The Role of PsychoSocial Safety Climate in Job Stress and Work-Related Injury: Observations of the Australian Aged Care Industry

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Abstract

An emerging construct of considerable significance in understanding the dynamics, and ameliorating the effects of, work stress is psychosocial safety climate (PSC). PSC is rapidly emerging as a 'cause of causes' within the dynamic of work stress and injury. In this chapter we look at the role of PSC within the aged care industry in South Australia. Data from 12 aged care facilities measured using a custom designed survey measure (the Occupational Psychosocial Risks Indicator-OPRI) indicates the notable interaction of measured levels of PSC and a number of other constructs. These include; bullying, affective and perseverant commitment, absenteeism, chronic fatigue and recovery, as well as staff turnover, absenteeism, replacement agency staff rates, and claims made under the WorkCover worker's compensation scheme. Low assessed PSC

scores are associated with progressively higher levels of maladaptive outcome variables such as bullying, absenteeism, staff turnover, and perseverant commitment. Conversely high PSC scores are associated with reduced injury frequency duration and costs, lower staff turnover and use of expensive agency staff to replace otherwise absent staff. We show that PSC is an essential component of increased efficiency and hence improved profitability in the aged care, which may be crucial in maintaining viability in this highly cost sensitive industry.

INTRODUCTION

A Crucial Underpinning of Job Stress

The overwhelming majority of workers who start a new job in a new organisation, large or small, tend to enter their new workplace in a state of heightened sensibility. They are immediately exposed to the prevailing 'atmosphere' of the workplace and very quickly begin to understand its 'mood'.

It generally takes quite a short time before they begin to acquire a remarkably accurate understanding of the prevailing interpersonal tensions, supports (or barriers), group attitudes, biases and morale. It is a process that may occur unconsciously, but will also be strongly informed by the behaviour, manner, and outwardly expressed opinions of co-workers. Equally quickly, they may find that their own attitudes towards the workplace itself, its members and the organisation as a whole (both positive and negative) beginning to be affected by the prevailing 'conventional wisdom' which exists. Such an evolution of thought and feeling represents the construct of 'emotional contagion'. [1].

In short, they have entered into a new 'climate', and as with any climate, *it exerts an influence on anyone and everyone who is exposed to it*. *This climate constitutes the essential context in which any and all other inherent stresses and strains of the work itself have to be managed.*

If and when the climate is positive, supportive and safe, it mediates resilience, coping, acceptance and health. Conversely however, where the climate is negative, antagonistic, anxious and/or emotionally unsafe, it will constitute an undermining of the coping process. This may be a crucial factor within the strain resistance dynamic, inducing a progressive downward loss spiral towards individual resistance collapse, health failure and injury.

The evolution of this crucial stress underpinning climate can be both a passive and an active process. Particularly outspoken co-workers may set a dominant tone. For example, where this has a bullying or hectoring component (either towards the new worker, or others) it will have an immediate, active and dynamic influence [2]. So too will perceived group responses to Management and supervisors, including new or changing work instructions. These may be positive and cooperative, or grumbling and resistant, or somewhere in between. Passively, work surroundings which are drab and dreary, or bright and lively, exert a less conscious but still affecting influence. The efficiency with which work equipment is repaired or replaced when it fails, has its own subtle non-verbal influence on the individual worker's evolving attitude to their workplace and, ultimately, their employer. In particular, if one of a group of work colleagues with a problem, (whether work-related or not), is treated unreasonably or unfairly by Management or supervisor, the 'offence' is 'felt' by every member of the group. The group feeling may then trend towards; "*They don't care about us*". And the reverse is also true. A kindly act of caring, from Management or supervisor, to one of a work group, is valued and appreciated by all. The unspoken feeling becomes; "*If I have a problem, I'll be looked after too*". Such realities of human behaviour and group response are often forgotten by careless and/or overly officious managers. Negative OR positive responses are not confined to the immediate level of management or supervision who are responsible for the act or behaviour concerned, particularly when it is negative or destructive. The level of management who allowed the

'on the floor' manager to behave the way he (or she) did is also seen as complicit (as indeed frequently they are).

Taken together, this complex of direct and indirect observations and influences sum to an abiding sense of the extent to which the individual worker feels that they, and their work, are valued and more importantly, that they are *safe* in their workplace.

This sense of safety is more than physical safety from direct personal injury, although this is paramount, of course. It notably includes the sense of freedom from unjust dealing, harassment, or bullying. It may include the expectation to have adequate time and training to complete the work expected, and receive reasonable assistance to do so, when required. It may include the ability to vary hard and simple tasks, and to take a reasonable break when obliged to undertake high levels of hard, heavy, or complex work for an extended period to meet some work deadline. It will amount to an abiding feeling that, even if the nature of the work itself may be inherently difficult or demanding, that the resulting work demands are (overall) fair and reasonable, and appreciated.

PSYCHOSOCIAL SAFETY CLIMATE

This overall state of workplace experience has been defined as a relatively new construct in the organisational and work psychology lexicon; *'Psychosocial Safety Climate'* (PSC), which was first described by Dollard. [3, 4]. Ongoing research into this construct demonstrates that it constitutes a very basic psychological underpinning to the demand and stress of work experience of every worker in their workplace.

PSC in any organisation is essentially a 'top down' phenomenon. PSC is set and controlled by the organisation's management from the highest levels downward. It is increasingly recognises as constituting a 'cause of causes' within the organisational dynamic [3]. Within this context, it is evident that PSC is not 'chosen' by an organisation as such. Indeed, it is rarely considered as a deliberate policy, as such.

