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BOHRF smoking cessation review

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1 EXECUTIVE SUMMARY

This work involved a review of recent reviews relating to smoking cessation programmes at work, a review of the qualitative literature relating to these issues, various case study constructs and a final exit focus group to discuss the overall findings of this process.

1.1 REVIEW OF REVIEWS

The review of reviews concluded that there are certain advantages to basing smoking cessation programmes in the workplace. These included (i) ideal access to large numbers of worker populations, (ii) the potential improved recruitment to such programmes given this, (iii) the possibility of developing positive peer support at work, (iv) the opportunity to access young men, traditionally difficult to achieve (v) access to occupational health and other staff who can provide support and delivery and (vi) ability for workers to attend easily, perhaps in their own time after the working shift.

1.2 QUALITATIVE LITERATURE REVIEW

Fourteen studies were included in this review, and data were used to synthesise and to construct a new evidence based conceptual model. The model was structured around four broad elements.

- (i) Employee's (smokers and non-smokers) attitudes to workplace interventions or restrictions.
- (ii) Employee's views about their employer's roles and responsibilities regarding workplace interventions or restrictions.
- (iii) Employee's (smokers only) views about what elements of interventions are and are not helpful.
- (iv) Employee's (smokers only) views about the key factors that already determine whether or not they quit.

Whilst the details of each section are contained within the main report, it was concluded that the simple provision or availability of programmes and interventions, or simply participation, appears to be unlikely to provide any change in the behaviour of workers. Given that workers' attitudes and beliefs are largely shaped by subjective experience and priorities, interventions should realistically;

- (i) Target employees that actively want to stop smoking.
- (ii) Use elements that these employees have identified as useful (including for example incentives, convenience, easy access to support and support from the employer).

OR

- (iii) Focus on altering beliefs about smoking and the need to stop.

In essence, this is because participation in a programme is only likely to be effective if workers have moved beyond the contemplation stage regarding smoking cessation, so that stopping smoking is a personal priority.

1.3 CASE STUDIES

1.3.1 Case Study One

This case study addressed the difficulties experienced by the study team in accessing workplaces, in order to carry out this work. This was thought likely to be due to a combination of factors, including;

- (i) Companies and organisations no longer providing in house smoking cessation services (as others were now offering this service; e.g. Primary Care Trust (PCT), HR advice centre).
- (ii) Active referral of workers to local NHS based clinics.
- (iii) Increased use of the Department of Health quit kit and other resources.

1.3.2 Case Study Two

This case study summarised global perspectives from in house Occupational Health Physicians (OHPs) by interviewing senior OHPs from two international companies.

Organisation A identified that;

- (i) Recent legislation to ban public place smoking was supportive to achieve their goal of creating a smoke free environment.
- (ii) It was easier to integrate smoke free policies into new rather than established worksites.
- (iii) In the UK, the predominant referral for workers is now to the NHS smoking cessation service.
- (iv) Worker consultation has assisted the organisation achieve compliance with its own policies and national legislation.
- (v) It is important to ensure that on-line health assessments are not too onerous for workers to complete.

Organisation B identified that;

- (i) Management support was particularly key to effecting change.
- (ii) Discussions with unions and works councils, for example, assist in defining the type and level of support that a company should offer to workers.
- (iii) It was crucial not to duplicate components of smoking cessation already on offer within the NHS.
- (iv) Co-payment for medication with the workers may be an option, where no national smoking cessation programmes are free and available.

1.3.3 Case Study Three

This case study differed from the above two case studies, focussing specifically on practical aspects of the delivery of smoking cessation programmes to a large health care provider. This case study identified that;

- (i) The main drivers for smoking cessation were financial and professional for the organisation and its own workers, and health related for their patients
- (ii) Internal policies required constant appraisal and modification to allow smooth running of the programme
- (iii) The use of a dedicated and experienced individual or individuals to deliver programmes is important. In the specific example, the provider was an experienced occupational health technician.

1.4 FOCUS GROUP

An internal focus group was held at the end of this project, in order to collate views relating to this work. A semi-structured approach was used, and each participant had received a summary of the entire work prior to participation.

The focus group was generally positive about and supportive of the findings of this process. Specific issues that were raised, that perhaps were not the focus of the qualitative literature review, were as follows;

- (i) Any delivery of intervention at a personal level must be carried out by a trusted individual within the workplace. The choice of colleagues within a group may also be important. Mixing, for example, patients and staff from a health care provider may be inappropriate.
- (ii) As smoking poses a safety risk in addition to health, interventions should incorporate input from safety experts.

- (iii) A more comprehensive intervention, not just focussing on pharmaceutical treatment, is important whilst minimising any “blame” on the individual smoker.
- (iv) Organisational “buy in” to smoking cessation must be achieved at the highest level possible.
- (v) It must be stressed to a smoker, who enrolls into a smoking cessation programme at work, that it is acceptable not to succeed.
- (vi) Details of improved health outcomes (e.g. the rapid risk reduction for myocardial infarction following smoking cessation) may help certain smokers quit, as might explanation as to how smoking may accentuate harm caused by other workplace hazards.

2 GENERAL INTRODUCTION AND BACKGROUND

The workplace is now regarded as an important setting for reaching potentially large numbers of smokers with important health messages. Such access is particularly important currently, in light of relatively recently developed policy and guidance. National smoke-free policies introduced in the UK in 2006-7 have been further complemented by government guidelines on how to implement the policies and how best to assist employees with smoking cessation during this process (NICE 2007). Recommendations include summaries of interventions of proven efficacy, and encouragement for employers conducting smoking cessation programmes within working hours.

More recent research from the US indicates that more complex approaches, combining two or more different elements, may achieve better success rates. For example, writing in 2010, the US Task Force on Community Preventive Services in a systematic review of workplace smoking cessation interventions found insufficient evidence to determine if worksite-based incentives and competitions alone are effective in reducing tobacco use among workers. However, strong evidence was found for worksite-based incentives and competitions when combined with additional interventions to reduce tobacco use among workers. Similarly screening interventions based on Assessment of Health Risks with Feedback (AHRF) alone were not found to be effective whereas workplace AHRF plus health education, with or without additional interventions for smoking cessation was recommended for smoking cessation.

The accompanying guidance highlights the need for a combined approach based on organisational policies and treatment benefits through health plans. <http://www.prevent.org/data/files/initiatives/investinginhealth.pdf>.

However, some of the findings of this review (e.g. with regard to the efficacy of smoke free workplaces) are at odds with findings from other established sources such as Cochrane (2008). In addition, the situation is different in the UK with the NHS acting as the primary provider of smoking cessation support. More research is needed to understand whether and why certain workplace approaches to smoking cessation are effective and if so, what organisational, team or other work factors can influence outcome.

This research aims to identify factors influencing effective workplace smoking cessation interventions through a summary of organisationally relevant findings from previous reviews of workplace smoking cessation interventions, a systematic review of qualitative data from workplace smoking cessation research, case study work with employers who provide smoking

cessation interventions to understand practical issues, including facilitators, barriers and good practice and an exit focus group to comment on the overall process.

3 REVIEW OF REVIEWS

3.1 INTRODUCTION

This chapter of the report summarises findings from previous literature and systematic reviews of the evidence on the effectiveness and cost effectiveness of workplace smoking cessation interventions. The reviews cover the findings from evaluations of a range of smoking cessation interventions spanning the last three decades. To be included in this summary, reviews had to:

- Report on evaluations of smoking cessation interventions.
- Be based in the workplace (or report workplace data separate from general smoking cessation data) and
- Report cessation or quit rates.

3.2 METHODS

Potential reviews of smoking cessation were identified through searches of psychinfo, medline and web searches using the terms ‘workplace’ and ‘smoking cessation’ or their synonyms combined with ‘review’ or ‘meta-analysis’. This yielded 39 possible reviews for inclusion.

Titles and abstracts of the 39 reviews were screened by two reviewers to ensure that the paper;

- was a review of evaluations of smoking cessation interventions.
- included (separate) evidence on interventions based in the workplace and
- included evidence on smoking cessation or quit rates.

For each review meeting these criteria (or if it was unclear) the full paper was retrieved and checked against the inclusion criteria. Thirty-two papers were excluded from this summary for one or more of the following reasons:

- The paper was not a review or it was a review of policy, not interventions.

- The paper did not cover smoking cessation interventions in the workplace, or it did not report results for workplace programmes separately to those for programmes in other settings.
- The paper was an earlier review for which there was an updated version.
- The review did not contain data on quit rates.

This chapter describes the main findings in relation to review questions, types of smoking cessation interventions covered and effectiveness and cost effectiveness data.

3.3 INCLUDED REVIEWS

Six reviews are included in the summary. Of the included reviews, three are systematic reviews, two are meta-analyses and one is a literature review. One of the systematic reviews considers both effectiveness and cost effectiveness outcomes, a second focuses exclusively on cost effectiveness data, and a third on effectiveness data only.

The two most recent reviews in this area are a pair of reviews from the Cochrane collaboration [<http://www.thecochranelibrary.com>]. Cahill¹ et al, 2008 considers studies aimed primarily at assessing the effects of cessation programmes for individual workers who smoke. Callinan² et al (2010) examines studies of legislative bans on exposure to second hand smoke, smoking prevalence and tobacco consumption in a range of settings including workplaces (only the findings of the Callinden review relevant to smoking cessation amongst employees as a result of workplace bans are considered here).

The final systematic review, published by NICE, is a rapid review of the cost effectiveness of smoking cessation programmes. The two meta-analyses and the literature review consider effectiveness data only.

The reviews covered in this summary represent a considerable overlap of original studies. The most comprehensive review is Cahill et al, (2008). This review covers 51 studies from 1980 onwards. The review included randomised controlled studies only and cessation rates at 6 months or more as an outcome. This review focuses on individual level workplace smoking cessation programmes.

The second review (Callindan et al, 2010) covers reduction in second hand smoke exposure as a result of legislative smoking bans and restrictions. It includes workplace bans and smoking cessation data where reported.

Two meta-analyses are included. Both are meta-analyses of workplace smoking cessation interventions. The first³ (Smedslund, Fisher, Boles, & Lichtenstein, 2004) includes 19 controlled studies from 1989 to 2001. There is some overlap although the Smedslund meta-analysis includes 8 non-randomised studies excluded from Cahill et al, (2008). The second meta-analysis included in this summary⁴ (Fisher et al, 1990) covers 20 studies from 1980 to 1990. Eleven of the studies included in Fisher et al, are also included in Cahill et al, (2008).

The final effectiveness review included here is a literature review covering 15 studies of smoking cessation⁵ (Curry & McBride, 1994). Only 2 of the studies were in a workplace setting or based on workplace provision and reported here. One of those is also included in Cahill et al, (2008).

The final review included in this summary⁶ (Flack, Taylor, & Trueman, 2006) is a rapid review conducted for NICE looking at cost effectiveness evidence for workplace smoking cessation studies. Ten studies are included in the rapid review spanning the years 1990 to 2006 (one of which is also included in Cahill et al, (2008), and one of which is Moher et al, (2005), an earlier version of Cahill et al, (2008).

See Table 1 for details of effectiveness review findings and Table 2 for findings from cost effectiveness reviews.

Table 1;

| Review | Review Type | Review question/objective | No. Studies Included | Outcome Measures | No. & type of Interventions | Results |
|----------------------|---|--|--|--|--|---|
| Callinan et al, 2010 | Systematic review including: - randomized controlled trials, -quasi-experimental studies - controlled before and after studies, -interrupted time series ¹ , and -uncontrolled pre- and post-ban data. | To what extent do legislation-based smoking bans reduce exposure to SHS, help people who smoke to reduce tobacco consumption or lower smoking prevalence and affect health | 50 (of which 8 appear to have relevant data i.e. study population is employees and pre-post ban smoking status is reported with a minimum 6 month follow up) | 1. Second hand smoke exposure 2. Active smoking 3. Total tobacco consumption 4. Health indicators 5. Hospital admissions | 1. Legislative smoking bans | Limited findings are reported in relation to workplace smoking bans: 1. Hospitality workers experienced a greater reduction in exposure to SHS after implementing the ban compared to the general population, (no overall findings on smoking cessation given) For all settings (including workplaces): 2. No consistent evidence of reduction in smoking prevalence attributable to the ban 3. Total tobacco consumption was reduced in studies where prevalence declined 4. There is limited impact on active smoking, but the trend is downwards |
| Cahill et al, 2008 | Systematic review Including: randomized and quasi-randomized controlled trials (individuals, workplaces or companies allocated to intervention or control conditions). | To categorize and evaluate workplace interventions aimed at helping individuals to stop smoking. | 51 | Employee smoking behaviour (cessation rates >6 months for programmes and workplace prevalence data), | 53 Cessation programmes for individual workers who smoke. (rather than at the workforce as a whole). | Findings are reported in relation to eight intervention categories (based on Moher et al, 2005): Behavioural Interventions; Individual Behavioural Interventions; Self-Help Interventions; Pharmacological Therapy; Social Support for Not Smoking; Environmental Support; Incentives & Competitions; and, Comprehensive Programmes. Authors' conclusions 1. We found strong evidence that interventions directed towards individual smokers increase the likelihood of quitting smoking. These include individual and group counselling and pharmacological treatment to overcome nicotine addiction. All these interventions show similar effects whether offered in the workplace or elsewhere. Self-help interventions and social support are less effective. Although people taking up these interventions are more likely to stop, the absolute numbers who quit are low. 2. There was limited evidence that participation in programmes can be increased by competitions and incentives organized by the employer. 3. We failed to detect an effect of comprehensive programmes in reducing the prevalence of smoking. |

¹ As defined by the Cochrane Effective Practice and Organization of Care Group

| | | | | | | |
|-----------------------|---|---|---|---|---------------------------|---|
| Smedslund et al, 2004 | Meta-analysis Controlled interventions of smoking cessation at the workplace. No baseline outcomes, but post-intervention outcomes at three different time-points. | To compare the effectiveness of studies of workplace smoking cessation in the 1990s with studies of workplace smoking cessation in the 1980s. | 19 | * Smoking cessation rate at 6 months, 12 months and more than 12 months | 32 | <u>Cessation @ 6 months</u> * 9/19 studies measured a 6 month quit rate * 78% of studies suggested a higher quit rate in the intervention group than the control group <u>Cessation @ 12 months</u> * 11/19 studies measured 12 month quit rate * 73% of studies suggested a higher quit rate in the intervention group than the control group <u>Cessation @ >12 months</u> * 8/19 studies measured >12 month quit rate * 75% of studies suggested a higher quit rate in the intervention group than the control group |
| Curry & McBride, 1994 | Literature Review No study inclusion criteria given | To review and evaluate a number of different smoking cessation programmes in different settings (not worksite only) in terms of relapse prevention. | 15 (of which <u>2</u> in the workplace) | * Abstinence rates at 6 and 12 months | 2 (1 per workplace study) | <u>Workplace Findings</u> * Intervention 1 = biochemical monitoring = @ 12 months, 0% abstinence in control group Vs 33% in intervention group * Intervention 2 = biochemical monitoring + contingency payments = @ 12 months, no difference between intervention and control groups |
| Fisher et al, 1990 | Meta-analysis Controlled interventions of smoking cessation at the workplace. No baseline outcomes, but post-intervention outcomes at minimum of one time-point. | To investigate long-term quit rates of workplace smoking cessation studies. | 20 | * Quit rate (cessation) at 6 months or more | 5 (<u>types</u>) | <u>Main Findings</u> Workplace smoking cessation programmes produce significantly higher quit rates (13% overall) than control or comparison conditions. * Self-help written materials associated with 12% quit rate * Physician advice associated with 12% quit rate * Cessation groups associated with 18% quit rate * Incentives & competition associated with 12% quit rate * Other associated with 14% quit rate <u>Other Findings</u> * Higher effect sizes when employees use their own time * Higher effect sizes for smaller (<750 employees) worksites * Highest effect sizes for employees between 35 and 40 years old * Highest effect size for heavy smokers * Highest effect size when biochemical data not collected * Greater intervention attrition increased effect size |

