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Document Version
Accepted author manuscript

Citation for published version (APA):
Jacobs, S., Johnson, S., & Hassell, K. (2017). Managing workplace stress in community pharmacy organisations: Lessons from a review of the wider stress management and prevention literature. *International Journal of Pharmacy Practice*. https://doi.org/10.1111/ijpp.12360

Published in:
International Journal of Pharmacy Practice

Managing workplace stress in community pharmacy organisations: Lessons from a review of the wider stress management and prevention literature

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Word count: 5250

Abstract

Background Workplace stress in community pharmacy is increasing internationally due, in part, to pharmacists' expanding roles and escalating workloads. Whilst the business case for preventing and managing workplace stress by employers is strong, there is little evidence for the effectiveness of organisational stress management interventions in community pharmacy settings.

Aim To identify and synthesise existing evidence for the effectiveness of organisational solutions to workplace stress from the wider organisational literature which may be adaptable to community pharmacies.

Method A secondary synthesis of existing reviews. Publications were identified through keyword searches of electronic databases and the internet; inclusion and exclusion criteria were applied; data about setting, intervention, method of evaluation, effectiveness and conclusions (including factors for success) were extracted and synthesised.

Findings Eighteen reviews of the stress management and prevention literature were identified. A comprehensive list of organisational interventions to prevent or manage workplace stress, ordered by prevalence of evidence of effectiveness, was produced, together with an ordered list of the benefits both to the individual and employing organisation. An evidence-based model of best practice was derived specifying eight factors for success: top management support; context-specific interventions; combined organisational and individual interventions; a participative approach; clearly delineated tasks and responsibilities; buy-in from middle management; change agents as facilitators; change in organisational culture.

Conclusions This literature review provide community pharmacy organisations with evidence from which to develop effective and successful stress management strategies to support pharmacists and pharmacy staff. Well-designed trials of stress management interventions in community pharmacy organisations are still required.

Introduction

Background

The number of prescription items dispensed by community pharmacies in England in 2013/14 was 948.2 million – an increase of over 50 per cent in ten years.[1] Over the same time period, the number of medicines use reviews (MURs; an *advanced* service introduced by the 2005 NHS pharmaceutical services contractual framework) increased to 3.1 million, alongside a growing range of *enhanced* and *locally commissioned* services (including needle exchange, stop smoking, minor ailment and anticoagulant screening services). Unsurprisingly then, pharmacists' workloads are perceived to be escalating, prompting concern about increasing workplace stress and threats to patient safety.[2,3] Similarly, in the United States (US), concerns around increasing demand, shortfalls in the pharmacy workforce, and increasing workplace stress in the pharmacy profession have been raised. [4] Thus, whilst this paper is written from a United Kingdom (UK) perspective, the lessons for community pharmacy organisations have a much wider pertinence.

Research suggests that between 0.04%[5] and 3.0%[6] of items dispensed by English community pharmacies contain a dispensing error (equivalent to between 379,000 and 28.4 million dispensing errors per year). Similar error rates have been reported in studies conducted in the US and elsewhere.[7,8] These studies also indicate that organisational factors (e.g., workload, staffing, relationships with supervisors, insufficient work breaks) may be associated with the majority of these errors.[5-8] Recently published evidence of stress levels amongst English community pharmacists suggests that stress from work-related sources is slightly but significantly higher than in other healthcare workers.[9] Long working days, being a pharmacy manager and working for large multiples and supermarkets were also associated with higher reported levels of stressors.[9] The same study provided some of the first quantitative evidence supporting the link between stress from perceived work overload and pharmacists' involvement in dispensing errors. [10]

With prescribing volumes rising year on year, exhortations both from within the UK profession and from policymakers to further expand the clinical role of community pharmacists, and economic pressures on community pharmacies to maintain or reduce staffing levels, workload pressures seem likely to increase still further. In light of this, organisational support aimed at protecting both pharmacists and pharmacy staff may be instrumental to prevent any further rise in stress levels. In turn this could have important implications for patient safety, e.g. in relation to dispensing error rates. Yet there is a dearth of published evidence in relation to the cost-effectiveness of stress management and prevention interventions which may be practicable in a community pharmacy setting.

Why should community pharmacy employers address workplace stress?

