Programme of work April 2007-March 2012

Version 4: 25 January 2007

a) Summary

The aim of the programme is to produce findings that increase the rate at which smokers [illegible] motivated to try to stop and succeed in doing so, with the ultimate goal of reducing the harm caused by tobacco use. There are three themes to the proposed programme which are linked to seven groups of studies. The themes are: 1) collecting timely and accurate information on the national smoking cessation picture, 2) improving understanding of the process of smoking [illegible]

The seven groups of studies are:

1) *Smoking Toolkit Study (STS)*: A rolling programme of household surveys and associated follow-ups to provide vital national statistics on rates of attempts to stop smoking, use of aids in those attempts, triggers of those attempts, 6-month continuous abstinence rates following those attempts [illegible] panels of smokers to take part in more detailed studies on the process of stopping and piloting interventions to promote and aid cessation.

2) *Analysis of existing and ongoing data sets*: [illegible] examining a range of issues including effectiveness of nicotine nasal spray without behavioural support, patterning of quit attempts, success rates of quit attempts as a function of past quit attempts, and short- and medium-term changes in physical and mental health and healthcare utilisation after stopping smoking.

3) [illegible] high quality stop smoking clinics with a combined annual throughput of more than 7000 clients as a resource for establishing best practice in smoking cessation treatment. The focus here is on [illegible] will be made, for example, between behavioural support programmes undertaken according to a range of different models (e.g. rolling groups, drop-in centres, nurse clinics) and involving a range of different providers (e.g. pharmacists, practice nurses, full-time specialists).

4) *Evaluation of the nicotine [illegible]*: We have undertaken preliminary development work on a novel nicotine delivery device that offers the prospect of providing smokers wanting to stop with a means of obtaining relatively rapid nicotine intake in a form that is flexible and convenient. A series of studies is proposed to continue development of this device including a pharmacokinetic investigation and a study comparing the effect of this device versus other NRT products on ad lib smoking and on urges to smoke during abstinence.

5) [illegible] is funding the running costs of a placebo-controlled randomised trial of [illegible] medication which offers the promise of an extremely low-cost treatment that could be of benefit to millions of smokers that could not afford other medications. This application seeks funding for staff time to supervise the new trial and a collaborative programme of research whose running costs will be externally funded.

6) *The process of change studies* This is a series of studies involving an interview-based study, a postal survey with follow-up and a series of experimental studies to test hypotheses from the [illegible] understanding of the process of behaviour change [illegible]

7) *Activating emotional processes to motivate smoking cessation*: Funds are being sought [illegible] smokers to ultrasound images of their carotid arteries.

In addition to the research studies, a major component of the programme involves specific communication activities and policy development. This includes continued guideline development, advice and support to national and international agencies involved in tobacco control and smoking cessation and undertaking major systematic reviews.

b) The research proposal

b) 1. Background

The overall aim of the programme is to produce research findings that will contribute to a reduction in tobacco-related harm through smoking cessation, first and foremost in the UK but also

who are currently funded for specific projects experience of the research team including members w

UK and overseas, 4) inform policy decisions, population level interventions and clinical practice

(beyond 10 years), 5) be informed by, and contribute to, theoretical advances, 6) create synergy,

2. Obtaining a more detailed and accurate understanding of the process of stopping smoking to

proved clinical interventions

3. Developing and evaluating im

reduce smoking prevalence by increasing smoking

up-to-date data on key indicators. Figure 1 maps out

proportion of long-term (e.g. 6 month) successes per quit attempt made in that period. (iv) refers to the proportion of the smokers at T1 that achieve long-term abstinence as defined. In Figure 1b) individual rates are specified for quit attempts using *different* aids (v). Because a single quit

g tobacco control interventions because a key goal is to

aids. It is also crucial to asses the success rates (vi)

For any country a national strategy to

cessation must be informed by reliable and

different aids is fundamental to monitorin

maximise the use of the most effective

sociated with use of these different aids to quantify their role in creating long-term ex-smokers.

ure 1c) goes one step further and attempts to delineate the specific triggers (vii) and how far

example how far GP advice triggers

they generate quit attempts involving different aids (viii). For

quit attempts that involve use of medications

not have these critical pieces of informa

subpopulations.