Table 2; Key Findings on Cessation Intervention Cost-Effectiveness

| Review Reference | Review Type | Number of Studies Included | Outcome Measures | Number of Interventions | Results |
|----------------------|---|----------------------------|--|-------------------------|--|
| Callinan et al, 2010 | Systematic review | | | | Seven studies reviewed the economic impact of the smoking legislation, none of the analyses related to employees specifically. |
| Cahill et al, 2008 | Systematic Review (of controlled studies) | 51 | * Smoking cessation rate @ 6 months or more | 53 | * There is limited evidence on the cost-effectiveness of workplace smoking cessation interventions |
| Flack et al, 2006 | Systematic (Rapid) Review | 10 | * Cost-effectiveness of workplace smoking cessation programmes | unclear | <p>COST EFFETIVENESS...</p> <p><u>To Whom</u> * Some studies investigated cost-effectiveness to the smoker, whilst some investigated cost-effectiveness to the employer. Only a few considered the cost-effectiveness to both these parties and thus the review reported that it was difficult to make comparisons between the two parties.</p> <p><u>By Type of Intervention</u> * No differences in cost-effectiveness were reported when cessation clinics were compared with self-help interventions. * Various combinations of health education, follow-up and plant organisation were examined. Health education plus follow-up appeared to be more cost-effective, although the most cost-effective was the control condition. * More intensive counselling when paired with nicotine replacement was more cost-effective than less intensive counselling paired with nicotine replacement. *A more comprehensive intervention (nicotine replacement + physician advice + a behavioural programme) seemed to be the most cost-effective.</p> <p><u>By Number of Participants</u> * Cessation groups with between 8 and 16 employers in seem to be the most cost-effective.</p> |

3.4 FINDINGS

Reviews varied in the types of study design they included. The most stringent study design inclusion criteria were found in the Cochrane review of workplace smoking cessation (Cahill et al, 2008), which is a systematic review of randomised controlled trials of interventions. In a randomised controlled trial participants are assigned to an intervention group or a non-intervention or alternative intervention group at random. This is the most rigorous study design and the gold standard for testing health interventions. In these designs, any differences in outcomes between the groups studied can be assumed to result from the intervention itself and not be explained by other factors (e.g. the availability of participants' time to partake in an evening intervention). The other reviews in this summary used less stringent inclusion criteria and include non-randomised controlled studies and uncontrolled before and after data.

3.4.1 Study populations

The reviews included studies with participants from a range of countries, although the majority of studies were set in the USA. For example, Cahill et al (2008) covered 29 studies in the USA and 6 in the UK. Studies included participants from a range of sectors, although many of the participants worked in the health, hospitality or manufacturing sectors.

3.4.2 Smoking cessation interventions

The types of intervention techniques and combinations of techniques, evaluated in the studies include but are not limited to: self-help; individual counselling; cessation groups; wider health education; nicotine replacement; incentives; and competitions. There are also examples of multiple interventions, where workplaces combine techniques to create 'comprehensive' programmes.

3.4.3 Outcome measures

All of the reviews considered the outcome of smoking cessation rates at 6 months or more and this was the primary outcome of concern for comparison. Timing of cessation rate measurements varied from between one month and 24 months. In terms of the outcome measure of cost-effectiveness, this varied from cost-effectiveness of interventions in general, to cost-effectiveness broken down by: intervention; age; sex; addiction level; and a number of other variables.

3.4.4 Successful interventions

The findings from these reviews consistently indicated that group behavioural interventions, individual counselling and pharmacological therapy are all effective interventions in achieving smoking cessation.

Cahill *et al* (2008) concluded that there is strong evidence for the effectiveness of individual and group counselling and pharmacological therapy, which focus on individual smokers. A meta-analysis (Fisher *et al*, 1990) found an overall significant impact for workplace smoking cessation interventions overall. Five different types of intervention were examined. There was some suggestion that cessation groups were more effective, achieving 18 per cent quit rates compared to 12 per cent for self help materials, physician advice or incentives and competitions.

The evidence suggests that both self-help materials and social support for not smoking (e.g. support from a spouse, workmate or close friend) are less successful (Cahill *et al*, 2008), although the latter finding is based on a limited number of evaluations of social support interventions. Incentives and competitions, although successfully increasing the numbers who enrol on smoking cessation programmes are less successful in terms of achieved quit rates.

The evidence was more mixed in relation to comprehensive programmes. This may in part be due to the fact that programmes differ in the constituent services or support they offer, making comparison difficult. Workplace tobacco bans also appear to be partially successful (Callinan *et al*, 2010). Bans can succeed in decreasing cigarette consumption by smokers during the working day, but there is conflicting evidence about whether bans decrease prevalence of smoking or overall consumption of tobacco and there was no consistent evidence of reduction in smoking prevalence attributable to bans in general settings (Callinan *et al*, 2010).

3.4.5 The relevance of the workplace setting

Successful interventions (i.e. individual and group counselling and pharmacological interventions) appear to have comparable effects whether offered in the workplace or in other settings. Although the workplace offers opportunities to access smokers, there was no evidence that it was a more effective setting for smoking cessation interventions.

3.4.6 What do successful interventions achieve

There was considerable variation in the absolute levels of quit rates, where reported for individual interventions. For example, for counselling and behavioural smoking cessation approaches typical quit rates ranged from six per cent to 43 per cent at six months, (Cahill et al, 2008). Pharmacological interventions tended to be evaluated at 12 months when quit rates varied from 12 to 32 per cent (Cahill et al, 2008). However, most studies typically reported quit rates in the mid to high teens in percentage terms.

It was also noted that participation rates in workplace interventions in general are low, resulting in small numbers of quitters in absolute terms (Cahill et. al, 2008). Fisher et al, (1990) found average quit rates of 13 per cent across 20 work site smoking cessation programmes. They concluded that although lower than the 20 per cent quit rate accepted as the benchmark for clinic-based interventions:

“It makes sense that worksite programmes that reach a larger audience (and perhaps less motivated quitters) and often employ minimal contact or low-intensity interventions would produce lower quit rates than more intensive clinic programs studying motivated volunteers.”

Evidence from Smedslund et al, (2004) suggested consistent effects for smoking cessation interventions over time. In their meta analysis around three quarters of studies found higher rates of smoking cessation amongst intervention groups when compared to control groups regardless of measurement point (six, 12 and more than 12 months).

Findings from the Fisher et al (1990) meta-analysis also suggested that more successful smoking cessation interventions were associated with smaller workplaces (<750 employees); interventions that target heavy smokers; interventions where employees use their own time; and amongst employees aged between 35 and 40 years of age.

3.4.7 Cost effectiveness

Findings on cost effectiveness are mixed. Two reviews consider cost effectiveness: one evaluates cost effectiveness data alongside effectiveness data (Cahill et al, 2008); the other is a stand-alone rapid review of the cost effectiveness.

The most recent Cochrane review in this area (Cahill et al, 2008) concluded that economic data on workplace smoking cessation interventions is limited and the different economic perspectives used for cost effectiveness analyses can limit the relevance of some data. They recommend that ... “future studies should include measurement of direct and indirect costs, and if possible, economically relevant outcomes such as absenteeism and productivity”.

In direct contrast, the NICE Rapid Review (Flack et al, 2006) found that: intensive counselling; comprehensive programmes; programmes financed 50% by the employee and 50% by an insurer; and programmes with between eight and 16 employees were the most cost-effective of all interventions. However, this seems at odds with some of the effectiveness findings, which suggest that intensive counselling is no more effective than less intensive counselling, and that comprehensive programmes have mixed evidence for their effectiveness in terms of cessation rates.

There is very little overlap in the studies considered by both Cahill et al (2008) and Flack et al (2006), which may explain the variation in results.

3.4.8 Summary

Cahill *et al* (2008) cite a number of reasons why it might be advantageous to site smoking cessation initiatives in the workplace:

1. Access to a large number of people who make up a relatively stable population.
2. The potential for higher participation rates than non-workplace environments.
3. It may encourage sustained peer group support and positive peer pressure.

4. The opportunity to target young men, who traditionally have low general practitioner consultation rates and are thus less likely to benefit from opportunistic health promotion activity in primary care.
5. Occupational health staff may be on hand to give professional support, and
6. The employee generally is not required to travel to the programme or to dedicate their own personal time to it.

These are compelling arguments alongside the traditional benefits such as improved health outcomes for non-smokers. However, findings from this summary of reviews challenges a number of these preconceptions and raises interesting questions about how workplace smoking cessation interventions can be made more effective.

The most effective interventions (pharmacotherapy, group and individual counselling) appear to be equally effective whether offered in the workplace or other settings. In other words, there does not appear to be any particular benefit to the workplace as a setting for this type of intervention. In particular the review findings suggest that although based on a small number of studies, the limited evidence suggests that peer social support does not improve outcomes and one of the meta-analyses indicated that better outcomes were achieved where employees were required to commit their own personal time to the smoking cessation intervention.

Yet clearly traditional workplaces do offer the opportunities such as the possibility to access groups who would be less likely to take up services via general practice or access to occupational health professionals. These findings therefore raise interesting questions about how employees decide to participate in smoking cessation interventions, why engagement with workplace interventions is generally low (and whether it can be improved) and why some of the predicted benefits of the workplace as a setting for smoking cessation interventions (such as peer support, no loss of personal time) are not as important as first thought.

Both the qualitative review (Chapter 3) and the fieldwork case studies (Chapter 4) develop these points.

4 QUALITATIVE LITERATURE REVIEW

4.1 BACKGROUND

The focus of this component of the work is to complement existing evidence on whether workplace smoking cessation interventions work by looking at employees' perspectives of factors (personal, organisational or workplace) that influence this outcome. This was done by seeking to understand employees' views and preferences regarding such interventions, and those factors that influence their attitude to quitting smoking as a result of such workplace strategies. This did not include analysis of predictors of quitting, only views about the value or otherwise of workplace smoking cessation programmes.

4.2 METHODS

The approach taken is systematic review using "best-fit" framework synthesis. This is a form of framework synthesis, based on framework analysis, and is a published method that is highly suited to generating new models or higher-order theories of patient or client-behaviour or experience⁷ (Carroll 2011). The approach involves the identification of a relevant conceptual model or models, e.g. Prochaska & Clemente's (1983) Transtheoretical Model (TTM)⁸ for health behaviours, and the deconstruction of the model into an *a priori* framework of themes using content analysis⁹ (Neuendorf 2002). This approach offers a robust and rapid method of making sense of qualitative data for systematic review. This is because it makes use of previously published and validated models and theories on health behaviours as the basic framework against which to map the data collected by the review. There is therefore no need to conduct a full, lengthy, highly interpretive grounded analysis of the review data to create a model or framework of themes because it is likely that a large part of this work is already captured by existing, *a priori* models and theories.

Data from the included studies are then coded against this pre-existing framework to build a new model of specific relevance to the population, setting and behaviour of interest. Data reflecting new themes not captured by the *a priori* model are analysed using thematic analysis (a form of analysis grounded in the data), to generate new elements for the framework. Relationships between the themes of the framework are then either recreated or generated, depending on the evidence from the review's included primary research studies, and a new model or theory of the particular health behaviour of interest in the population or setting of

interest is then created. See Figure 1. In this case, the model would reflect and capture employees' views about their experiences of work-based smoking cessation programmes.

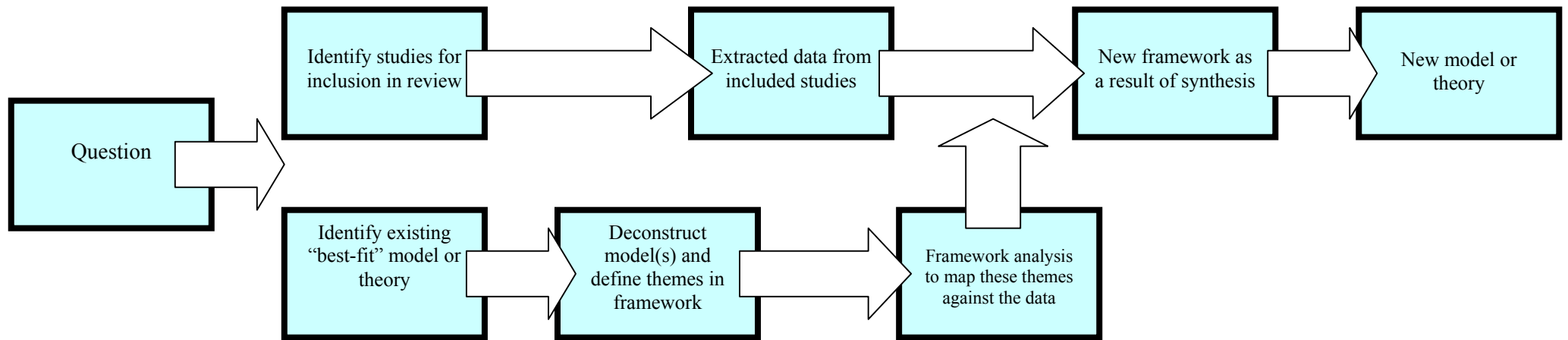
4.3 INCLUSION CRITERIA

To be considered as a “best-fit” conceptual framework for the *Models and Theories* element of the method, published frameworks, models or theories had to seek to explore or explain people’s attitudes to or views about workplace smoking cessation.

To be included in the review of *Primary research studies for qualitative synthesis*, a study had to explore employees’ views about workplace smoking cessation interventions or policies using qualitative methods such as interviews and focus groups, or quantitative methods such as satisfaction surveys, which quantified people’s views or preferences in terms of frequencies.

In order to enhance the external validity or generalisability of the findings, the review was also restricted to studies conducted in western cultures (Europe, North America and Australasia).

Figure 1; Systematic review using best-fit framework synthesis[1]



4.4 MODELS AND THEORIES

Published models or theories were identified using a search strategy specifically designed to identify relevant models and theories (see Table 3 and Appendix 1). The search included workplace health promotion (WHP) as well as specifically workplace smoking cessation in order to be as sensitive as possible and to identify WHP research that included smoking cessation, but might not actually name it in title or abstract. The following databases were interrogated for this search: PsycINFO, CINAHL and MEDLINE. The reference lists of all papers satisfying the model inclusion criteria were also checked for additional relevant citations. This search was conducted by the primary reviewer, CC.

Table 3; search strategy for relevant models and theories

| STRATEGY | Terms |
|------------------------------------|---|
| Be - Behaviour of Interest: | Smoking cessation or health promotion |
| H - Health Context | Workplace |
| E - Exclusions | Regression or integrative model or integrative care model or economic or Markov or animal |
| MoTh - Models or Theories | Model or theory or theories or framework or concept or conceptual |

Search strategy: (Be AND H AND MoTh) NOT E

The primary reviewer (CC) screened all titles and abstracts of citations retrieved by the search for models to identify models or theories appropriate to this review. Full papers of potentially relevant citations were retrieved and checked for relevance.