> *"There is a difference between pressure and stress. Pressure can be positive and a motivating factor, and is often essential in a job. It can help us achieve our goals and perform better. Stress occurs when this pressure becomes excessive. Stress is a natural reaction to too much pressure."[11]*

Workplace stress arises when pressures related to work outweigh an individual's capacity to cope with them. It can adversely affect an individual's well-being (both physical and psychological), their

relationship to their job and organisation (e.g. job satisfaction, motivation, organisational commitment) and life outside work (e.g. family relationships). It is also known to have an adverse effect on the organisation, and is the leading cause of long-term absence from work in the UK (as well as a common cause of short-term absence).[12] Workplace stress can contribute to reduced productivity, increased staff turnover, accidents and errors, industrial disputes and reputational damage.

It has been estimated that psychological ill health costs UK employers £28.3 billion per year (at 2009 pay levels),[13] equivalent to an annual cost of approximately £1000 per employee, through sickness absence, presenteeism and staff turnover. In the US, it has been estimated that the annual healthcare costs associated with workplace stress amount to up to $190 billion.[14] It has been reported that rates of psychological ill health in the UK have stayed at similar levels for the past decade suggesting similar costs are still likely being incurred, with an average 23 working days lost per case of psychological ill-health.[15] Employers in the UK also have a legal 'duty of care' which includes minimising the risk of stress-related illness or injury, taking measures to alleviate monotonous tasks, adapting work to the individual, and tackling the causes of work-related stress.[16-19] In the US, where employee health insurance is covered by some organisations, there are additional financial implications linked to the healthcare costs associated with workplace stress. There are therefore clear organisational imperatives in the UK and elsewhere for implementing workplace stress management and prevention strategies and a need to understand the usefulness and likely success of different interventions.

Organisational stress management and prevention interventions

Organisational stress management and prevention interventions have been categorised in a number of ways in the literature, including according to their *level* of prevention (i.e. primary, secondary or tertiary), their *focus* (i.e. on the individual employee or on the organisation) or their *target* or the aspect of the work environment being modified (i.e. socio-technical or psychosocial). For this review, the framework proposed by DeFrank and Cooper[20] was adopted to guide the selection and synthesis of published evidence. These authors expand upon the general distinction between individual and organisational interventions and propose three categories of intervention, those with a focus on the *individual*, those focusing on *the interface between the individual and organisation*, and those focused on the *organisation*.

Historically, stress *management* interventions have focused predominantly on the individual (e.g. counselling, stress management training), usually providing support to those already suffering from the effects of work stress or giving them the tools or resilience to cope with work stress when it arises (i.e. secondary prevention). Individual-level approaches also include interventions to assist those whose health has already been damaged by chronic stress (tertiary prevention; e.g. employee assistance programmes, return-to work schemes). A number of systematic reviews already exist looking at the effectiveness of such individually-focused interventions.[e.g.20-23] Over recent years, however, efforts have increasingly been focused on interventions designed to reduce the organisational causes of stress (primary *prevention*), either targeting those aspects of work at the individual-organisational interface (e.g. role clarity, co-worker support, autonomy) or in relation to the organisational context (e.g. ergonomics, management style, work schedules). De Frank and Cooper postulated that employers needed to move away from focusing solely on modifying an

individual's reactions to stressful situations (a "band aid" approach to stress management) and instead consider addressing the organisational causes of stress (stress prevention) to fulfil their legal duty of care in relation to workplace stress.

The primary focus of this review is therefore on organisational-level interventions (and those targeted at the organisational-individual interface) which have the potential to be implemented by community pharmacies to prevent or manage workplace stress.

Study aim

The aim of this literature review was to identify organisational solutions to workplace stress which might be adaptable to community pharmacy settings by (i) synthesising existing evidence for the effectiveness of organisational interventions designed to prevent or manage workplace stress from the wider organisational literature; and (ii) synthesising a model of best practice in stress management and prevention from the literature which community pharmacy organisations may consider adopting. Whilst this paper is written from a United Kingdom (UK) perspective, the lessons for community pharmacy organisations have a much wider pertinence.

A more detailed description of the wider study from which this literature review is drawn and its findings have been published elsewhere.[24]

Material and methods

The approach taken by this review was a secondary synthesis or review of existing reviews[25] of the evidence for organisational stress management and prevention interventions. On the direction of the research funders, a full systematic review was not conducted. However, as far as possible within the limited resources available to the study, a systematic approach was taken to identifying, selecting, extracting and synthesising evidence from existing reviews. A number of reviews of stress management interventions have been conducted in recent years, often taking different approaches and including different types of interventions. A secondary synthesis can be a useful next step in pulling together in one place the findings of existing reviews to provide policy makers and practitioners with the evidence they need to implement change.

