
The Roy Castle Fag Ends Stop Smoking Service: A Successful Client-Led Approach to Smoking Cessation

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The Roy Castle Fag Ends Community Stop Smoking Service (RCFE) is commissioned by three primary care trusts (PCTs) to provide the adult smoking-cessation service across Liverpool. The service is not theoretically driven but there are several principles governing RCFE, which maintain the client-led, person-centred philosophy. Unique aspects are that the service is provided by trained lay advisors with a nonmedical background and there is no waiting list — clients can self-refer by calling a helpline or walking into a meeting. At RCFE, clients control their own quit attempt as well as self-regulating attendance at meetings and discharge from the service. Relapsed clients are also welcomed back without fear of criticism or the need for an appointment. Possible reasons for the success of RCFE include the client-led methodology, the community approach that removes doctor–patient barriers that may exist, and the nature of the group meetings, which allows interaction between clients who are at different stages of the quit process. Introducing some of the RCFE principles into other stop-smoking services may help to increase the overall smoking-cessation rate in England.

Smoking remains a widespread problem and is a significant cause of morbidity and mortality worldwide (World Health Organization, 2002). In England, it is estimated that during 1998–2002, smoking caused an annual average of 86,500 deaths and the adult smoking prevalence during this period was 27% (Health Development Agency, 2004). The Tobacco White Paper *Smoking Kills*, published in 1999, set targets for reducing the prevalence of smoking in adults, pregnant women and young people (UK Government Department of Health, 1999). Although many smokers wish to quit — and approximately 4 million smokers attempt to quit each year in the United Kingdom (UK) — only a very small fraction (1%–2% of all smokers) actually succeed (National Institute for Clinical Excellence, 2002). Following the release of the Tobacco White Paper, a national network of stop-smoking services was developed as part of the National Health Service (NHS) to tackle the smoking problem. These services were initially established in some of the most deprived areas of the country such as Liverpool, where the incidence of smokers was high. These areas were termed health action zones (HAZs; Bauld, Chesterman, Judge,

Pound, & Coleman, 2003). Stop-smoking services were set up based on evidence that advice from healthcare professionals, coupled with the use of appropriate pharmacotherapy, is effective in helping people quit smoking (Parrot, Godfrey, Raw, West, & McNeill, 1998; West, McNeill, & Raw, 2000).

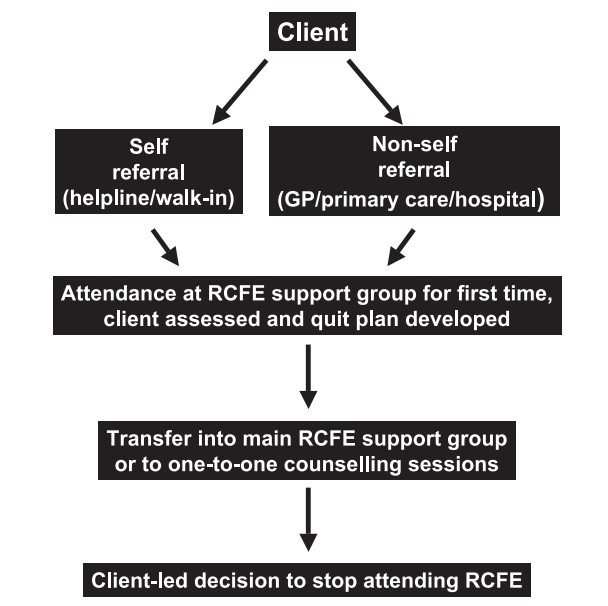
This article describes the methodology behind the Roy Castle Fag Ends Stop Smoking Service (RCFE), a successful community-based service in Liverpool. Since RCFE is not theoretically driven, the principles governing the service are believed to contribute to the success of the service. Implementation of these principles into other stop-smoking services would allow the efficacy of RCFE to be evaluated in larger patient sets from different socioeconomic groups, and may help to increase the overall smoking-cessation rate in England.