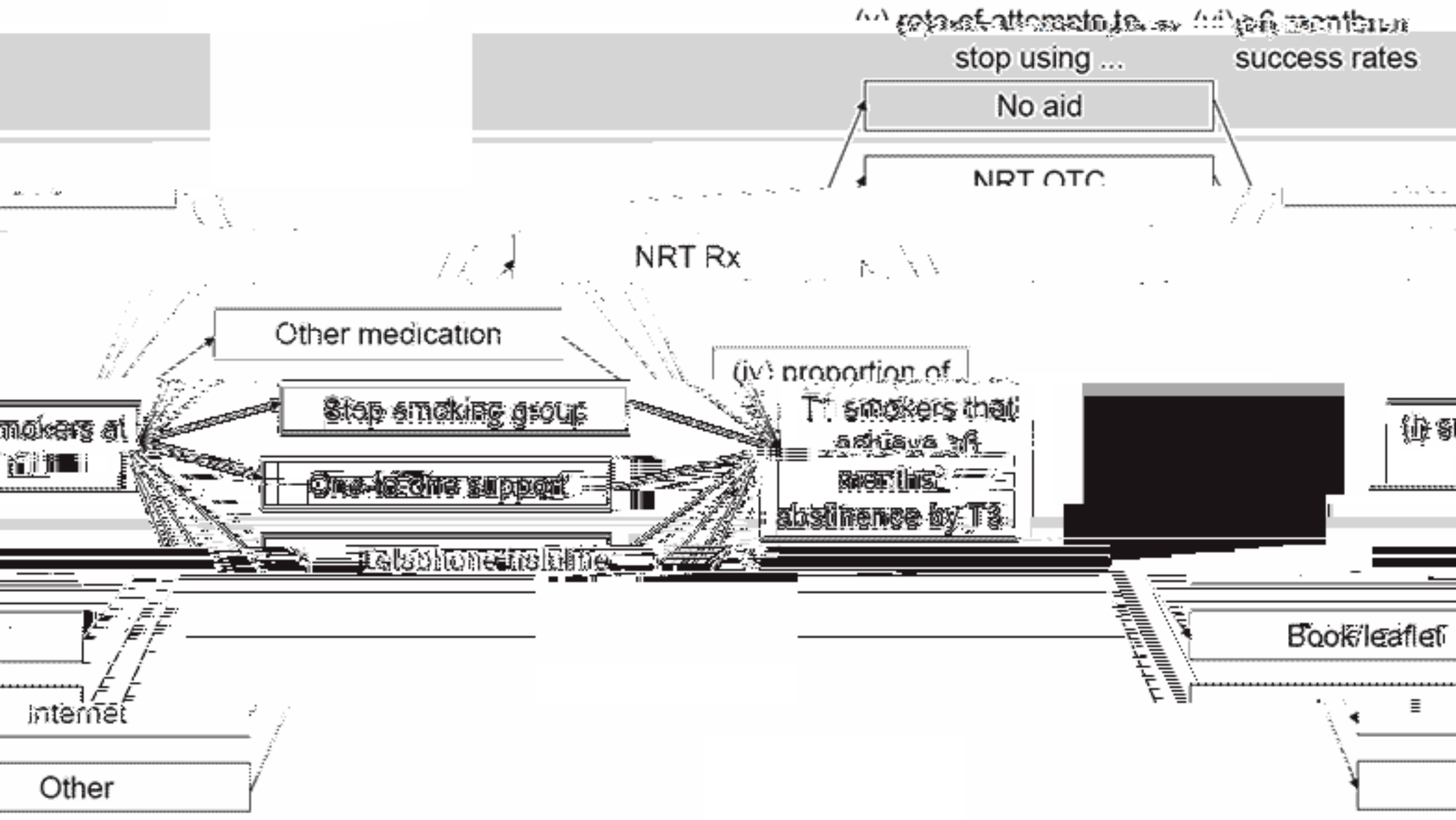
tion for the population as a whole or for priority

If accurate and up-to-date figures can b

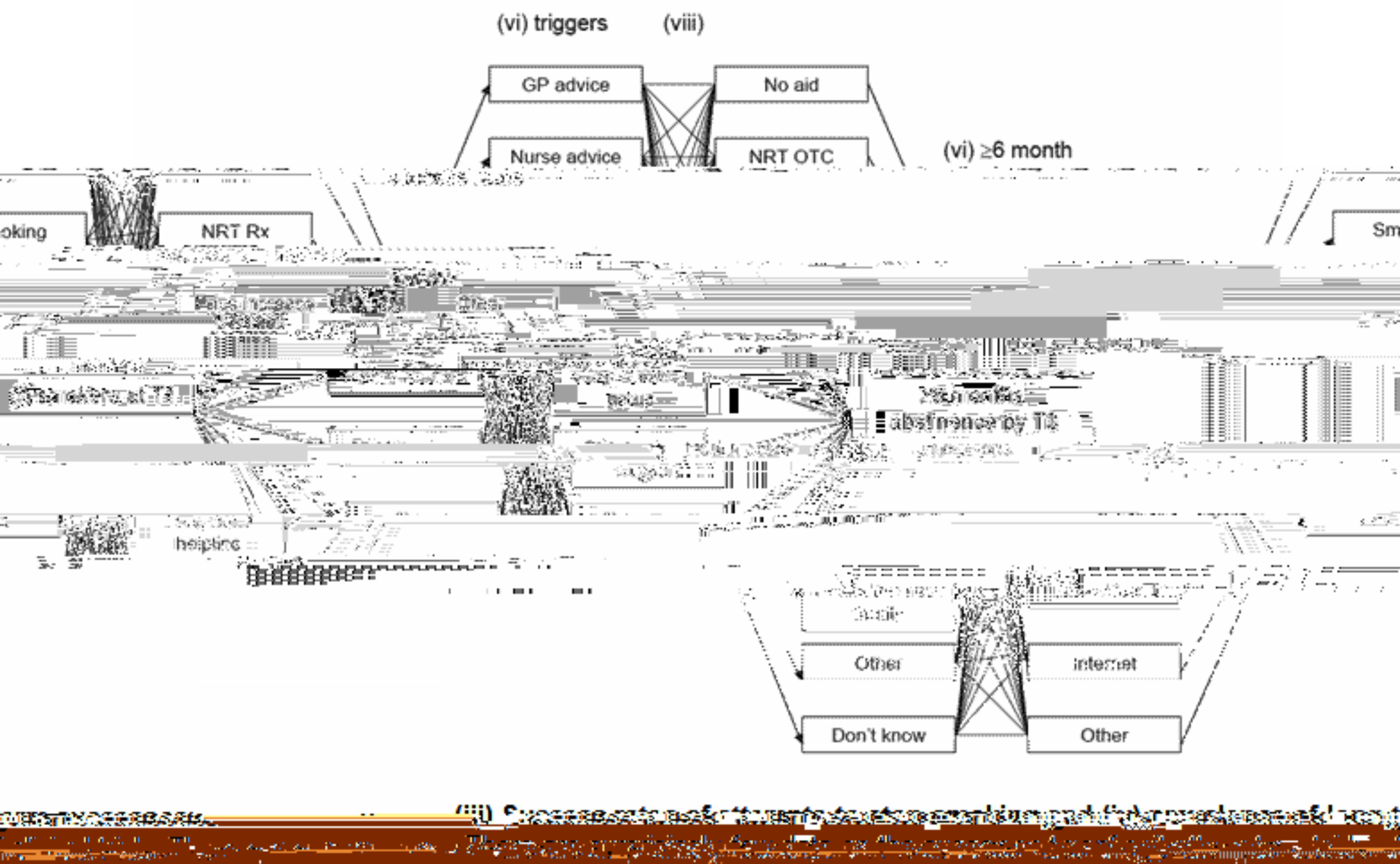
be entered into such a model it will be possible to