4.5 PRIMARY RESEARCH STUDIES FOR THE QUALITATIVE SYNTHESIS

Studies for inclusion in the qualitative review of primary research studies were searched for using an evaluated search strategy for identifying qualitative studies: SPIDER (Sample, Phenomenon of Interest, Design, Evaluation and Research type) (Anon. 2012¹⁰). This involved combining terms for workplace or employees with terms for smoking cessation or health promotion, and terms for qualitative research. The search included workplace health promotion (WHP) as well as specific terms for smoking cessation in order to be as sensitive as possible and to identify WHP research that included smoking cessation, but might not actually name it in title or abstract (see Appendix 2). The following databases were interrogated for this search: PsycINFO, CINAHL, ASSIA, IBSS, Emerald reviews, ERIC and MEDLINE. All searches were conducted by CC. The reference lists of all papers included in the review were also checked for additional relevant citations.

All three reviewers completed a test screen of 100 titles and abstracts retrieved by the search for studies of employees' views to test the application and clarity of the inclusion criteria and to resolve any issues or problems of definition. Two reviewers (JL, JR) each then independently screened all titles and abstracts of citations. Full papers were retrieved of all citations identified by both reviewers as being potentially relevant. Wherever there was disagreement between the two reviewers over inclusion or exclusion, a consensus was reached with the primary reviewer (CC) either to retrieve the full paper or reject the citation. The full papers of all such potentially

relevant citations were then retrieved also. All full papers retrieved were then assessed for relevance against the inclusion criteria, and a judgment reached by the team over inclusion in the synthesis.

A data extraction form was created based on the key data for the synthesis, including details of the population, setting and intervention. It also included the framework themes generated from the search for and analysis of models. The qualitative data for analysis were extracted from the results sections of papers and consisted either of verbatim quotations from study participants or findings reported by authors that were clearly supported by study data. These extracted data were coded against these themes, or new themes were created if the *a priori* themes did not reflect or capture the data adequately. The quality assessment criteria were also contained in this form.

Three reviewers independently piloted the form on two studies, before a final, agreed form was achieved.

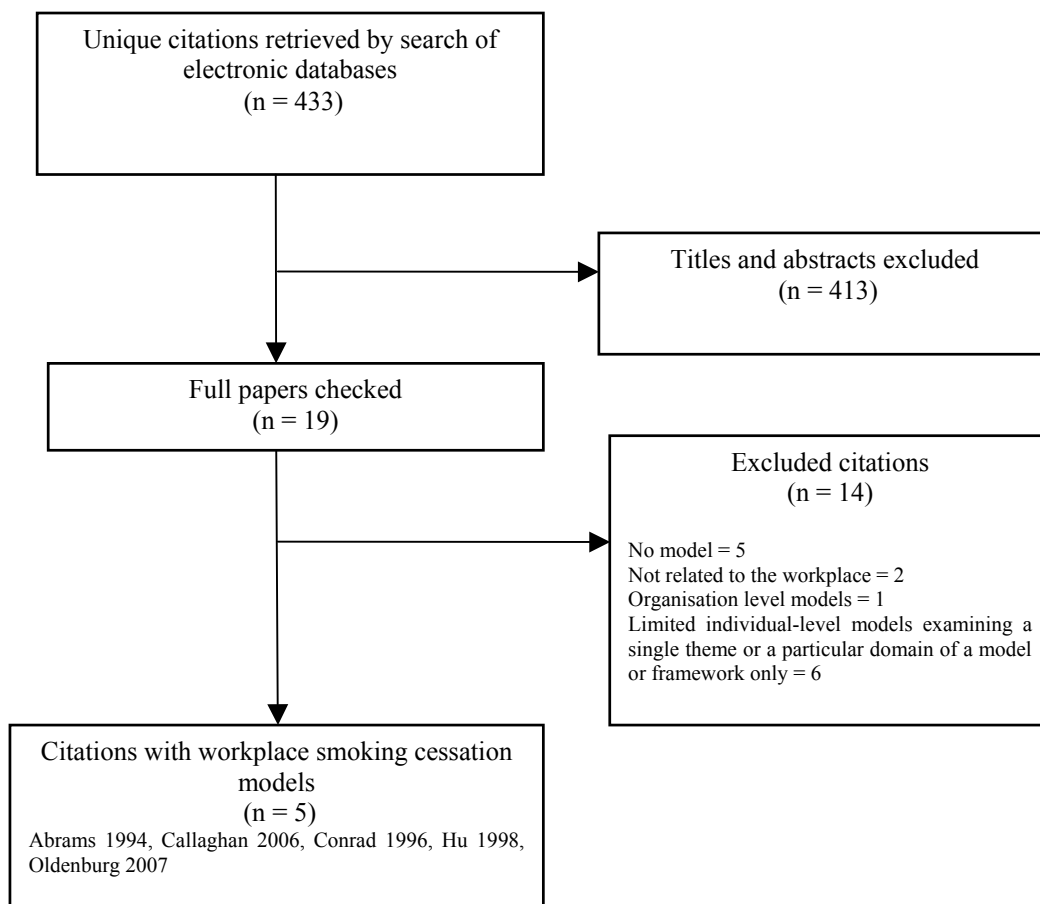
After a check had been made on the consistency of extraction across two of the included studies, two reviewers (JL, JR) each independently coded the results data for all papers against the *a priori* themes derived from the relevant conceptual model, and independently generated new themes from data. Both reviewers also conducted quality assessments of the included studies using published criteria¹¹. These assessments were used to inform judgments on both the internal validity of the studies and, consequently, the validity of the findings of the synthesis. Data coding, new themes and quality assessment categorisations were then verified or challenged by the primary reviewer (CC). The primary reviewer (CC) then constructed a new model, and the relationships between the new and existing themes, supported by the data from the included studies.

4.6 RESULTS

4.6.1 Models and theories

The search for relevant conceptual models or theories generated 433 unique citations from across three databases. From these citations, the primary reviewer identified five publications with a number of relevant models that “fit” the population, setting and health behaviour of interest: People’s attitudes and responses regarding smoking cessation or reduction in the workplace. See **Figure 2**. A list of publications excluded at full paper stage is available from the authors.

Figure 2: Search plan on PRISMA

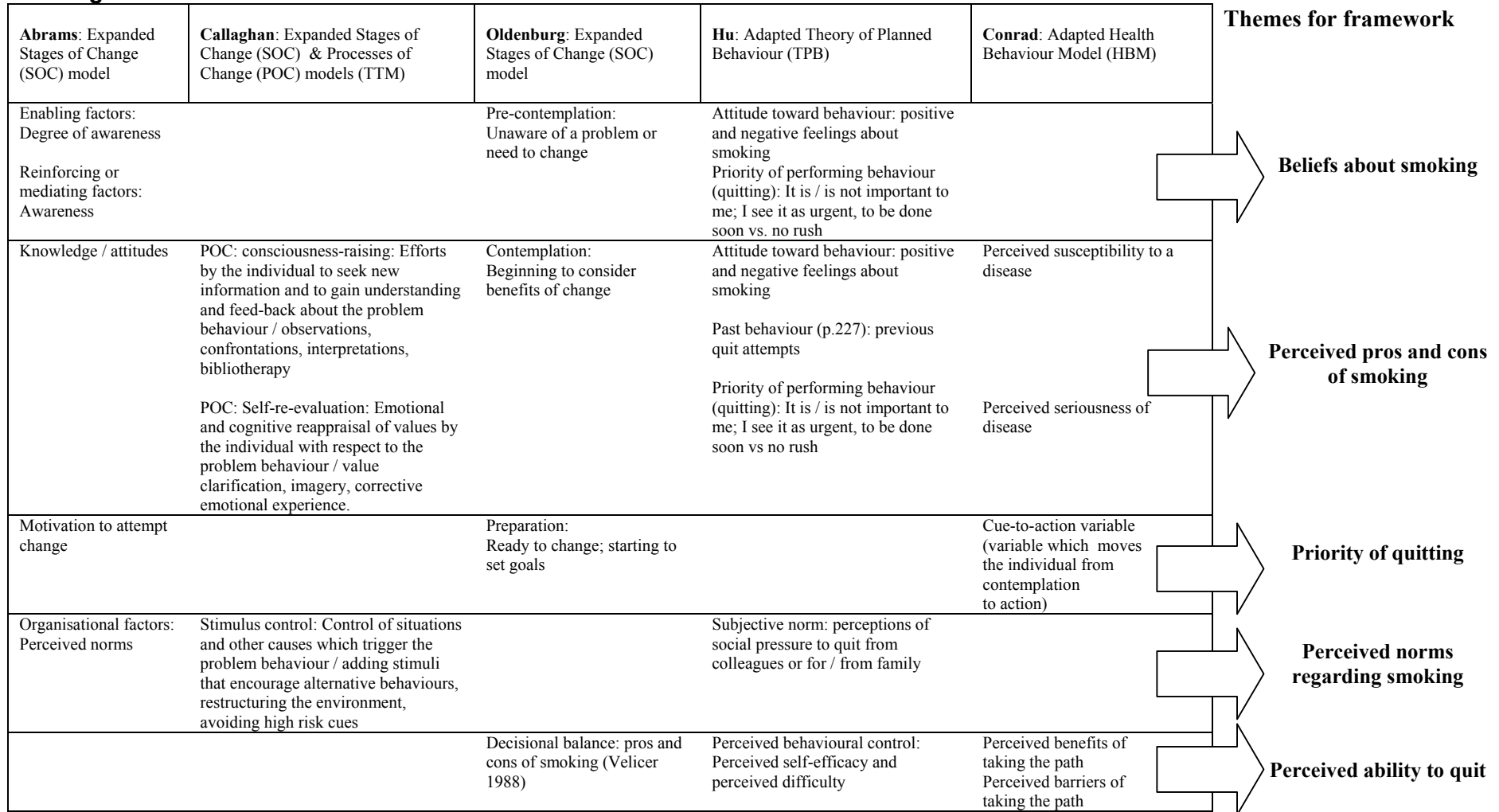


Each of the five papers identified presented a relevant conceptual model adapted from, or using in part, modified versions of one of three principal foundation models: The Transtheoretical Model (TTM) of Behaviour Change, including its related Stages and Processes of Change elements (Abrams, Callaghan, Oldenburg), the Theory of Planned Behaviour (TPB)(Hu), and the Health Belief Model (HBM) (Conrad).

Transtheoretical Model (TTM) of Behaviour Change is a model of behaviour change that assesses person's readiness to adopt a new, healthier behaviour. This includes the stages of change (SOC), as an individual moves from Pre-contemplation (not thinking about the behaviour), through Contemplation (thinking about the behaviour and possibly changing), to Action (acting to change) and Maintenance (persisting in the new, healthier behaviour). It also considers clear elements of the psychological processes involved in transition within and through each stage (Processes of Change: POC). The theory of planned behaviour (TPB) considers the link between attitude and behaviour: An individual's attitude towards a behaviour, their subjective norms, and perceived behavioural control, all interact to shape their behavioural intentions and behaviour. The Health Belief Model (HBM) assumes that an individual's behaviour is predicted by their belief in how they are likely to be affected by that behaviour (e.g. smoking) and what benefit they believe they will get by changing it (stopping smoking).

In each paper identified, there was a modified version of one or more of these models, which had been tested or applied in empirical research on workplace smoking cessation programmes. Key elements of models or theories were extracted from these papers and their modified models to generate a meta-model (see Figure 3). Some elements were extracted from more than one paper because of the use of common foundation models or theories, such as the Transtheoretical Model (TTM) of Behaviour Change with its Stages and Processes of Change. Content analysis was then used to identify and name the range of themes apparent across the papers and models. The themes resulting from this deconstruction and analysis generated the a priori framework for this review. This process is represented in Figure 3 and Table 4.

Figure 3: From the models to the framework of themes



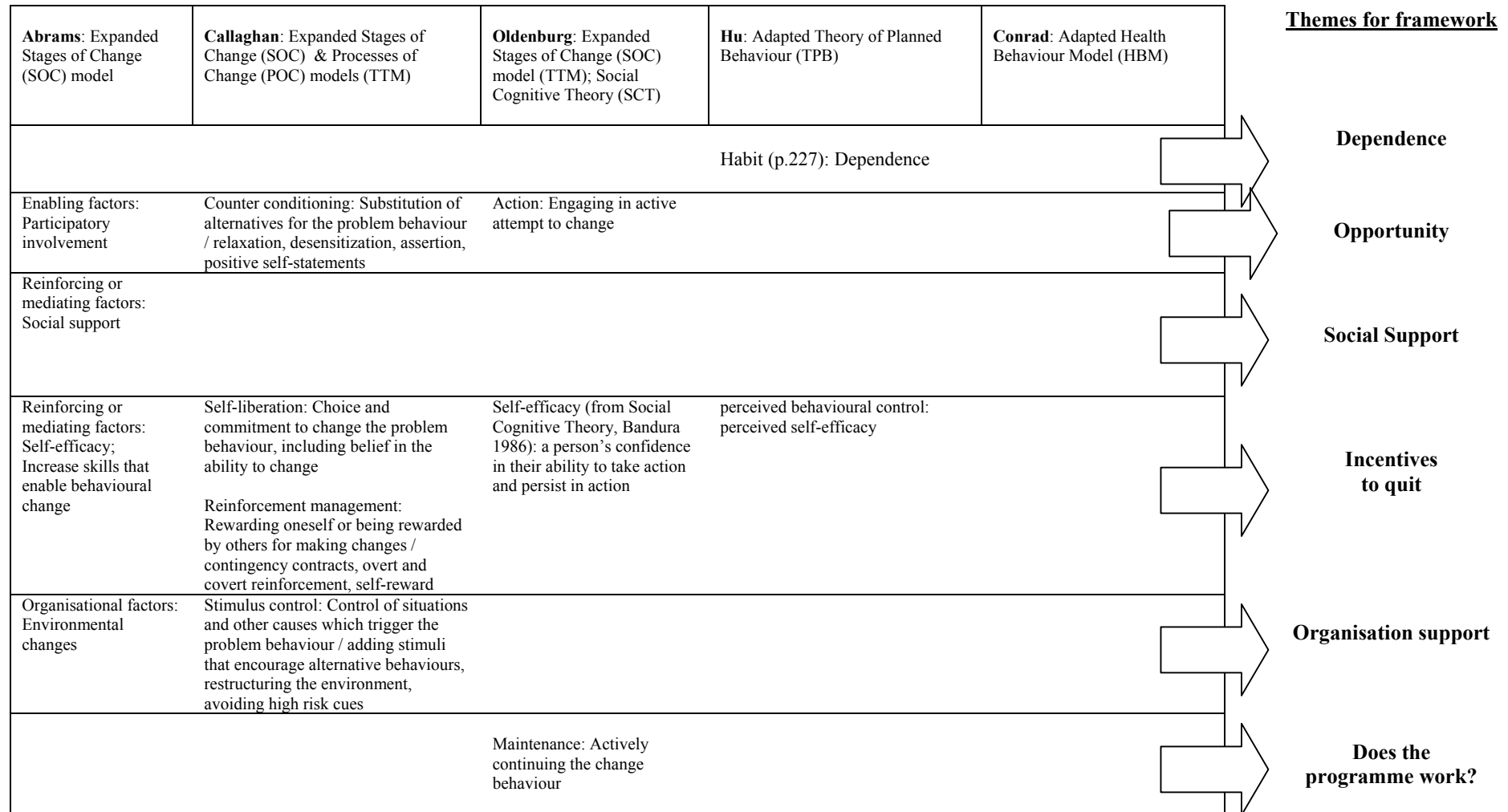


Table 4: The coding framework

| Themes derived for coding | Definitions |
|------------------------------------|--|
| Beliefs about smoking | Person considers there not to be a problem |
| Perceived pros and cons of smoking | Person beginning to consider benefits of change; Perceived susceptibility to disease (I don't think anything will happen to me vs. my family has a history) Perceived seriousness of disease (not bothered vs. very concerned) |
| Priority of quitting | It is / is not important to me; I see it as urgent, to be done soon vs. no rush |
| Perceived norms regarding smoking | I am participating or not participating because it is expected of me |
| Opportunity | I am participating because the programme is available |
| Perceived ability to quit | A person's confidence in their ability to take action and persist in action: I feel able to quit or I feel the programme provides me the ability or motivation to quit |
| Dependence | I am addicted, nothing will work; or no programme works; I've tried quitting before but without success, it's too hard |
| Social support | It was very helpful to have the support of my: Friends; Family |
| Incentives to quit | Receiving a reward for making the change |
| Organisation support | The work environment is / is not conducive to quitting smoking |
| Does the programme work? | It's worked really well for me It hasn't worked for me (The reason why this may be the case might be captured by the other themes, e.g. self-efficacy; social support; priority of quitting) |

