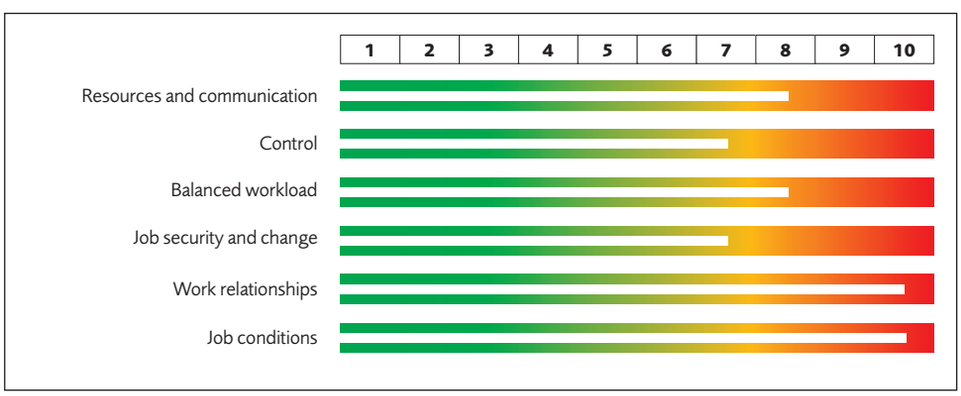

Figure 30: Overall ASSET sten scores for the 6 Essentials scale

For the *Psychological wellbeing* subscales, *Positive emotions* and *Sense of purpose*, project professionals were found, respectively, to be typical and approaching high risk, compared with the norm group (see Figure 31). This indicates that their experience of *Positive* emotions was aligned with the norm group while their experience of *Sense of purpose* was not. The finding that project professionals' experience of positive emotions was typical compared with the norm group is surprising given that none of the subscales of the *6 Essentials* scale were typical.

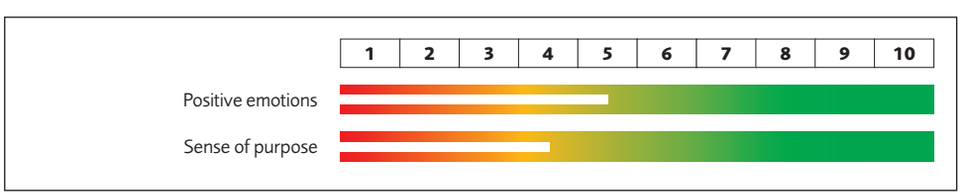

Figure 31: Overall ASSET sten scores for the Psychological wellbeing scale

The *Your health* subscales (*Strain on physical health* and *Strain on psychological health*) measured project professionals as typical and high risk, respectively, compared with the norm group (see Figure 32). This indicates that their experience of *strain on physical health* was aligned with the norm group, while their experience of *strain on psychological health* was not. The high level of strain on psychological health could be a consequence of all of the *6 Essentials* subscales measuring project professionals as either approaching high risk or high risk.

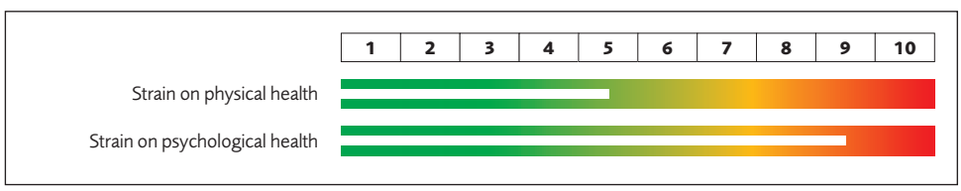

Figure 32: Overall ASSET sten scores for the Your health scale

Finally, the *Engagement and related scales* scale consists of three subscales depicted in Figure 33. Compared with the norm group, the *Engagement* and *Commitment of employee to organisation* subscales portrayed project professionals as approaching high risk and high risk, respectively, while the *Perceived commitment of organisation to employee* subscale showed them as typical. This indicates that their levels of engagement with, and commitment to, their organisations were relatively lower than the norm group. These could be a consequence of all of the *6 Essentials* subscales being either approaching high risk or high risk.

