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Systematic Review of Clinician-Reported Barriers to Provision of Smoking Cessation Interventions in Hospital Inpatient Settings

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Systematic review of clinician-reported barriers to provision of smoking cessation interventions in hospital inpatient settings

Abstract:

Background: Although the hospital inpatient setting arguably provides an ideal opportunity to engage patients in smoking cessation interventions, this is done infrequently. We therefore aimed to systematically review the perceived barriers to the implementation of smoking cessation interventions in the hospital inpatient setting.
Methods: A systematic literature search was conducted specific to hospital-based healthcare workers' perceived barriers to implementing smoking cessation interventions. Reported barriers were categorised using the Capability, Opportunity and Motivation (COM-B) framework.
Results: 18 studies were selected for inclusion, which consisted of cross-sectional surveys and interviews. The most commonly identified barrier in Capability was lack of knowledge (56% of studies); in Opportunity, it was a lack of time (78%); while in Motivation, a lack of perceived patient motivation to quit smoking (44%). 17 other barriers were also endorsed, but less frequently.
Conclusion: Healthcare workers report a plethora of barriers to providing smoking cessation interventions in hospital settings, which cover all aspects of the COM-B framework. These impediments need to be addressed in a multidisciplinary approach, at clinical, educational and administrative levels, to improve intervention provision.
Keywords: "Smoking Cessation", "Brief Advice", "Hospital", "Barriers".

Introduction:

The World Health Organization identifies smoking as the leading cause of preventable death internationally, with 4.9 million deaths per year.[1] In 2012, the amount of healthcare expenditure due to smoking-attributable diseases totalled 5.7% of global health expenditure.[2] Worldwide, more than one billion people smoke tobacco, or identify as smokers.[3] While this number is decreasing year-by-year, smoking-related illness remains a large proponent of respiratory and cardiac disease. Tobacco control should be at the forefront of every future nationwide healthcare policy. To this end, a 2012 Cochrane review, by Rigotti et al., demonstrated the effectiveness of brief smoking cessation interventions, on patients, when given by a healthcare professional.[4,5] Hospitalised patients, in particular, are more receptive to intervention than the general population, especially those who have been admitted with tobacco-related disease.[6] The inpatient hospital setting provides an optimal time for intervention, as healthcare workers are clearly able to identify patients who smoke tobacco.[7] The inpatient setting provides other inherent incentives, such as increased patient motivation to quit, resources to manage withdrawal symptoms on-site and an ideal ability to facilitate follow-up with primary care for patients following smoking cessation interventions. Furthermore, it has its own unique features, separate to provider advice in other settings that are relevant to intervention, such as the short window of opportunity to intervene and oftentimes a lack of an established relationship with the patient. As such,

the inpatient setting provides a unique opportunity to provide cessation support, to avoid readmission and to reduce related mortality.[8,9]

However, despite its proven effectiveness, various research studies have revealed low levels of cessation intervention being carried out by healthcare professionals in the inpatient setting.[10, 11, 12] While different studies attribute this lack of engagement with provision of cessation advice to a variety of factors, no study has yet systematically reviewed these barriers or placed these determinants within the context of behaviour change theory.

We therefore aimed to systematically review studies which explore the barriers to implementation of smoking cessation interventions in a hospital inpatient setting. To provide further insight into these barriers, we report how often such barriers are reported, and we group the findings according to the COM-B model of behaviour; reflecting “Capability”, “Motivation” and “Opportunity”.[13] This approach allows for more in-depth exploration of the barriers to provision of smoking cessation interventions for hospital inpatients.

Methods:

Protocol and registration: The systematic review was registered with PROSPERO (Protocol number: 42016042499). No protocol was published.

Eligibility Criteria: No restrictions were placed on study type. Any published research articles that reported barriers to the provision of smoking cessation advice in hospital settings were included. The inclusion criteria were studies based in the hospital inpatient setting, which detailed barriers to smoking cessation interventions and which were in English. Studies not in English, based outside of the hospital setting or unavailable as a full-text document were excluded.

Information sources: On the 4th of January 2017, an initial search strategy was developed using the databases OVID MEDLINE, OVID PsycINFO and Cinahl; three online databases. Google Scholar was used to find articles citing the included studies.