Nevertheless, every organisation and every workforce operates within a PSC, whether it is recognised and acknowledged or not. PSC cannot be faked or contrived, except insofar as cynical and insincere attempts to do so are not infrequently attempted. Inevitably (and ironically) such afforts actually contribute to a reduction, or lowering, of PSC. From these realities a definition of PSC emerges as:

> *The policies, philosophies, procedures and behaviours enacted by management, which are directly concerned with the protection and preservation of workers' psychological and emotional health, as well as their physical health and safety* [5]

Factors which both constitute and affect PSC have been extensively explored within the Job Demands/Resources model of work strain [6]. Broadly, components of work, which constitute Job Demands are seen as constituting a trajectory towards illness, whereas components of work constituting Resources underpins a countervailing trajectory towards health and wellness. 'Demands' will include not only all physical demands of strain on the musculo skeletal system, but also the emotional demands arising from; difficult or demanding work tasks, meeting difficult deadlines, confrontation with demanding and/or unappreciative clients; distressing sights of death or infirmity, all of which constitute high 'emotional labour' [7]. In addition there can be included all elements of workplace conflict (particularly bullying) and other elements of workplace disharmony [8, 9]. By comparison, 'Resources' comprise a constellation of factors having an opposite valence. These may range from opportunities for taking a break from high demand work, further training and promotion, support from colleagues and Management, and the broad underpinning factors of positive workplace PSC outlined above.

In conceptualising PSC, it is important to realise that every workplace has a PSC, which is perceived and experienced by every worker (consciously and/or unconsciously) continuously. The key

question is whether or not this climate exists (and is perceived) as a consistent, dependable and positive experience, which acts to offset the otherwise unavoidable demands of the work, or not. All too frequently it may be ignored or overlooked by Senior Management (who are the only ones with the discretionary authority to direct and deliberately create PSC) so that it evolves as an uncontrolled, variable, negative and disturbing experience dominated by the characteristics of key individuals. Conversely, where Senior Management is mindful to check and carefully maintain it, a very different climate results.

This is one where every individual worker feels safe and protected; that they are valued (and valuable), and that their efforts and achievements are noticed and appreciated. In such circumstance, workers are more likely to feel that they are fortunate to work in their particular workplace, desire to remain there, and engage in reciprocal positive workplace behaviour [10-12]. The worker is provided with needed resources to cope with the demands of work as far as possible. This will include proactive resources to 'bounce back' from any event or demand that will limit work function (i.e. workplace injury, bullying, stress, sleep). Furthermore, a positive cooperative team structure is given maximal opportunity to develop, and such workplace 'emotional contagion' as exists within teams, shifts, or other work groups, is likely to be positive rather than negative [13-15].

Within such a strongly positive PSC, injury rates tend to be lower, and return to work (RTW) times are shorter [16]. This includes both psychological and physical injury, although all too frequently a highly stressed worker may manifest as a 'physical' injury, and return to work times (RTW) are prolonged because of the underlying need to 'take a break' from the workplace wherein the putative injury occurred [17-20].

Given the increasingly high cost of workplace injuries (notably stress injury) a correspondingly strong economic case can be argued for the value of Senior Management investing strongly and

consistently in ensuring that PSC is developed and maintained at the highest possible levels within their organisations. An exemplar for this approach in the 21st century might be seen in Virgin Airlines under the direct leadership of Richard Branson.

Arguably there is a strong case for the development and maintenance of PSC within health care facilities, including aged care homes [11]. The type of investment required of Senior Management/Owners is variable depending on the extant conditions.

Broadly, they may be categorised as:

Primary interventions (to mitigate or remove stress experience directly), secondary interventions (acting to mitigate the effect of stress experiences that may be inevitably associated with the work). Secondary intervention may include assistance to develop the coping capacity i.e. resistance/resilience of workers to manage work stressors that may be inevitable within that industry, and substantially irreducible. Finally, tertiary interventions are directed at assisting a worker who has sustained a work related injury to recover fully and return to work expeditiously.

WHAT DRIVES A WORKPLACE PSC?

Within every organisation, its extant PSC is controlled and effected by those who possess discretionary authority to determine the priorities and pace of the work required and undertaken, as well as the behaviours, processes and systems that are available and considered acceptable to achieve these objectives. Each level of any organisation's management structure is obliged to accept the limits on its activity and behaviour set by the level above. Thus, for example, bullying in any organisation, at any level, only occurs because it is tolerated at a higher level, whether this toleration is of an active or passive nature.

The latter part of the 20th century was notable for the start of Third Industrial Revolution in response to the 'Oil Shock' of 1974

[21, 22]. The quadrupling of unemployment in most advanced economies, coupled with the rapid developments in digital technology, set the scene for a radical change in the operational parameters of most industries. In short, these amounted to the expectation of greater output being achieved by fewer employees using progressively more sophisticated equipment. High unemployment saw the emasculating of many union's industrial power. "*If you don't like the conditions, there is always someone who will accept them!*" increasingly became a mantra for managers operating within the new 'Thatcherism' and 'Reaganomics' that emerged.

Within such an increasingly overarching economic climate, it became commonplace for CEO's to focus solely on organisational output without regard for how it is achieved. Indeed, they may not have held their positions for long if they didn't.

In so doing they were, in many cases, passively condoning the bullying or harassment of workers that actually occurred several levels removed from them, whether they realised it or not. The bullying may actually be undertaken by managers and supervisors responding (inappropriately) to the output demands falling on them. Similarly, it not uncommon for the organisation's lowest skilled, and most easily replaced, employees, (with the least autonomy) to figure little in the organisation's overall perceived 'human capital' value. Accordingly, their actual treatment was frequently quite arbitrary, with scant regard for their Work Health safety needs. It is not difficult to understand how the PSC in such organisations was by and large, very poor, when the over-riding concern was 'production', 'output' and 'the bottom line'. Such an approach is, however, not without its costs.

Throughout the late 20th and 21st centuries there has been a steady increase in the complexity of work demands across almost all aspects of industry and commerce. The sophisticated digital technology driving increased unit productivity requires increasingly highly trained workers to operate. Culture change in succeeding

generations has seen the collapse of 'worker loyalty' to particular organisations across a working life. Types of work that have hitherto never existed emerge with rapidity as technology develops.

Such developments have changed the work dynamics that might have been workable in the 1970's and 80's. As the 21st century proceeds, the significance of the 'human capital' of organisations becomes increasingly clear. This 'capital' derives from the accumulation of a stable, skilled and dependable workforce able to respond to evolving market conditions effectively.

It is becoming increasingly clear that PSC functions as a 'cause of causes' within an organisation whether it is acknowledged or not. It both mediates and moderates a number of important experiential workplace phenomena and responses. These include; the extent, level and toleration of bullying, overall organisational morale, and the frequency of workplace injury and injury claims. [2, 23]. These are associated, in turn, with absenteeism, commitment (affective and perseverant) work engagement and staff turnover [24]. Accordingly, 21st century managers ignore PSC factors at their peril.

