Does Spirituality Play a Role in Smoking Cessation? A Case Study Report of a Smoking Cessation Programme on Service Users with Schizophrenia

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Abstract

Nicotine addiction is a public health problem that increases medical morbidity and mortality. Individuals with mental distress have higher rates of smoking and poorer cessation outcomes than those without mental distress. Individuals with schizophrenia tend to smoke more that those with other diagnostic categories. They are also more likely to smoke high-tar cigarettes than individuals with other forms of mental distress. They are therefore not only more likely to be addicted to nicotine, but they are also at an increased risk of developing serious health complications. Despite these factors, individuals with schizophrenia are generally unlikely to seek help to quit smoking, a function of decreased level of motivation and inability to do so. They are rarely involved in smoking cessation activities.

Against this background, The aim of this study was to explore the effectiveness of an integrated smoking cessation programme in enabling service users to stop smoking. This article describes the application of this programme on service users with schizophrenia and nicotine addiction. It also describes roles played by its components in smoking cessation.

Keywords: motivational interviewing, nicotine replacement therapy, schizophrenia, spirituality, smoking cessation

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Introduction

Epidemiological studies have consistently revealed that tobacco consumption is a worldwide epidemic, as it continues to claim the lives of millions of people globally each year (World Health Organisation, WHO 2009). In 2004, the WHO predicted 58.8 million deaths to occur worldwide and attributed 5.4 millions of these deaths to tobacco related diseases (WHO 2009). This estimate of tobacco related deaths is predicted 15 years ago to reach 10 million in the year 2030 (WHO 1998). Taking the United Kingdom (UK) as an example, the region where this study was conducted, it was recognised in 2009 that about 86% of its national deaths were mainly attributable to diseases associated with tobacco use, such as cancers (Secretan *et al.* 2009). These tragic consequences are functions of the high prevalence of people using tobacco globally and the highly addictive nature of nicotine in this substance, which makes smoking cessation so difficult.

The WHO reiterates in a number of its documents that approximately 1.2 billion people in the world use tobacco. A wide range of tobacco products are available today, and cigarette smoking is the most common form or means of consumption of this substance (Centers for Disease Control and Prevention, CDC, 2009). In general, the prevalence of smoking has declined and continues to do so in developed countries like the United States of America, Germany, United Kingdom and other European countries (Shafey *et al.* 2010). Such a decline is in part due to stringent tobacco control measures implemented in these states, and in part due to increase awareness of health consequences associated with the use of this substance (Shafey *et al.* 2010). In contrast, an increase in prevalence of smoking and general use of tobacco products is noted in developing countries, in other words, less wealthy states, such as those in the African Continent and Asia (Shafey *et al.* 2010). This increase is in part a function of lack of adequate tobacco control strategies.

The global prevalence pattern described indicates higher tobacco related morbidity and corresponding higher mortality rates in low income countries relative to developed countries. Taking this into account, Hammond (2009) predicted that over the next two decades, 70% of tobacco deaths will be in developing countries, as 80% of the world's smokers now live in the same. Certainly, this is a public health concern that requires

attention. Although a general decline in smoking rates is noted in developed countries, similar concerns are expressed in these states because of the disproportionately high smoking prevalence noted among specific populations, like the homeless and people with mental distress (Kurdyak *et al.* 2008). This study focuses on the latter population and seeks to explore the effects of a smoking cessation programme, particularly its spiritual element in a mental health setting because of a range of reasons. People with mental distress are generally more likely to smoke than those without this problem (Kurdyak *et al.* 2008). The cumulative incidence and prevalence of smoking of members of this population are particularly high among those with diagnostic categories of severe mental distress, like major depression and schizophrenia (Kisely & Campbell 2008; Siru *et al.* 2010). This study focuses on schizophrenia because all service users of the smoking cessation programme examined were at the time living with this mental distress.

Individuals with schizophrenia are three times more likely to be smokers and 13 times more likely to smoke high-tar cigarettes than service users of other categories of mental distress (Mathews *et al.* 2011). While these smoking characteristics point to a close relationship between individuals with schizophrenia and smoking, they also indicate that high exposure to nicotine contributes to reduced smoking cessation rates in this population. Acknowledging such exposure to nicotine, it is not surprising to note a significantly high smoking prevalence and medical comorbidities among service users living with schizophrenia (Keizer & Eytan 2005; Miller *et al.* 2006; Chapman *et al.* 2009). Despite this, mental health professionals do not often offer smoking cessation services to individuals with mental distress, including schizophrenia. However, although not often trained to do so, mental health nurses infrequently offer general advice to quit smoking to service users (Banham & Gilbody 2010). This is a concern, as cigarette smoking among people with schizophrenia is a serious health problem that needs to be addressed by mental health services.