[TABLE 1 around here]

This review was conducted in 2011. Published reviews were identified in three ways: existing knowledge; keyword searching of the internet to capture publications by professional and regulatory authorities; and electronic database searches (Medline, Cinahl, Embase, HMIC, International Pharmaceutical Abstracts, CSA social science databases, ABI Inform) to capture peer-reviewed publications from the health and organisational sciences. Search terms related to workplace stress, intervention studies and reviews. A set of inclusion and exclusion criteria (Table 1) were applied to guide the selection procedure. Most importantly, only reviews which examined interventions with an organisational element were included; reviews focusing exclusively on individual level interventions were not within the scope of this study (although some organisational interventions do

include elements of this and are captured in the findings). Included reviews were not assessed for quality.

Data were extracted from each selected publication in relation to the following: theoretical framework; review method; intervention described (setting, intervention, method of evaluation, effectiveness); and conclusions (factors for success, barriers, methodological issues). These data were then synthesised by categorising each intervention according to its focus (individual; individual-organisational interface; organisational) in line with DeFrank and Cooper's framework.[20] The observed effects of each intervention were also categorised according to whether they benefited the individual or the organisation. These categorisations were ordered according to their prevalence in the literature (Tables 2 and 3) and are presented below alongside a narrative synthesis of the findings. The heterogeneity of methods of evaluation and outcome measures in the original studies and the secondary synthesis approach taken for the current review precluded their ordering by strength of effectiveness. Finally, the factors contributing to the success or otherwise of the interventions were synthesised, allowing a model of best practice in organisational stress management and prevention to be proposed. This model and how it can be utilised within the pharmacy profession is detailed and discussed below.

Results

Overview of selected reviews

Eighteen reviews, published between 1997 and 2008, of the stress management and prevention literature were selected for secondary synthesis.[23,26-42] Twelve of these were peer-reviewed academic papers and six were from books and reports. The methodologies used within these reviews varied from comprehensive systematic reviews to more selective reviews and multiple case studies. Four reviews did not describe the methods used. Many described the method and findings from individual evaluations of stress management interventions whilst others provided only a synthesised summary of the evaluations reviewed.

The interventions covered by these reviews were implemented in a number of different countries (UK, Europe, US, Australia) in both private and public sector organisations. Private sector settings included manufacturing, retail, transport, forestry, mail, insurance company and other office settings. Public sector settings included healthcare (hospital, community, mental health, public health), social care (care homes, child protection services), education, government and police force. None of the interventions reviewed were implemented in pharmacy settings.

Effective organisational stress management and prevention interventions

Table 2 summarises the targets and nature of organisational stress management and prevention interventions that were identified in the literature as having evidence for their effectiveness. These are listed in order of their prevalence in the literature reviewed. The interventions have been categorised according to the framework devised by DeFrank and Cooper[20] as those focusing on the individual, those focusing on the individual-organisational interface, and those with a focus on the organisation. Although reviews of interventions targeted solely on the individual were not within the

scope of this secondary synthesis, some reviews of organisational interventions did include elements of individual level interventions which we report here.

[TABLE 2 around here]

Individual-level interventions

The three individual-level interventions most commonly described by this literature were stress management training, cognitive behavioural approaches and other forms of counselling (see, for example, Poelmans et al.[43] cited in Kompier et al.[31] and Semmer[39]). Other individual-level interventions with evidence of effectiveness included: exercise; training in relaxation or meditation techniques and opportunities for their practice; employee assistance programmes which are aimed at those experiencing work or personal problems which are affecting their performance and can include counselling together with a range of other services including financial, legal, stress management, anger management and referral to specialists;[44] and return-to-work schemes for those who have taken long term sick leave and would benefit from a gradual return to work.