Stress and Injury in the Aged Care Industry

Despite a substantial increase in relevant occupational health and safety regulations and mandates, and a greatly increased awareness of their risk, work place injuries in the aged care field continue to represent a substantial financial cost to employers, and human cost to affected employees.

Within the Health Care sector broadly, injuries to the upper extremities and back are common and frequent, usually associated with the handing of otherwise helpless clients/patients. Within the institutional Aged Care sector in particular, a high proportion of residents are in daily need of lifting and moving multiple times; on waking, washing/showering, mealtimes, toileting, and bedtime. Given an average ratio of one carer per 10 residents within Australian aged care facilities, this means that an individual carer

working an average 8 hour shift may be required to lift up to 1400 kilos. From the perspective of potential strain to the musculo/skeletal system, such a requirement places aged care workers into an equivalent category of the heaviest of manual labour, although they are overwhelming, female and may be of slight to moderate build. Unsurprisingly, such activity has a high potential for both acute and chronic (progressive) injury [25]. Typically, claims for workplace injury compensation tend to be higher within chronic health care facilities, and among non-registered carers [26].

This growing industry faces significant difficulties. During the past decade, media reports of notorious cases of suboptimal conditions and treatment of residents have resulted in a significant body of additional compliance regulations being imposed on aged care facilities. However, the current funding model for these facilities is such that adequate staff/resident ratios are difficult to maintain.

In addition, the wage rates for both registered and unregistered workers in this sector are notably lower than in acute care (NSW Nurses Association, 2014).

Taken together with the inherent demands of the work, these pressures result a chronic shortage of workers in the area. Consequently there has been an increasing tendency to recruit from overseas sources as well as among newly arrived migrants and refugees. Although addressing worker shortages, this move adds potential language and cultural difference difficulties to an already challenging mix.

THE COST OF GETTING IT WRONG

The South Australian Aged Care sector consistently records the highest average direct injury care and compensation costs with for all industries in the state. Such costs are comparable in other states. Table 1, below, outlines these costs for injury compensation.

The costs associated with personal carers or direct care workers (DCW's) are the highest of all industries in all but one category. The figures reporting these rates shown in Figure 1, overleaf, are derived from the 2009-2010 WorkCover Report.

Table 1. Costs Associated With Workplace Injury Among Female Workers in the Aged Care Industry by Designation: Totals, Physical and Psychological 2009-2010

	RN nurses	Rank	EN nurses	Rank	Aged & Personal Carers	Rank	Personal Care Assistant	Rank
(N) All Claims (Registered)	180		114		163		527	
Claims	$5105	**4th**	$5474	**10th**	$5614	**6th**	$5111	**1st**
(N) All Claims (Self-Insured)	378		211		161		316	
Cost	$5864	**1st**	$5602	**3rd**	$3071	**6th**	$4546	**2nd**
(N) Musculo Skeletal Disease	22		-	-	22		98	
Cost	$10984	**6th**			$12182	**5th**	$10530	**1st**
(N) Sprains and Strains claims	78		-	-	89		302	
Cost	$3627	**4th**			$4950	**3rd**	$3993	**1st**
(N) Mental Disorder (Stress) claims	21		9				18	
Cost	$9078	**4th**	$15019	**7th**			$8689	**1st**

Notes; (N) = number of claims; Rank= in the list of industries RN = Registered Nurse, EN = Enrolled Nurse.

Such high and ongoing costs have led to significant increases in the unfunded liability of the South Australian government which

administers the WorkCover compensation scheme for South Australian workers. Accordingly, this has led to a change in the calculation of the premium structure for employers based on their rolling injury compensation claims average of the past 3 years.

The previous capping of maximum premium cost at 7.5% of total wage bill has been changed for high and persistent claims cost facilities. From 2016, premium costs may be increased to no less than *19% of total wage costs for high claim facilities.*

In effect, at this premium level virtually the whole gross profit of a poor performing facility will be absorbed by the WorkCover premium.

In other words, owners and managers in the Aged Care industry ignore PSC within their facilities at their peril.

How Can PSC Mediate and Moderate the Inevitable Strains of Working in Aged Care?

Accepting the principles of PSC as described above, how might they apply specifically in an industry like Aged Care?

Whichever way it is approached, working in Aged Care is very demanding work. Residents in age care facilities tend, unsurprisingly, to be frail, with highly complex medical needs.

Despite the most stringent of care plans for non-ambulant residents, including the requirement for minimum 2-person lifts, and/or the use of mechanical lifters, the potential for muscle and joint strain in care staff working for 8 hour shifts, moving, showering, re-positioning residents remains high and to a great degree, inevitable. These injuries can be moderated by thorough training in manual handling, however this will only be effective if its application is absolutely insisted upon by the immediate level of supervision, usually the RN's nurses in charge of the shift.

An increasingly proportion of residents in aged care have cognitive as well as physical difficulties. Their care can be difficult

and occasionally physically dangerous. Those who facilitate the institutionalisation of relatives may be highly conflicted about their inability (or unwillingness) to care for them at home. This emotional tension often takes the form of placing very high (if not unrealistic) expectations on facility staff who take over their care. They may be quite vocal if the level of personal care available for their relative is less than they might (theoretically, if not practically) give themselves.

Inevitably, all the residents in the carers' charge are going to die. Frequently carers form quite strong emotional attachments to some, if not all, of their charges. Accordingly they are continually exposed to the potential grief of their deaths. Consequently and inevitably, aged care work is, inherently, high emotional as well as high physical labour.

What does High PSC in Aged Care Look Like?

Virtually every Aged Care facility in Australia has an arrangement whereby a physiotherapist comes into the facility to provide treatment as required for residents. Given the high potential for physical work related injury to occur to staff, it is surprising therefore, that very few facilities extend this service to their staff. Where it is present, staff 'pre-injury' strains to muscles or joints, which (if left untreated) may progress to frank injury (and compensation claim) are attended to by the facility physio in an expeditious way. Such treatment may include the guidance to Management for a worker to be put on 'light duties' for a period of healing. In enlightened facilities, bureaucratic distinctions between work related or home acquired strains are absent. The important factor is a fully fit worker. Clearly, over time, the facility physio will come to know the physical health state and condition of workers well.