Search: Key words such as “physician role”, “counselling”, “intervention”, “smoking cessation”, “tobacco use cessation”, “barriers” and “factors” were used in the search strategy. Each of these search terms was entered into the search feature of OVID MEDLINE, OVID PsycINFO and Cinahl. For example, using OVID MEDLINE’s search engine, “physician role” OR “counselling” OR “intervention” was searched. Then “barriers” OR “factors” was searched. Lastly, “smoking cessation” OR “tobacco use cessation” was searched. To complete our search of this database, the limits from the three searches were entered into the search engine, using the qualifier “AND”. Following this, the results of this final search were transferred to Endnote, where they were compiled with the search results from the other two search engines. Any studies that featured the key terms and were available up to the 4th of January

2017 were included. The final search involved hand-searching the references and citing articles of the included studies.

Study selection: Studies were identified and compiled in an Endnote library. Duplicates were removed. Next, any research articles which did not meet the eligibility criteria according to title were detected and removed. These included papers not in the English language or those based outside of the hospital setting. After this, each of the abstracts were evaluated for relevance to the research topic.

Data collection process: A full-text copy of each research study was located. Two authors independently reviewed the articles and extracted the information. Any disagreements were discussed.

Data items: Any item which was reported as a barrier was recorded.

Risk of bias, summary measures, synthesis and additional analyses were not applicable to the present review.

Results:
Figure 1 is the study flowchart. The review yielded 18 research papers for final inclusion.

Figure 1: Barriers To Smoking Cessation Interventions Systematic Review - PRISMA 2009 Flow Diagram