Interventions focused on the individual-organisational interface

At the individual-organisational level, a large number of effective interventions described in the review literature involved participative approaches to stress prevention and management and/or increased employee participation in decision-making within the company (for example, Landsbergis & Vivona-Vaughn,[45] cited in Semmer[39] and Parkes & Sparkes,[36] and Mikkelsen et al.[46] cited in Semmer[39]). Interventions which included an element of improving communication within organisations were also common in the review literature and demonstrated evidence of effectiveness (for example, Kompier et al.[47] cited in Semmer[39], and Cartwright et al.[48] cited in Giga et al.[26]). Skill training, co-worker (or peer) support initiatives and increasing employee autonomy were also common elements of successful interventions in this category (for example, Heaney et al.[49] cited in Michie and Williams,[33] Semmer[38] and Murphy[34]). Other individual-organisational level interventions with evidence of effectiveness included: appraisals; improvements in management support and teamwork; increasing role-clarity; conflict resolution training; and time management training.

Organisational-level interventions

The most commonly described effective organisational-level interventions for preventing work-related stress reviewed in the literature included those with a focus on modifying task or job characteristics. These included measures such as changing the production speed in a confectionary manufacturing company (Wall and Clegg,[50] cited in Semmer[38,39]); integrating maintenance and support tasks with production in the Finnish forestry industry (Kalimo & Toppinen,[51] cited in Kompier et al.[31]) and a variety of other 'job enrichment' programmes. [52,53]

Also commonly demonstrating evidence of effectiveness in the selected reviews were interventions involving ergonomic improvements or other changes to the work physical environment. Examples include a study by Beerman et al.[54] (cited in Kompier et al.[31]) which evaluated a stress management programme in a German hospital which established 'health circles' (employee discussion groups for

developing strategies to improve working conditions) to implement a number of changes including ergonomic and technical improvements.

Evidence for the effectiveness of interventions including changes to work scheduling (e.g. the introduction of flexi-time, implementing rest break strategies or changes to shift rotations) was also commonly demonstrated in these reviews. For example, a review focusing specifically on the impact of rest breaks suggested that rest breaks incorporating relaxation sessions and respite activities (e.g. napping, relaxing and socialising) are more likely to reduce job-strain and enhance mood than doing chores (e.g. working with customers, running errands and work preparation). Rest breaks are also a potentially important means of reducing the risk of errors and accidents, while at the same time helping to maintain or even enhance job performance.[41]

Other organisational level interventions with evidence of effectiveness included: management training; improvements in or introduction of new technology or equipment; efforts to modify the prevailing organisational culture; changes to skill mix or job rotation; the introduction of new company policies or strategies explicitly around stress management and prevention; and modifications to workload.

The reported benefits of stress management and prevention interventions

The reported benefits of organisational stress management and prevention interventions were varied and included benefits both for the *individual* and for the *organisation*. Table 3 summarises these benefits, listed in order of their prevalence in the reviewed literature.

The most commonly described benefits for individual employees included increases in job satisfaction, psychological well-being, and perceived autonomy, and decreases in perceived stress or strain, physical or physiological signs and symptoms, and burnout. The most commonly described benefit for the organisation by far was decreased sickness absence, with fewer reports of increased productivity or performance and improvements in the organisational climate or culture and in perceived working conditions.

A number of reviewers[23,26,28,30-32,34,35,38] suggested that more evidence exists in the wider organisational literature for the effectiveness of individual-level interventions – however, these tend to benefit the individual rather than the organisation and benefits can be short lived. The effectiveness of organisational interventions can be harder to demonstrate but, similar to deFrank and Cooper,[20] some authors concluded that they were more likely to benefit both the organisation and the individual and that these benefits could be longer lasting. Methodological difficulties inherent in demonstrating the effectiveness of organisational stress management interventions included:

- A high risk of failure in organisational development projects in general (between 50 and 80%[38])
- Barriers to implementing a rigorous experimental design including difficulties around randomisation and/or identifying a control group
- If participation is voluntary, those most at need may not volunteer
- High attrition rates
- The likely timescale of demonstrable organisational effects

- Change in itself is stressful and may prevent any positive effects of the intervention being demonstrated

Moreover, difficulties existed in attributing particular benefits to particular interventions. First, many of the interventions described in the literature were multi-faceted, with a number of components targeting both the individual and the organisation. It is therefore impossible to say which components were responsible for the success of the intervention and for which outcomes. Second, there was variation in the outcomes measured in different studies dependent upon the aims of the research and the needs of the organisation involved. Third, interventions may have had a differential effect on different groups of employees which, unless adequately powered sub-group analyses were conducted, could have masked the true effects of the intervention.