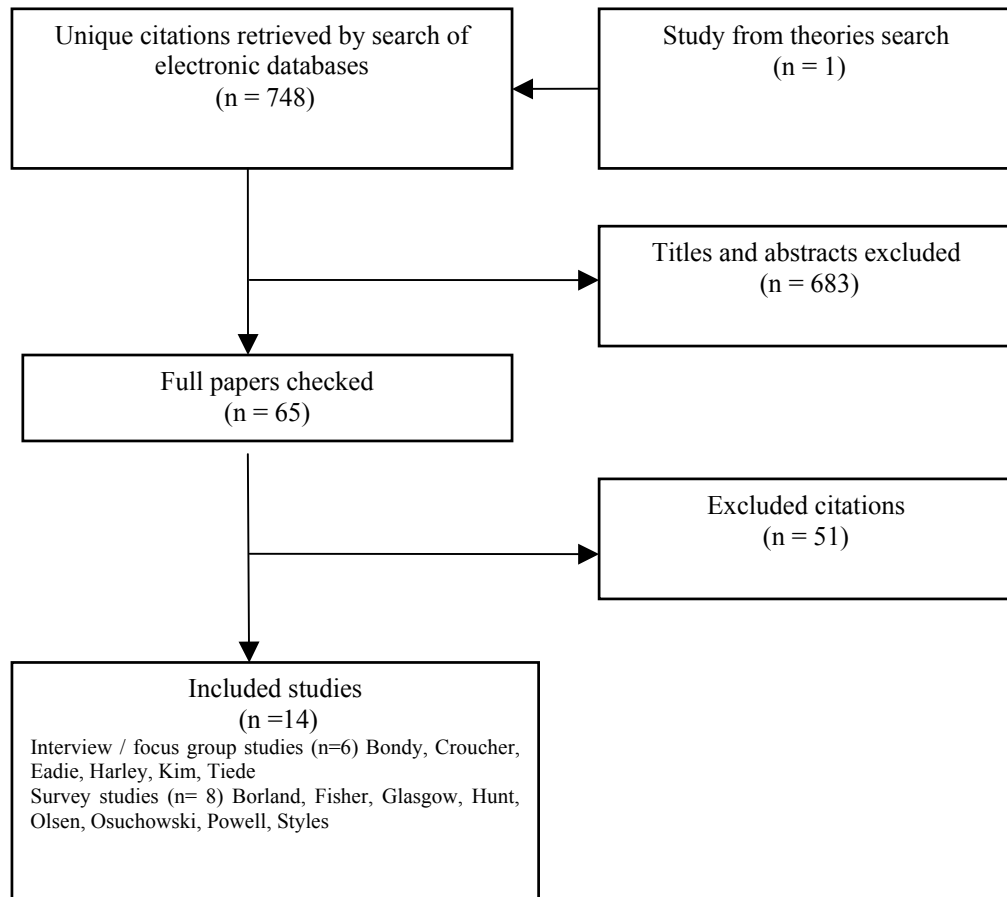
Each theme was also defined in order to facilitate the coding process. The resulting framework for coding the extracted data is outlined in **Table 4**. The data extracted from studies identified for the review were to be coded against these themes. This also formed a key element of the Data extraction form (see **Appendix 3**).

4.6.2 Primary research studies for the qualitative synthesis

The search for studies exploring employees' views about workplace smoking cessation interventions or policies generated 747 unique citations from across seven databases. Sixty-five full papers were retrieved as potentially relevant, of which 14 studies were found to satisfy the inclusion criteria (see **Figure 4**). The principal reasons for exclusion were: the study evaluated a

workplace health promotion programme without a specified smoking cessation element; the study evaluated the impact of a programme, rather than views about the programme; there was an absence of data on people's views, e.g. regression analyses of variables predicting cessation or participation. A list of publications excluded at full paper stage is available from the authors.

Figure 4: PRISMA flowchart



4.6.3 Summary of studies

Fourteen studies satisfied the inclusion criteria (see **Table 5**). Six of the studies applied conventional qualitative methods (e.g. interviews, focus groups and open-ended questions) to collect data (Bondy¹², Croucher¹³, Eadie¹⁴, Harley¹⁵, Kim¹⁶, Tiede¹⁷), and eight used satisfaction surveys, which generated frequencies, i.e. the proportion of participants who held a particular view (Borland¹⁸, Fisher¹⁹, Glasgow²⁰, Hunt²¹, Olsen²², Osuchowski²³, Powell²⁴, Styles²⁵). Eight studies were conducted in the USA, three in the UK, and one each in Australia, Canada and Poland. In five studies a sizeable majority (or all) of the participants were men (Croucher, Harley, Bondy, Olsen, Styles); only two studies had a majority of women (Eadie and Tiede); the remainder either had an equal split (Borland, Glasgow, Hunt), or did not report these details (Kim, Fisher, Osuchowski, Powell). The studies were published in two distinct periods: 1991-1998 (6 studies) and 2007-2011 (8 studies). There appears to be no obvious reason for this (e.g. type of intervention or location). Where reported, there was a great deal of variety in terms of sectors covered. The majority of studies covered a number of sectors and type of worker, e.g. manufacturing, wholesale and service (Glasgow) or clerical, manufacturing and professional services (Fisher). Few studies were restricted specifically to a single sector, eg. construction (Bondy), the chemical industry (Olsen), manufacturing (Powell) or Retail (Hunt). Ten of the fourteen studies indicated the size of the organisations involved, with an equal division between small (Croucher, Eadie, Hunt, Tiede, Styles) and medium or large organisations (Borland, Fisher, Kim, Olsen, Powell).

Finally, there was also some variety in the type of smoking cessation programme or intervention being considered. Five studies examined people's views about employer's decisions to restrict smoking within or at a worksite (Bondy, Borland, Styles, Eadie, Croucher). Five other studies explored views relating to complex interventions, involving a combination of multiple elements, i.e. at least two or more of the following: self-help or educational materials, smoking cessation resources or "props" such as nicotine patches or pencil cigarettes, support groups, peer support, and competitions or incentives (Glasgow, Hunt, Olsen, Fisher, Powell). Two studies employed telephone counselling (Harley, Powell) and one incentives only (Kim), while Osuchowski and Tiede did not specify the intervention, but rather elicited people's views on the principle of a workplace smoking cessation intervention.

Table 5: Study characteristics

| Study | Location | Design | Sector(s) | Sample (N) | Male (%) | Nature of smoking cessation programme | Quality assessment* |
|-----------------|-----------|--------------|--|------------|----------|--|-----------------------------|
| Bondy 2011 | Canada | Qualitative | Construction | 250 | 89 | Restrictions on smoking in the workplace | Adequate |
| Borland 1997 | Australia | Quantitative | “High blue collar percentage” | 794 | 50 | Restrictions on smoking in the workplace | Adequate |
| Croucher 2007 | UK | Qualitative | Catering | 81 | 100 | Restrictions on smoking in the workplace | Adequate |
| Eadie 2010 | UK | Qualitative | Service/Hospitality | 26 | 38 | Restrictions on smoking in the workplace | Adequate |
| Fisher 1994 | USA | Quantitative | Clerical, Manufacturing, Professional services | 98 | NR | Self-help materials, support groups | Inadequate |
| Glasgow 1991 | USA | Quantitative | Wholesale, Service, Manufacturing | NR | 50 | Presentations, workshops, contests / competitions; self-help materials; worksite networks | Adequate |
| Harley 2010 | USA | Qualitative | Construction/Labouring | 300 | 90 | Telephone counselling, some support groups | Adequate |
| Hunt 2007 | USA | Quantitative | Retail | 252 | 52 | Contests, games, demonstrations, peer leaders and advisory boards at work; incentives; educational materials; materials in break rooms | Adequate |
| Kim 2011 | USA | Qualitative | NR: A “multinational” | 878 | NR | Financial incentives | Adequate |
| Olsen 1991 | USA | Quantitative | Chemical industry | 1258 | 90 | Buddy programme, self-help materials, group clinics, nicotine gum, incentive prizes | Adequate |
| Osuchowski 2009 | Poland | Quantitative | NR | 1412 | NR | Unspecified: The principle of a workplace smoking cessation programme | Inadequate Abstract only |
| Powell 1993 | USA | Quantitative | Manufacturing | 622 | NR | Guided self-help materials, telephone counselling, cigarette “props”, e.g. cigarette pencil, “urge zapper”, etc. | Inadequate |
| Styles 1998 | UK | Quantitative | Retail, Service, Heavy Industry, white collar | 242 | 59 | Restrictions on smoking in the workplace | Adequate |
| Tiede 2007 | USA | Qualitative | Manufacturing/Labour, Service/Hospitality | 59 | 31 | Unspecified: The principle of a workplace smoking cessation programme | Adequate |

4.6.4 Quality assessment summary

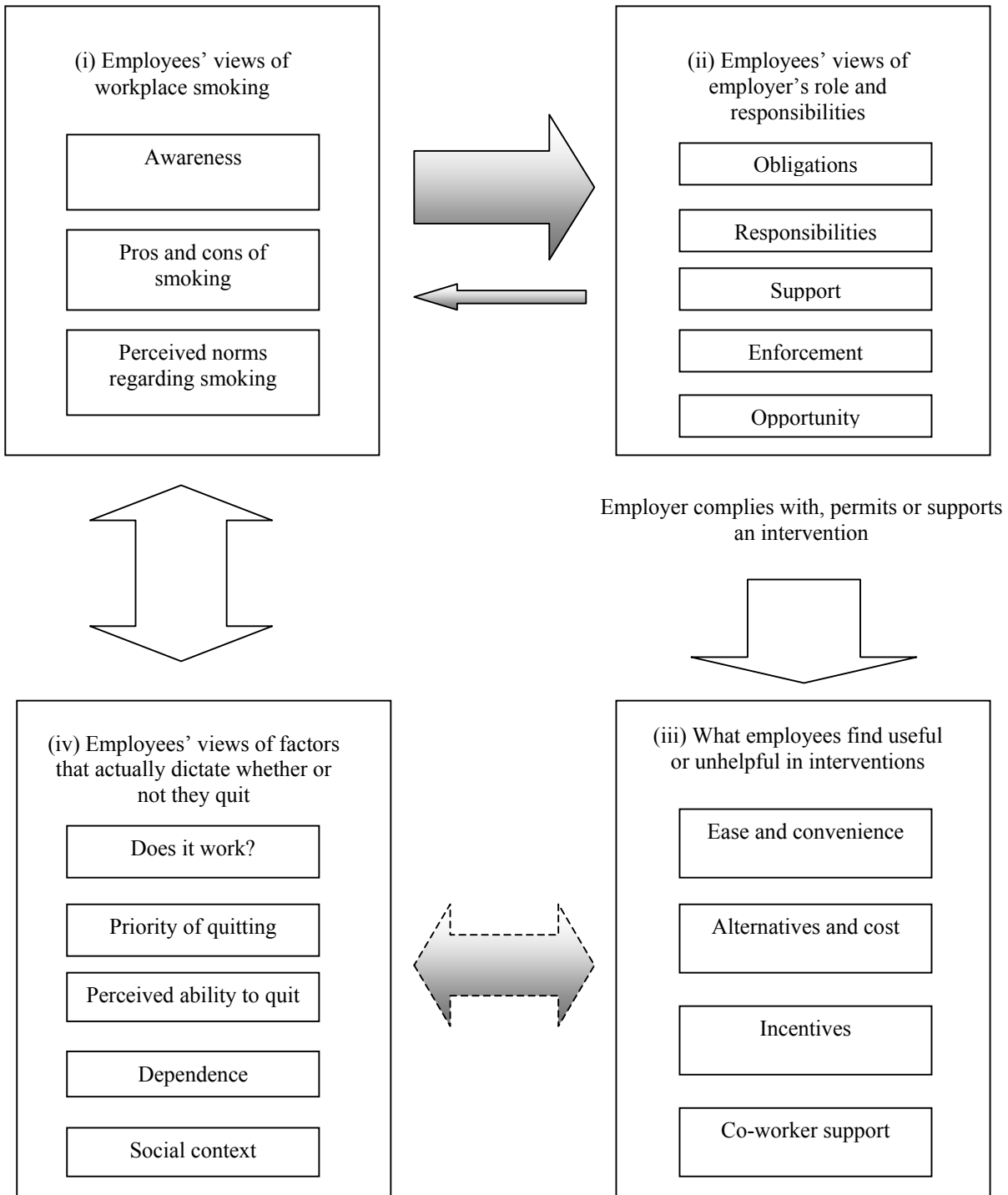
Eleven of the fourteen studies clearly reported on two or more of the four possible criteria illustrating the methodological processes conducted within the studies and were therefore categorised as “Adequately reported” (see **Table 5**). Only three studies were of “Inadequately reported” (Fisher, Powell, Osuchowski), one of which was published only as an abstract (Osuchowski), which obviously affects how well the conduct of the study could be reported.

4.6.5 Synthesis and the conceptual model

The data from these studies were synthesised to construct a new, evidence-based conceptual model capturing employees’ views of workplace smoking cessation programmes and policies. The data led to the slight revision of two existing themes in the framework: Organisation support was re-specified as Employer support, and Social Support as Co-worker interaction (workplace) and Social Context (non-workplace), in order to capture the terms of the relationship or theme as described by participants in the studies. Data from the included studies were found to support all themes in the *a priori* framework: no theme was dropped from the final synthesis because there was no evidence to support it. The data also generated seven new themes, all of which related either to the roles and responsibilities of the employer in this area (employer obligations, employer responsibilities, and enforcement) or elements of interventions themselves (ease and convenience; alternatives and cost; incentives; and co-worker support).