If and when an undoubted work injury does occur, they are in a prime position to offer immediate guidance on injury management. In addition, they are can support the injured worker by guiding the

injury claim process in a considered professional way. This latter support is of not inconsiderable value. There are all too many cases of WorkCover physical injury where the otherwise unassisted worker can become lost in a bureaucratic nightmare of GP, specialist orthopaedic, and WorkCover claims manager confusion and conflict. This can all too easily lead to much delayed RTW and secondary 'injury' to the worker. Within this state it is unsurprising to find that; *25% of workers injured at work, who are off for more than 2 weeks, remain off work for 2 years or more*. (WorkCover Report 2012).

At first sight such physiotherapy support would seem to be a purely physical management of a physical problem. However, at a deeper level the facility Management is not simply *saying* "*…we value you and want to keep you safe";* they are *acting* by providing the physio support at no cost (or highly subsidised cost) for the worker.

This is the essence of PSC.

In addition, each worker who sees a colleague being treated well and supported back to work after injury receives the unspoken message "*…we will look after you too*" very clearly. This message may also be interpreted as "*we value you as an employee and the work you provide, so we want you to be able to remain at work and recover to continue to provide your valuable service".*

Aged care is also a workplace with high emotional labour, as previously cited. Over time such work strains can have a high accumulative emotional injury potential. Claims for such injury are well recognised to be fewer in number but very much more expensive in compensation cost. Where an enlightened facility Management provides psychological support at low or no cost to employees, such psychological injuries are moderated. In addition, where such support is made available not only for strict work related experience, but extended to support for domestic strains, which ultimately bear on work performance, a more powerful PSC effect results. Workers know each other's difficulties. Where one worker is assisted through a challenging domestic crisis, there is a sense that

ALL the workers knowing of their problem is assisted. An unmistakable example of real caring for staff is demonstrated and with that a real sense of being 'safe and protected' in a caring workplace is engendered. Being able to determine which 'emotional strains' are purely work related, and which are domestic in origin can be notably difficult. For two facilities we studied, the owner had taken the view that such distinctions were of doubtful value.

He took the view that an otherwise good and loyal employee whose work performance was being undermined by emotional strain needed assistance. Whether this was because of the grief strains of dying residents or a marriage crisis, was immaterial. Consequently he made initial psychological support available to all employees who needed it at no cost and ongoing support at a much subsidised cost (usually covering 'gap' costs) where the worker had private health insurance cover. Although this was done initially with some trepidation, he found that the actual cost was not as much as feared, and the improvement in overall staff morale and performance more than justified the cost that was incurred.

This was an example of a very enlightened approach to PSC and stood in stark contrast to other facilities with CEO's or Executive Managers who were perpetually fearful of being 'ripped off' by employee demands.

Observations of PSC in Aged Care in 12 South Australian Facilities: A Quantitative Investigation

Method

Supported by funding from Employers Mutual Limited (an agent for WorkCover compensation insurance in South Australia), the authors conducted action research in 12 aged care facilities between 2010 and 2013. We were anxious to understand the reality of PSC and its consequential outcomes in the workface in Aged Care.

Taken together, the 12 facilities had a total of 984 beds and employed a total of some 1400 persons. The majority of workers (88%) were female, with an average age of 44 years. Some workers were as young as 18, and two were over 70!

The majority of workers 'on the floor', were Direct Care Workers (DCW's) also known as Carers. These tended to have limited qualifications, typically Cert III or IV in Aged Care. In discussion with facility owners, it emerged that an increasing proportion of DCW's were born overseas with a first language other than English. Such workers (who were migrants) were often sent to obtain in Aged Care by the government employment benefit body, Centrelink, when they applied for social security support on arrival in Australia.

Registered (or degree trained) nurses were increasingly fewer in number in Aged Care. Apart from the demands of the work itself, there is a wage differential of some 15% between RN's working in Acute and Aged care. However, RN's constitute a level of middle management in an aged care facility, with supervision of a given work shift under overall supervision of a Director of Nursing (DON) or Clinical Nurse (CN). Since Aged Care, like all residential health care, is a 24/7 function, aged care facilities also have night duty staff. As with the area of acute nursing, night staff tended to be a specific and specialised group who interacted least with other nurses or facility Management.

Diploma trained Enrolled Nurses (EN's) constituted a potential further layer of supervision and management. With changes in relevant legislation, it has become possible for EN's who had been 'credentialed' by some further supervised in-house training, to act in the role of an RN, including the dispensing of drugs, providing that an RN was available to be called in to assist particular care or diagnostic situations when they arose, even though the RN was not actually onsite.

Given the growing shortage of RN's available to accept positions in aged care, this practice of 'credentialing' EN's is increasing not

only as a stop gap measure, but a permanent structural shift. This has economic implications since RN pay rates are some 15% higher than EN rates. The typical breakdown of trained staff in an aged care facility is:

RN's 8-11%
EN's 8-12%
DCW's 55-65%
Others 12-22%- i.e. Kitchen, Laundry, Maintenance, Administration.

Difficulty in finding Australian or other English speaking nation trained RN's has led many facilities, particularly those who dislike or distrust the EN credentialing system, to seek RN's from non-English countries such as India and Sri Lanka.

However, fluency in English, and cultural differences quite often render such hiring's suboptimal in their capacity to carry out a management or supervisory role of Australian, or other ethnic DCW's, leading to tensions and difficulties both with residents and co-workers.

Male registered or enrolled nurses or DCW's tended to be few in number, usually only 10-12% of the 'on the floor' aged care workers. Male employees were more likely to be found in the maintenance area of a facility.

ASSESSING PSC AND ITS OUTCOMES IN AGED CARE

Materials

We undertook a comprehensive action research program involving 12 aged care facilities. This commenced with a survey of the facilities using a custom designed copyright survey questionnaire, the Organisational Psychosocial Risk Indicator (OPRI).

The OPRI instrument comprised a total of 105 items. These include a demographics title page which explored age, gender, area of work, qualifications, tenure in the facility, industry, and whether injured at work and ever claimed WorkCover compensation for such injury. The remaining items formed a total of 19 subscales. Of these, 12 of the subscales were validated psychometric measures. These included:

The currently accepted measure of PSC, the PSC 12 scale [5, 6].