[TABLE 3 around here]

Factors for success

The above shows the existence of evidence demonstrating the effectiveness of a wide range of different stress prevention strategies. It was also clear however that there is no one-size fits all, off-the-peg solution for an organisation seeking to reduce work stress and improve the well-being of its workforce. Nevertheless, most authors suggested a number of different criteria, derived from the evidence they reviewed, which may be necessary for the success of such endeavours. Eight key criteria are synthesised here:

1. Sustained **top management support**[28,29,31,34,35,38-40] is a pre-requisite to success. This is necessary to ensure timely access to the resources required to develop and implement effective stress management and prevention strategies. Given the need for additional investment, obtaining this support requires a strong business case, particularly at times of economic hardship.

2. Interventions should be **context specific**.[26,28,31,32] This requires organisations to undertake a tailored risk assessment (or "stress audit"),[35,39,40] involving sub-group analyses of different sections and levels of employee.[42] The risk assessment should therefore be able to identify the causes of workplace stress[29] for different groups of employees[36] and pinpoint potential targets for intervention.[30,31]

3. The strategy implemented should **combine individual and organisational interventions**[23,26,28,30,32,33,35,36,38-40,42] designed on the basis of the risk assessment. A wide range of interventions focusing on the individual, the organisation and their interface have been shown to be effective in different contexts and with different benefits. The risk assessment should be used as a starting point to identify a range of suitable interventions to maximise potential benefits to employee and organisation alike.

4. Success requires **a participative approach**.[23,26,28-32,34,35,38-40] Employees should be involved in all stages of implementation, from design through to evaluation. Cooperation and open communication between management and employees is needed and employees should be recognised as experts, best placed to identify what might be beneficial for them in their own work context. Many of the successful interventions evaluated in the literature involved the

establishment of cross-organisational groups representing all levels of employee to consider the findings of risk assessments and to develop, implement and evaluate appropriate strategies to address the stressors identified. A participative approach can help to empower employees, thus having a positive effect on stress in itself, and may also ensure that changes will be accepted, as opposed to changes imposed from above which risk being resisted or undermined.

5. Action planning is vital with **clear tasks and responsibilities** laid out.[28-31] Without adequate project management, even the most promising proposals will not come to fruition. Cross-organisational involvement in the planning process will help ensure that tasks are taken forward by those most likely to engender change.

6. **Buy-in from middle management**[29-31,34] is also required. Without this, sustained progress will flounder. Middle managers are increasingly being recognised as the lynchpins of organisational change and quality improvement, implementing and monitoring senior management directives, providing leadership and support for frontline employees and influencing the strategic direction of an organisation.[55] However they can also constitute an important source of resistance to change and should therefore be included in the planning process.

7. If external **change agents** are recruited, they need to act as facilitators rather than dictators of the necessary approach.[38-40] The involvement of organisational psychologists and academics in facilitating change was endorsed by some authors but it was recognised that they should not come with pre-conceived ideas about which changes should be implemented. Some authors also stressed the importance of the perceived independence of external facilitators and evaluators to promote trust amongst employees and minimise resistance to any changes proposed.

8. For any changes to be enduring, stress management needs to be incorporated into the **organisational culture** – "how things get done around here".[30] It must be recognised as an important issue in strategy and policy documents[28,34] and not side-lined. It should acknowledge the role of the organisation as well as the individual. Senior management support is vital here, who should be seen to lead by example to encourage buy-in from middle management and ensure that any top level organisational values are incorporated into the culture of the organisation.

Together, these eight factors for success represent an evidence-based model of best practice in organisational stress management and prevention which could be adopted by community pharmacies seeking to address workplace stress for pharmacists.

Discussion

This secondary synthesis of existing reviews of the literature on organisational stress management and prevention interventions has not only identified a list of interventions where evidence of effectiveness exists but has also produced a model of best practice which community pharmacy organisations seeking to implement stress management and prevention strategies may adopt. Taking a lead from deFrank and Cooper's framework for categorising stress management interventions,[20] our aim is to add to the literature on organisational solutions and not to dismiss or ignore the effectiveness of individual solutions which is already well reported in the literature. [e.g. 20-23]

Indeed, one conclusion of this review is that combining individual and organisational interventions is likely to increase the chances of success of stress management interventions.