Methods

History of RCFE

Since its inception in 1994, RCFE has developed — without deliberate adoption of a theory — as a series of common-sense responses to clients' needs. RCFE is not

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**Figure 1**

The RCFE model.

theoretically driven and has evolved according to the changing needs of the community, while maintaining the original philosophy of being a client-led, person-centred service. RCFE is a community-based initiative with a social, rather than medical, model as the group was originally formed by laypeople within the community who had attended a stop-smoking course and required further support from their peers to remain smoke free. By the time the government's national initiative on smoking cessation was launched in 1999, RCFE was funded by Liverpool Health Authority and met the criteria set by the Department of Health (DH) for local smoking-cessation programs. RCFE currently provides 75% of the DH smoking-cessation services for Liverpool.

The RCFE Model

A flow diagram illustrating the path followed by clients entering RCFE is shown in Figure 1. There is no waiting list to attend the service, so clients enter RCFE by either self-referral or referral by a healthcare professional. Self-referral is achieved by calling the RCFE helpline (available 5 days a week), where clients are given an appointment to attend their local RCFE group, or simply by 'dropping in' to their nearest meeting. Clients attending RCFE for the first time are grouped together and dealt with separately from the main support group to allow for registration. During this first session, an advisor will assess the client's needs and develop a quit plan with the client. The client controls their own quit attempt by deciding when to stop smoking as well as choosing appropriate smoking-cessation aids. Advisors are alert to signals from a minority of clients who may be uneasy in the group setting; these clients are offered one-to-one counselling as an alternative.

After attending the first RCFE meeting, the client is transferred into the main support group or into one-to-one counselling sessions. Following this point, the client subsequently determines when to stop attending RCFE — clients are never told to stop attending by the advisor. In addition, no attempt is made to indicate the number of meetings clients attend. Many people have been RCFE clients during more than one quit attempt; many become clients before they have decided to quit and remain clients for considerable periods after selecting a day to quit and completing a course of smoking-cessation products. Following relapse, clients returning to RCFE are welcomed back without fear of criticism or the need for an appointment.

Practical Aspects of the Current RCFE Service

The majority of the work is carried out by a team of 10 full-time, community-based advisors who meet clients each week at various venues that are suitable for drop-in access. The RCFE staff that currently run the service are generally from a nonmedical background. Previous occupations include being a bus driver, a tiler, an auxiliary nurse and an estate agent's assistant. Also, some have worked in the retail sector and some have recently graduated from university. All advisors study for a diploma from the National Respiratory Training Centre, which involves completion of a smoking-cessation module. Advisors also receive training in motivational interviewing, group-work facilitation, working one-to-one, presentation skills, smoking and cannabis issues, smoking and mental health issues, specific training on pharmacological interventions for smoking cessation, basic counselling skills, listening skills and training in deaf awareness.

There are currently around 43 community-based support groups each week, including three evening sessions and one Saturday morning session. The RCFE meetings in each location take place weekly for 1 to 2 hours and the groups are usually staffed by two advisors. Established clients spend some time on their personal progress with an advisor as well as discussing issues with other clients if they so wish. Advisors frequently take advantage of such client–client conversations to develop group discussion.

A carbon monoxide (CO) monitor is used, chiefly as a motivational tool, and it is introduced during a client's first meeting in the context of information about the physical effects of a range of components in cigarettes. CO readings are recorded at each meeting by the advisor and discussion of readings with other group members is the choice of the individual. The CO monitor encourages clients to attend regularly to obtain a reading, thus increasing contact with the advisor and other clients in the RCFE group.

Smoking-cessation treatment options are issued in accordance with National Institute for Clinical Excellence

Table 1

Client Referrals to RCFE

	2001–2002 (%)	2002–2003 (%)	2003–2004 (%)	2004–2005 (%)
Telephone helpline	29	34	29	33
Walk-in	19	31	42	41
GP	46	27	22	17
Hospital	2	4	4	6
Nurse	4	3	3	3
Other	0	1	0	0
Total (n)	6818	6392	7931	9827

Note. The source of referrals and total number of client referrals are shown for each 52-week period.

(NICE) guidelines (National Institute for Clinical Excellence, 2002). Clients wishing to use bupropion as a smoking-cessation aid are referred to their general practitioner (GP) who prescribes the medication. In contrast, following discussion with the client about the most appropriate method of nicotine delivery, RCFE advisors can issue a voucher for nicotine replacement therapy (NRT) which is redeemed at any local pharmacy. The RCFE advisor outlines the various forms of NRT that are currently available on the UK market and the most suitable NRT for the client is chosen. The form of NRT selected is a joint decision made by the client and advisor, and is based on the client's individual smoking habits and feelings as well as any contraindications. If there are any contraindications, or concerns about a client's suitability for a particular form of NRT, the opinion of the client's GP is sought before the NRT voucher is issued.