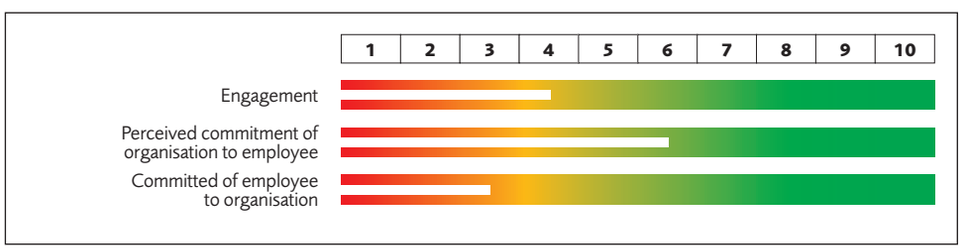

Figure 33: Overall ASSET sten scores for the Engagement and related scales scale

4.6 Work-related resilience

The average *Resilience* score for the norm group was 77 per cent, which is substantially higher than the 65 per cent calculated for project professionals. The average resilience score for managers in the project professional sample was 79 per cent, which was considerably higher than the 59 per cent calculated for employees; and the average score for self-employed project professionals was 71 per cent, which was higher than the score for any of the other types of employment.

4.7 Productivity

The *Productivity* scale is a one-item scale that asks respondents how productive they felt they had been over the preceding three months. The scale measured the productivity level of project professionals as 66 per cent. The productivity measurement is not included in every survey, so there is no accurate benchmark for it in the GWP data. However, Robertson Cooper advised that it is typically in the range of 70-75 per cent.

5. Discussion of the findings

The sten diagrams for the various subscales show areas where project professionals were found to be worse off than the comparison norm group. This discussion explores potential reasons for such divergence.

Resources and communication

The *Resources and communication* subscale shows project professionals to be high risk compared with the norm group, mainly caused by *lack of adequate training to do the job*, *lack of feedback on performance* and *lack of information about what is going on in the organisation*.

Inadequate training has long been recognised as a stressor, because it is associated with career development (Cooper, 1983), and in the context of mentoring and induction, it is important for new recruits to receive adequate training (Arrman & Björk, 2017). Love, Edwards and Irani (2010) suggest that modifying the use of training and technology can be an effective stress-management strategy at the organisational level.

Receiving constructive feedback helps people to perform effectively in their jobs and good communication can also be a powerful source of inspiration and motivation (Faragher et al, 2004). An important aspect of feedback is that it can flag the onset of a stressor, and thereby be an important moderator of stress (Bakker & Demerouti, 2007).

Control

Overall, the *Control* subscale shows project professionals to be approaching high risk compared with the norm group. The most concerning item was *account not taken of ideas and suggestions about the job*. Such perceived lack of control, or decision latitude, over how people choose to do their work, or whether they feel able to influence their situation, can be a major source of stress (Faragher et al, 2004). The perception of control over their situation empowers people to make active attempts to resolve problems and encourages them to approach their work in a positive way (Karasek, 1979). Increased control can also be a safeguard against the negative effects of other pressures, such as work-life imbalance and heavy workloads.

The perception of control over their situation empowers people to make active attempts to resolve problems and encourages them to approach their work in a positive way

Work-life balance

Project professionals were found to be worse off than the norm group in terms of having a *Balanced workload* – both the *Work-life balance* and *Workload* subscales were high risk. This is consistent with the findings of previous research (Bowen, Edwards, Lingard, & Cattell, 2014b; Lingard & Francis, 2004). A good balance between people's work and non-work lives is generally regarded as an important contributor to their overall psychological wellbeing, with work-life imbalance having been described as the primary cause of occupational stress (Faragher et al, 2004; Industrial Society, 2001).

Workload

The departure from the norm of the *Workload* subscale was mainly due to *technology overload* and *unrealistic deadlines*. Feeling overloaded by technology might refer to: the pace and nature of new software development, eg. information-modelling tools (which tends to be supported by the finding that *lack of adequate training to do the job* was high risk compared with the norm group); it could refer to communication overload (eg. time spent on computers and smartphones, emailing, texting, etc); or it could refer to the latent fear of change felt by many workers regarding the use of new office technologies generally (Cooper, 2005; Leung et al, 2005). Tight or unrealistic deadlines are typically part of project work and can be a major source of stress (Asquin, Garel & Picq, 2010; Faragher et al, 2004; Ibem, Anosike, Azuh & Mosaku, 2011).

Job security and change

Project professionals' overall perceptions of *Job security and change* as sources of stress were approaching high risk relative to the norm group, caused mainly by concerns about *lack of job permanence* and the *fear of skill redundancy*. At the item level, both of these were found to be high risk relative to the norm group, a potentially unexpected result in the case of the latter (Brown, Cooper & Kirkcaldy, 1996). Significant differences regarding concerns about the *lack of job permanence* were found as follows:

- Between men and women, with men being less concerned.
- Married and unmarried people differed significantly, with married people feeling less concerned about a lack of job security.
- A significant difference was found between respondents from European countries and those from other countries, with the former being less concerned about job security.

