

## ORIGINAL PAPERS

# “WHAT ELSE IS THERE TO DO?” – A QUALITATIVE STUDY OF THE BARRIERS TO SOLDIERS STOPPING SMOKING

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## Abstract

**Objectives:** To investigate the impact of Army life on soldiers' motivation for stopping smoking.

**Method:** A two stage study using a questionnaire to identify smokers in a British Army infantry battalion of 560 soldiers based in the United Kingdom with either a low or high intention to quit smoking, followed by semi-structured interviews of a purposive sample of 18 respondents.

**Results:** 31.3% of soldiers were current smokers. In addition to recognised barriers to stopping smoking, the interview data revealed structural and cultural barriers, some of which are unique to the Army. Structural barriers included an increased opportunity to smoke in terms of time, place, and cost. Cultural barriers included peer pressure, the smoking norm, and a lack of discouragement from the 'regimental family'. These barriers to stopping smoking often arise from established British Army values and standards. For example, the need for punctuality requires early arrival at destinations, which in turn, provides an increased time opportunity to smoke. Other attitudes that the Army wishes to encourage, such as building teamwork and interdependence, can also be enhanced through smoking.

**Conclusion:** Whilst the numerous, previously identified barriers to stopping smoking exist within and outside the armed forces, specific additional barriers arise from the structure and culture of the Army. Changes in the structure of daily life within the Army may reduce the barriers to stop smoking. Army clinicians also play an important part in soldiers' stopping smoking and an increased understanding of the specific barriers to stopping smoking may help them to support soldiers more effectively.

## Introduction

The adverse effects of smoking are well known [1-3]. Barriers to stopping smoking have usefully been categorised into addiction, internal, and external groups [4]. Examples of barriers in the addiction group include withdrawal symptoms such as irritability, anxiety, restlessness, an intolerable urge to smoke [5], and additionally the acquisition of a strongly entrenched habit [6]. Internal barriers to stopping smoking include misinterpreting the facts relating to smoking risk [7], the fear of weight gain [5,7,8], feeling stressed at work [9], depression [5], lack of will power [10], and a propensity to anxiety and impulsiveness [6]. The external barriers to stopping smoking include social pressure to engage in the activity [6,11], lack of social support such as being unemployed or a lone parent [12,13], the influence of family and friends who smoke [14], problems at home such as marital difficulties or bereavement [10], and boredom [13]. Amongst low income groups within a culture of smoking and where no culture of quitting exists at all, smoking is also seen as a means to social interaction and inclusion [13]. The association of alcohol and smoking is an additional barrier, especially in men [5].

In addition to the long-term health consequences, smoking generates more immediate effects which impact on soldiering.

These include reduced physical performance [15], increased susceptibility to exercise related injuries [16], reduced night vision [17], and longer adaptation times to a flash of bright light [17]. Despite these clear occupational disadvantages for soldiers, smoking appears to be more common in the Army than in the general population. In 2002 the Office for National Statistics reported that 27% of 16-24 year-old males in the UK smoked [18], while Army data reveal that 47.8% of a cohort of 20 year-old soldiers smoked [19]. It is possible, as described by Graham in her study of working class mothers [20], that the increased smoking levels in the Army population is, in part, a response to a lack of autonomy, with smoking enabling people to regain a sense of control. (Hodgson H. ".....Who's there but cigarette?": What is the significance of smoking for the British Soldier? Unpublished MSc dissertation, London: University of London, 1997.)

The reduced autonomy experienced by many Army personnel can be attributed to Army values and standards often being at variance to those of the rest of society, due to the roles and responsibilities the Army needs to fulfil [21]. The most notable of these roles is conducting military operations on behalf of the Nation, during which soldiers will have the responsibility and lawful right to use controlled lethal force, and may be required to lay down their own lives and risk those of their comrades. The values that the Army articulates in order to fulfil their responsibilities are those of selfless commitment, courage, discipline, integrity, loyalty and respect for others. Selfless commitment translates into soldiers subordinating their own interests to those of the unit while discipline is essential for the Army to be effective on operations.

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Whilst there is a vast body of literature reporting on barriers to stopping smoking in the general population, the only soldier-specific barrier identified is the provision of officially sanctioned smoke breaks. (Morgan E. What are the Motivations for, and Barriers to, Army Smokers Making a Quit Attempt: A Primary Healthcare Based Qualitative Study. Unpublished MPH dissertation. Birmingham: University of Birmingham, 2004.)

## Methods

Following MOD ethical approval, a two-stage study was carried out, firstly to identify two extreme groups of smokers and secondly to interview a sample of these smokers to identify the barriers to and motivation for soldiers stopping smoking.

In February 2006, a questionnaire was distributed to an Infantry Battalion of 560 soldiers based in the UK. The questionnaire was designed to identify smokers and their level of intention to stop smoking (based on the Theory of Planned Behaviour (TPB)) [22-23]. Respondents were also asked to indicate their willingness to participate in a further interview-based study. From the smoker respondents (n=143; 31.3%), two extreme groups were identified; those with a high intention to stop smoking (n=23) and those with a low intention to stop smoking (n=23). These two groups were identified by selecting those whose TPB score was more than one standard deviation from the mean.