Data Collection

Since RCFE provides the DH-monitored smoking-cessation services in Liverpool, data were collected as described previously by the DH (Department of Health, 2002). For this study, data were collected from the community-based support groups for the following 52-week periods: April 2001 to March 2002 (2001–2002), April 2002 to March 2003 (2002–2003), April 2003 to March 2004 (2003–2004), and April 2004 to March 2005 (2004–2005). The method of referral as well as the age, sex and ethnicity of each client was recorded during the client's first attendance at RCFE. Additional data such as smoking habits, number of past quit attempts, types of cessation aids previously tried and existing medical conditions were also collected. The success of RCFE was determined by client follow-up at 4 and 52 weeks. Smoking cessation was determined either by self-report (usually by phone) or CO validation. In accordance with the DH, abstinence rates (successful 4- or 52-week quits) were expressed as a proportion of the total number of quit attempts unless otherwise stated.

Results

Method of Referral and Client Characteristics

The methods of client referral to RCFE were recorded for each 52-week period between 2001 and 2005 and are shown in Table 1. These methods included self-referral to a meeting either via the helpline or walking in and nonself-referral by a GP, a nurse or the hospital. Initially, the majority of clients were referred to RCFE by their GP (46% in 2001–2002) or by the helpline (29% in 2001–2002). However, as time progressed the proportion of GP referrals decreased with a corresponding increase in the number of clients self-referring into RCFE by 'dropping in' to their local RCFE meeting. In 2004 to 2005, 74% of clients attended RCFE by self-referral.

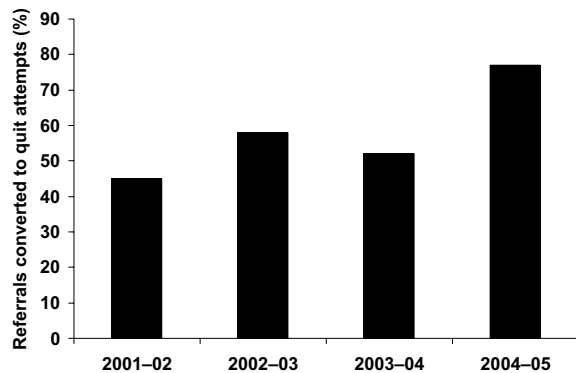
The majority of clients attempting to quit smoking in the RCFE community support groups were 18+ years of age (data not shown) and the age spread of clients was similar to the age distribution for quit attempts in the whole of England 2001 to 2005 (Department of Health, 2002, 2003, 2004).

Estimation of RCFE Reach

As stated earlier, RCFE provides 75% of the smoking-cessation services in Liverpool. According to National Statistics, Liverpool had an estimated 441,800 residents in 2003 and of these, approximately 80% were 16+ years of age (353,440 individuals; National Statistics, 2006). A recent survey sampling 865 households in Liverpool confirmed the high prevalence of smoking compared with the national average (estimated to be 27% in 2001; Department of Health, 2003). This representative survey for SmokeFree Liverpool estimated that in 2004, 34% of residents (16+ years of age) were smokers (Christakopoulou & Dawson, 2004). Using these figures we can estimate that approximately 120,156 adults in Liverpool smoke. There were 9827 referrals to RCFE in 2005, which suggests that an estimated 8% of smokers in Liverpool attended RCFE during this period.

What Proportion of Clients Referred to RCFE Attempted to Abstain From Smoking?

Despite being referred to RCFE, not all clients decided to attempt to abstain from smoking and some stopped attending the service. To assess the success of RCFE in converting clients from wanting to quit into making a quit attempt, the number of attempts to give up smoking in any one 52-week period was expressed as a proportion of referrals (referral : quit attempt ratio, Figure 2). These data revealed that over the past 4 years, a minimum of 45% of clients referred to the service attempted to stop smoking in any 52-week period. The referral : quit attempt ratio has increased since monitoring of RCFE began in April 2001 and results from the last data set (2004–2005) were particularly impressive with 77% of clients referred to RCFE attempting to quit smoking.

**Figure 2**

Proportion of referrals converted to quit attempts in RCFE.