The pre-existing models, despite all focusing on smoking behaviour change in the workplace, clearly failed to capture many of these elements of the setting or interventions. Only Employer support and Opportunity (enabling participation) were derived as themes from the pre-existing models. These models were adapted from, but based heavily on general smoking cessation models such as the Health Belief Model, the Transtheoretical Model and the Theory of Planned Behaviour. All of the key elements from these models found strong echoes in the data of studies included in this review, i.e. the importance of awareness of a problem with the behaviour, pros and cons and perceived norms regarding it, and the factors mediating the relationship between any intervention and successful quitting: dependence, priority of quitting and self-efficacy (perceived ability to quit). The resulting synthesis has therefore built on all of these models. It has done so by supplementing them with highly contextual information on relevant interventions and the setting itself. The conceptual model resulting from the synthesis is depicted in **Figure 5**.

Figure 5: Conceptual model describing the nature of employees views and attitudes towards workplace smoking cessation or restriction interventions



Each thematic element, and its relationship to other elements within the model, is described below. The grey box on the left captures those themes derived from the existing models about workplace smoking cessation, while the right-hand box encompasses the new themes regarding this topic generated by the synthesis, which focus on employees' views regarding their employer or the setting.

The model is structured around four broad elements:

1. Employees' (smokers and non-smokers) attitudes to workplace interventions or restrictions, and
2. Employees' views about their employers' roles and responsibilities regarding workplace interventions or restrictions.
3. Employees' (smokers only) views about what elements of interventions are and are not helpful.
4. Employees' (smokers only) views about the key factors that actually determine whether or not they quit.

The relationship between the topics might be described as follows. Employees' (smokers and non-smokers) views concerning smoking as an issue (i), not necessarily within the workplace but including its acceptability within the workplace, tends to determine some of their views about their employers' responsibilities and role in complying with or supporting workplace smoking restrictions or interventions (ii). The arrow between these elements therefore represents this direction of effect.

However, it is also the case that some actions taken by employers, such as restrictions or bans, might affect people's views about smoking and the workplace. Eadie reported the words of one smoker that, "I was a bit angry about it at the time, and I do think it was very much forced upon us. But having got used to it now, it's actually not as bad as I thought it would be . . . I don't feel as strongly now about it as I did then, because I can see the benefits"; while participants in the study by Fisher commented about "management making it convenient to give up smoking". One interviewee commented that their employer's application of a ban changed their view on workplace smoking, "... actually in a way helped me because I was quite a heavy smoker, but because I can't do it, I maybe have a couple of cigarettes whereas before I would just be lighting

up all the time just for the sake of having a cigarette" (Eadie). Consequently, this direction of the relationship between elements (ii) and (i) is represented only by a small arrow because the majority of data tended to demonstrate that prior views about smoking were more likely to determine views about employer's actions than vice-versa.

Elements (i) and (ii) of the model also interact with element (iv), the views of employed smokers about those factors that actually determine whether or not they quit. For example, the application of a workplace intervention might affect employed smokers views about quitting. Styles reported: "Significantly more smokers in total bans were in the later stages of readiness to change: 23% were thinking about quitting ... and 10% ... were more likely to be planning to quit"; and Eadie found: "Contemplation of quitting heightened over the period leading up to implementation [of the ban]". The themes of awareness, and pros and cons, and perceived norms of smoking also interact with themes such as priority of quitting and social context. For this reason, a double-arrow represents the relationship between (i) and (iv).

Elements (iii) and (iv) concern smokers almost exclusively, unlike (i) and (ii), which contain the views of both smokers and non-smokers. Element (iii) captures employed smokers' views about those aspects or parts of an intervention that are or might be helpful, and those that are not. This is quite separate from smokers' views about those factors that actually influence whether or not they are able to stop smoking (iv). The "dashed" arrow between these two elements represents the absence of a clear relationship. That is, smokers have views on what they find helpful or what might work (iii), but other variables, such as whether quitting is actually a priority for them (iv), appear to be more influential in determining the success of any intervention. However, there may be a potential relationship here if an intervention works on addressing issues such as priority of quitting, dependence, and perceived ability to quit.

Each of the elements and their related themes, as well as the studies and some illustrative data supporting them, is now described in depth below.

4.6.5.1 *Employees' (smokers and non smokers) attitudes to workplace interventions or restrictions*

Three studies reported the views of participants on the issue of *awareness*. There were three particular strands: Smokers and non-smokers who felt there was no problem with smoking either at work or elsewhere (Osuchowski, Eadie); non-smokers who felt some smokers were simply unaware of any problem (Bondy); and both groups holding the opinion that smoking was

no worse than many other hazards to which people were exposed at work and elsewhere, so did not constitute a particular problem (Bondy, Eadie)

Participants in most of the studies commented on the *pros and cons of smoking*. Smokers described the health and social benefits of smoking. These included enjoyment (Croucher, Kim, Olsen), stress reduction or relaxation (Kim, Olsen), contact with friends and co-workers (Croucher) and concerns about weight gain if they were to stop (Olsen, Harley). For example one interviewee stated, “you are getting something as well ... calmness, enjoyment, fulfilment, social aspects with your friends ... [are you going to] go and buy an inhaler and sit there like an idiot?” (Croucher). Disadvantages were described both by smokers and non-smokers. These were principally health-related and were reported both by qualitative studies (“I quit because I know it’s bad for my health”, Harley) and quantitative studies (“87% agreed or strongly agreed that it would be better for their health if they cut down their smoking”, Borland). This is obviously linked to *awareness* as a theme. Other elements included the taste of food being affected (Harley) and, a point made principally by non-smokers, the smell within the workplace as a result of smoking (Bondy; Eadie). Another “con” noted was the safety aspect in the workplace. One interviewee commented that careless smokers represented a fire risk, based on their experience of an incident (Bondy). Non-smokers in the Bondy study also reported that they felt certain inequalities were at play: smokers got the benefit of smoke breaks, while non-smokers carried on working (though some non-smokers thought this made them “look” better too). In the Eadie study, a participant mentioned that no such benefit or disadvantage accrued, as non-smokers and smokers had the same breaks, they just chose to use them differently.

Six of the 14 included studies contributed some data to the theme of *perceived norms regarding smoking in the workplace*. This was a topic that appeared often to generate strong feelings and language from non-smoking and smoking employees: “Intolerant? I just like clean air. I like my clean air space. I choose not to smoke and will not be put in a position where I have to put up with it because I might hurt somebody’s precious feelings. I don’t smoke either, but this ‘intolerant’ attitude makes me want to puke” (Bondy). Perceived norms ranged from employees beliefs about their “rights”: the right to smoke, in the face of bans or restrictions (Bondy, Styles) versus the right not to be exposed to others’ smoke in the workplace (Bondy, Styles). Views that smoking had become unacceptable in the workplace were also not uncommon (Bondy; Styles). As a result of such different norms, smoking and non-smoking groups could be created within a workplace, with separate identities and aspects of community (Bondy, Eadie, Styles, Tiede). For example, “I feel like a leper ... It’s like you’re the smoker, everybody knows you’re the smoker” (Eadie) or “It annoys me when yet another person I don’t know lectures me about my lack of

consideration because they saw me holding my cigarette and lighter while on my way out to stand in the rain and smoke" (Bondy). The strength of feelings and separateness even led some participants in the Bondy study to agree with the idea of "at least some measures to separate smokers and non-smokers at work".

When such perceptions of what was acceptable differed, participants raised the issue of, and the requirement for, employer-led or personal negotiation: "In the same conversations, several participants commented that problems weren't inevitable and could be prevented through courtesy or voluntary action", such as, "Try and play nice. It'll probably work better than threats ... Tread lightly when dealing with smokers, but I would do it anyway. Speak up, say something (without being preachy; smokers won't react well to that, trust me) and if they're good guys, they'll stop in your general vicinity"(Bondy). In two studies, smokers reported feeling actual pressure from co-workers to quit or at least not to smoke (Glasgow; Tiede), while interviewees in two studies also reported that they actually felt pressure to smoke at work because everyone else did so, it was the culture of the workplace (Croucher, Tiede). Such norms posed a major problem for those trying to quit: "... if one smoker is there and one non-smoker, he is going to get back to smoking. If it was a non-smoking environment then they will definitely have to give up." (Croucher).

Non-smokers tended to approve of smoking restrictions (Eadie) but smokers in the studies by Bondy and Eadie also reported approving of smoking restrictions, after an initial period of doubt or resistance, when they experienced certain benefits of the ban (e.g. reducing the amount they smoked).

4.6.5.2 *Employees' views about their employers' roles and responsibilities regarding workplace interventions or restrictions*

Participants in the studies by Bondy and Eadie recognised the issue of *employers' obligations* to formal regulations regarding the law on smoking bans or restrictions. For others, an *employer was considered to have a responsibility* regarding smoking restrictions or cessation. This might be either to protect non-smokers: "As far as opinions on the presence of smoking in the workplace are concerned, most workers believe (94.3%) that the employer should do everything to protect the non-smokers from having to inhale tobacco smoke" (Osuchowski); and, "Several speakers showed that they ... wanted employers to take a stand to defend non-smokers" (Bondy); or to help smokers themselves: "... More than half of all workers considered that the

employer should help the employees to quit smoking addiction” (Osuchowski); or “Most participants felt employers should promote or provide ways for employees to quit smoking because it could lead to a healthier workforce and potentially cheaper insurance costs” (Tiede). The opposite view was also reported: “Only a few stated that their smoking was none of their employer’s business” (Tiede). There was also cynicism concerning the nature of this responsibility: “The company I work for recently banned all use of tobacco while on the job. The reason was purely economic. Tobacco use was responsible for about 20% of the cost of our medical insurance” (Bondy). This was echoed by participants in the Tiede study also.

Employer support was a related theme. Some participants reported finding it helpful when the employer was clearly supportive of smoking restrictions or helping smokers to quit. In one study, one third of those surveyed confirmed that support at work, including workplace restrictions, would help them to quit (Styles). Management support for smoking cessation was cited as important in two studies (Fisher, Hunt), and its absence was cited as a barrier to helping people to stop smoking in a third study (Croucher). Employers could be supportive also by simply making interventions available, giving those who wished to do so the *opportunity* to try to stop smoking (Powell, Kim, Styles). For example, one interviewee stated, ““It was win-win. I wanted to quit anyways so you had the benefit of not smoking and getting paid not to smoke” (Kim), while Styles reported that, “Almost half of the smokers (48%) had tried to quit smoking since restrictions were introduced at their workplaces ... 29% indicated that they had been encouraged to do so by the existence of smoking restrictions”.

If the intervention was not an actual ban, then it was felt that an employer should also only ever make participation voluntary, and avoid being “pushy” (Tiede). Even if an employer nominally engaged with an intervention, there might still be an issue with *enforcement*. It was noted by respondents in the Bondy and Croucher studies that a policy restricting smoking might not actually be applied, or that employees themselves might ignore a smoking restriction. Workers in the Bondy study also pointed-out that the details of a smoking restriction policy might be unclear, rendering the policy unenforceable.

4.6.5.3 Employees (smokers only) views about what elements of interventions are and are not helpful

The *ease and convenience* of the intervention was also considered by employees to be important. The nature of the materials could contribute to the efficacy of a workplace programme: “many participants attributed their success to the easy-to-follow, step-by-step programme approach of the booklets and cassette tapes” (Powell). The failure to make certain resources available, such as a counsellor or support groups, at a convenient time and place was cited as a barrier to effective participation: “... I just haven’t had the time to go. And it’s like I said, you have to find a place to go and usually once you go home and come back out you’re more likely not to go to meetings like that.’, or “if you were here at the workplace and you could just attend it and have a follow up, then it’s just like losing weight.” (Kim)

Convenient access to key resources was cited as important: such as a smoking cessation counsellor, self-help materials (Powell), but so was the provision of relevant free products. Failure to do so also raised the issue of *cost of alternatives*, which then became a barrier to participation in workplace programmes. Participants claimed to like workplace giveaways of NRT products because it overcame the cost barrier of using this quit method: “providing free NRT products [was] (among) the worksite smoking cessation activities endorsed as “might be successful” by the greatest number of participants” (Tiede). However, without this support, employees felt unable to participate. In the study reported by Croucher, respondents said, “I cannot afford [NRT products] anymore....”; “patches come up the same price as cigarettes....”; and “NRT – they charge too much....”.

Related to this, the efficacy of *alternatives* was also questioned in two studies: “Many participants felt these products were an expensive and risky investment. ‘I can spend how much on three packs of cigarettes or I can spend forty bucks to like try quitting smoking, and if I don’t like it then I’m out forty bucks. You can’t bring it back” (Tiede); and “you will waste your money on something that might not work” (Croucher). However, the need for alternatives to cigarettes was made very clear by the participants in one study (Harley): “That’s part of the whole pattern, is the handling,” and “You quit smoking. What do you do with your hands?” or “I don’t smoke for the nicotine. I smoke to have something to do with my hands”. The provision of alternatives was therefore important, but the choice of such substitutes could also present a problem for employees, not just in terms of *cost* (see above), but in replacing one problem with another: “as a result of giving up I took up chewing....”, and, “In order to give up I had to start

chewing ... the urge to smoke went away ...chewing was also very difficult to give up” (Croucher).

Participants’ views about the potential value of *incentives* could be quite mixed. In two studies, participants clearly viewed the possibility of prizes or awards as a source of motivation: almost two thirds of participants on one study ranked money and prizes as the two greatest motivators for attending smoking cessation activities (Hunt); and “Offering incentives ... [was] (among) the worksite smoking cessation activities endorsed as ‘might be successful’ by the greatest number of participants” (Tiede). Tiede also reported that workplace contests were a potential incentive and motivator for those seeking to quit: they were considered “motivating, fun, and helpful for sharing the quit experience with co-workers”. Incentives could be either financial (Kim; Tiede) or non-financial, such as food items (Croucher, Hunt) or certain religious or cultural requirements (Croucher).

However, participants in a study of financial incentives to help workers stop smoking noted how the value of any such incentive was highly dependent on the priority a person placed on quitting: “most successful quitters in the incentive group did not perceive incentives to be very helpful in their quitting process. Generally, quitters reported that they were already motivated to quit and would have quit for less money”(Kim). Individuals in this study had reported that, "It’s not about the money. It’s about the satisfaction of what I get from a cigarette", and, “it’s a habit – an addiction. You can’t just be paid to work at it. You have to want it for yourself, not cause you’re getting paid”(Kim).

The workplace social context could also be a factor affecting the potential impact of a programme. *Co-worker interaction* and encouragement was cited by respondents in two studies as something that might help them to quit (Fisher, Tiede). This was especially the case when colleagues were also trying to give-up, as they represented a source of ideas and shared experience, as well as support (Tiede). However, the impact of co-workers might also be negative. Olsen reported that participants said that if co-workers continued to smoke, then this made quitting more difficult. Tiede reported that the “support” of supervisors was explicitly described as something that would not be helpful.