Work relationships

All of the items in the *Work relationships* subscale were found to be high risk compared with the norm group, except *others not pulling their weight*, which was approaching high risk. The remaining seven items can be grouped according to their reference to: a boss/manager – *aggressive management style*, *unclear what boss expects* and *boss forever finding fault*; or support/relations with colleagues – *support from others*, *isolation at work* and *poor relations with colleagues*. The item *others taking credit for my achievements* could be allocated to either group. In the boss/manager group, the potential influence of bosses and managers in causing stress is reported in the literature – poor relationships with managers and colleagues can cause strain and affect health and performance negatively (Faragher et al, 2004; Michie, 2002). The importance of social support is that it has been found to be a buffer against job stress (Thoits, 1995; Van der Doef & Maes, 1999; Viswesvaran, Sanchez & Fisher, 1999; Chen, Siu, Lu, Cooper, & Phillips, 2009). Good relationships at work can be energising and can contribute to the achievement of high levels of engagement and satisfaction, helping people to cope with work pressure and to maintain performance under challenging conditions (Faragher et al, 2004).

Job conditions

The *Job conditions* subscale of the *6 Essentials* scale indicates that, overall, project professionals were high risk compared with the norm group. The finding that project professionals were more concerned than were the norm group about *dull and repetitive work*, *dealing with difficult customers* and *lack of enjoyment of the job* because job satisfaction is important to people's overall psychological wellbeing (Faragher, Cass & Cooper, 2005; Kalleberg, 1977). The approaching high-risk items, ie. concerns about *work being monitored closely*, *poor physical working conditions* and *risk of physical violence* are also apparently related to job dissatisfaction (Firth, Mellor, Moore & Loquet, 2004). Job satisfaction is causally linked to stress, commitment and turnover intentions (Elangovan, 2001; Mansell, Brough & Cole, 2006). Higher stress leads to lower job satisfaction, which leads to lower commitment and an increase in intentions to quit.

Sense of purpose

The *Sense of purpose* subscale of the *Psychological wellbeing* scale was approaching high risk compared with the norm group. The causes of this were: *job goals are specific*; *job goals and objectives are clear*; and *committed to achieving job goals*, meaning that project professionals found job goals to be less well-specified than they were in the general working population and, similarly, job goals and objectives were found to be less clear, resulting in a relatively lower commitment to achieving them. A sense of purpose theoretically enhances the effect of positive emotions (Robertson & Cooper, 2011) (*positive emotions* was aligned with the norm group in this sample), so this finding indicates the underachievement by project professionals of overall psychological wellbeing, notwithstanding the foundation thereof being in place.

Strain on physical health

Project professionals were aligned with the norm group regarding *strain on physical health*, but the item *feeling nauseous or being sick* was high risk, with significantly more women than men reporting this. It is unclear why this would be the case, but it is cause for concern.

Strain on psychological health

Only three of the 11 items in the *strain on psychological health* subscale were not high risk compared with the norm group, indicating that project professionals experience a high level of strain on their psychological health because of the stressful working environment as indicated in the results of the *6 Essentials* subscales.

Engagement

The *Engagement* subscale puts project professionals in the approaching high-risk category, compared with the norm group. Three causes of this can be identified by the items *put myself out for the organisation*, *committed to achieving job goals* and *committed to organisation*, which indicate that project professionals were less inclined to agree with these statements than were the norm group. The relatively low level of engagement of project professionals is a problem, given the link between engagement and productivity/organisational performance outcomes (Markos & Sridevi, 2010; Robertson, Birch & Cooper, 2012).

Project professionals were aligned with the norm group regarding strain on physical health, but the item feeling nauseous or being sick was high risk, with significantly more women than men reporting this

Committed to organisation

The *Commitment of employees to organisation* subscale found project professionals to be high risk compared with the norm group. The cause of this was that project professionals were not as *committed to organisations* as people in the norm group – a surprising finding, given that their preparedness to exceed expectations (*work hard for this organisation*) was aligned with the norm group. Indeed, Wang and Armstrong (2004) found that the level of project professionals' commitment to the profession was significantly higher than it was to their employing organisations. The fundamental reason for this is that with project management skills and knowledge, project professionals have opportunities for horizontal job mobility and can obtain jobs in many different organisations. The current study's results show that project professionals were less committed to their organisations, compared with the norm group, but both groups indicate that they felt 'slightly' committed. However, project professionals may be committed to their projects because of their high levels of professional commitment. Although project-level commitment and organisational-level commitment are different constructs, project-level commitment is outside the scope of this study. Future research is required to investigate the different levels of work commitment among project professionals.