Within the funding constraints for this study, and given the existence of number of recent reviews in this area, a secondary synthesis methodology was selected over a full systematic review. This strategy, however, has its limitations. By electing to draw information about the effectiveness of stress management interventions only from existing reviews, and not from the original published source, the retrieved data were limited to those already extracted by these reviews' authors. Details of the methods employed by included studies were often not available. Nor was it possible to assess the quality of the studies covered by the included reviews or synthesise findings around the effectiveness of each intervention. The reviews also varied widely in terms of their scope, coverage and methodologies with the result that the current review cannot necessarily be guaranteed to be inclusive of all interventions. However, given the number of reviews included, some of which were themselves systematic, and the degree of overlap in terms of the studies identified and reviewed therein, we can have some confidence that the majority of good quality evaluations of organisational stress management and prevention interventions were covered up to the point at which the included reviews were themselves conducted.

Whilst no evidence was drawn from studies conducted in community pharmacy organisations, a number of studies identified in this review were conducted within healthcare organisations. Moreover, although not every intervention might be transferable to other organisational settings, the list of effective organisational interventions generated by this review provides community pharmacies with a starting point for developing and implementing effective stress management and prevention strategies. The derived model of best practice suggests that successful strategies should include organisational approaches alongside those focused on the individual, as suggested by deFrank and Cooper,[20] but that this should be tailored to the needs of the organisation with the help of a needs assessment or stress audit.

Community pharmacies are somewhat unique as healthcare providers, offering a range of healthcare services in addition to dispensing, often alongside the sale of both healthcare and non-healthcare products including cosmetics and groceries. It may be particularly beneficial to these organisations which span healthcare and retail sectors to broaden their consideration of what might be effective stress management interventions to those proving successful in other sectors of employment. However, pharmacies commonly operate on a one pharmacist model, with regulatory and operational restrictions on that pharmacist's time. This can place important limitations on pharmacies being able to release pharmacists to participate in stress management initiatives and it will have cost implications to the pharmacy to provide pharmacist cover. Furthermore, community pharmacy organisations vary widely from independent pharmacies owned and run by a sole practitioner to large national or multi-national chains and a successful strategy in one may not transfer easily to the other given the variation in resources and infrastructure. Moreover, the organisational culture extant in these different types of community pharmacy varies,[56] some of which may be more supportive of implementing stress management strategies than others. Further research is therefore needed to help identify which types of intervention are more likely succeed in different community pharmacy organisational contexts.

Synthesising existing evidence of the benefits conferred by implementing these interventions strengthens the business case for implementing organisational stress management and prevention strategies in community pharmacy. The most commonly reported benefits to the individual included increases in job satisfaction, psychological well-being, and perceived autonomy, and decreases in perceived stress or strain, physical or physiological signs and symptoms, and burnout. The most commonly described benefit for the organisation by far was decreased sickness absence. As described above, mental ill health costs UK business and the wider economy billions of pounds every year. By intervening through organisational stress management and prevention strategies, it has been suggested that UK business may save up to £8 billion per year if psychological well-being were better managed at work. [57] There is therefore strong evidence that community pharmacy organisations stand to benefit from tackling work stress through reduced rates of sickness absence and increased productivity through a healthier, more effective and motivated workforce. Nonetheless, there is a need to continue to raise awareness in community pharmacy about the risks of work stress to the individual, organisation and patient given the evidence that work stress in the sector is high and could increase yet further.[2,3,9,10] In the UK, for example, further expansion of the community pharmacist's role continues to be supported by policy-makers as one solution to burgeoning workloads in general practice[58] whilst workloads in community pharmacy continue to increase.[1] Yet funding for community pharmacy services through the NHS contractual framework is facing a six per cent cut which could well lead to staffing cuts, increasing further the pressures on pharmacists.[59]

Adopting the model of best practice in stress management and prevention proposed in this paper should help to maximise the likely success of those organisational stress management and prevention strategies implemented. It is known that a high risk of failure (between 50 and 80%) is associated with organisational development projects in general.[38] Failure of interventions clearly has direct cost implications, for example losses linked to intervention costs and a failure to return on investment, and also with the costs associated with the continued high levels of employee stress. Indirect costs are also likely to be evident following unsuccessful interventions for example lower employee job satisfaction and morale, and increased employee resistance to future change events or interventions. Following an evidence-based model of best practice should reduce the risk of failure and help prevent inappropriate and unsuccessful interventions being introduced. This paper highlights eight factors for success that have been identified in the literature as important to the success of stress management and prevention interventions with particular emphasis on the need for explicit and positive management involvement (top management support; buy-in from middle management; supportive organisational culture). Involvement of employees is also seen as important with a participative approach and good communication between managers and employees another key factor for success. Three other success factors are associated directly with the intervention (interventions should: be context specific; have clear tasks and responsibilities; and combine individual and organisational interventions). The final factor for success provides guidance on the use of change agents which, if used, should be utilised as facilitators to minimise employee resistance to change.