The Cognitive, Emotional, and Physical Demands subscales of the DISC scale [7].

The Chronic and Acute Fatigue and Recovery subscales of the OFER scale [8].

The Utrecht Work Engagement Scale [9].

The Sleep subscale of the Psychological Injury Risk Indicator [10].

The Cynicism subscale of the Maslach Burnout Inventory General Scale [11].

The Affective and Perseverant Commitment subscales of the Meyer and Allen Organisational Commitment scale [12].

The number of items and the Likert response scale for these subscales varied, however all had a 0 lowest score allowing standardization of all scale scores to a 0-100 basis by the application of the formula:

$$\frac{\text{Subscale Score}}{\left[\text{Number of subscale items X Maximum item score}\right]} \text{ X } 100$$

In addition, the OPRI questionnaire included custom designed measures. The items for these scales (particularly where they departed from better known, validated, measures such as for

Bullying) were created after discussions with people working in aged care. These custom scales assessed:

- Facility Resources, i.e. "*If we need new, or more equipment, it is always obtained promptly*" and *"Problems with equipment or facilities are always attended to promptly here*", etc.
- Bullying. This custom scale of 5 items included *"I have never seen anyone bullied here"*, "*I have never been bullied in any way while working here"*, and "*If ever I experienced any bullying here I could rely on management to resolve the issue for me quickly and effectively"*.
  [A broad guide to an understanding of bullying in the workplace was included in a footnote. i.e. [Note: Workplace bullying is any behaviour that is repeated, systematic and directed towards an employee (or group of employees) that a reasonable person (considering the circumstances) would expect to victimise, humiliate, undermine or threaten, and which creates a potential risk to health and safety.]
- Morale: 5 items included items such as: *"There is always a good atmosphere between all staff working here*" and "*There is a lot of negative feeling between staff members here"*.
- Absenteeism: 4 items included items such as: "*I sometimes call in sick when I'm not actually sick"*, "*It doesn't really bother me to call in sick when I'm not really ill*"
- Physical Self Care at Work: 3 items included: *"I ALWAYS use lifters when resident's care plan says I must"*, *"I am careful not to get any injury to my back or joints at work"*
- Persistent Work Related Pain at Home: 5 items included: "*I often have a lot of muscle and/ or joint pain*

after I finish my work shift", "I sometimes have to take time off work because of muscle and /or joint pain caused by my work".

Significant Physical Pains at Work: 7 items including; "*I get a lot of muscle/joint pain from my work"*, *".I usually don't have any problems with muscle aches or joint pain"*, and *"Muscle aches and pains often affect how well I can work"*.

From an organizational psychology perspective, all of these constructs could be expected to be mediated and/or moderated by worker commitment, both affective and perseverant; i.e. *"...I work here because I like it*" as opposed to *"I only work here until I can get a better job*". Such commitment might be expected to be strongly associated with worker morale, and in turn, such morale mediated by PSC.

The number of respondents (staff completing measurement questionnaire) at each facility) varied between 65 and 115 with an average response rate of 60% of total staff. In each case (facility) the N was sufficient to provide a Power of at least .8 for the analyses that were undertaken (i.e. bivariate correlation, one-way ANOVA (5 groups). The survey data was analysed using SPSS statistical software, notably to identify 'hot spots' within the organisation where poor outcomes, including low PSC experience was evident.

A second stage of the action research involved obtaining what we termed, *"The stories behind the stats"*. The second author, who is an experienced organisational and clinical psychologist, arranged to meet with what had emerged as work groups with particular difficulties, to ascertain reasons behind their experience, which might potentially be ameliorated by Management action.

HYPOTHESES

At the commencement of our investigations we anticipated, based on theory and the comments of people in the aged care industry broadly, that:

1. PSC levels would be positively associated with Work Morale
2. PSC levels would be negatively associated with Cynicism and also Absenteeism.
3. In turn we anticipated that PSC would have an effect on Work Engagement and Commitment (Affective and Perseverant) which would be substantially mediated by Morale and Cynicism.
4. The extent that workers were careful to protect themselves from physical injury (i.e. assiduous with the practice of their manual handing training and compliance with resident handling care plans) would be directly related to PSC

RESULTS

Table 2 below indicates the Pearson Bivariate correlations between PSC and other outcome variables across 6 facilities (297 participants) surveyed between 2010 and 2011.

Table 2 reveals a number of relationships that were expected and consistent with our hypotheses. These included: A medium/strong positive relationship between PSC score and affective commitment *("I work here because I like it")* and Workplace Morale. Other correlations are interesting. They include:

The very strong positive relationships between Affective Commitment and both Workplace Morale and Engagement. In addition, significant positive relationships between Workplace Morale and Engagement and significant negative relationship between Workplace Morale and Absenteeism.

The positive relationship between PSC (total score) and Morale and Cynicism is fully in keeping with, and supportive of our first hypothesis. In addition, the high positive correlation of PSC with Affective Commitment is unsurprising. Workers are clearly likely to be happier and feel more positively disposed to a workplace where they feel valued and safe.

Similarly the high negative relationship with Absenteeism is not unsurprising. The lower a workplace facility PSC, the more likely are disaffected workers to absent themselves from an unhappy work environment where and when they can, i.e. use all their sick leave and more.

The direct relationship between Engagement and PSC is clearly less than that with Workplace Morale. However, the strong relationship between Work Morale (itself very strongly related to PSC) and Engagement suggests that the PSC effect on Work Engagement is significantly mediated through Work Morale as shown in Figure 1 below.

Table 2. Pearson Bivariate Correlations (two tailed): PSC and Outcome Variables

	PSC Total	Affective Commitment	Perseverance Commitment	Cynicism	Workplace Morale	Engagement	Absenteeism	Physical Self Care
PSC Total	1.00							
Affective Commitment	**.45**	1.00						
Perseverance Commitment	-.31	-.39	1.00					
Cynicism	-.41	-.40	.45	1.00				
Workplace Morale	**.54**	**.74**	-.39	**-.44**	1.00			
Engagement	.40	**.53**	-.42	-**.43**	**.69**	1.00		
Absenteeism	-.19	-.36	.31	.32	**-.52**	-.40	1.00	
Physical Self Care	.20	.29	-.20	-.29	.25	.31	-.16	1.00

Notes: PSC = Psychosocial Safety Climate. Notable correlations are bolded.