Resilience

The overall average *Work-related resilience* score for project professionals was 65 per cent, considerably lower than the 77 per cent of the norm group. This finding is cause for concern, considering that there is an increased risk of being diagnosed with a mental health disorder among people with lower resilience (Bezdjian, Schneider, Burchett, Baker & Garb, 2017).

Self-employed people and managers were found to be significantly more resilient than were unemployed people and employees, respectively. People in management roles were more resilient (72 per cent) than employees (64 per cent), and self-employed people were more resilient (79 per cent) than other employment types. This could reflect that resilient employees are more likely to be promoted in organisations or leave to start their own enterprises.

6. Recommendations

While project management as a profession is stressful, sustainable performance is impaired when stress levels are too high for too long and when staff do not feel able to rest and recover from extreme stress levels. This section aims to provide both organisations and project professionals with potential interventions to reduce the high levels of stress indicated in the *6 Essentials* subscales and thus to enhance the state of wellbeing. Yet, the application of these potential interventions must be assessed carefully in the context of the specific organisation and individual, since not all interventions are applicable or appropriate in all situations.

6.1 Organisational-level interventions

Our review of the high-risk and approaching high-risk items of the *6 Essentials* subscales shows that the potential interventions at the organisational level can be categorised in four interrelated dimensions, namely: strategy, operational planning, execution, and continuity and growth. In addition, many high-risk and approaching high-risk items could be related to more than one category for interventions, which means organisations can choose the most appropriate interventions for practice. The definitions of the four categories are as follows:

Strategy (S) refers to potential interventions that involve macro-level changes in the context, such as organisational culture, technology applications and corporate policies. Operational Planning (P) focuses on interventions that move strategy to planning for actions more effectively. Execution (E) is about interventions that help implement plans in work more efficiently. Continuity and growth (C) refers to interventions that enhance the capabilities of workforce to work more efficiently and effectively.

6.1.1 Strategy (S) interventions

The results of the 6 Essentials indicate that many items relate to top-level organisational issues. These include, but are not limited to, the following items: *lack of information about what is going on in the organisation*; *lack of feedback on performance*; *lack of involvement in decision-making*; *lack of influence over performance targets*; *account not taken of staff ideas/suggestions about the job*; *unmanageable workloads*; *organisation changes for change's sake*; *poor relationships with colleagues*; *unrealistic deadlines*; *unsocial hours*; and *aggressive management style*.

The above items also indicate pervasive work stressors on project professionals arising from the culture, structure and policies of organisations. Under the circumstances, strategy interventions, like cultivating positive culture, establishing a project management office and developing supportive corporate policies, were suggested to tackle the overstress issues at a macro level.

Cultivate Positive Culture

Negative or toxic cultures unnecessarily increase stress on project professionals, decreasing their performance. The results of the *6 Essentials*, such as the item of *others not pulling their weight*, *work performance closely monitored* and *boss is forever finding fault*, suggest that improvement is needed in a number of items characteristic of a positive workplace culture. Development of a positive workplace culture would include these steps:

- conduct a culture audit to determine whether the values of the organisation are reflected fully in the behaviours of the organisation's members;
- validate the values of the organisation to assure they are in alignment with the strategic objectives;
- develop observable behavioural standards representing the implementation of the values with the assistance of staff;
- provide training and feedback on value-based behaviours in the workplace; and
- include the assessment of value-based behaviours and periodic performance evaluations.

Implementation of Project Management Office

For some organisations, project management is viewed as a tool, not a strategy. This may result in a disconnection between strategic planning and project planning, creating a stressful and possibly toxic work environment for project professionals. One possible solution to this is for project management processes and techniques to be elevated to the strategic level by establishing a project management office (PMO). A PMO actively manages all projects undertaken in the organisation, assuring that projects are properly prioritised, resourced, staffed and actively managed to assure goal attainment. It would be empowered to intervene if the project is off schedule, under-resourced or in competition for resources with functional elements of the organisation.