4.6.5.4 Employees’ (smokers only) views on the key factors that actually determine whether or not they quit

Participants in four studies did comment on whether or not the workplace intervention actually had any effect for them: *Does it work?* (Eadie, Borland, Styles and Kim). In the studies by Eadie, Borland and Styles, respondents did note some small impact of smoking restrictions on motivation or tobacco use, but they explained that this was limited to the workplace; whenever they were outside of work, they still smoked and in some cases smoked more to compensate for smoking restrictions at work. A majority of participants in the studies by Eadie and Kim explicitly reported that the intervention had had no effect whatsoever. The impact of any programme was seen as being highly dependent on the priority people placed on quitting (Kim). Indeed, the priority given by an employee to quitting; their perceived ability to quit and their social context outside of the workplace, appear to be the key factors in whether they might quit or not. These factors might only be affected in a very limited way by the workplace interventions evaluated and considered here.

Four studies reported data relevant to the theme of *priority of quitting*. Participants were simply either motivated to quit smoking, and for this reason engaged or were keen to engage with the interventions or programmes on offer (Styles, Osuchowski, Kim), or it was not a priority and so there was no such interest (Croucher, Osuchowski). Wanting to quit was also strongly related to the themes of *incentives* and *opportunity*. As a motivating factor, it “trumped” any incentives on offer, which were deemed to be a happy bonus only, while the simple availability of the programme presented an opportunity to be taken by employees who had a priority to quit. For example: ‘It was win-win. I wanted to quit anyways so you had the benefit of not smoking and getting paid not to smoke’, and, ‘It was the icing on the cake. It was a nice perk. I had been thinking about it (quitting) for a long time and it gave me a slight push’, or ‘I mean if you told me that I was going to make a million bucks if I quit in a year I guess I would be motivated to quit. But a few hundred bucks is not really a motivation’. (Kim)

Several other issues beyond the workplace context also influenced employees’ views. First, there was the problem of addiction. *Perceived ability to quit* was one theme for which the data were entirely consistent. Borland, Eadie and Styles all reported that smokers thought they would find quitting extremely difficult, regardless of the nature of the programme on offer or being applied. For example, “Contemplation of quitting heightened over the period leading up to implementation, with bar workers who smoked raising concerns about their ability to adapt to the new smoking restrictions” (Eadie). This in turn was linked to the theme of *dependence*: Employed smokers in the studies reported by Borland and Kim stated that they recognised that they were dependent, and that no programme or incentive would be sufficient to effect a change in their behaviour.

The *social context* could also be a factor affecting the potential impact of a programme. While *co-worker interaction* was cited in two studies as something that might help smokers to quit (Fisher, Tiede), the impact of friends and family might be negative. Olsen reported that participants said that if a spouse continued to smoke, then this made quitting more difficult, while Hunt reported that, among the teenagers in their study, it was the attitude and behaviours of friends rather than co-workers or a smoking cessation programme that was most likely to influence their own behaviour.

4.7 DISCUSSION

4.7.1 Differences by study design

Each theme within the model was supported or generated by data from both qualitative and quantitative study designs, although the six qualitative studies, perhaps unsurprisingly, contributed more and richer data to every theme and the synthesis as a whole. For example, five of the six qualitative studies (all except Harley) contributed to the broad element of “employees’ (smokers and non-smokers) attitudes to workplace interventions or restrictions”, but only four of the eight quantitative studies (Osuchowski, Styles, Olsen and Glasgow) contributed to the themes of this element and in each case only echoed a finding from a qualitative study. However, unique contributions were made by quantitative “views” studies under the topics of "Employees’ views about their employers’ roles and responsibilities regarding workplace interventions or restrictions", and "Employees’ (smokers only) views about what elements of interventions are and are not helpful". These studies did therefore contribute something meaningful to the overall synthesis and its details.

4.7.2 Differences by quality

Only three of the fourteen studies were judged to be of low quality (Osuchowski, Powell, Fisher) and their contribution to the synthesis was limited. Only Powell contributed anything unique: the view of participants that the usability of the materials might help smokers to engage and be successful with an intervention, an idea not reported elsewhere. It is therefore likely that the exclusion of these potentially lower quality studies would not have adversely affected either the synthesis or the “thickness” of its detail.

4.7.3 Strengths and limitations of the study

The external validity of the review is good for economically developed, western cultures. The majority of studies were from a single location (USA), but there was great variety in terms of the sectors, age and gender groups covered; the range of small, medium and large organisations; and the different intervention-types covered (less than half were smoking restrictions only; and less than half multifaceted complex interventions; two were single interventions, such as incentives only). Nor did the body of evidence present only a single viewpoint; there were multiple cases of dissonance, i.e. the presentation of contradictory views. Such evidence should always be present or efforts made to identify possible disconfirming cases in qualitative evidence synthesis (Booth 2012²⁶). For example, how co-workers could act as a source of support and shared experience when employees tried to quit smoking, but also how co-workers' continued smoking could act as a barrier to someone being able to stop themselves.

The review did apply evolving methods of systematic review, critical appraisal and data synthesis, but each stage was independently conducted by at least two reviewers to minimise the risk of selection, extraction or assessment bias. All methods of qualitative evidence synthesis are interpretive so, despite the efforts to achieve consensus between reviewers in the synthesis, the approach used is still quite interpretive. As a consequence, the findings might not necessarily be exactly reproducible if this same review were to be conducted by another team. Finally, there were no included studies for the period 1999-2006, but six from 1991-98 and eight for 2007-2011. Despite the multiple methods used to identify relevant studies (electronic database search, plus reference tracking of reviews and included papers), there may be relevant studies from the "gap" years, which may have been missed.

4.7.4 Recommendations for interventions

The simple provision or availability of programmes and interventions, and participation, appears to be unlikely to produce any change in the behaviour of employees. Incentives may increase participation but are unlikely to affect action or maintenance. Employees' attitudes and behaviour are principally shaped by subjective experience and priorities. Interventions should therefore either:

- Target employees who want to stop smoking (their priority is to quit) and utilise elements that employees themselves have identified as potentially helpful or useful,

such as incentives; convenience and timeliness of access to support or the intervention; provision of effective and free alternatives; and employer support.

Or

- Focus on altering beliefs about smoking, to effect a change in opinions about the importance of, or need to cease smoking.

4.8 SUMMARY AND CONCLUSIONS

Employees' views about smoking in the workplace, and their employers' roles and responsibilities, are mostly shaped by their beliefs and attitudes towards smoking generally. Participation in any programme or intervention will only be effective if employees are in, or have moved beyond, the contemplation stage regarding this health behaviour, so that quitting is actually a priority for them. Workplace interventions can facilitate smoking cessation if employees are at this point, but should otherwise aim to motivate them sufficiently so that quitting becomes a priority. Only then will participation become potentially meaningful. Evidence-based interventions could then be developed using the findings of this review and synthesis on employees' preferences and views about what works and what does not work.

5 CASE STUDIES

5.1 INTRODUCTION

Three Case Studies are discussed here, each representing a different practical aspect of achieving successful smoking cessation in the workplace.

Case Study One summarises the difficulties associated with gaining access to organisations to carry out Case Study work, Case Study Two describes and summarises global perspectives from in-house Occupational Health professionals in relation to running workplace based smoking cessation programmes in large multi national companies and Case Study Three describes and discusses an internal workplace cessation programme in the UK.

The framework for each case study, and associated question set, will be described along with the findings and recommendations. Whilst the case studies will inherently address a diverse range of issues, they will assess effective smoking cessation programmes delivered in the workplace, and also factors that perhaps enable employees to stop smoking permanently. All relevant identified themes will be summarised here.

5.2 CASE STUDY 1

Case study 1 summarises the difficulties gaining access to organisations in order to develop case study evidence.

The initial brief for the case study element of this paper was to recruit organisations that run their own in-house smoking cessation programme. Interviews would then take place with the Human Resource Manager and / or Occupational Health Professional championing the programme, as well as a group of current and past members of any smoking cessation support group.

Initial approaches were made to 15 companies who had either signed up for the Department of Health's Responsibility Deal² or who were named in a Food and Drink Federation report³. Of those approached, there were no responses from two companies, one said it was against

² <http://responsibilitydeal.dh.gov.uk/h5-smoking-cessation-respiratory-health>

³ <http://www.fdf.org.uk/publicgeneral/FINALFDFWorkplaceWellbeingBrochure.pdf>

company policy to participate in external research and a further five expressed an initial interest but did not respond to subsequent approaches made by the researchers. The remaining seven gave various reasons for no longer providing in-house smoking cessation programmes; either they now referred their employees to the local Primary Care Trust, their local Human Resource Advice Centre or no longer offered any type of smoking cessation advice and support.

After the initial approaches were made, another wave of recruitment began, this time using the researchers' own contacts, including grouped audiences such as; Sheffield SMEs, Rotherham and Barnsley Chamber of Commerce, members of The Chartered Management Institute and ConsultIWP Business Series delegates. A total of 584 organisations were contacted, of which only three replied. Two of those who replied said that workplace smoking cessation programmes were not something that their organisations would like to run. The other reply noted that their last experience of a similar workplace scheme was 15 years ago.

A final attempt to recruit organisations took place in January 2012, from both the UK and Europe. Some initial interest was shown by three UK based organisations but they decided not to take part, although one passed on details about the research to a large Primary Care Trust who subsequently agreed to participate. Other contacts included CoreCare, who provide an employee assistance programme to a number of Government departments. They declined because they referred smokers to NHS clinics. A public health organisation in the Midlands, who wished to remain anonymous, said that they had stopped running smoking cessation programmes for companies because employees were not given time during the working day to attend so they *'faded away.'*

The recruitment of potential case study material has taken place against a background of legislation banning smoking in public places, including workplaces, and increased activity by NHS professionals charged with changing smoking behaviours. The Smoking, Health and Social Care (Scotland) Act came into force on March 26th, 2006, banning smoking in public places, including workplaces. Since July 1st, 2007, a similar ban has been in place in England, thus potentially making smoking in the workplace less of a visible issue for businesses. In addition, the Department of Health has been proactive in promoting smoking cessation through a series of national TV and radio advertising campaigns, which offer a free 'Quit Kit' that contains a range of information and advice. In 2011, the 'Quit Kit' contained a free seven-day trial of NRT patches (these are not included in the kits issued as part of the 2012 campaign).

During the 2011 Quit Kit campaign, held between January and March 2011, nearly 350,000 Quit Kits were issued. Seventy per cent of smokers who received the Quit Kit made an attempt to stop smoking, and 56% had actually stopped smoking.⁴ The timing of recruitment for case study material had coincided with the run up to the NHS Quit Kit campaign, and it should be noted that two organisations interviewed for the case studies had indicated that their companies would not pay for a service that their employees could obtain for free.

Although individuals in routine and manual occupations are the largest group taking advantage of free smoking cessation programmes in the UK, other occupational groups are also using NHS provision. A quarterly report published by the NHS in January 2012⁵ provides some experimental statistics (see Table 6) that indicate the reach of this external provision.

Table 6; Smoking cessation amongst different occupational groups

| Occupation Type* | Number setting a Quit date | Number of successful Quitters | % of those who successfully quit |
|---|----------------------------|-------------------------------|----------------------------------|
| Managerial and professional occupations** | 44,069 | 24,416 | 55% |
| Intermediate*** occupations | 30,533 | 15,927 | 52% |
| Routine and manual occupations**** | 91,567 | 46,220 | 50% |

*http://www.ic.nhs.uk/websites/publications/Smoking%2011/National_tables.xls accessed 7 March 2012.

** Managerial and professional occupations, examples include: Accountant, artist, civil/mechanical engineer, medical practitioner, musician, nurse, police officer (sergeant or above), physiotherapist, scientist, social worker, software engineer, solicitor, teacher, welfare officer. Those usually responsible for planning, organising and co-ordinating

***Intermediate occupations, examples include: Call centre agent, clerical worker, nursery auxiliary, office clerk, secretary

⁴ http://smokefree.nhs.uk/resources/wp-content/uploads/2011/12/216023-DH-IntCom-FactSheet_V26.pdf accessed 7 March 2012

⁵ <http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/nhs-stop-smoking-services/statistics-on-nhs-stop-smoking-services-england-april-2011-to-september-2011-q2--quarterly-report> accessed 7 March 2012

****Routine and manual occupations, examples include: Electrician, fitter, gardener, inspector, plumber, printer, train driver, tool maker, bar staff, caretaker, catering assistant, cleaner, farm worker, HGV driver, labourer, machine operator, sales assistant, security guard, sewing machinist, van driver, waiter/waitress.

5.3 CASE STUDY 2

Case Study 2 summarises global perspectives from in-house Occupational Health Professionals in relation to smoking cessation programmes based at work.

The following narratives are based on two separate interviews conducted with Occupational Health Professionals working for multi-national organisations. Both organisations are anonymised. The following case studies provide an insight into how differing cultures, organisations and countries influence smoking cessation in the workplace.

5.3.1 Organisation A;

A multi-national pharmaceuticals company (world wide perspective)

Key Points

- Legislation banning smoking in public places, including the workplace, is instrumental in enforcing organisational smoke free workplace policies.
- Smoking is seen as a life style risk and integrated into a holistic health and wellbeing programme.
- Reducing health care costs is a major driver in promoting smoking cessation.

Introduction

Organisation A is a large multi-national pharmaceuticals company that employs approximately 157,000 employees worldwide, with 36,000 of those employed within the UK. The number of smokers working for the organisation varies country to country. In the UK, smokers are estimated to represent less than 20% of the workforce, and on some sites could be 10% or less. The organisation employs a variety of occupational groups, including administrative, sales and

marketing, scientific and technical occupations. Although Organisation A does not have an in-house smoking cessation programme, it does operate a global smoke free workplace environment policy that prohibits smoking inside company premises. The organisation also has a 'Vibrant Living' programme which looks at life style risks, including smoking, and once a year the programme is linked to a national no smoking day in each country of operation.

Aims of company policy on smoking

The smoke free workplace environment policy developed originated in the US, where the organisation has its main headquarters. The aims of the policy were to:

- Reduce the risk of explosion created by inconsistent workplace practices, which allowed both smoking and non-smoking areas on the same site.
- Reduce the risk of passive smoking amongst the workforce.
- Reduce the amount the organisation pays towards health care costs in countries with no national health service.

Action

The smoke free workplace environment policy was introduced to the organisation's UK sites in 1993, and to encourage its implementation employees were offered incentives as a 'one off gesture.' These incentives included financial support of at least half the cost of nicotine replacement chewing gum and / or group or individual counselling support, up to a cost of £100.

Communicating Organisation A's smoke free workplace environment policy for its workforce was handled differently, depending on the country and business unit involved. For instance, although Organisation A is largely non-unionised, work councils in France and Germany, which represent the interests of the workforce, were fully consulted.

The organisation has also used their 'Vibrant Living' intranet site to communicate their smoke free workplace environment policy to all employees. The intranet pages included a medical home page which provided information about the site doctor and occupational health nurse, and what service they provided. Employees could also access an on-line health risk appraisal tool. The original on-line tool took 45 minutes to complete, which resulted in it being used by only 30% of the workforce, with only 1% of those using it again. For a short while, Organisation A used a health risk appraisal tool developed by the Mayo Clinic, but has since gone on to use the

free tools available as part of NHS Choices, and in particular their Mid Life Check. This appraisal tool takes only 10-15 minutes to complete.

A new generation of electronic smoking devices has created fresh challenges for the Organisation's smoke free workplace, as it can be difficult to distinguish these devices from conventional cigarettes. In addition, the organisation has identified potential health risks, for both the users and passers-by, from the dense vapours produced by these devices. At the Organisation's African sites, issues have also been raised regarding vapours created by water pipes.