Background

People with schizophrenia are claimed to be at a greater risk of developing respiratory disorders, coronary heart diseases, stroke and death than individuals in the general population (Miller *et al.* 2006; Takeuchi *et al.*

2010). This risk of developing these disorders and eventual death is attributable to poorer dietary intake and smoking, with the latter considered as the primary contributory factor (Banham & Gilbody 2010). Even though this is the case, this service user group rarely engages in help-seeking behaviour to quit smoking, as its members are claimed to have limited knowledge and skills to do so (Solty *et al.* 2009). Even though this is the case, there are data now to support that individual of this user group have interest in quitting, a motivation that is often impaired by loss of confidence and ability caused by their illness (Kisely & Campbell 2008). Acknowledging such an interest, it is not surprising to observe in the literature increasing evidence of successful smoking cessation interventions in mental health settings (Solty *et al.* 2009). However, smoking cessation activities, including counselling, are still not frequently provided to service users of these settings, particularly those with a diagnosis of schizophrenia. This is because healthcare professionals, including nurses often assume that individuals with this diagnosis generally have great difficulties with quitting smoking (Hurt *et al.* 2007), and may therefore only expend little or no energy in engaging them in cessation programmes.

Given that nurses form the bulk of healthcare professionals supporting service users in mental health settings, they are critical in cessation programmes. There is sufficient evidence to indicate that nurses who offer even brief encouragement to quit smoking can have a massive impact on a service user quitting, although those with schizophrenia may require intensive interventions because of the severity of their addiction (Bao *et al.* 2006). The severity of addiction is a function of heaviness of smoking of these service users, which in turn is reinforced by positive effects of nicotine on their negative and positive symptoms, cognitive function and extrapyramidal side effects caused by antipsychotic medication (Barnes *et al.* 2006). These positive effects of smoking and heaviness of the behaviour make cessation an extremely difficult activity for these service users. So, it is important that people with schizophrenia are offered assistance with smoking cessation as they may need more attempts to quit.

There is currently no specific protocol available in the United Kingdom to guide smoking cessation activities for people with severe mental distress. This is because treatment approaches that are deemed to be effective for the general population are also perceived as useful strategies for enabling

individuals with severe mental distress to quit smoking. These views are also incorporated in public health strategies of other countries like Canada and Australia where mental health services are encouraged to implement smoking cessation programmes similar to those that are effective in the general population (Kurdyak *et al.* 2008; Siru *et al.* 2010). Given the heavy nicotine dependence and low quit rates in people with schizophrenia, cessation interventions may require some adjustment, for example, in treatment duration, to achieve their aims (Hitsman *et al.* 2009).

It is becoming an accepted view that combining pharmacological and psychological treatment approaches may optimise outcomes. A commonly used combination of treatments in smoking cessation programmes includes nicotine replacement therapies (NRTs) or bupropion and cognitive behaviour therapy (CBT) (National Institute of Health and Clinical Excellence, NICE, 2007). NRTs are available in gum, inhaler, spray, lozenge and nicotine patch. Inhalers and patches are the main forms of NRTs used in in-patient settings. CBT focuses generally on enabling individuals to develop cognitive skills of managing urges to smoke and changing habits to anticipate and avoid temptations to smoke (Hitsman *et al.* 2009). Temptation to continue smoking does not only undermine quit attempts, but it also indicates the degree of addiction. People with schizophrenia who are addicted to nicotine generally encounter intense motivation to continue with their behaviour (Difranza 2010). In other words, they have low motivation to quit. These low-motivation service users need support, hope and information to help them quit. Motivation enhancement therapies, such as motivational interviewing would therefore play useful and significant roles in supporting these service users in cessation programmes. Knowing the severity of nicotine dependence would ensure appropriate cessation support.