Develop Supportive Corporate Policies

The *6 Essentials* results, such as the item of *unsocial hours*, *fear of skill redundancy*, *unmanageable workloads*, *lack of time*, *long hours*, *poor physical working conditions*, *risk of physical violence* and *excessive travel time*, suggest that a comprehensive review and possible redevelopment of critical HR policies may be necessary to reduce unnecessary exposure to workplace stressors. Work-life balance is difficult in a high-demand field such as project management. However, there are a variety of possible interventions, which need to be supported by policy and incorporated into managers' performance reviews to assure compliance. Some companies actively limit the amount of overtime permitted, understanding the diminishing marginal return of excessive work hours per week. Some companies, recognising that overtime may be necessary, provide compensatory time, subsequent opportunities for telework, subsequent opportunities for alternative work schedules and, in some cases, supplemental compensation.

Some companies, recognising that overtime may be necessary, provide compensatory time, subsequent opportunities for telework, subsequent opportunities for alternative work schedules and, in some cases, supplemental compensation

Where and when possible use of alternative work schedules may be invaluable. These need to be customised for the organisation, the project and the team. They may range from flexibility to be gone from the project for a couple of hours to see a child school play to something more comprehensive. Increased autonomy over when work is completed decreases experienced stress and may well increase motivation.

Toxic management, such as *aggressive management style*, *boss forever finding fault*, *unclear what boss expects*, *unrealistic deadlines*, *unmanageable workloads*, *lack of control over aspects of the job*, *lack of equipment/resources to do the job* and *lack of feedback on performance*, among other items in the *6 Essentials*, must be addressed at an organisational level. Setting standards for positive managerial behaviours within HR policies, providing managerial training and feedback, and then supporting that through the establishment of performance objectives for good management is a possible intervention. At its base, managers need to reconceptualise their role from command and control to facilitation of the team in attaining shared work goals.

Project-related travel may also need to be the subject of revised HR policies, as *excessive travel time* was indicated as a high-risk item in *6 Essentials*. Extended out-of-town travel and unusually long daily commutes are stressors that may be mitigated by flexible time-off policies, flexible overnight stays, shared commuting or flexible work hours to avoid peak congestion periods.

6.1.2 Operational planning (P) interventions

Operational planning (P) focuses on interventions that move strategy to planning for execution. Ideally, after strategic objectives and success criteria are determined by executive management, project professionals should be included in the development of appropriate project plans to implement those objectives. However, the results of the *6 Essentials* items, such as *unclear of what the boss expects*, *unrealistic deadlines* and *technology overload*, strongly suggest that higher-level management may not be taking sufficient care in developing plans with reasonable input and participation by project professionals.

Besides being an unnecessary stressor, this lack of consultation may well result in plans with a higher risk of failure because they did not include all relevant considerations when prepared. As a result, the execution of the project work may be accomplished to meet strategic business goals without subjecting project staff to healthy levels of stress. Against the background, planning interventions, like integrating project management techniques into operational planning, introducing high-level change management planning, developing active job design and strengths-based management, and creating consistent strategic communication programme were proposed to alleviate the overstress issues.

Integrate Project Management Techniques into Operational Planning

For some organisations, project management techniques are deployed only on discrete projects and have not been integrated into the operational planning and execution of the work of the organisation. This may result in a mismatch between projects and the operational plan in terms of scope, schedule and budget (both financial and human resources), which creates undue stress on staff. Improving project management maturity level proposed by Mingay (2002) (see Figure 34) is a way to integrate project management techniques with operation planning. By doing so, project professionals may feel less stressed at work. Project management maturity levels reflect the extent to which project management is integrated and integral to the work of the organisation. As project management maturity increases, the rigorous practices of project management extend further into the organisation, likely reducing stressors arising from poorly planned and resourced projects. Additionally, the more fully project management is integrated into an organisation, the less isolated project professionals are from the general employee population. When projects are one-offs, the project professionals may feel isolated, different and unsupported, thereby increasing their experienced stress. This may be particularly true when they are managed by non-project professionals within a traditional functional organisation.