Note. The proportion of clients referred to RCFE (2001–2005) who attempted to abstain from smoking are shown.

Which Smoking Cessation Aids Were Used by Clients Attending RCFE?

The types of smoking cessation aids used by clients attempting to quit in RCFE in 2001–2005 are shown in Table 2. The majority of clients opted to use NRT although some clients used bupropion and a very small proportion attempted to quit smoking by support alone. From these data it is clear that the preferred choice of smoking cessation aid by clients in RCFE is NRT, with more than 90% of clients since April 2002 attempting to quit using NRT.

What Is the Success Rate for Clients Attending RCFE?

To assess the success of RCFE as a stop-smoking service, the proportion of short-term and long-term quits were determined. Over the 4-year period shown in Table 3, an annual average of 57% of clients successfully abstained from smoking for 4 consecutive weeks and at least 70% of these quits were validated using a CO monitor. In addition, an average of 32% of clients (between 2001–2004) who achieved a 4-week quit using RCFE remained smoke free at 52 weeks (Table 4) and although most of these quits were self-reported, around 4% were validated using the CO monitor (data not shown). This equates to an average 52-week success rate of 20% when

Table 2

Treatment Options Taken by Clients Attempting to Give Up Smoking in RCFE

	2001–2002 (%)	2002–2003 (%)	2003–2004 (%)	2004–2005 (%)
NRT	80	94	95	96
Bupropion	16	4	3	2
Support only	4	2	2	2
Total (<i>n</i>)	3094	3721	4158	7546

Note. The proportion of clients taking each treatment and total number of quit attempts are shown for each 52-week period.

Table 3

Four-Week Abstinence Data in RCFE

	2001–2002 (%)	2002–2003 (%)	2003–2004 (%)	2004–2005 (%)
Verified	44	45	42	34
Self-reported	18	15	17	13
Relapsed	21	29	26	33
Lost to follow-up	17	11	15	20
Total (<i>n</i>)	3094	3721	4158	7546

Note. The outcome (%) and total number of quit attempts are shown for each 52-week period.

compared with the overall population attempting to quit in RCFE in 2001 to 2004.

Discussion

This article describes the methodology behind RCFE and reveals the efficacy of the service in terms of short-term and long-term smoking-cessation rates. To gain an indication of the relative success of the service, RCFE can be compared with other smoking-cessation services monitored by the DH, given that data collection and reporting should be identical. Although a definitive study between smoking-cessation services would need to be performed to confirm these results, it seems that during 2001 to 2004 more clients attending RCFE had short-term success compared with similar socio-economic areas of England, such as HAZs and the North West, as well as compared with the English national average (Department of Health, 2002, 2003, 2004). Similarly, in terms of long-term cessation rates, RCFE may be at least equal to, if not more efficacious, compared with other stop-smoking services in England. Based on the limited data available in the literature, overall, RCFE is more successful than historical data from the DH (the 52-week success rate in HAZs was 13% in 1999–2000; Department of Health, 2001) and more recent data from stop-smoking services in two areas of England (Nottingham and North Cumbria; 52-week success rate was 17.7% for clients who attempted to quit smoking between May–November 2002; Ferguson, Bauld, Chesterman, & Judge, 2005).

There are numerous factors that determine the success of a smoking-cessation service. Although RCFE is an evolving model that is guided by clients' needs and is not theoretically driven, several theories have been proposed retrospectively to explain the high cessation rates observed. These ideas have been formulated following discussion with advisors that run the service, as well as clients attending RCFE.

One popular explanation for the success of RCFE is the nature of the referral process. Self-referral offers a real chance for a smoking-cessation advisor to meet and discuss options with a client while the decision to stop smoking is fresh in the client's mind. Taking immediate

Table 4

Fifty-Two-Week Abstinence Data in RCFE

	2001–2002 (%)	2002–2003 (%)	2003–2004 (%)
4-week	62	60	59
52-week (% of 4-week)	35	26	36
52-week (% of quit attempts)	22	16	21

Note. The proportion of quit attempts achieving a 4-week or 52-week period of abstinence is shown for each 52-week period. 52-week data are expressed as either the proportion of successful 4-week quits or total number of quit attempts.