Figure 1. Mediation of PSC relationship with Engagement by Workplace Morale.

This was confirmed with a Sobell Test of Mediation: Sobell z statistic =8.05 p=.0000.

Other mediated PSC relationships of the same pattern shown in Figure 1 were evident. For example, the effect of PSC on Absenteeism and Self Care at Work are partially mediated by Workplace Morale and Engagement respectively:

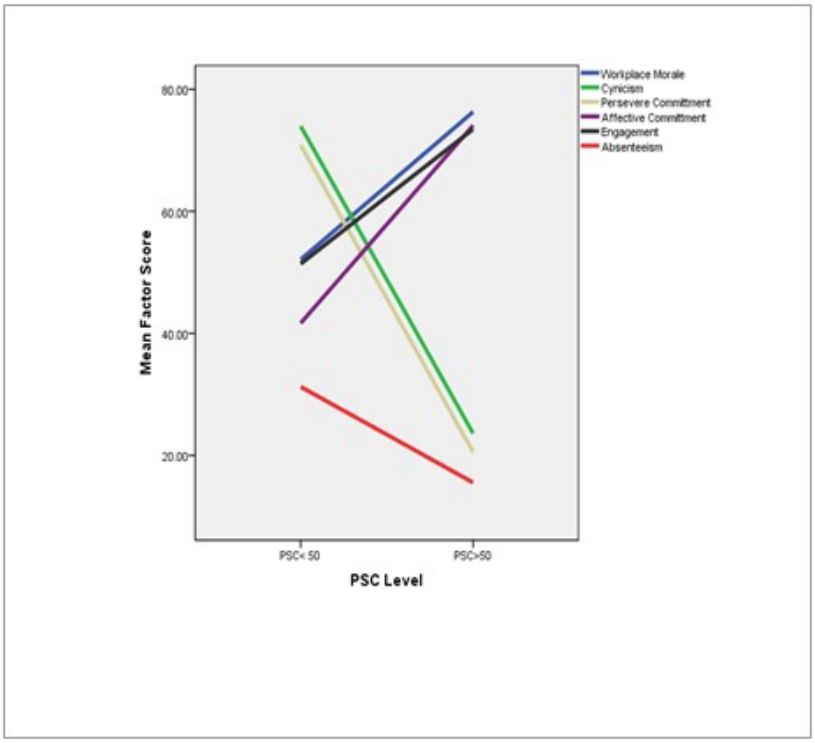
For Absenteeism, the Sobel statistic was calculated to be: z =6.76, p=.00000

For Self Care at Work, the Sobel statistic was calculated to be: z=4.12, p=.00005

In other words it is evident that:

As organisational PSC falls, so too does Workplace Morale. In turn, this mediates a fall in Engagement, and as Engagement falls so too does the care which workers take over their own physical safety. This was surprising. We had assumed that in a poor PSC environment workers would be more careful to look after themselves. But this observation suggests that the reverse is the case. It seems that when PSC is low and Engagement falls, workers appear to lose motivation even to looking after their own health. This, of course is a condition in which injuries are more likely to occur. In addition, RTW is likely to be much longer and more costly. Bizarrely, this might be viewed almost as a form of passive self-harm. This could perhaps be understandable in workers who are deeply unhappy in their workplace, but who (for one reason or another) have few, limited, or no, alternative job prospects.

Figure 2, below further indicates relationships between PSC, Morale, Cynicism, Affective and Perseverant Commitment, and Work Engagement. This graph is derived from data recorded at a facility with 102 respondents with an overall high PSC score (PSC score 62.8) and represents an 'extreme case (high)' exemplar.



[PSC Hi/Low Scores: Absenteeism 30/16, Cynicism 73/22, Morale, 77/55, Engagement, 74/52. Perseverant Commitment 71/19, Affective Commitment 76/41].

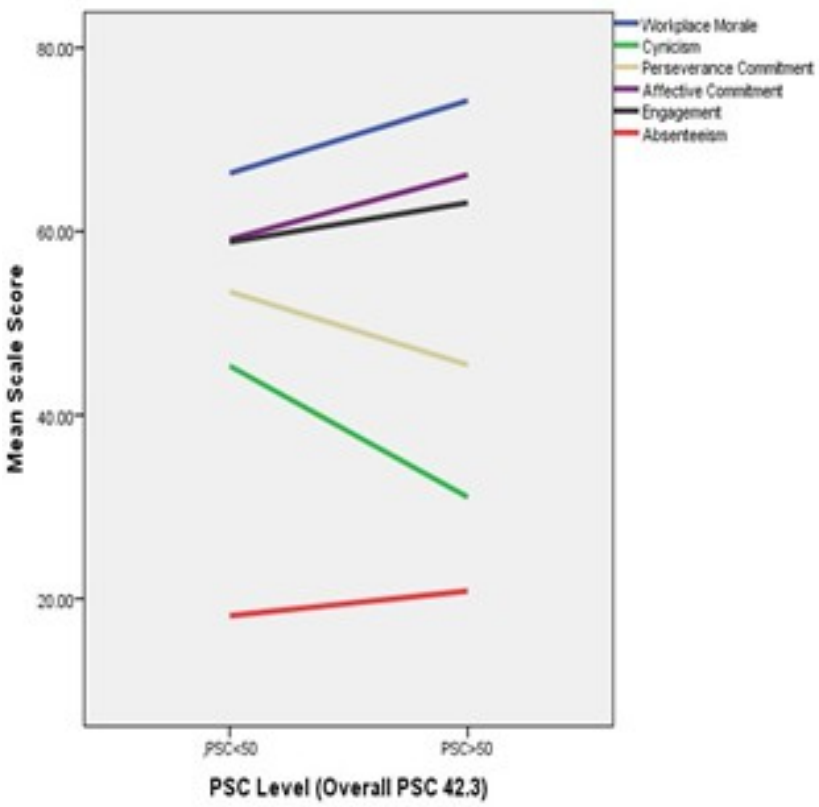
Figure 2. PSC, Feelings, Attitudes and Behaviours (High PSC Facility).