Figure b) 1.1.1: A population model of smoking cessation (see text for explanation)

b) Model showing use of aids to quit attempts



c) Model showing triggers and aids to quit attempts



c) Model showing triggers and aids to quit attempts

events that prompt quit attempts. Surveys ask about reasons for stopping smoking which is not the same thing (19). From a policy perspective it is important to be able to link quit attempts with triggers to determine whether and how far policy initiatives are having an impact. The [illegible] SIP sought to investigate triggers and the results suggest that studying triggers is feasible. It is also useful to be able to link triggers with the use of different aids to quitting and ultimately success rates. It is important to know, for example, whether quit attempts promoted by GP advice are more likely to involve use of NRT or NHS Stop Smoking Services and whether they are more or less likely to be successful, other things being equal.

Social and personal factors influencing the success of attempts to stop smoking

Interpreting the above figures requires an understanding of the personal and social factors that contribute to smokers using different methods to stop and their likelihood of success in stopping. For example, if smokers that are more highly dependent use behavioural support or NRT and are less likely to be able to stop, this may lead to underestimation of the contribution that use of these methods makes to success of quit attempts (24). It is therefore essential to collect such data (see 25).

Ongoing studies relevant to these issues: The International Tobacco Control (ITC) cohort study (26) includes assessment of quit attempts and success rates but does not take account of multiple quit attempts in a 12-month period and the follow-ups are too infrequent to overcome issues of recall bias when it comes to accurately assessing success rates. In addition the UK sample is too small [illegible] estimates. The ATTEMPT study, [illegible] involved following up a multinational cohort of smokers every 3 months for 2.5 years (27). The use of quarterly follow-up goes a long way to addressing problems of recall bias but the UK sample is too small [illegible] cigarettes per day who at baseline said that they intended to stop smoking in the next 6 months.

There are a number of studies overseas that seek to address this topic, most notably in California (22, 28, 29). However, these do not address [illegible] directly [illegible] account of multiple quit attempts [illegible] and the high rate of forgetting of quit attempts [illegible]

...regard to the ... would be expected given that it brings together existing models and evidence. W...

...kers and gender ... role of identity for example, there is a large literature but mostly on adolescent smok...

...oking (42-46). However, there are reports that measures of a 'smoker' identity are ... identity and sm...

...resistance to anti-smoking campaigns (47) and failure of attempts to stop smoking ... predictive of re...

...on which the theory is based is described in more detail in West (40) ... fits with the theory. Evidence ...

...nge and the likely ... The theory makes a number of specific predictions about the process of cha...

...have begun to be explored. ... success or otherwise of interventions to promote ...

...ports suggests that, other things being equal, these ... decision to quit is made and retrospective rep...

...ting change than those that are planned in advance ... unplanned quits are more likely to result in las...

...antage of unplanned quits will become manifest to a ... (23). PRIME Theory would predict that the adv...

...epiphany) ... unplanned attempts arises from a more complete transformation in identity (a kind of

...it attempt, ... which requires immediate action rather than delay. In the early stages of the qu...

new identity as a non-smoker would be expected to play a greater role.

...50% of smokers attempting to stop who have succeeded for one week label themselves a... for at least 6 months than those who label themselves as 'smokers' ... of self-labelling in achieving prolong...

...ed abstinence. PRIME Theory predicts that the self-labelling is ... important, and that this association ...will be maintained once other potential confounding factors ... have been controlled for.