action on the decision catches the client in his/her most motivated state. The clear increase in the number of self-referrals since 2001 suggests that the removal of barriers such as a waiting list to access the service has helped maintain the short-term cessation rates in RCFE. This is in agreement with other investigators who report that flexibility and accessibility to smoking-cessation aids or services are believed to increase reach (Miller et al., 2005; West & Raw, 2003). It should be noted that the steady increase in the overall number of RCFE referrals in 2001–2005 was due to an increased number of clients attending the existing support groups rather than an expansion of the service. It is believed that word of mouth within the community has increased the profile of RCFE and promoted the self-referral of new clients. The correlation observed between the increased number of self-referrals and an increased referral:quit attempt ratio also suggests that the type of referral determines the success of RCFE. Therefore, easy access to attend RCFE coupled with a high desire to stop smoking resulted in a greater number of referred clients making a quit attempt.

Another factor that may contribute to RCFE's success is the high take-up rate of NRT by clients attending the group. One potential reason for the high take-up rate may be the interaction between group members: established clients who discuss their successful NRT-based quits with new referrals may inadvertently increase the use of NRT among new clients. Alternatively, it may be that the support and information offered by an RCFE advisor prior to a quit attempt increases the client's awareness of NRT treatment. The advisors are well trained and knowledgeable about NRT, and this may put the client at ease and encourage use of NRT smoking-cessation aids. A further possibility is that by allowing nonmedical advisors to issue vouchers for NRT, RCFE removes the need for a visit to a GP or hospital. Thus advice, support and treatment from a layperson may remove existing social barriers in the community and increase the chance of a successful period of abstinence. Although the high use of NRT may be a contributing factor to the smoking-cessation rates observed, it is likely that there are several additional reasons for the success of RCFE. Recent estimates by the Health Education Authority reveal that smoking cessation is very low when

NRT is the only intervention employed (Parrot, Godfrey, Raw, West, & McNeill, 1998). Attendance at smoking-cessation meetings improves this figure, but the best success rate is achieved when attendance at smoking-cessation meetings is coupled with the use of NRT (Parrott, Godfrey, Raw, West, & McNeill, 1998).

The client-led approach adopted by RCFE may also contribute to the success of the service. Since clients decide how often to attend RCFE as well as when to be discharged from the service, these factors may also increase the cessation rate. In RCFE, clients are viewed as individuals and it is accepted that each client may have different needs in terms of duration of support. A client-led decision to stop attending means that the individual feels enough support has been gained and they are ready to remain smoke free independently. When a client discharges themselves from RCFE, the advisor ensures that the client understands they are welcome to return to the group if they relapse, helping to keep the motivated client on the path towards becoming a nonsmoker.

The nature of the support offered also appears to influence the smoking-cessation rate as recent reports from other stop-smoking services show that clients attending group counselling are more likely to successfully quit smoking (Judge, Bauld, Chesterman, & Ferguson, 2005; Bauld, Chesterman, Judge, Pound, & Coleman, 2003). Since new and established clients all meet together in RCFE, at any one time a new attendee is in direct contact with ex-smokers at different stages of abstinence. This situation is believed to be beneficial as it can reinforce information given by the RCFE advisor and provide motivation from peers to continue with abstinence. Another factor that motivates clients to remain smoke free in RCFE is the CO monitor. It appears that once smoking-cessation aids have been distributed, a common reason for continued attendance at RCFE is to use the CO monitor. At every RCFE meeting, all clients are offered a chance to use the monitor. Although a client may not initially be interested in the CO reading, once a period of abstinence has begun the motivation to keep the CO reading at a low level and therefore continue to abstain appears to be high.

Although the RCFE group appears to be a successful model, there are several practical issues that should be considered before setting up such a service in the community. Often there are fluctuations in attendance at meetings and advisors need to be flexible to ensure that meetings are never cancelled, which would impact on client access to NRT vouchers. A further degree of flexibility is required as advisors may also need to attend meetings at short notice when a large number of self-referrals arrive unannounced. Furthermore, advisors running a service such as RCFE need to be highly trained — the advice and support offered within the group needs to be applicable to each individual bearing in mind that each client is at a different stage of giving

up smoking. Despite these issues, the RCFE principles appear to demonstrate smoking-cessation efficacy. Future goals are to implement RCFE ideas into other existing stop-smoking services which would enable evaluation of larger patient sets from different socioeconomic groups and impact on the overall cessation rate in England.

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