Figure 2 indicates that in a facility where the PSC is rated (overall) by workers to be high, the difference in scores on the associated outcome variables, between those who support this view and those that don't, is quite marked.

By contrast, Figure 3 (overleaf) reports the same relationship of PSC with Feelings, Attitudes and Behaviour constructs in a *low PSC* facility (82 respondents) where the overall

perceived PSC was viewed by workers as low (42.3 on the PSC 12 scale).

Although the same positive and negative correlations between PSC and the other constructs are evident in Figure 3 (as in Figure 2), all the values are lower and flattened. Indicating more of an 'across the board' level of outcome values. The actual differences in mean respondent score between the split half of respondent PSC scores is much lower.



[PSC Hi/Low Scores: Absenteeism, 22/19, Cynicism, 48/34, Engagement 62/58, Morale 70/64 Perseverant Commitment, 58/46, Affective Commitment, 61/59].

Figure 3. PSC, Feelings Attitude and Behaviour, Low PSC Facility.

In other words, in this low PSC (overall) environment, the workplace feelings, attitudes, and behaviours are more uniformly poor, or less desirable, compared with the high PSC facility (Figure 2).

"STORIES BEHIND THE STATS": QUALITATIVE INVESTIGATIONS

The aged care facilities that were studied all had a very similar employee structure of definable work groups. These included; RN's, EN's and Carers (DCW's) working 'on the floor' directly with residents, as well as kitchen staff, cleaners/laundry, maintenance personnel. In addition some facilities had 'Lifestyle' workers who were occupational therapy assistants (usually with Cert. 4 in Lifestyle Studies). In larger facilities there was also a definable Administration group.

After the results of the quantitative survey were analysed, the experienced organisational psychologist member and physiotherapist (both members of the research team) interviewed the different work groups, particularly those which showed as 'hot spots' for problems in the survey analysis. This qualitative aspect of this action research, were generally highly illuminating and in every case confirmed the quantitative analyses, and provided explanations for the problem groups that had shown up.

For example, in facilities where PSC was to prove to be high (>50 on the PSC 12 scale) it was notable that the facility owner/manager tended to speak in positive terms about the staff. The phrase "*…my staff are my biggest asset*", or words to this effect, were commonly expressed. By comparison, at facilities where PSC was to prove low (<50 on the PSC 12 scale), managers/owners expressed a quite different attitude towards staff. The focus was very much on the residents and their relatives and keeping them happy. The staffs was taken for granted-they were just 'there' to serve this requirement. As PSC decreased, this attitude also seemed to deteriorate. Often there was an outright distrust of staff (particularly DCW's) who were 'expected' to be;"*...out for what they can get….*", and "*… make false claims for injury*"*…* and "*…have no intention to come back to work after making a claim…"*

It seemed that some owners/managers had a previous bad experience(s) with particular employees. This (often isolated)

experience appeared to become an entrenched bias. Consequently, attitudes towards staff were based upon an expectation of the *worst* of their employer experiences. Tragically, this tended to produce a 'self-fulfilling prophesy'. Within such facilities, relationships between Management and Staff tended to be strained and combative. Workers were more inclined to speak of supervisor behaviour which was of a bullying and hectoring nature, with a focus on finding problems and criticisms.

In these facilities work-related claims and costs tended to be very high. Absenteeism with associated agency 'on costs' for staff replacement was high. Within particular workgroups in the facility it was more common to find bullying behaviours which went unchecked by Management and in some instances were due to the behaviour of some (usually middle rank) managers.

Together with poor PSC environments went, unsurprisingly, high staff turnover creating not inconsiderable difficulties and cost, particularly where permanent staff who left suddenly had to be replaced by expensive Agency staff until replacements could be found. Such regular occurrences were a source of considerable strain on facility CEO's and executive managers. They complained bitterly about these events, however, tragically, they were all too often explained away by (and blamed on) the attitudes and behaviour of the staff (particularly new migrant DCW's).

This failure to look for the real underlying causes (poor management) served only to reinforce the existing management biases that existed and which underpinned the dysfunctional management practices, which were ultimately responsible.

In parallel *qualitative* research, the first author interviewed some 16 for profit aged care facility owners and/or managers at a different group of facilities, to enquire about what Employee Assistance Programs (EAP) they offered for their staff. Such programs might include for example; low cost (or no cost) physiotherapy to treat work related musculo/skeletal strains, low cost (or no cost) psychology referral for emotional problems affecting work, (limited) financial support to assist family emergency, time off to attend family problems, etc.

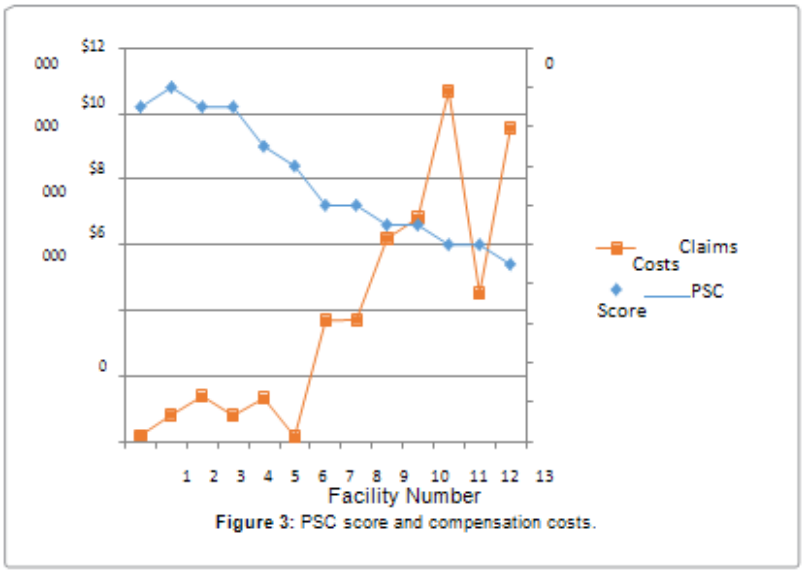
The provision of EAP services could be visualized as an 'outward and visible' indicator of PSC-the practical, employer initiated, systems or services intended to assist employee health, safety and or security.