Given the dearth of any published research into the (cost-)effectiveness of organisational stress management and prevention interventions in community pharmacy, there is a clear need for well-designed trials or natural experiments to evaluate such strategies in this sector. Given the methodological difficulties identified in this review, researchers should give particular consideration

to methods of randomisation and/or identification of control groups. Pragmatic or quasi-experimental designs may have utility here, including cluster randomised trials or interrupted time series designs. Care should also be given to sample size, given the likely high attrition rates and potential need for sub-group analyses, and adequate follow-up periods, given the likely timescale of demonstrable organisational effects. Studies should measure a number of outcomes (individual, organisational and patient), to capture the multifaceted benefits of such interventions, alongside an evaluation of process, to disentangle the complexities of any associations between the nature of the intervention and the heterogeneous characteristics of its participants.

Conclusion

This secondary synthesis of reviews of the literature on organisational stress management and prevention interventions has provided community pharmacies in the UK and elsewhere with the evidence to start to develop strategies to support pharmacists and other staff at risk of or suffering the consequences of workplace stress. An evidence-based model of best practice provides community pharmacy organisations with a framework to help maximise the success of stress management strategies and ensure value for money from their investment. Further research is required to provide evidence of the cost-effectiveness of such strategies implemented in community pharmacy settings.

Acknowledgements

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TABLE 1 Inclusion and exclusion criteria applied in identifying and selecting papers for review

Inclusion criteria:

Sector of employment: Any

Location: Developed countries (UK, W. Europe, US, Canada, Australia, NZ)

Dates: post-1995

Design/ study type: Review papers only

Publication type: Both peer-reviewed papers and grey literature

Focus of study: Reviews of effectiveness or cost-effectiveness of organisational interventions to manage or prevent work-related stress

Language: English only

Exclusion criteria:

Design/ study type: Non-empirical work

Publication type: Conference abstracts

Focus of study: Reviews of the effectiveness of interventions focused solely on the individual (with no organisational element)

TABLE 2 Interventions for reducing /managing work stress with evidence of effectiveness

Individual	Individual-organisational	Organisational
1. Stress management training	1. Participation	1. Task/ job characteristics
2. Cognitive-behavioural approaches	2. Communication	2. Ergonomics/ physical environment
3. Counselling	3. Skill training	3. Work scheduling (flexi, rest breaks, shifts)
4. Exercise	4. Co-worker support	4. Management training
5. Relaxation/meditation	5. Autonomy	5. Technology/ equipment
6. Employee assistance programmes	6. Appraisals	6. Organisational culture
7. Return-to-work schemes	7. Management support	7. Skill mix, job rotation
	8. Teamwork	8. Company policy/ strategy
	9. Role-clarity	9. Workload
	10. Conflict resolution training	
	11. Time management training	

TABLE 3 Demonstrated benefits of interventions for work stress prevention and management

Individual benefits	Organisational benefits
Increases in:	Improvements in:
1. Job satisfaction 2. Psychological well-being 3. Perceived autonomy 4. Perceived social/ supervisory support/ teamwork 5. Motivation 6. Perceived influence 7. Meaningfulness of work 8. Task significance 9. Self esteem 10. Coping ability 11. Perceived identity 12. Organisational commitment	1. Sickness absence 2. Organisational climate/culture 3. Performance/productivity 4. Working conditions 5. Turnover 6. Cost-benefits 7. Patient/customer satisfaction 8. Service quality
Decreases in:	Reductions in:
1. Perceived stress/strain 2. Physical/physiological signs/symptoms 3. Burnout 4. Role conflict/ambiguity 5. Fatigue	1. Customer complaints 2. Medication errors 3. Malpractice claims 4. Accidents