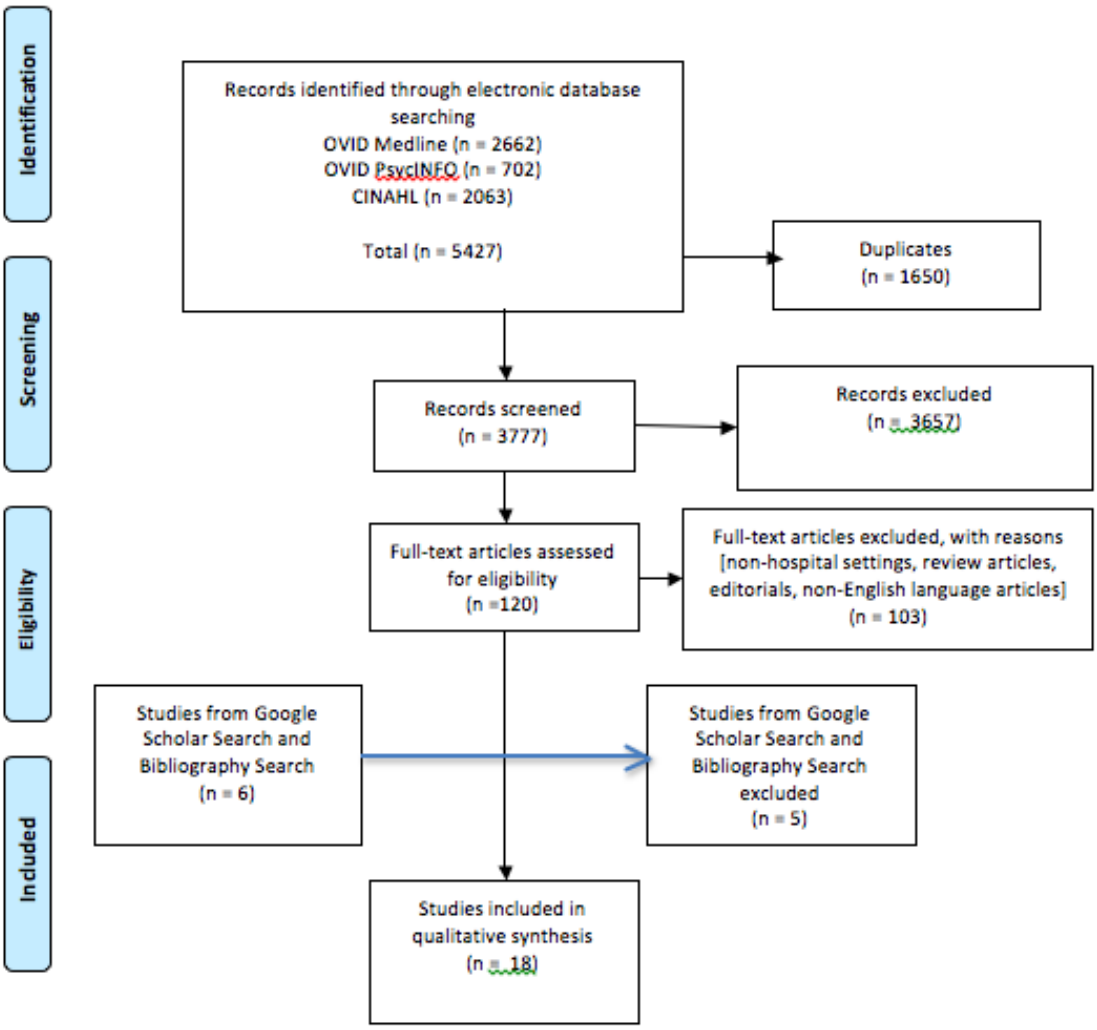


Table 1 lists an overview of the eighteen studies. The studies were carried out between 2001-2016 included hospitals in the US, Canada, England, Australia, Taiwan, Germany, Iceland, Scotland, China and the UAE. Eleven of the studies concerned nurses, while four studies specifically interviewed physicians. One study consisted of data from midwives and two studies assessed assorted healthcare professionals in the inpatient setting. Methodologies used ranged from self-completed questionnaires on healthcare worker practices to semi-structured interviews. Twelve studies were quantitative with six qualitative studies.

Table 2 details the twenty barriers found, under the headings of Capability, Opportunity and Motivation, including the number (%) of studies that identify each barrier.

The most common barrier were lack of time (78% of studies), lack of knowledge (regarding smoking cessation interventions; 56%), perceived lack of motivation to quit (44%) and lack of support (including from other

colleagues, the hospital and the wider healthcare system; 44%). Barriers reported reflected all three dimensions of the COM-B model. Seven barriers were reported by less than 20% of the studies.

Discussion:

This is the first systematic review to collate the healthcare professional reported barriers to the provision of smoking cessation advice in inpatient settings. Twenty barriers to smoking cessation interventions were identified in the 18 studies that were found, which reflected each dimension of the COM-B Model. The most commonly cited barriers were lack of time, knowledge, support and a perceived lack of patient motivation to quit. The findings are discussed subsequently as per the COM-B model.

Capability
In the area of Capability, most studies reported that clinicians lacked knowledge, skills and training to deliver smoking cessation advice. The most cited barrier was “Lack of knowledge”, cited in 56% of studies. The second most cited was a “Need for additional training”, cited in 39% of studies. Indeed, the finding that these attitudes were significantly less likely to provide cessation advice has repeatedly been shown in previous literature.[14,15, 16] These findings highlight a clear need for enhancing clinicians’ self-efficacy to deliver such advice. Over a quarter of the publications reviewed acknowledge the problem of a “lack of skills” on the part of clinical practitioners to effectively promote smoking cessation interventions. This failing in communicative techniques is also evidenced by prior research on the subject, most notably in a 2013 Cochrane review by Carson et al, which shows that physicians who are trained in cessation delivery are more likely to use these skills and that their patients are more likely to quit smoking successfully.[17, 18]

Interestingly, two separate publications in this review, acknowledged the negative impact that hospital facilities themselves can have on intervention effectiveness, encapsulated by the “absence of smoke-free hospital campus” in the inpatient setting. This concept is supported by previous research regarding patients’ smoking in a smoke-free hospital and this particular finding highlights the necessity of making the inpatient setting a tobacco-free zone.[19] Overall, these findings not only match the capability dimension of COM-B, they also provide important evidence that these are subsumed within the policy context of the Behaviour Change Wheel, and that interventions to address these barriers will be rooted within an overall hospital or health services policy.