...evaluations of wanting to stop smoking performs better than TTM 'stage' (based on when smokers report intending to stop in the future) in predicting quitting (50). According to PRIME Theory this is because the responses to questions about future quitting do not reflect how most smokers actually think about this whereas smokers can readily answer a question about whether...

...triggered depends on factors that are difficult to predict, the frequency of feelings of discomfort about current ...

...smoking' should outperform a simple rating of desire to quit in predict...

A fourth prediction concerns differentiation between 'urges' (fe...

...individuals consciously ... frustration of automated action schemas. PRIME Theory argues that indiv...

...at is ongoing in the ... experience urges when they exercise *voluntary* restraint over impulses. Work th...

current programme is a first attempt to test this hypothesis (see Section A).

b) 1.3. Theme 3: Developing and testing better interventions

...onclusions regarding aids to ... **Developing improved methods to aid cessation:** The top line c... smoking cessation are summed up in Box b) 1.3.1.

Box b) 1.3.1

1. Randomised controlled trials have found that individual counsellin[g] given to smokers seeking help with stopping improves ability to sustain abstinence for at least 6 months by an average 4% when delivered face to face and a similar amount when delivered according to a pre-arranged schedule by telephone – this is compared with minimal support in the form of a brief motivational session or written materials alone (52, 53). There is insufficient information to determine whether one particular approach (e.g. motivational interviewing, or cognitive behavioural therapy) is better than another or what are the active ingredients. The evidence suggests that the effect of counselling is broadly additive to the effect of NRT. Evidence from

real-world application of behavioural support methods suggests that the benefits of behavioural support translate from the experimental trials into the routine clinical situation (54).

so that best practice can be established and disseminated. Key areas of enquiry are: use of specialist staff to treat smokers versus practice nurses or pharmacists, group versus one-to-one [illegible] appoint-based clinics.

b) 2. Studies

[illegible] ...wen, JF: Jenny Fidler, ML: Mark ... Shahab, JS: John Stapleton, AB: Andrew Bryant, AM: Andy McE... Livermore, DB: David Boniface

b) 2.1. Study group 1: The Smoking Toolkit Study (RW, ... JS, AM, JF, AB, DB)

Aims and justification

The background to the study is given in section b) 1.1. The primary aim of the study is to provide ongoing, up-to-date national statistics on key parameters relating to smoking cessation to guide policy and clinical practice. It will also provide a unique toolkit for understanding the process of smoking cessation and the role played by triggers such as GP advice, and aids to cessation such as nicotine replacement therapy and behavioural support in the 'real world'. Furthermore, it will provide national data on smokers' attempts at harm reduction, specifically 'cutting down' and the use of aids to cutting down.

The unique feature of the study involves recognising that many smokers make multiple quit attempts within a short space of time, and that unsuccessful quit attempts are often rapidly forgotten. This means that surveys need to be carried out frequently and to concentrate on a more limited time period for recall. In addition, the response format needs to be able to cater for multiple quit attempts and the possibility that different quit attempts involve different triggers, use different aids and possibly more than one type of aid.

The STS is also planned to provide a panel from which to draw participants for other studies in the programme, including the process of change studies (see section b) 2.6 [illegible]

Methodology

This study involves repeated cross-sectional household surveys of national samples of smokers and recent ex-smokers for a period of 5 years with each cross-sectional sample followed up after 3 months and 6 months by postal questionnaire.

There will be between 4 and 12 household surveys per year (ideally 12 depending on funding available) for 5 years drawn using an established quota sampling method by the social research company BMRB. To keep the costs to a minimum the baseline surveys will use the BMRB omnibus [illegible] surveys in which [illegible] questions. Figure b) 2.1.1 shows the timing of assessments for the smallest feasible study involving quarterly baseline household surveys. The larger alternatives involve bimonthly baseline surveys or ideally monthly baseline surveys.