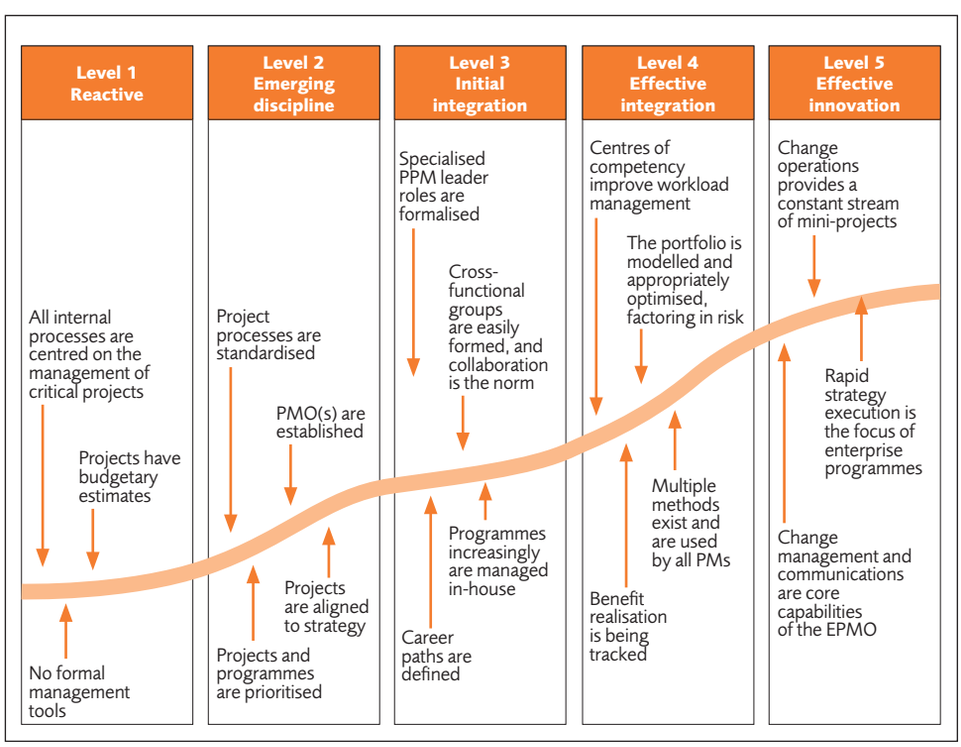

Figure 34: Gartner Project Management Maturity Model

High-level Change Management Planning

Change takes time and effort. Organisations often create unnecessary and sometimes toxic levels of stress by not including project professionals early in the change management process, obtaining their input and how to move forward with the change, not allowing for the time it takes people to assimilate technical and process changes, and not actively supporting the change process. Possible interventions here include:

- establish a formal change management process;
- delegate the execution of the change management process, including prioritisation and resource management to a PMO;
- specifically, budget into all projects time and effort resources for the assimilation of significant changes; and
- enable project professionals to understand organisational dynamics of change.

The ability of project professionals to make midcourse adjustment to improve their performance is dependent upon timely feedback

Active Job Design and Strengths-based Management

Project professionals bring a variety of expertise to the projects on which they work. They also bring diverse portfolios of personal strengths. Strengths-based management provides an opportunity for project professionals to optimise their performance and reduce their stress by approaching project tasks through using their strengths. This concept suggests that strategic, project and task objectives are set by management (best practice is with involvement from the team) and team members are permitted to actively design how the job is done, including approaching it in a way that optimises the use of their strengths while minimising use of their weaknesses, and encourages active collaboration among team members to optimise strengths use and attainment of project goals. For more information about how to encourage active job design as a way to reduce stressors for project professionals, explore resources found at this link: http://bit.ly/Job_Crafting.

Create a Consistent Strategic Communications Programme

In order for all project professionals to do their best work, they need to have insights into how their work aligns with the strategic objectives of their organisation. Additionally, all project professionals need to understand the benefits or purposes derived from their actions on the project in order keep them motivated. While often subsumed into the crush of daily activities, top-down communications of strategic objectives, potential impediments, upcoming changes and competitive developments as well as current results of operation are critical information for all project professionals. Without this information they will be less able to prioritise and execute tasks successfully. Against this backdrop, management at the highest level needs to create a communication programme that enables project professionals to know what is going on in the organisation, and where it is going. Additionally, managers at other levels need to have an affirmative duty to communicate information into their project teams regularly. This could happen at regular team meetings, in response to specific team inquiries or in one-to-one meetings with project team members.

6.1.3 Execution (E) interventions

Execution (E) is about interventions that implement plans in work. Once implementation plans have been developed, the management of project teams needs to be designed in such a way that project professionals are sustainably able to execute project objectives without the distraction from manageable stressors. Potential interventions include giving constructive performance management and feedback, and support dynamic resource management.