Respondents in the high and low intention to stop smoking groups who agreed to participate in the interview stage of the study were then invited for an interview. All 46 respondents in the two extreme groups were invited to participate in the second stage of the study, of whom 11 in the low intention to stop smoking group (response rate 48%) and 15 in the high intention to stop smoking group (response rate 65%) consented to do so. Saturation point was reached (i.e. no new themes emerged from the interviews) after 18 people had been interviewed: 8 from the low intention to quit group and 10 from the high intention to quit group.

Following informed consent, all interviews were audio-taped and transcribed verbatim. The interviews were semi-structured, with the use of a topic list to guide the conversation. They were undertaken in a non-threatening, neutral environment which had minimal association with the chain of command. As a life-long non-smoker RO was aware that he needed to ensure that his opinions, prejudices, and attitudes did not inhibit or modify the participants' responses during the course of the interviews. This was achieved by using open questions, allowing participants time to respond, being unafraid of periods of silence, and still being appropriately directive [24]. RO introduced himself as a doctor rather than an officer to minimise inhibiting participants' responses.

Transcripts were organised in Atlas ti and analysed by open coding and then axial coding. Analysis was carried out in parallel with further data collection, allowing questions to be modified in an iterative fashion [25]. The first three interviews were listened to by KB to ensure validity of interview technique. KB independently coded a sample of the transcripts to confirm the validity of the open and axial coding, and any discrepancies were resolved by discussion.

## Results

### Questionnaire

457 out of 560 soldiers returned the questionnaire (81%) and 143 soldiers (31.3%) reported being current smokers. The low intention to quit group (n=23) smoked a mean of 23.87 cigarettes daily compared to 15.91 in the high intention to quit group (n=23) (mean difference = 7.96;  $p = 0.04$ ). There were no statistical differences in age at first smoking or age on leaving full time education between those soldiers in the high and low intention to stop smoking groups.

### Semi-structured interviews

In addition to general barriers to stopping smoking, such as addiction [5] and life stressors [10], which are reported in non-military population studies, when interviewed respondents spoke about additional factors that led them to continue smoking that were specific to a life within the armed forces. Few differences were found between the low and high intention to stop smoking groups, although the low intention to stop group tended to be more fatalistic in their attitude towards smoking, seeing the health risks as an inevitable part of life. Soldiers in the low intention to stop smoking group also tended to depend upon smoking as a means of fitting into the social group more than those with a high intention to stop smoking. In analysing the data, we found that these barriers to stopping smoking could be identified as: 1) structural factors and 2) cultural factors. Each of these will be described in turn.

### Structural barriers to stopping smoking

Respondents referred to increased opportunities to smoke that were brought about by ways in which the day was structured. It is important to recognise that soldiers have little control over the timetabling of their day and they are required to be in the right place at the right time. Punctuality is highly valued and lateness is punished. Of particular importance is the expectation that the soldier will be in lessons or at a training event at least five minutes before the session starts. Indeed, this expectation is illustrated in the well used Army phrase of "hurry up and wait". Whilst this does ensure punctuality, soldiers are frequently standing around for 5-10 minutes prior to any activity, without anything to do. With little else to fill these slots of time, as illustrated in Box 1, soldiers see this as an ideal time for a smoking break.

At the end of their structured day soldiers have some leisure time which, according to the respondents in this study, was generally spent in isolation in their rooms. Although they had some preparations to make for the following day, respondents spoke about how the lack of any specific tasks or activities with which to fill their time tended to lead to an increase in their level of smoking.

In addition to having opportunistic times to smoke, soldiers spoke about being able to smoke more when they were at the barracks when compared to being at home, largely due to the outside nature of the work and being able to smoke in their living areas. At home, they often had smoking restrictions, having to go outside of the house to smoke. The increased smoking restrictions in public areas currently experienced in non-military environments were introduced into Army barracks in January 2007. These restrictions prohibit smoking in all enclosed Army premises, although exemptions can be made for some single or multiple occupancy bedrooms. Smoking also remains permitted outdoors and in approved shelters.

The final structural barrier to stopping smoking appeared to arise from the availability of cheap duty-free cigarettes for soldiers on overseas postings and operations. Soldiers spoke about increasing their smoking while overseas and also being able to build up stores of cheap cigarettes for their return to the UK. They felt that these opportunities for cheap cigarettes discouraged them from stopping smoking.

### Cultural barriers to stopping smoking

The Army is organised in Regiments, which consist of about 500-600 soldiers, often drawn from a defined geographical area, who train, work and fight together throughout the majority of their careers from enlistment to discharge. A Regiment is of a size where soldiers can relate to everyone within the group, and which operationally is the optimal size to carry out independent tasks and sustain itself. The Regiment also acts as the welfare resource for the soldiers and maintains these links and support

even after retirement. A sense of loyalty is engendered to the Regiment and it in turn becomes a surrogate family for the soldiers and an object of passionate political support when threatened [26].