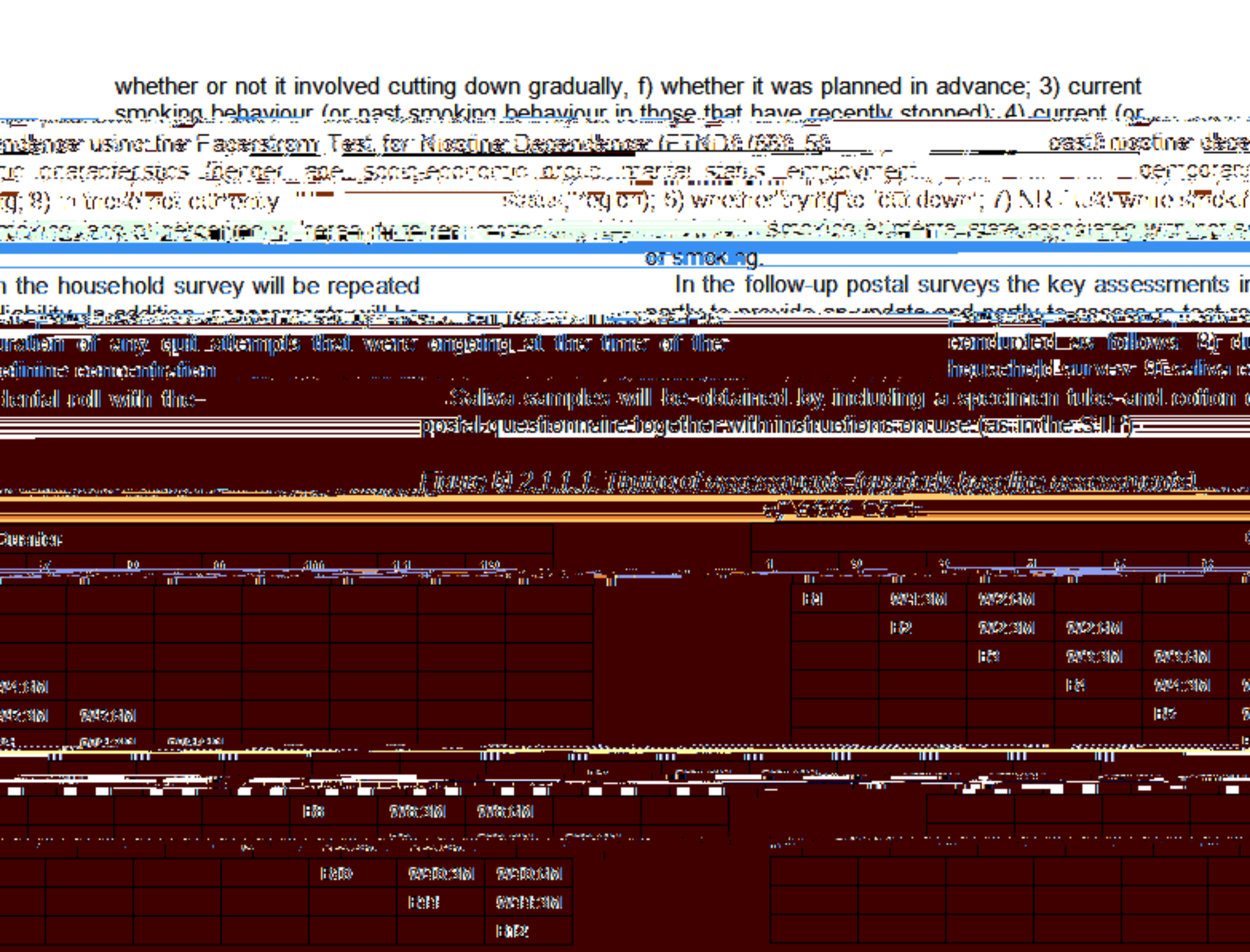
[illegible] asked in the past year and [illegible] will be recent ex-smokers. It is expected that approximately 250 from each sample will agree to be followed up and complete the 3 month and 6 month postal questionnaires. Half of these will be asked to provide saliva samples and return these by post, giving 125 samples to be analysed for [illegible] at both the 3 month and 6 month follow-ups. Thus it is expected that the [illegible] monthly cohorts [illegible] between [illegible] 500 and 1500 will provide samples for saliva cotinine analysis.

The household interview will be any person aged 16 or above who has agreed to take part in the BMRB household survey. Appendix 2 shows the proposed baseline questionnaire. This has been pilot tested as a postal questionnaire and in May 2006 we commissioned BMRB to test it again as a household questionnaire in an omnibus survey exactly as it would be used in the full study. The key assessments for each participant at each household survey will be: 1) the number of serious quit attempts recalled as having been made within the last 3 months; 2) for each quit attempt made [illegible]

whether or not it involved cutting down gradually, f) whether it was planned in advance; 3) current smoking behaviour (or past smoking behaviour in those that have recently stopped); 4) current (or

or smoking.

In the follow-up postal surveys the key assessments in



The analyses will focus on:

1. providing accurate up-to-date information on smoking prevalence including all smoked tobacco as well as cigarettes and including the 12 month, 3 month and 1 mon
2. provision of annual updates of the key cessation parameters
3. time series analyses to assess changes in each of the above parameters at whatever frequency they are assessed (quarterly, bimonthly or monthly) including seasonal trends,
4. logistic regression analyses examining the association between use of specific
5. random effe
6. random effe
7. multivariate logistic regression analyses examining the association between prof
8. construction annually of a full statistica
9. linear regression comparing smokers reporting versus not reporting cutting down; with or without NRT and saliva cotinine concentrations (logged)
10. logistic regression analyses to assess the association between cutting down, with or without NRT, and subsequent quit attempts in the next 6 months adjusting for other predictors of quit attempts; additional logistic regression analyses to assess the association between cutting
11. correlations between quantitative measures of smoking and degree of addiction in continuing smokers at baseline, 3 months and 6 months (cigarettes per day, saliva cotinine - 3 month and 6 month only, FTND)

ethodology has been pilot tested and there is a high degree of confidence that it will produce

findings from ongoing and

b) 2.2 Study group 2: Analysing data from and reporting existing datasets

is involves using extant sets and ongoing data gathering exercises to answer key questions.

b) 2.2.1. The ATTEMPT Cohort (JF, RW, LS)

Aims and methodology

ow-up every 3 months for up to 2.5 years of a

This data set (see earlier discussion) involved foll
sample of smokers drawn from five countries: UK,
US, Canada, France and Spain. Data collection
completed in late 2005 but with a dataset of this complexity and potential value, it will require a considerable research effort to address the range of key questions about smoking and smoking

period of the existing programme but will need to continue into the first year of the new programme and possibly beyond. The proposed schedule of the first five papers arising from the cohort to be produced under the new programme is: 1) The role of acute and chronic illness in prompting quit attempts and their relationship to success of those attempts; 2) The role of body weight and concern about increases in body weight as a barrier of attempts to stop smoking and to long-term success; 3) The short-term and medium-term benefits to physical and mental health of stopping smoking; 4) Methods used by smokers to help them stop as a function of different smoker

s over a 2-year period.