Opportunity
Most studies identified that a lack of time, support or resources were barriers to smoking cessation interventions. The most cited barrier was “Lack of time”, cited in 78% of studies, which was also the most cited barrier overall. The second most cited was a “Lack of support”, cited in 44% of studies. This perceived absence of adequate intervention support from colleagues hospital administration or from primary care physicians, could be seen as a policy issue, to be addressed. Perceived lack of professional support contributing to

an inability to deliver smoking cessation interventions has been identified in previous research and eight different papers here support this view.[20] The issue of time constraints being a leading obstacle to smoking cessation interventions has been well explored in previous literature and is supported by our findings here.[21, 22] However, this review specifically highlights healthcare workers' difficulty with not possessing a clear hospital-directed mandate to intervene in smoking cessation. A heavy or overwhelming workload has been previously described by similar research.[18] The managerial issue of sparse resources for smoking cessation interventions was identified in over a third of the publications reviewed. This widespread recognition was expected, given the number of previous publications that have referenced the issue.[23, 24, 25]

It could be argued that a "lack of support", "lack of resources" and "absence of mandate to intervene" are barriers which are similar enough to be grouped as one heading, such as a "lack of structural support", but given how frequently each barrier was specifically referenced throughout the studies in the review, it was decided to cite each barrier individually, to provide maximum clarity for healthcare professionals. Similarly, we decided that the barrier of a "heavy or overwhelming workload" was conceptually different from a "lack of time", as the three papers, which referenced this barrier, cited it as a separate issue from the large workload. This allows us to highlight both of these issues as unique factors which need to be ameliorated to provide the best possible care in the inpatient setting.

Motivation

In the COM-B Model category of Motivation, the most cited barrier was a clinician-expressed belief in a "Lack of patient motivation", cited in 44% of studies. This had been identified by various publications as a substantial factor to poor provision of smoking cessation interventions and so, it is unsurprising that it was reported in the papers reviewed.[9, 23, 26, 27] This perception stands in sharp contrast to patient reports and behaviour; in numerous studies, a majority of patients (typically around 70%) want to quit and most are willing to make a quit attempt. Consistent with this, cessation interventions that use proactive recruitment at the population level typically enrol a large percentage of eligible smokers.[28, 29, 30] The second most cited barrier was a "Lack of confidence", cited in 38% of studies. This lack of clinical confidence in addressing patient's smoking practices is noteworthy as previous research had suggested that healthcare workers were largely confident and willing to raise the topic of smoking cessation with patients.[23, 31, 32] Our review indicates that a large portion of healthcare workers still view themselves as lacking confidence in addressing this issue. Personal discomfort on the part of clinicians when broaching the subject of tobacco cessation interventions has been previously identified.[33] One study identified the barrier of smoking being seen as "a coping mechanism for patients" by healthcare workers, which has been similarly described in previous literature.[34] Prior research has demonstrated that providing training to physicians and other healthcare workers substantially boosts their efficacy, which then translates into improved cessation intervention delivery.[18] It is possible that such attitudes could be addressed at an earlier stage, with students being trained to provide cessation counselling prior to qualification.[35]

This attitude was seen as an altruistic act on the part of the healthcare professional and is interesting to note as it strays from the generally accepted view that all tobacco use, by inpatients, should be ended. These deficits could be ameliorated through implementation of targeted education and training programs for healthcare providers.

Not viewing smoking cessation intervention as a priority has been previously reported[36] with over a quarter of publications in the present review acknowledging this barrier. This attitude requires examination at a training and educational level to ensure adequate provision is made to aid patients in quitting smoking. The potential barrier of insufficient healthcare worker motivation or interest, which was described by four different publications, also has precedence in previous research.[37, 38] This belief is heavily linked with the reported belief that healthcare workers require financial reward or career recognition to initiate smoking cessation interventions, which was also identified in four studies in our review, as a "lack of incentive". This attitude runs contrary to the typically altruistic notion of healthcare workers, but it also has been cited in previous literature, especially in the outpatient setting.[21, 28] Our review demonstrates that this perceived insubstantial incentive, for addressing smoking cessation, is equally present in the inpatient environment, albeit this may depend on the healthcare system in which professionals are employed.

Four publications reviewed cited the scepticism healthcare workers may have regarding smoking cessation intervention effectiveness. This was seen as a tangible obstacle to delivery of interventions and is another attitudinal belief identified by our review, which is congruent with previous research on the subject.[39] It is interesting to note that three of the reviewed studies detailed the negative impact a physician's own smoking history could have on the success of cessation intervention. While healthcare worker tobacco use has been reported before[33], it is interesting that this personal practice would impact on providing optimal care for patients. A previous research study, in Syria, showed that physicians who smoke were less likely to deliver cessation interventions, support non-smoking policies and believe that smoking was harmful.[40] This suggests that to increase the effect this potential barrier has upon future interventions, healthcare workers should be mindful of not permitting their own personal tendencies and habits from negatively affecting patient care.