As observed elsewhere, there were considerable differences of view and attitude towards EAP expressed by owner/managers. Whereas some employers were keen to support their staff in any way possible because; "*…they are our best asset",* others viewed such additional supports as; "*…nice in theory, but quite unaffordable".*However, this latter view would appear to be short-sighted and economically questionable.

Figure 3 represents the relationship between injury compensation claims costs (in $AUD 1000's), at 13 of the 16 facilities for which data could be derived. Injury cost data was supplied by the State based workers compensation agent, WorkCover (SA)

PSC level was assessed on a 0-10 scale as a function of EAP support provided by the facility owner according to his description. The more support in the way of EAP was provided (with consequential PSC level increase), the lower the work compensation (for injury) costs were evident and are indicated in Figure 4.

Taken together, the author's observations indicate that there is a significant economic argument for deliberate and careful attention to PSC within aged care. This argument rests on a number of undoubted factors.



[Notes: PSC score is indicated on a 0-10 scale (Right Y Axis), Claims costs are in $AUD 1000's Left Y Axis). Number of Facilities is shown on the X axis].

Figure 4. Comparison of PSC level and annual recorded compensation cost at 13 aged care facilities.

1. High PSC facilities tend to have lower staff turnover. This results in lower costs for retraining.
2. Consistent work teams tend to work more efficiently and effectively; they know each other's capacities and 'oddities' and adjust accordingly.
3. Consistent staffing enables workers to know residents and their particular needs without being told and provide overall more effective care. They also know and develop useful relationships with relatives, all of which militates for more effective and harmonious relationships and enhancement of the facility reputation.
4. Happy staff tend to actually look after themselves with appropriate compliance to safe work practices more consistently (use of lifters and learned manual handling techniques).
5. Injuries at work tend to be fewer.

6. Return to Work (RTW) times tend to be lower. [Conversely,unhappy (particularly bullied or over-stressed) injured staff may not hurry to return to where they have been so bullied or overworked.]
7. Lower injury rates and overall claims costs allow facilities to negotiate lower WorkCover insurance rates. (Where injury and claims are not well controlled, current changes to the relevant legislation means that high injury facilities face potentially punitive and business terminating premium rates of up to 19% of gross wages).

In sum, the cost of providing those supports and conditions which make for high PSC levels is significantly outweighed by the savings and reductions indicated above.

This is represented in the model shown in Figure 5, below.

CONCLUSION

The progressive aging of Australia's population creates significant challenges to be able to meet the needs of this expanding proportion of citizens who can no longer care for themselves, or be cared for by their families.

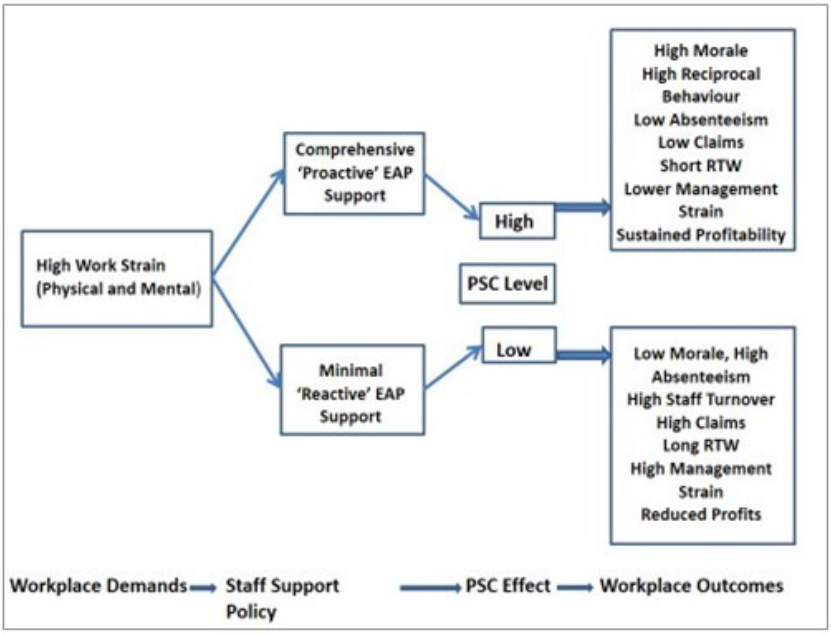


Figure 5. Model of PSC Effects in the Workplace.

Government derived money to fund the increasing number of aged care facilities is clearly not unlimited. There will always be economic pressure on facility owners and managers in the aged care industry.

However, our research indicates that a solution to such problems for the 'bottom line' are not solved by minimising spending on staff care in favour of resident care. Quite the reverse appears to be the case. Caring for staff with as much zeal as caring for the residents i.e. building and maintaining the highest levels of PSC (we contend) is the optimum course to ensure that profitability is maintained.

Happy, healthy, longer tenured and confident staff will deliver better care, with greater efficiency making for happy residents and their relatives. In turn this leads to greater word-of-mouth support for the facility, ensuring consistently high occupancy rates.

In addition, there will be minimal losses due to absenteeism, particularly reducing the cost expenditure on expensive 'short notice' agency staff. It is evident that where PSC is high, staff take better care

of themselves by careful adherence to manual handing training and care plans, which reduces injury incidence.

Similarly when injury does occur, and high PSC facility which is doing the maximum to assist the injured worker will have much lower RTW times, reducing the cost of any claims substantially.

Whilst our investigations have been confined to a particular industry, namely aged care, we see no reason to believe that there are unusual factors or conditions which might account for our observations and results. These are completely consistent with other research which has been undertaken in other work environments, i.e. [4, 27-30].

The human stress response has been very extensively studied in the last two decades. [31, 32]. It is clear that, with the exception of small group of genetically blessed individuals, [33], everyone suffers maladaptive consequences of exposure to too much stress over too long a period. However, it is also becoming clear that the crucial factor in moderating this spiral towards disease and injury is PSC.

As the 21st century unfolds it is also clear that the sum of day to day demands, including work strain, are not abating. Paradoxically, the technological advances which are supposed to make life easier, are actually having the reverse effect in adding to our strains. Accordingly, we argue that the key driver for managers has moved very far from the ruthless days of Thatcherism.

The age of the 'Manager as Servant' model is now arguably at hand, and the most important aspect of this will be ensuring that the organisation, section, or work team PSC is, and remains, at the highest level.

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