Modelling the temporal patterning of quit attempts and their success

was added to

France of whom 52% were followed up successfully for one year. Since then Spain

ill be conducted in collaboration with RJII

proposed analyses are part of a planned sequence and w

e estimates of statistical power cannot be

who were contracted to undertake the field work. Accurate

ses.

a power of greater than 80% in most ca

Clinic that has been completed by JS. Subjects were followed up for 12 months. The issue of [illegible] practical and theoretical importance. As noted earlier, data to date suggest that combinations are [illegible] data in which the combination has been compared with both individual forms [illegible] there is very little [illegible] addressed that issue. [illegible] (58). This study [illegible] might respond best to two forms of NRT at opposite ends of the pharmacokinetic [illegible] smoker that [illegible] spectrum (patch with very slow release versus spray with rapid absorption). [illegible] compared nasal spray with [illegible] of only two; one involved members of this team (58) and the other [illegible] attempted to identify parameters that could help match smokers to treatments (72). This [illegible] patch and [illegible] study would [illegible] build on those findings. Many smoking characteristics were measured, including [illegible] plasma nicoti[illegible] ne samples before and immediately after smoking a cigarette, and a range of [illegible] smoking typo[illegible] logy and dependence scales. Thus the study offers the opportunity to examine [illegible] possible differ[illegible] rences between smokers in terms of suitability for different foms of NRT.

[illegible] dsley Cessation Clinic Research Database (JF, JS, AM, RW)

b) 2.2.5. Maud[illegible]

Aims and methodology

The Maudsley database has been maintained by JS since 1987, containing the full pre treatment, [illegible] and outcome records of more than [illegible] smokers [illegible] [illegible] group treatment comparison of different forms of NRT. The database [illegible] currently known [illegible] smokers of whom there are an estimated [illegible] 200 [illegible]. It will also be possible to examine the stability of key smoking characteristics [illegible] this group, including level of nicotine dependence and severity of withdrawal symptoms during abstinence. There are almost no data on either of these. With regard to the stability of nicotine dependence, we found in the STP that smokers in the population showed a high degree of stability in the FTND (see Appendix 1) but we could find no published data [illegible] withdrawal symptoms, there is evidence of some degree of stability but in small samples (73). In recent years DNA samples have been collected from those attending the clinic, providing the largest such database where full clinical and smoking [illegible] test hypotheses relating particular [illegible] forms to withdrawal symptoms, urges and short and long-term abstinence.

b) 2.2.6. The ZORN trial (JS, EV, RW)

Aims and methodology

This is an RCT comparing the effectiveness of nicotine replacement therapy versus bupropion versus a combination of the two as an aid to smoking cessation in the context of behavioural support provided by NHS Stop Smoking Services (see section A b) 1.). Support has been provided [illegible] the data set [illegible] benefit of these treatments will be completed by the end of the current programme but has been designed to answer further questions of fundamental importance in the treatment of nicotine dependence, such as which smokers [illegible] each treatment [illegible] [illegible] treatments is an active area of study and some important findings are beginning to emerge. For example, [illegible] functionality, as indicated by pretreatment 3-HC/cotinine ratio derived from cigarette smoking, [illegible] exciting finding that needs following up.

b) 2.2.7. Health Survey for England (JF, LS, RW, DB)

Aims and methodology

The HSE is a rolling survey of a large nationally representative sample in England that involves a

oking children and adults and smoking adults, stratified by age, socio-economic group,

udy of smokers coordinated by Professor Geoff Fong at
us project has reached a stage where it has begun to
75-85). The focus is very much on attitudes and their
so examines smoking behaviours and cessation. Dr Ann

valuating whether the UK's national strategy of cessation services and reimbursement of smoking

see whether
ven the UK's

b) 2.2.8. International Tobacco Control (ITC) study (LS, R

Aims and methodology

The ITC is a large multi-national cohort st
the University of Waterloo. This ambitiou
generate publications at a high rate (40,
relationships with policy initiatives but it al

USA, Canada and Australia. For the last wave of data, we would also be interested to
there is any difference in cutting down to stop as opposed to complete cessation giv
recent policy change with regard to NRT

RW)

e both a resource and a market for information on best
cessation interventions. AM and RW have been working
tigation providing training, support and advice and close
parent that implementation issues are as important as
ness of the treatment provided. Recent policy initiatives
implementation of services with reports of some service

nem (65).

work better

o form a

ource to assess what constitutes best

Aims and justification

The NHS stop smoking services provide
ways of implementing effective smoking
closely with the services since their inst
bonds have been established. It is ap
efficacy when it comes to the effectiver
appear to have led to distortions in the

make use of the innovation that exists within the services to establish what approaches w
than others in terms of attracting smokers into the services and attaining high quit rates.

throughput of 7000 smokers. This constitutes a unique res

programme). The network will also offer access to NHS Stop Smoking Service staff, whose knowledge and attitudes can be evaluated routinely, and in response to specific interventions.