The one noted instance of "social pressure" being seen as a barrier to a healthcare worker providing smoking cessation intervention is unusual. Although there is precedence for it in the literature, it may be specific to the demographic of male physicians in China, where these studies were carried out.[41, 42] Future research should investigate whether this barrier is encountered in other regions.

Finally, three studies expressed the belief that healthcare workers' "negative past intervention experience" could impact the success of smoking cessation interventions. This viewpoint has been identified by previous research on the subject.[28] The fact that such a small portion of our studies reviewed identified

this (17%) suggests that it is perhaps not as pressing a failing as some of the more common barriers which are categorised under the banner of Motivation. Nevertheless, to achieve the optimum outcomes for smoking cessation interventions, each of the twenty barriers identified by this review must be considered as potential areas for improvement, in the inpatient setting.

An interesting point to note is viewing these various studies in the context of self-efficacy to deliver cessation interventions. Several of the barriers identified in the study detail a failing in healthcare professional efficacy, such as “lack of confidence”, “lack of healthcare worker interest or motivation” and “lack of incentive”. Negative past experiences likely reflect poor efficacy, due to awareness of one’s lack of expertise and/or lack of success in getting patients to quit, which makes the physician reluctant to intervene in the future. For healthcare workers to provide the optimum care for patients, it is crucial that each identifies the personal efficacy areas, in which they can improve, to correctly deliver clear and effective intervention advice.

Implications and limitations

These results are not only useful to practicing healthcare workers, but also for healthcare managers and educators, as they clearly set out the areas of inpatient care that could be addressed through extra training in providing smoking cessation interventions. In contrast to previous research which investigated perceived barriers among physicians[11], or nurses[10, 17, 22], this systematic review identifies barriers synonymous with all healthcare workers in the inpatient setting, including doctors, nursing staff, caregivers, midwives and counsellors. However, the limitation inherent in the study design is that by focusing specifically upon the inpatient setting, it is not possible to assess the barriers to providing smoking cessation services in the primary care setting or in community outreach programs. Notably, similar barriers have been reported in primary care (Vogt et al, 2005)[43]. Like all systematic literature reviews, this research is also limited by the quality of the data reviewed. Another limitation is that through utilizing the COM-B model, there may be certain barriers that were outside of the cope of this paper. One study, by Goldstein et al, details particular efforts in smoking control in the hospital setting (implementing smoke-free policies in multiple hospitals and identifying smoking cessation programs available to healthcare employees, but it’s findings are outside of the framework of the COM-B model and, as such, are unsuitable for inclusion in our results.[44] A further limitation is that the current analysis does not provide any weighting to the studies, or indeed, to study quality. Future work could address these limitations. A strength of the study is the reporting of barriers within a behaviour change framework, that will guide future interventions. Implementation of smoking cessation interventions into inpatient settings, accounting for barriers as reported here, should be a priority.

Conclusion:

This review highlights the impediments, attitudes and beliefs that can act as barriers to the provision of smoking cessation, in the hospital inpatient setting.

These perceived barriers range from administrative issues of resource allocation, to clinical practitioners' ingrained beliefs, to aspects of social and professional discomfort. To address and ameliorate these barriers to the provision of smoking cessation interventions, changes need to be multidisciplinary and across the spectrum of hospital departments. For example, the time constraints that healthcare workers described in the review could be best solved at the managerial level, while patient resistance to treatment is easier to address in the clinical ward setting. Of the variety of options for improving hospital management of tobacco cessation, one suggested solution is the implementation of "opt-out" programmes, which have been explored in several recent research papers (Faseru et al. [2017], Kotz [2017]). This practice involves healthcare professionals providing smoking-cessation treatment to every tobacco-smoking patient, regardless of their desire to quit. This practice of offering smoking cessation resources to every applicable inpatient may help to alleviate the burden on the cessation barriers identified in this review and further research studies could investigate this option, while targeting the noted barriers. This systematic review serves to emphasize the need for further education and training of healthcare professionals, in the inpatient setting, to maximise the effectiveness of smoking cessation interventions and to minimise the occurrence of tobacco-related disease.