Give Constructive Performance Management and Feedback

Giving immediate and constructive performance feedback delivered with some frequency through performance management systems is important, as the ability of project professionals to make midcourse adjustment to improve their performance is dependent upon timely feedback. This feedback may come from peers, subordinates, supervisors and clients. All too often feedback is limited to corrective feedback and the opportunity to provide appreciative and constructive feedback that reinforces positive behaviours is not fully realised.

Support Dynamic Resource Management

Through supportive management and supervision, managers are tasked with having to actively and dynamically align scope, schedule and budget to manage the dual objectives of project delivery and staff development. Managers need to be encouraged and supported by executive management to broaden their management toolkit beyond the 'do more with less' mantra. Managers need organisational support to be able to renegotiate deadlines, acquire additional resources when necessary and redefine scope when appropriate to optimise the balance between goal attainment and staff sustainability. Interventions here include managerial training, organisational support possibly through a PMO and active engagement of the manager with the project team to identify issues and implement solutions as promptly as possible.

6.1.4 Continuity and growth (C) interventions

Continuity and growth (C) refers to interventions that enhance the capabilities of the workforce to work more efficiently and effectively. The proposed continuity interventions here mainly involve professional development of project professionals because the results of the *6 Essentials* items revealed that project professionals are significantly stressed by fear of redundancy, lack of challenging assignments, boring and repetitive work, etc. Under the circumstances, possible interventions include building a strategic training programme and developing a different career track.

Build a Strategic Training Programme

The success of an organisation is dependent upon the capabilities of its employees. In a fast-changing work environment, ongoing professional development is an imperative, but it is imperative that is often in conflict with the need to meet immediate, short-term project deliverables goals. Elevating training to ongoing professional development and linking it to strategy attainment may be an important intervention for organisations employing project professionals, as it enables them to have the capabilities to plan and execute strategic objectives effectively. This needs to occur at a corporate policy level and be actively supported by the human resource function. The following depicts a four-step model for developing a comprehensive training programme:

1. Conduct comprehensive assessments of strategic core competencies
2. Evaluate existing strategic core competencies of staff
3. Conduct a gap analysis of strategic core competencies
4. Develop a comprehensive professional development programme

Support project professionals to obtain relevant project management certifications may also be a tool in the professional development programmes portfolio, as it could help them to build their confidence and capability in managing projects.

Support for active participation in professional organisations, such as APM, is another important component of professional development. Organisations and their project professionals benefit from the participation by staying in touch with changes and trends in their industry and profession, building professional networks, learning and sharing best practices with people in the same profession.

Develop Different Career Tracks

Project professionals may be subject matter experts, technical staff, who are asked to fulfil the same role on all projects. From the organisation standpoint, it capitalises on their expertise, however, from the individual standpoint, it may feel like career stagnation because it may turn out to have limited opportunity for promotion and learning new things.

Organisations can address this by providing discrete career tracks for technical professionals, allowing them a sense of progress professionally while allowing them to contribute their technical expertise. Development of technical and non-technical (managerial) career tracks provides the opportunity for the organisation to optimise the contribution of each of their employees.

6.2 Individual-level interventions

Individuals and small groups within organisations may often feel that only management, and often at the most senior level, is able to implement effective and necessary changes in their workplace. This sense of helplessness, this sense that they have no control over their work environment, creates additional stress in the workplace, exacerbating already high levels of stress. This section discusses possible interventions that could be made by individuals acting without the necessity of senior management taking action first.

Active Management of Personal Stress

Stress has many sources arising from one's personal life conditions to conditions at work. Stress, however, can be managed through learning active stress management techniques, which include improving: 1) time management skills; 2) stress management skills; and 3) energy management skills.

Time Management

While time is of finite quantity, it is possible to be better managed at the individual level. Some possible interventions include:

- establish or clarify personal values addressing what you would like to be known for and/or what's important to you;
- conduct a time usage self-audit documenting how you use time for a one- or two-week period;
- compare how you spend your time with what is valuable to you and identify areas where greater alignment may be attained;
- develop a plan and set goals for better alignment between values and actual expenditure of time;
- recognise that not all tasks are created equal;
- adopt appropriate time management skills: limit multitasking, schedule time with yourself for dedicated work on major initiatives, and, use Pareto's 80/20 rule to focus on the things that have the greatest impact; and
- actively collaborate with supervisors and team members to plan tasks to assure there are reasonable deadlines and adequate resources.