As a result, in February 2012 the organisation decided to update and re-launch their global smoke free workplace environment policy. A two page briefing document was sent to Human Resources and medical professionals across the business units to explain the background of the substitutes and the risks they posed to health. The document recommended that only regulated and approved devices, inhalers, patches and lozenges be used on site, and because of safety considerations, any device that required batteries should not be used where there is a risk of fire and explosion.

Outputs

- Integration of smoking cessation policies and support within a holistic healthy living programme.
- The 'Vibrant Living' intranet site provides advice and information about occupational health, healthy life styles and smoking cessation.
- Appropriate on-line health risk appraisal tools have been identified and used.
- Communicating the potential health risks associated with smoking cessation aids to key stakeholders within the organisation.
- Managing the issue of secondary smoking by providing designated outdoor shelters for smokers, away from non-smoking colleagues.
- Updating and re-launching the global smoke free workplace environment policy to reflect the risk from second hand exposure to vapours produced from electronic cigarettes and water pipes.

What was achieved?

Organisation A suggested that for a company of its size, the main argument for having a smoking cessation policy is to reduce health care costs in countries like the USA where employers pay for hospital treatment for both its existing and retired employees. There were also additional cost benefits for the organisation, with fewer absences and associated loss of production, as well as fewer early retirements due to ill health. Less of an issue for the Organisation was the time people take to go out for a cigarette. Given the long latency effects of smoking, and that on most sites the mean age of the workforce is in the mid 30s, the Organisation is taking a long-term view of the health of its workforce.

Having a global smoke free workplace environment has helped the organisation implement smoking bans in countries that as yet do not legislate against smoking in workplaces and public places. In Russia, the Ukraine and other emerging markets where new sites are being built it is easier to introduce new entrants to the policy at the outset.

Problems faced

Resistance to the smoke free workplace environment policy has only been resolved with the introduction of legislation prohibiting smoking in public places. Difficulties with enforcement have been most noticeable in countries where the Organisation's presence pre dates their smoke free workplace environment policy, as they tended to have long standing working practices. In Germany, for instance, when the policy was introduced, works councils insisted on smoking rooms and segregated dining rooms for smokers. The German site only became smoke free with the introduction of legislation prohibiting smoking in public places. There is no similar legislation banning smoking in, for example, Pakistan and managers there continue to have difficulties enforcing the policy.

The Organisation has had to make some concessions to smokers. For example, in the UK, the response of smokers to the Organisation's smoke free workplace environment policy in the 1990s was to walk off site during their breaks to smoke, or to smoke outside office windows where their smoke could drift inside. The Organisation felt that it was poor public relations to have employees in white coats smoking outside the site, and for the last 19 years has provided designated outside smoking areas which tend to be away from public view. These areas, or 'sheds', are now part of the culture of the organisation, and reflect the reality that there are always likely to be some smokers amongst the workforce.

When smoke free workplace environment policies have been implemented in new sites, there has been an increase in workload leading up to the introduction of the ban. This is due to the time taken to run seminars, to talk about smoking cessation and to see employees on request for one to one interviews. In the past the organisation has used external, free support. Site doctors and nurses are aware of any local smoking cessation programmes they can refer employees to. In the UK, employees are referred directly to the NHS services.

Success factors

- Legislation to ban smoking in public places has supported the Organisation's attempts to achieve a fully smoke free workplace environment.
- It has been easier to introduce the smoke free policy into new sites, with no previously accepted workplace practices.
- In the UK, the Organisation refers employees to free smoking cessation support provided by the NHS.
- Worker consultation has helped the organisation achieve compliance with both its smoke free workplace environment policy and national legislation.
- Ensuring that on-line health assessment tools are not too onerous to complete.

Transferability

The information can be applied to a number of industries that operate in different parts of the world.

5.3.2 Organisation B

Key Points

- Legislation banning smoking in public places, including the workplace has supported Organisation B's own smoke free policy.
- The growth of free external smoking cessation means the company no longer provides in-house programmes for its employees.

- Management, worker representatives, unions and works councils are fully consulted on any aspect related to a smoke free workplace.

Introduction

Organisation B is a global science company that produces a range of products, including agrichemicals, as well as being the largest seed producer in the US. Organisation B employs 67,000 people worldwide, of which 15,000 are employed in Europe, the Middle East and Africa. The company offers a voluntary personal health assessment to all employees every three years and 20% of the workforce in Europe has taken up this offer. Seventeen per cent of those who have undergone health assessment have admitted to smoking. The company is aware that there are fewer smokers at its UK sites compared to its sites in European Union (EU), and more still in Eastern Europe. Ten years ago, the company was actively promoting smoking cessation in the workplace and less so now. It no longer has a formal smoking cessation programme.

Aims of company policy on smoking

- To become completely smoke free on all sites.
- To reduce the long-term health effects of smoking on the workforce.
- Reduce exposure to secondary smoking.

Action

Approximately ten years ago, the company attempted to make all sites completely smoke free, and was partially successful. To achieve this, an agreement was reached with the works councils at their European sites, whereby the company offered practical and financial support to those employees wishing to stop smoking. The agreement also included the use of carbon monoxide testing, which they found was a helpful motivator for those who quit smoking. The main reason for Organisation B offering support in the UK at that time was because nicotine replacements were not available through the NHS. As the NHS has increased its smoking cessation activities the Organisation's occupational health policy has shifted so as not to duplicate support that is readily available elsewhere. In many European countries there is similar health coverage to that in the UK, and in others like Switzerland it is mandatory to have a basic health insurance, which contains some coverage for smoking cessation type activities.

The Occupational Health Physician or nurse will refer employees back to their GP if they want help to stop smoking.

Currently, Organisation B takes a more holistic approach to the health and wellbeing of its employees, and whilst it no longer offers any formal smoking cessation programmes, it does provide employees with the option of taking a voluntary personal health assessment. Employees who are scored as 'high risk' in any areas of the assessment are offered an opportunity to have a discussion with the occupational health nurse about the actions they may wish to take to reduce their risk areas. Smoking is one of the areas identified by the assessment. The assessment is also designed to identify an individual's willingness to change and if the assessment identifies that they wish to change their smoking habits, or stop altogether, the occupational health nurse will direct them to relevant sources of external help appropriate to that site. Any follow up of their progress is left to the discretion of individual nurses.

Organisation B considers it has gone as far as it can to get smokers out of enclosed spaces. Although Organisation B has strived for a completely smoke free workplace, it has recognised that for reasons of practicality some concessions have to be made; either to avoid workers on large sites walking some distance to designated smoking areas, or on shifts with fewer people on duty who cannot afford to go off site for any length of time. At one of its European plants, smokers did not want to stand outside, so specialised smoking shelter have been built inside which are designed with extractors and filters on the roof, so that cigarette smoke does not drift beyond the confines of the unit.

Outputs

- Personal health assessments are available to all employees.
- Signposting to external smoking cessation provision.
- Providing outside smoking shelters to address the issues of secondary smoke inhalation as well as specialist smoke extraction units for internal areas where outside shelters are inappropriate.

What was achieved?

Organisation B feels that anti smoking legislation has supported its own organisational smoke free policy. Since the introduction of smoking related legislation, Organisation B has seen

changes in smoker behaviour, particularly within the EU, where legislation appears to have had more of an impact on smoking in public places. Although Organisation B's policy has been to exclude smokers from enclosed areas on site, anecdotally it feels that the legislation has had a cascade effect on smoking in the workplace. In countries where smoking has previously been more prevalent, such as Ireland, France and Italy, Organisation B is now seeing fewer smokers in the workplace.

Asked what lessons it would pass onto other organisations trying to implement a smoke free workplace, it was suggested that it is important that all decisions be made in consultation with management, worker representatives, unions or works councils. It also suggested that if a company provided financial support for those who want to stop smoking, it should set up a co-payment arrangement with the individual. In its experience, paying 100% of the costs of smoking cessation aids is not hugely motivating, and it has found in the past that asking smokers to pay at least 20% towards the costs of smoking aids is an indication of their commitment. Organisation B has also found that when it offered support in-house, carbon monoxide testing provided a useful incentive for smokers to give up. Lastly, Organisation B suggested that whilst it is good to strive for a smoke free workplace, it may not always be realistic, especially on a large chemical plant where these efforts could be counterproductive and drive smoking underground.

Problems faced

- Getting employees to adhere to the Organisation's smoke free policy.
- Getting the cooperation of managers, unions, workers' representatives and works councils.

Success factors

- Having the support of management.
- Discussions with Unions and works councils to get agreement on the type and level of support the company should offer.
- Not duplicating what is already on offer through the NHS and other similar health provision.

- Where no national smoking cessation programmes are available, seek co-payment with the smoker towards any nicotine replacements, as a means of checking commitment.

Transferability

This case study can be applied to the chemicals and manufacturing industries operating in different parts of the world.

5.4 CASE STUDY 3

Introduction

The organisation involved is a UK based health care provider, based over two sites, employing 2800 staff in total. Most employed are nursing staff who work part time and on complex shift systems.

The internal deliverer of the smoking cessation programme is a single Occupational Health Technician, although the smoking cessation programme is not this individual's only remit. Other roles include: manual handling assessment and general health and safety responsibilities. Although a few people in the Occupational Health Department were originally trained in smoking cessation initiatives, their training is now out of date and un-renewed. Therefore, the internal deliverer is the only person at the organisation who provides current smoking cessation support.

There is accommodation on both sites for the Occupational Health staff to practise out of, with significant travelling distance between sites. Both worksites are smoke-free, meaning people who smoke at work are not allowed to smoke outside, and have to use one of two outside smoking shelters provided.

When new staff start work at the organisation, they are made aware of the smoking cessation programme in their new staff induction pack.

One participant in the smoking cessation programme was also able to talk to the project team. Although her responses cannot be reflective and representative of all clients, her views were supportive of this report, and thought important to include. Throughout this report she will be referred to as 'Client A'. Client A had recently finished the smoking cessation programme, was

in her mid 60s and had smoked since she was a teenager. She had worked for the organisation for 10 years, and was shortly to retire.

Aims

This section details what the smoking cessation programme was intended to achieve for three main parties: a) the organisation; b) the clients or patients; and, c) the internal deliverer. The main aims are listed below;

a) For the Organisation

Financial & Resources:

- To reduce the number of staff going on smoking breaks during their shifts, and especially on night shift (a particular problem due to staffing shortages).

Adherence to Governmental Policy:

- To adhere to new Government regulations and for these to be applied to both worksites.

Professionalism:

- To prevent staff smoking in the smoking shelters in their uniforms, given that this was perceived to appear unprofessional.
- To reduce the numbers of healthcare staff smelling of cigarette smoke, again perceived to be unprofessional.

b) For the 'Clients'

Life:

- To change their lifestyles to a more healthy point.
- To reach any personal goals, connected to smoking, that they may wish to achieve (e.g. to reduce financial output).

Health:

- To improve their health and wellbeing.
- To reduce their smoking, rather than cease smoking *per se*.

Access:

- To be able to access onsite smoking cessation services, so that clients do not have to go elsewhere for these services.
- To persevere with the programme.

c) For the Internal Deliverer

- Job Satisfaction.
- To be able to work in an area in which he has a strong interest and passion.

Action

This section covers the content of the smoking cessation programme, and is split into sub-sections including: policy, timings associated with programme set-up and delivery; attributes, and preferences of the internal deliverer which contribute to the programme, how Drug Replacement Therapy (DRT) is used as part of the programme, methods for session and programme delivery, and the recognition and use of goals and motivation.

Policy

A number of internal policies apply to the programme itself, and to related issues, in order to ensure its efficient running.

Staff policies tend to encourage smoking cessation. For example, staff can take time out of their working days to participate in smoking cessation sessions, although staff that smoke at work are not allowed to smoke outside and have to use one of only two outside smoking shelters provided over each large site.

The internal deliverer has been trained to Level 2 HDA 2003 – Intensive Advice & Support, and a biannual update on training is given thereafter. Although initially local recommendations were interpreted and used verbatim, a small number of modifications were required to make the

programme more effective. For example, the advice was initially to counsel via phone, but the internal deliverer lost clients as a result of this approach, and consequently now mainly sees clients face-to-face, with additional phone support when needed.

The provider also prefers not to offer group sessions as an option, given the difficulties encountered when trying to schedule group meetings due to shift patterns and working hours.

Additionally, the internal deliverer allows clients to change their DRT method more frequently to start with, so that a method that works for them can be identified rapidly. Despite the modifications made, the internal provider still uses locally derived materials, including a help-sheet provided for each client.

Obviously, the smoking cessation programme is not the only remit of the occupational health department, and as a consequence staff time and resources are limited. Indeed, a single Occupational Health Technician works on the programme, raising the issue of longer-term sustainability and difficulties in overall evaluation of the programme. In order to address certain of these issues, two members of the occupational health department are going to attend local training.

In terms of marketing the programme, posters are displayed throughout both sites, emails are sent out to staff periodically, mention is made in the induction process, and the service receives recommendations from existing or previous clients that are then circulated. Many staff on site also know the internal deliverer personally, and this acts as additional promotion for the programme.

Timing Around and During the Programme

The internal deliverer first started providing the smoking cessation programme five years ago, but this service has only been running regularly for three years.

As it is difficult for staff to find time to participate, due to differing shift patterns, and long or part-time working hours, they are allowed time out of their working days to participate in smoking cessation sessions. Clients are seen once a week if necessary, but session frequency is altered around the need of each client and timings are flexible to take into account shift and night work. Sessions are normally run for between 30-45 minutes.

Internal Deliverer's Attributes

The internal deliverer is an occupational health technician, and is the only person at the organisation who provides smoking cessation support. He has a lot of experience in delivering smoking cessation programmes, both for this organisation and for others. He has been trained in counselling and medical provision. The programme is not his only remit so his time is limited.

The internal deliverer likes to be flexible in his approach by using the same tools as the local PCTs, but being more individualised to each client. He also works flexibly in order to reach all his clients, and is flexible in the DRT he provides. Client A recalls that a key factor in her success was being able to try different DRTs without having to go to her GP. She also is grateful of the internal deliverer's flexibility, in that although she has technically finished the programme she can still go and see him if she feels she needs or wants to.

The internal deliverer refers to the staff whom he helps to stop smoking as 'clients' as this is thought to be reflective of a more equal relationship. He finds the honesty works both ways. If he is honest about his client's treatment, counselling and success at quit attempts they are more likely to be honest about their smoking behaviour and reasons for wanting to quit. The internal deliverer has found that people prefer a more personal approach built on mutual trust.

The dedication that the internal provider shows, and the rapport with clients, is reflected in Client A's accounts. She recalls that it was 'really handy' for her having him around, as a key issue for her was having someone to go and talk to, especially when she felt she may relapse. She reports that she had tried previously to quit smoking with help from her GP, but she didn't have the same rapport and they weren't on hand as much, noting that the GP "left you alone too much".

The internal deliverer's personal background also helps him deliver a successful smoking cessation programme. He previously worked in a factory, where he gained a lot of experience of co-workers who smoked. Also, although he has never smoked himself, his father smoked heavily and it had a big effect on him. The internal deliverer saw his father try and fail to quit smoking many times.

The internal deliverer's engagement in the programme is most definitely a defining factor of the programme. He enjoys his work involved with the smoking cessation programme and he would do this part of the job all day if he could. He feels a good deliverer has to have an interest and a passion for the programme in order to be able to deliver it effectively.