Table 1 – Overview of Studies

Author	Year	Sample	Methods	Reported Barriers
Beenstock, Jane et. al [45]	2012	1,358 Midwives in northeast England surveyed. 364 included in analysis.	Self-completed questionnaire on implementation difficulties of smoking cessation in pregnancy. Quantitative study.	Personal discomfort; Lack of knowledge; Lack of time; Lack of resources; Lack of Healthcare Worker interest or motivation and Absence of mandate to intervene.
Ceraso, Marion et. al [46]	2009	103 male physicians in China.	Self-completed questionnaire of smoking-related knowledge, attitudes, behaviours and patient practices. Quantitative study.	Physician smoking history; Social pressure and Need for additional training.
Chan, Sophia et. al [47]	2007	2,888 hospital nurses in China. 1,690 included in analysis.	Self-completed questionnaire, based on the 5 A's (Ask, Advise, Assess, Assist and Arrange). Quantitative study.	Lack of patient motivation; Heavy or overwhelming workload; Lack of time; Lack of resources; Lack of knowledge; Lack of skills; Cessation intervention not viewed as priority; Lack of incentive; Lack of confidence; Lack of support; Negative past intervention experience; Smoking viewed as coping mechanism for patients and Personal discomfort.
Duffy, Sonia et al [48]	2006	89 inpatient veterans and 108 staff caregivers in Michigan.	Questionnaire on smoking practices, cessation services and quit attempts. Quantitative study.	Personal discomfort; Lack of time; Lack of confidence; Need for additional training and Absence of smoke-free hospital campus.
Gomm, Murray et al	2002	196 nurses in Australia. 127	Self-completed questionnaire on cessation interventions, beliefs and	Need for additional training and Lack of confidence.

[49]		responses analysed.	practices. Quantitative study.	
Houghton, Chad et al [50]	2008	439 perioperative nurses in US.	Questionnaire on tobacco use intervention attitudes and beliefs. Quantitative study.	Lack of confidence; Healthcare Workers sceptical of interventions' effectiveness; Lack of knowledge; Lack of time and Personal discomfort.
Katz, David et al [51]	2013	40 inpatient nurses at veterans' hospital in Michigan	Semi-structured interviews, regarding the 5A's implementation. Qualitative study.	Lack of time; Lack of support and Lack of patient motivation.
Katz, David et al [52]	2016	164 veterans' hospital nurses surveyed. 33 nurses interviewed.	Pre- and Post-intervention survey, along with Post-intervention semi-structured interviews. Qualitative study.	Lack of skills; Lack of patient motivation; Lack of time; Lack of resources; Absence of smoke-free hospital campus; Lack of confidence; Cessation intervention not viewed as priority; Healthcare Workers sceptical of interventions' effectiveness and Lack of support.
Lam, Tai Hing et al [53]	2010	2,869 HCPs in nine different hospitals in the Guangzhou region in China surveyed.	Self-completed questionnaire to investigate smoking cessation intervention practices. Quantitative study.	Lack of patient motivation; Heavy or overwhelming workload; Lack of time; Lack of resources; Lack of skills; Lack of knowledge; Lack of incentive; Negative past intervention experience; Lack of confidence; Lack of support and Personal discomfort.
Li, I-Chuan et al [54]	2014	16 nurse-counsellors in northern Taiwan.	Face-to-face interviews, with semi-structured, open-ended questions on smoking cessation interventions. Qualitative study.	Lack of support; Lack of time and Lack of resources.