Build spiritual energy through reflection and alignment of your work activities, concentrating on doing what you do best and enjoy most, actively allocating your time to what's most important to you and living your values

Stress Management

While project management as a profession is stressful, it is possible to be better managed at the individual level. Some possible interventions include:

- learn the signs of adverse stress reactions: physical, emotional and mental;
- recognise and engage the four major causes of stress at work: time stressors, encounter stressors, anticipatory stressors and situational stressors;
- actively manage encounter stressors that arise from interpersonal interactions by building close working relationships, developing higher levels of emotional and social intelligence, and contributing to the wellbeing of others in the workplace to build community and support;
- actively manage anticipatory stressors that arise from fear of future bad or unpleasant events: fear, failure of embarrassment, job loss, aggressive or toxic managers. Set small goals in support of larger goals and capitalise on small wins to build confidence. Set appropriate boundaries with aggressive or toxic managers;
- actively manage situational stressors that arise from your specific working environment. Consider job crafting, redesigning the job to best utilise your strengths while managing your weaknesses; and
- consider re-evaluating how you think about stress. Do you see stress as a negative or might you be able to reframe certain stressors as a challenge to be met?

Energy Management

Some possible interventions include:

- use an online self-assessment, such as the one offered by the Human Performance Institute, to assess your current level of energy in four dimensions: physical, emotional, mental and spiritual, which is purpose-driven energy;
- adopt healthy physical habits, including appropriate nutrition, hydration, sleep and exercise to enhance the physical energy level;
- actively manage cycles of expenditure of energy (stress) and recovery, moving to adopt the recommended high-performance cycle of 90 minutes of focused work followed by 20 minutes of focus recovery throughout the day;
- build emotional energy by focusing on establishing close relations personally and professionally, building hope and optimism, and actively expressing appreciation of others;
- build mental energy by following disciplined exertion/recovery rituals, limiting work hours, stopping multitasking, providing alone time for focused work and doing your most challenging work first; and
- build spiritual energy through reflection and alignment of your work activities, concentrating on doing what you do best and enjoy most, actively allocating your time to what's most important to you and living your values.

Adoption of a strengths-based approach

- Complete a strengths assessment online to identify your particular strengths and weaknesses.
- Redesign your work while meeting organisational goals to optimise the use of your strengths and to manage your weaknesses.
- Build a shared knowledge of individual strengths within your team to support active collaboration on team objectives and to maximise the use of individual team members' strengths.

7. Conclusions and future research directions

Overall, project professionals compare unfavourably with the norm group – only three of the 15 subscales used show them to be aligned with the general working population. Six subscales show the departure from the norm as high risk and four subscales show it as approaching high risk. None of the *6 Essentials* subscales were aligned with the norm group. The greatest departures from the norm occur in the areas of work relationships and job conditions. The *Work relationships* subscale shows that project professionals' work situations were characterised by poor relationships with, and lack of support from, bosses and colleagues, while the *Job conditions* subscale portrays their work condition to be unpleasant. The other subscales also flag concerns: the *Your health* scale indicates *strain on psychological health* to be a high-risk area; the *Psychological wellbeing* scale shows *sense of purpose* to be approaching high risk; and the *Engagement and related scales* scale shows project professionals to have lower engagement levels and considerably lower levels of commitment to their organisations compared with people in the norm group. Resilience levels were also far lower than the average for the norm group.

If the work stress levels, health, wellbeing and engagement of project professionals are to become better aligned with the general working population, analysis and interventions are required at both the organisational and professional levels. Once organisations know what the problems are, they can evaluate how best to respond. The current study provides direction in this regard. However, not all problems are capable of being addressed at the level of the organisation. Some problems are widespread and deeply rooted in the culture of the profession. They will need to be addressed by the profession, both at the policy and practice levels. Programmes promoting mental health are needed, the design of which should adopt a multi-stakeholder, multi-level approach.

This study has revealed several opportunities for future research. Firstly, given our finding that the wellbeing of self-employed people was consistently higher than that of their counterparts, it would be useful to explore the 'characteristics' of this employment category with a view to possibly incorporating them into the job design of project professionals. Secondly, we found that women were less confident and less resilient at work compared to their male counterparts, potentially impacting negatively on their level of wellbeing level. Research would usefully be directed at understanding what contributes to this phenomenon, and how it can be remedied. Thirdly, future research is required to investigate the different levels of work commitment among project professionals. Finally, the sample size of the study accounts for one per cent of the total APM members. Future study should acquire a bigger sample size for investigation.

If the work stress levels, health, wellbeing and engagement of project professionals are to become better aligned with the general working population, analysis and interventions are required at both the organisational and professional levels

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