Drug Replacement Therapy (DRT)

Each client is entitled to DRT as part of the smoking cessation programme. The internal deliverer doesn't limit client's prescriptions, as long as the dosage is safe, as he thinks the most effective type of DRT, and dosage of DRT, varies according to the individual. The clients usually have side effects with DRT initially, so the internal deliverer now lets them alter this to suit their needs, always ensuring that changes are medically safe and permissible.

Client A found DRT, and the internal provider's approach to it, particularly useful in her successful cessation attempt, as she could try different DRT without having to go to her GP. She prefers the nicotine gum, doesn't like the nicotine patches, and says she could not have quit smoking without it. She has been on nicotine gum for the last 4 months, and commented that it's good feedback to be told your CO levels each week, as this is equivalent to a 'well done'.

Delivery of the Programme

The sessions are delivered as follows:

Counselling

- One-to-one.
- By the internal deliverer.
- Usually face-to-face (with occasional phone sessions when needed).
- Group sessions are NOT on offer as it is more difficult to get everyone together due to different shift patterns and worksites.

Bio-Feedback

- Measuring CO levels.

Drug Replacement Therapy

- Including nicotine patches and nicotine inhalers (tablet medication not used).

Self-Help Material

- The local PCT provide a self-help sheet, which the internal deliverer distributes to clients.

Other Important Issues Considered

- Rapport with the client.
- The client's family set-up.

Goals & Motivation

Some advisors of other smoking cessation programmes use a quit-date approach. The internal deliverer finds that with this approach, clients feel like failures if they miss their quit date, even though they may have significantly reduced their cigarette consumption. He therefore feels it is more helpful to aim for reduction goals, and lifestyle-change goals, rather than quit goals or dates.

Clients have many reasons for wanting to quit smoking. Some reasons are fairly common across clients, but most are quite individual. Therefore, the internal deliverer always discusses the client's own reason(s) for quitting and never forces a particular issue. He also finds it helpful if smoking cessation support takes the client's whole life into account, in order to give context to their situation. Client A had her own personal reasons for wanting to quit. In terms of her health, she couldn't breathe properly due to smoking. She also wanted to quit because her daughter was expecting a baby.

The internal deliverer does not instruct or "tell" clients to attend, as the motivation to attend has to be of their own free will. People using the programme generally attend because they want to. However, in the internal provider's previous experience, certain clients referred by their doctors don't have the same motivation to succeed.

Outputs

The organisation does not have any formal figures on cessation rates since the programme began. However, certain changes have occurred since the start of this intervention;

Informal Smoking Reduction Figures:

- The internal deliverer recalls that he has seen 24 clients in the last 12 months and 21 of them have achieved a 12 week quit rate.
- Only two of his clients have relapsed in the last three years, and both relapsed due to extremely stressful personal circumstances.
- One of the clients that relapsed came back to the programme to try quitting again.

Qualitative Indicators

- The programme is popular, and the organisation has not had any problem in getting staff to partake.
- Family members of the clients have also started to cease smoking, illustrating the potential extended benefits of this process.
- Client A can breathe a lot better now.

What Was Achieved?

The organisation has not formally measured the success of the programme given limited resources. There is, therefore, no cost benefit analysis available, and no formal feedback collected and analysed from clients or other stakeholders.

Plans for the future are limited and based on informal reflection, but include training additional occupational health technicians to allow capacity for further clients to be enrolled.

Problems Faced

Although, all in all, this Organisation's smoking cessation programme has been successful in terms of programme take-up, smoking reduction and life-style change, it has not been without its problems. A few barriers to delivering the most effective programme have been encountered and are detailed below:

Logistics

- It takes half an hour to travel between the two sites, this means:

- Either, managers are less willing to release staff to participate in smoking cessation sessions due to extra travel time and travel difficulties,
- Or the internal deliverer has to do the travelling between sites.
- Staff time and resources are limited.
- The part time, shift and night workers pose significant logistic difficulties.

DRT

- The clients usually experience certain early side effects with DRT, and these need to be addressed directly in order to reduce early failure.

Goals & Motivation

- If a quit-date approach is used, clients feel like failures if this is missed, even though they may have significantly reduced their cigarette consumption.

Personal Circumstances of Clients

- Many clients come from a smoking culture within their family.
- Older clients are often misinformed on the dangers of smoking.

Funding

- No specific internal funding is identified to run this programme.

Policy

- There is no internal written policy or procedure relating to the programme.

Success Factors

Logistics

- All the staff can access the smoking cessation support if they wish.
- The internal deliverer travels between sites to assist with delivery.

DRT

- A flexible, safe approach is adopted.

Delivery

- The internal deliverer prefers to run sessions in a face-to-face, one-to-one manner. This is believed to make clients keener to participate. Phone contact is also available.
- The internal deliverer sees clients once a week if necessary.
- The internal deliverer finds that honesty works both ways, and is of central importance to success.

Goals & Motivation

- The internal deliverer feels it is more helpful to aim for reduction goals and lifestyle-change goals rather than quit goals or quit dates.

Time

- Staff are allowed time out of their working days to participate.
- The internal deliverer allows extra time for each session, and does not “clock-watch”.

Personal Circumstances of Clients

- The internal deliverer finds it helpful if smoking cessation support takes the client’s whole life into account, in order to give context to each individual situation.

Policy

- The internal deliverer's approach is less standardised and more individualised than the PCT approach.

Professionalism

- Staff do not want to look unprofessional by smoking in their uniforms.

Key Points and summary

- The organisation involved is very large (employees = 2800) and split over 2 worksites.
- The main aims of the smoking cessation programme were; financial and professional for the organisation and health-related for clients.
- The organisation has modified internal and external regulatory policies to allow smooth running of the programme.
- The internal deliverer of the programme is extremely dedicated, experienced, honest and caring, which is reflected in his approach and techniques.
- There has been a high anecdotal cessation rate over the last 12 months.
- The smoking cessation programme in this organisation has never been formally evaluated.

6 EXPERT PANEL DISCUSSION

As part of the validation process, an expert panel was convened to review the recent evidence for the support, or otherwise, of workplace based smoking cessation programmes. The six panel members included occupational health professionals, a sociologist, smokers, non-smokers and a union representative. In addition, an occupational health physician who was unable to attend on the day provided written comments, which have been integrated into the following summary.

6.1 GENERAL PERCEPTIONS HELD ABOUT SMOKING AT WORK

The panel were asked initially what their general views were on smoking in the workplace. Most of the panel felt that smoking should not be allowed in the workplace, but recognised the need for designated areas. The issue of where those designated areas should be placed was discussed, and whether in certain settings such as hospitals or health centres they set a poor example for others. There was a general perception amongst some of the group that smokers took more or longer breaks than their non-smoking colleagues, although this was contested by a smoker and others who thought that restricting smoking breaks could be counterproductive and result in smokers becoming less productive. The general consensus was that as smoking is a proven health risk, employers should include smoking cessation as part of an overall wellbeing package.

6.2 COMMENTS ON THE REVIEW

The following is a condensed summary of the comments made by the panel about specific aspects of the review. The panel were asked to comment on some methodological issues related to the review. Without sight of the papers included as part of the review, the panel felt unable to comment on whether research, based on randomised populations or other defined populations, truly reflects real life situations.

In an effort to develop case studies for the review that illustrated smoking cessation programmes in the workplace, 584 organisations were initially contacted, but declined to take part. One Organisation's feedback was that smoking cessation programmes were difficult to

sustain in the long term. When asked to comment, the panel thought it was likely that most smokers had perhaps already been targeted in an organisation with a stable workforce, and this might partly explain why organisations did not wish to participate.

6.3 WHAT DIFFERENCES HAS THE INDOOR SMOKING LEGISLATION MADE TO THE INDIVIDUAL?

Two panellists cited evidence from studies in New England and Spain which had indicated a reduction in certain smoking related health issues, such as myocardial infarction, since the introduction of smoking bans in public places. There was a general consensus that indoor smoking legislation has helped employers enforce their own smoking cessation programmes.

6.4 TO WHAT EXTENT IS SMOKING MERELY ANOTHER LIFESTYLE RISK THAT SHOULD NOT BE ADDRESSED AT WORK?

The panel disagreed with the statement that smoking should not be addressed at work. Their view was that smoking cessation should be part of an overall package of wellbeing measures provided by employers, although there were concerns raised that employers might “blame” or target smokers for their lifestyle choices. There was some discussion about the potential return of investment for employers, in terms of reduced sickness absence, should smoking cessation be addressed in the workplace.

However, a question was raised about how far an employer should go before smoking cessation programmes become intrusive. A smoker gave an example of how his employer had sent him and other known smokers an email about attending a smoking cessation programme in the workplace. He felt he had been targeted, as attendance was not optional and suggested a much better way would have been a global email to all employees.

6.5 WHAT ARE THE MAIN DRIVERS FOR DEVELOPING SMOKING CESSATION PROGRAMMES AT WORK?

The main driver for developing smoking cessation programmes was thought by the panel to be the return on investment that employers can achieve through a healthier workforce.

6.6 WHO IS BEST PLACED IN A WORKPLACE TO DELIVER SMOKING CESSATION PROGRAMMES? (E.G. HR, H & S MANAGER, OCCUPATIONAL HEALTH PRACTITIONERS, EXTERNAL PROVIDERS COMING IN TO WORK ON THE PROGRAMMES)

There was a range of views about who might be best placed to deliver a smoking cessation programme, from in house occupational health professionals to ex-smokers who are given the appropriate training. In all cases, panel members felt that the person needed to be a trusted individual, without any hidden agenda. Hence they thought line managers should not deliver the programme. Another view was that as smoking was often a safety issue, as well as a health risk in some workplaces, the support of safety officers could be used.

6.7 THE REVIEW IDENTIFIED THAT HIGH INTENSITY INDIVIDUAL COUNSELLING AND PHARMACOLOGICAL TREATMENTS HAD THE BEST CESSATION RATES. HOW DOES THIS RELATE TO YOUR OWN KNOWLEDGE AND EXPERIENCE?

One of the smokers cited his own experience of attending a smoking cessation programme where he and his colleagues were “just” given pharmacological treatments. He said he was disappointed he was only offered pharmacological treatments, and thought he would have been able to quit smoking if he had been helped to understand what made him to smoke in the first place.

6.8 WHICH ELEMENTS OF A SMOKING CESSATION PROGRAMME MAY IMPROVE SUCCESS AND WHY?

The panel felt that high-level support within an organisation for meaningful workplace wellbeing and not ‘blaming’ individuals for their personal circumstances or lifestyle may be conducive to a more supportive culture. Furthermore, recognition that individuals’ habits may

not have been an active choice but a consequence of social coercion should be considered when defining help and support to assist smoking cessation.

Accessibility to smoking cessation is also important. One of the panellists gave an example of a teaching hospital, where staff had to attend smoking cessation away from the site in the middle of the city or in a programme held at a cardiac unit where they may have been with hospital patients. The panellist thought this might have been a barrier to uptake and continued participation.

The panel thought that giving smokers a set time frame in which to quit smoking was counter-productive. One of the panellists thought that someone needed to say that it was acceptable not to succeed and that individuals should have the opportunity to return to the programme at a time right for them.

Generally one to one support was thought to be more successful than group interventions, although there was recognition that some people may prefer the support received in a group. The most important element was giving smokers choice.

6.9 ARE THERE ANY OTHER AREAS HIGHLIGHTED IN THE BRIEF SUMMARY THAT WE HAVE NOT COVERED THAT YOU THINK WE OUGHT TO DISCUSS?

One panellist thought that more could be done to educate smokers about how they can recover their life expectancy once they cease smoking, given that certain risk factors improve quickly, particularly if they quit smoking by a certain age.

Another thought that workplace based smoking cessation may be complementary to workplace health surveillance e.g. to detect respiratory illness, and should be integrated into the element of information, instruction and training about workplace hazards, given that smoking may potentiate the harm caused by other workplace hazards.

7 APPENDICES

7.1 APPENDIX 1 EXAMPLES MODEL SEARCH

Database: PsycINFO <1987 to February Week 4 2012>

Search Strategy:

- 1 exp Smoking Cessation/ (7383)
- 2 ((smoking or tobacco or health) adj2 (cess\$ or quit\$ or prevent\$ or promot\$)).tw.
(22546)
- 3 workplace.tw. (16718)
- 4 (model\$ or theor\$ or framework or concept\$).tw. (707340)
- 5 (regression or integrative model or integrative care model or economic or Markov or
animal).tw. (155113)
- 6 1 or 2 (23786)
- 7 3 and 4 and 6 (207)
- 8 7 not 5 (181)

7.2 APPENDIX 2 EXAMPLE PRIMARY RESEARCH STUDIES SEARCH

Database: PsycINFO <1987 to October Week 4 2011>

Search Strategy:

- 1 exp Smoking Cessation/ (7104)
- 2 ((smoking or tobacco) adj2 (cess\$ or quit\$ or prevent\$ or promot\$) adj6 ((work\$ or employ\$ or organ\$) adj3 (intervention\$ or incentive\$ or promotion\$ or program\$ or support\$))).tw. (106)
- 3 1 or 2 (7122)
- 4 (workplace adj4 ((health or lifestyle) adj3 promotion)).tw. (169)
- 5 exp Qualitative Research/ (2907)
- 6 (questionnaire\$ or survey\$ or interview\$ or focus group\$ or view\$ or experienc\$ or opinion\$ or attitude\$ or perce\$ or prefer\$ or qualitative).tw. (916483)
- 7 5 or 6 (916579)
- 8 3 and 4 and 7 (0)
- 9 workplace.tw. (16101)
- 10 1 and 9 (100)
- 11 2 or 4 (274)
- 12 10 or 11 (354)
- 13 7 and 12 (186)

7.3 APPENDIX 3 FURTHER INFORMATION

Information on Primary Care Trust (PCT) Programmes [This information is the experience and opinion of this Organisation's internal deliverer based on his previous dealings with PCTs, from Case Study Three]

Materials used;

- There is a monitoring form for each client.
- There is a self-help information sheet for each client.

Funding

- Pharmacists receive funding to run the programmes.
- There is a substantial budget for advertising PCT programmes.

Drug Replacement Therapy (DRT)

- A maximum of 2 weeks' supply of drug replacement therapy (DRT) is supplied at any one time.
- DRT can be expensive for the individual, so payment by a third party is a useful incentive to either source DRT from the PCT or from an internal work programme.

Clients and Referrals

- PCTs pick up referrals from individual clients and from doctors but never from work places or organisations.
- PCTs don't offer an internal course to their own workers – they are connected to NHS worksites and they have to go there for assistance.
- PCTs deliver to the general public, not to their own staff.
- The target groups for the PCTs are:
 - Pregnant teenagers.
 - Under 25s.
 - High smoking areas.

Session Delivery

- In the PCTs, clients can choose between group or individual sessions.
- In the PCTs, clients are given very rigid appointment times.

Marketing

- Promotion and marketing of PCT programmes is mostly GP related (e.g. in their surgeries).
- Targeted mail drops in certain high-rate smoking areas are also used to market services.
- Once a potential client requests information, they are normally contacted by telephone.

Deliverer Training and Availability

- Most PCT staff nurses are trained to deliver the smoking cessation programme.

Success

- There is a very high attrition rate in the group sessions.

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