McCarty, Maribet et al [55]	2001	97 nurses in the Minnesota area (US).	Focus group interviews with staff nurses to explore reasons for low rate of smoking cessation advice. Qualitative study.	Need for additional training; Lack of knowledge; Healthcare Worker sceptical of interventions' effectiveness; Lack of support; Lack of time and Physician smoking history.
Raupach, Tobias et al [56]	2012	10 nurses and 5 physicians interviewed for barrier data.	Prospective intervention study assessing effects of implementing "standard operating procedure" cessation counselling to patients on cardiology wards. Qualitative study.	Need for additional training; Lack of knowledge; Lack of skills; Lack of time; Lack of support; Cessation intervention not viewed as priority; Personal discomfort; Physician smoking history and Lack of patient motivation.
Raupach, Tobias et al [57]	2011	77 physicians at Gottingen University Hospital, Germany.	Self-completed questionnaire to identify perceived barriers to smoking cessation interventions. Quantitative study.	Need for additional training; Lack of incentive; Lack of time; Lack of Healthcare Worker interest or motivation and Lack of responsibility.
Schultz, Annette et al [58]	2006	214 nurses across two Western Canadian hospitals.	Self-completed questionnaire on perceived motivators and barriers to addressing tobacco reduction with patients. Quantitative study.	Lack of patient motivation; Unwillingness to add to patient stress; Personal discomfort; Cessation intervention not viewed as priority; No difference due to poor prognosis and Lack of knowledge.
Smith, Patricia et al [59]	2009	35 physicians, across eight hospitals in Ontario, Canada.	Self-completed questionnaire on smoking cessation interventions. Quantitative study.	Lack of time; Lack of patient motivation; Heavy or overwhelming workload; Lack of resources; Negative past intervention experience; Absence of mandate to intervene; Lack of knowledge; Need

				for additional training; Personal discomfort; Cessation intervention not viewed as priority; Healthcare Worker sceptical of interventions' effectiveness; Lack of confidence; Lack of incentive and Lack of support.
Sreedharan, J et al [60]	2010	108 nurses in Gulf Medical College, UAE.	Self-completed questionnaire on attitude and practice towards participation in anti-tobacco activities. Quantitative study.	Lack of time; Lack of patient motivation and Lack of Healthcare Worker interest or motivation.
Svavarsdottir, Margret et al [61]	2006	864 nurses in Iceland.	Self-completed questionnaire on smoking behaviours. Quantitative study.	Lack of time; Lack of knowledge; Need for additional training; Absence of mandate to intervene and Lack of Healthcare Worker interest or motivation.
Whyte, Rosemary et al [62]	2006	12 nurses in Glasgow, Scotland.	Semi-structured interviews, Non-participant observation and the use of radio-microphone to record nurse-patient interactions. Qualitative study.	Lack of skills and Lack of knowledge.

Table 2 – Smoking Cessation Intervention Barriers, using the COM-B Behaviour Change Model

Capability	Number (%) of studies citing barrier
Lack of knowledge [45 47 50 53 55 56 58 59 61 62]	10 (56%)
Need for additional training [46 49 55 56 57 59 61]	7 (39%)
Lack of skills (eg. Communication skills) [47 52 53 56 62]	5 (28%)
Absence of smoke-free hospital campus [48 52]	2 (11%)

Opportunity	Number (%) of studies citing barrier
Lack of time [45 47 48 50 51 52 53 54 55 56 57 59 60 61]	14 (78%)
Lack of support (eg. from colleagues/ hospital admin/ primary care) [47 51 52 53 54 55 56 59]	8 (44%)
Lack of resources [45 47 52 53 54 59]	6 (33%)
Absence of mandate to intervene [45 59 61]	3 (17%)
Heavy or overwhelming workload [47 53 59]	3 (17%)

Motivation	Number (%) of studies citing barrier
Lack of patient motivation (ie. reluctant to quit, lack of compliance) [47 51 52 53 56 58 59 60]	8 (44%)
Lack of confidence [47 48 49 50 52 53 59]	7 (39%)
Personal discomfort (eg. Healthcare Worker unwilling to upset patient, risk damage to doctor-patient relationship) [45 48 50 56 58 59]	6 (33%)
Cessation intervention not viewed as priority [47 52 56 58 59]	5 (28%)
Lack of Healthcare Worker interest or motivation [45 57 60 61]	4 (22%)
Healthcare Worker sceptical of interventions' effectiveness [50 52 55 59]	4 (22%)
Lack of incentive (eg. recognition/reward) [47 53 57 59]	4 (22%)
Physician smoking history [46 55 56]	3 (17%)
Negative past intervention experience [47 53 59]	3 (17%)
Social pressure [46]	1 (6%)
Smoking viewed as coping mechanism for patients [47]	1 (6%)

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