Finally, the network will be a major tool for building research capacity within the NHS Stop Smoking Services. The website (www.scsrn.org) provides valuable resources for services wanting to undertake their own audits or research projects and these need to be updated regularly. It also provides a simple system whereby services can upload reports which are catalogued under different headings so that other services can see what has been done.

Methodology

The website is currently being hosted for free by Exchange Supplies with whom AM has close ties

organising the UK National Smoking Cessation Conference and are happy to continue this relationship. However, the work involved in maintaining and developing the website and working with busy service managers to ensure that they make most effective use of it is more than can be undertaken on present resources. This is a role that will be taken by other members of the research team, the programmer (ML) and the PA and HBRC administrator with supervision by AM

that members can report findings and share experiences and resources. Studies proposed for the network include:

1. Comparison of long-term success rates as a function of different relapse prevention interventions
2. Comparison of 4-week success rates as a function of mode of delivery (drop-in clinic, pharmacy one-to-one, practice nurse one-to-one, rolling group, fixed group etc.)
3. Comparison of retention and outcome as a function of method of acquiring medication (one-stop-shop via a Patient Group Direction, prescription from GP, direct supply etc.)
4. Demand for, use of, and effectiveness of, different NRT combinations, as a function of prescribing policy (e.g. with all NRT available on PGD or NHS prescription or with one available one purchased by the client separately).
5. Methods used to increase referrals from GP and secondary care sources and their association with reach and success rates.

The analyses for these studies will typically involve multiple random effects logistic regressions with the key independent variables entered together with measured confounders (including free prescription eligibility and age) and with the stop smoking services as a random variable and where appropriate practice as another nested variable. These analyses will be complex and require

Technical feasibility

The success of this series of studies depends on the quality of data collection by the stop smoking services involved. AM has already undertaken work with these services to bring data collection up to the required standard and continuing this liaison and training will represent a significant part of his workload in the early part of the programme.

b) 2.4. Study group 4: Evaluation of the Nicotine Cannon (AM, RW, JF, LS, EV, JS)

Aims and justification

We have been undertaking preliminary research with a novel nicotine delivery device that may help some smokers to stop more effectively than existing products. This is an area in which there is already a great deal of research and development (e.g. 88, 89). However, to date no single form of

It is currently believed that a device that could deliver

abstinence in unselected smokers (58).

... the site of delivery would represent an advance. However, we believe that another

also be important – the ability of smokers to adjust on a moment-to-moment basis the delivery of nicotine and comfort attached to this. The Nicotine Cannon is a device that we believe allows this to a greater degree than existing nicotine delivery systems. It involves five nicotine inhaler cartridges arranged in parallel in a wide bore tube (the diameter of a spirometer mouthpiece) around a central hollow core. The user controls the concentration of nicotine vapour inhaled by covering the central core more or less with a finger. [illegible] (see Section A.b) 5). The next steps are to examine the [illegible] user may need and to do so [illegible] nicotine cravings more rapidly and completely than existing nicotine products.

Methodology

Three studies are planned:

[illegible] study (Year 1)

The method below will be the same as has been adopted for the pharmacokinetic study undertaken (Section [illegible]) [illegible] (given that smokers will be the ultimate users of the product and there is evidence that smoking [illegible]). This study will also assess ratings of acceptability of the products, subjective effects and acute [illegible] using the [illegible] according to the manufacturers' instructions for the same length of time (10 minutes). In the case of the Cannon the subjects are instructed to take 10 puffs per minute. Blood will taken for measurement of nicotine: at baseline, halfway through administration (5 minutes), and at 1, 5, 10, 15, 30 and 60 minutes after administration of nicotine has ceased. In addition the subjects will complete a 10-point rating scale on the presence of any of the following symptoms: nausea, throat irritation, dizziness, feeling unwell, pleasant feelings and agitation. These self-report ratings are made at the same intervals that blood is taken and are marked between 1 (none) and 10 (extreme).

variates. The secondary outcomes measures were ratios of [illegible] period using baseline ratios as co

[illegible] acceptability of the products and usage of the products [illegible]

f effect of the nicotine cannon on abstinence (Years 3 to 5)

b) 2.4.3 RCT of

analysis and disseminating the findings

...ard against profiteering should the programme of research prove successful. ...provides a safegu...

Methodology

...h follow-up using the Russell Standard outcome assessment. The course of ... and 12-mon... medication is as specified in the labelling for the drug in Poland where the trial will be carried out.

...ed. Further phase I and phase II studies are desirable but these can be...

Technical feasibility

Extensive work has gone int... ensuring that the NPRI funded Tabex trial runs successfully. The feasibility of the remaining studies in the programme depends on external funding, but given the potential worldwide impact of this programme of research, there is considerable interest from a number of quarters and confidence is high that funding will be secured.