At interview, respondents often referred to the idea that 'everyone smokes' and that you were always around people who smoked, suggesting that there is a smoking norm within the Army. Recognising that this was different to that experienced outside of the Army, respondents recalled the times when away from the Army (either ill or on leave) they smoked considerably less (see Box 2). The reasons cited for increasing their use of cigarettes upon return to the Army were largely related to the desire to fit in with their peer group. This was something that was expressed to a greater extent by soldiers with a low intention to quit, than those with a high intention to quit. From the discussions with respondents, it became apparent that smoking provided a social currency, encouraging team identity and interdependence, rather than selfishness – characteristics that the Army wishes to encourage. For example, cigarettes were shared with team members of all ranks, with occasions when a single cigarette would be passed around the group when supplies were running out. Engagement in this activity, therefore, allowed hierarchical barriers to be temporarily dropped.

Further cultural barriers to stopping smoking were brought about by what we describe as the 'regimental family'. The dynamics of this family unit place soldiers in a subordinate position, with little control over work and leisure decisions. This appeared to generate resentment about being treated like a child, which was in turn, cited as a key stressor and barrier to stopping smoking (Box 2). Moreover, the unpredictable nature of Army life often results in soldiers being sent on activities with little notice, having to cancel any prior arrangements that they may have made for themselves. For many soldiers, the frustration of being stripped of their autonomy was partially relieved through smoking.

Although the regimental family shares some of the hierarchical features of many traditional families, in contrast to traditional families, it does not appear to encourage healthy behaviour. Whilst the Army does provide smoking cessation services, the impetus to take up these services has to arise from the individual soldier or at a distance from a family member.

## Discussion

The survey data reported in this study indicate that around a third of soldiers currently smoke. This level of smoking is considerably lower than the 47.8% reported in 2002 [19]. Whilst, the apparent reduction may be due to the wider age range sampled in this study compared to a cohort of 20 year olds, it is also possible that it is due to an intensive stop-smoking campaign within the battalion over the previous two to three years. However it is still higher than the current overall rate of smoking in non-military populations which is reported to be 24% [27].

The interview data indicate that there are specific features of the structure and culture of Army life which form additional barriers for soldiers to stop smoking. In particular, the increased time, place and cost opportunity to smoke. Whilst the Army has, in the past, recognised that there is a need to reduce opportunities for soldiers to smoke, and have officially banned the previously identified "smoke break", the need to arrive in good time for exercise or lessons serves to replace the 'smoke break' with a 'hurry up and wait' time, which is commonly filled by smoking.

The place opportunity is increased through soldiers often working outdoors in areas where there are minimal restrictions on smoking. In addition current rules, although more restrictive than before, still allow exemptions for smoking in accommodation which further increase the opportunity for soldiers to smoke.

The increased opportunity for soldiers to smoke due to the low cost of cigarettes is a consequence of the Status of Forces Agreement (SOFA) [28] signed in 1951 which still applies today. The MOD [29] has promised to review this again in response to the Government's white paper "Choosing Health" [1], and in view of the evidence which says that a 10% increase in cost will have an effect of reducing smoking by 4% [30]. There is concern, however, that changing the SOFA would be perceived by soldiers as an erosion of privileges.

Whilst changes to the structure of daily life in the Army may be possible, cultural changes are more problematic. Although a loss of control and reaction against discipline may result in a barrier to stopping smoking amongst some soldiers, these cultural features of the Army are required in order to maintain an effective defence system. The culture of the regimental family, however, is perhaps something that might be amenable to change, particularly if an increased concern over health by the 'family' members is viewed as a means to increasing overall performance.

## Study limitations

As with most qualitative studies, the participants in this study were a fairly select group, being drawn from just one infantry battalion in the UK. However, many of the participants had served overseas and been on operations, which allowed them to bring these experiences to the interview. Moreover, the participants were from different ranks and carried out a range of duties within the Army.

## Conclusion

The values and standards of the British Army, such as selfless commitment and discipline, translate into some soldiers feeling a lack of control over their lives. This in turn can increase their barriers to stopping smoking.

Health care professionals can advise and prescribe for smoking cessation, but action also needs to be taken at an organisational level in order for success to be achieved. For the Army this could include reducing smoking in accommodation, reducing the number of places where smoking is permitted, and finding alternative activity for the time spent waiting for exercises and lessons. The MOD could also take action to reduce the availability of duty free cigarettes. Cultural changes might result in increased health promotion by all members of the 'regimental family'. Army clinicians also play an important part in soldiers' stopping smoking and an increased understanding of the specific barriers to stopping smoking may help them to support soldiers more effectively.

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## Ethical Approval

Ministry Of Defence (Navy) Personnel Research Ethics Committee dated 28 Dec 2005.

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