Study group 6: The Process of Change studies (EV, JF, LS, AM, RW)

urges to smoke that come unexpectedly or when there is a crisis or situation normally associated with smoking; 4) Evidence of chronic or acute distress that depletes mental resources necessary for the exercise of self control, and the expectation of escape from which may make a resumption of smoking attractive; 5) Evidence of continued feelings of attraction to smoking; 6) Evidence of [illegible] social and physical environment is populated by triggers, including other people smoking. This has been an area that has been most studied to date and the importance of situational factors is well established (see e.g. 36).

The theory also suggests themes relevant to the relapse process. These include: 1) How far the first lapse arose from a conscious decision to resume smoking, a thoughtless act or a conscious decision to make a temporary exception to the rule of abstinence. Surprisingly we could find no studies that examined this issue. Preliminary analysis of this concept piloted in the co-investigator's current work on another study indicates that conscious decisions to resume smoking are rare but [illegible] expectations. This is an area that has also received little attention. There has been extensive research on the 'abstinence violation effect' in which a lapse creates dissonance and feelings of [illegible] 3) Changes in identity [illegible] smoked in a stressful situation actually relieved the stress, for example in terms of recovery of [illegible] following lapses. The patterning of smoking behaviour following the lapse [illegible] but PRIME Theory [illegible] abstinence or pattern of transition to regular smoking has been studied [illegible] proposes a focus not only on rekindling of habit mechanisms and effects on self-efficacy but also [illegible] resumed smoker etc.).

The four projects currently under way that will feed into the studies for the new programme are: [illegible] the Understanding Relapse study (section [illegible]) [illegible] (section b) 3) [illegible] and a study being [illegible] smoking urges (section b) 3)); the hypnotherapy pilot study [illegible] of their motivation to smoke and not to smoke.

The proposed series of studies on process of change would build on the findings from the current work. It will also need to take full account of work going on elsewhere on relapse (34-38, 96-99). Apart from the ongoing work of Shiffman's group, the studies will be informed by the [illegible] relapse in addiction (100-102).

Methodology

b) 2.6.1. Interviews with smokers and ex-smokers (Year 1)

The interview study will [illegible] study and follow up [illegible] that it will involve in-depth interviews with 100 smokers, recent ex-smokers and long-term ex-smokers [illegible] participants' homes or at the HBRC. The interviews will be based around a comprehensive motivational assessment as proposed by PRIME Theory. This attempts to determine for each individual the range of motivational forces contributing to their ongoing behaviour and what they [illegible] successful and unsuccessful attempts at behaviour change [illegible] The interviews will be used to populate the cells of the grid as far as possible [illegible] of the motivational system [illegible] should be noted that the grid could be populated using a combination of [illegible] markers and not just interview responses. Indeed, it is an open question how far the grid can be populated using different methods.

This study will collect data using an open-ended format [illegible] survey research to ensure that they capture the full range of responses rather than attempting to arrive at themes and the extent to which they fit within the motivational grid will be assessed.

Theory

Factors that motivate	General dispositions	Environmental factors	Smoking-related	
		dispositions		
castinate, failure to implement plans	space to develop plans	stopping aversive		
				procr… imple…
			responses	
tory forces (often driven)	control impulses		patterns directly generating impulses,	inhibi… cue d…

questionnaire will be given to a sample of 500 smokers from the STS and use a fixed format version of the comprehensive motivational assessment grid to determine for each smoker their temporal profile of motivational tension regarding smoking. It will specifically compare the

Methodology

eeking funding from the BHF

de two

ded with

ity standards who will also deliver the intervention. During the scan, the results, which
on a screen, will be explained to participants and compared with that of a non-smoker.
participants will be provided with information regarding the link between arterial
d smoking, an accompanying leaflet and a picture print-out of their own arterial scan.
in the treatment group will also receive a standard cardiovascular risk assessment and
uraged to quit smoking. In the control group, participants will also receive a standard
s after the
d smoking
sation behaviours.

chnical feasibility

technical feasibility of this study depends on securing external funding and co-operation with

method and a highly experienced

in

lasting motivational effect of these kinds of images using the kind of motivational grid described
section b) 2.6.

b) 3. Overview

A summary of the key research questions is given in Box b) 3.

Box b) 3. Key research questions:

and success of quit attempts? (Study 2.1)

t are the short- and medium-term gains in physical and mental health associated with
king cessation? (Study 2.1, Study 2.3)

egy of cessation services and reimbursement of smoking
attitudes and behaviour among UK smokers compared to
as the US and Canada? What are the most important cross-
essation? (Study 2.1, Study 2.8)
spray when used in a general practice setting with minimal

hort- and long-term relapse differ? (Study 2.3)
iction to cigarettes in terms of predicting failure of quit attempts

of nicotine patch versus nasal spray versus the combination?

prognosis after controlling for other predictors? (Study 2.5)

6. Continue as Assistant Editor, Addiction

John Stapleton:

1. Contributing to NICE guidance

[redacted]

b) 5. Building capacity

[redacted]

hers: This programme aims to create the next generation of world-class

cted these

Post-doctoral researcl

researchers to the field and the next task is to retain them and develop their expertise.

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