The most commonly used tests of nicotine dependence are the eight-item Fagerström Tolerance Questionnaire (FTQ) (Fagerström & Schneider, 1989), the six-item Fagerström Test for Nicotine Dependence (FTND) (Heatherton *et al.* 1991), and the Heaviness of Smoking Index (HSI) (Heatherton *et al.* 1989). The HSI was developed in 1989 using two questions from the FTQ and FTND measures; time to first cigarette after waking up and the number of cigarettes smoked per day (Heatherton *et al.* 1989). The HSI is a two-item easy to use instrument that is acknowledged to be a reliable and valid test of nicotine dependence (De Leon *et al.* 2003). It is

thus used in this study to examine service users` degree of nicotine dependence and addictive behaviour.

Historically, addictive behaviour is intertwined with religion and spirituality, as the use of psychoactive substances has always been proscribed by certain religious traditions, such as Islam and prescribed in other religions (Borras *et al.* 2010).. This implies that people`s spirituality, meaning their religious and spiritual practices may or may not precipitate and maintain substance use. Such a relationship is usually clearer in religious traditions with stronger norms against substance use as well as in instances where people`s spirituality strongly opposes the use of the same. Thus, incorporating service users` spirituality (religious and spiritual beliefs and practices) into a cessation treatment may significantly increase its efficacy, particularly in circumstances where these practices and beliefs forbid substance use. In clinical practice, most users of substances, including cigarette, welcome the integration of spirituality into their attempts to quit their health-risk behaviours. Yet, there has been little attention given by researchers on the incorporation of spirituality in the treatment of addiction. This study is among the few that incorporated spirituality into a smoking cessation programme. It is the first to include spirituality, NRTs and MI in a smoking cessation treatment for patients with schizophrenia.

Components of the Integrated Programme: A Review

This programme is made up of three elements, nicotine replacement therapy, discussions of spirituality and motivational interviewing.

Motivational Interviewing (MI)

MI is a directive service user-centred counselling technique for eliciting behaviour change by helping people to explore and resolve ambivalence or uncertainties about their behaviour (Miller & Rollnick 2002). This approach is underpinned by the assumption that people`s motivation to engage in a behaviour is fluid; meaning it can change between situations or circumstances (Miller & Rollnick 2002). Acknowledging this, therapists using this approach are required to adopt the view that people`s motivation can be influenced to change in specific directions. Hence, lack of motivation

to engage in behaviours, often described as resistance to change, should perhaps be perceived as something that can be changed. The use of aggressive or confrontational styles in MI can strengthen resistance to change (Miller & Rollnick 2002). Noting this, MI involves the application of carefully selected sets of techniques for addressing difficulties people may experience about making behaviour changes. Examples of these include assessing service users` readiness for change, ambivalence about changing behaviours, eliciting change talk or self-motivational statements, reflecting service users` self-motivating statements, summarising and highlighting desire for change (Nock & Kazdin 2005). The implementation of these techniques within a MI process is guided by four principles; expressing empathy, developing discrepancy and rolling with resistance (Miller & Rollnick 2002). MI is a brief psychotherapeutic intervention, applied in this case as a multi-session course of treatment.

MI has enjoyed strong empirical evidence over the years in treating addictive behaviours, particularly alcohol and substance abuse (Miller & Rollnick 2002). It has demonstrated efficacy in treating medication adherence, safe sex and exercise practices, and treatment engagement (Hetteman *et al.* 2005). In relation to nicotine addiction, a recent meta-analysis, using 31 control trials, illustrates the efficacy of MI as a treatment option for this behaviour (Hettema & Hendricks 2010). These studies demonstrate that MI is an effective approach for treating nicotine dependence among pregnant and non-pregnant populations. Whilst MI has been extensively and successful applied in smoking cessation programmes for a wide range of clinical populations, there is a dearth of literature of its use on smokers with schizophrenia. To the author`s knowledge there is only one control trial on the use of smoking cessation programme for people living with schizophrenia. The study in question relates to the application of MI with personalised feedback to enable patients with schizophrenia to seek treatment for nicotine dependence (Steinberg *et al.* 2004). MI emerged from this study as both an effective and superior strategy over psycho-education for motivating service users to quit smoking (Steinberg *et al.* 2004). MI is therefore used by this author as part of a smoking cessation programme, as it is well suited to motivate, engage and enable people to change health-risk behaviours (Burke *et al.* 2003). Although substantial progress has been made in the treatment of smoking behaviour and nicotine dependence, treatments

that combine psychological and pharmacological approaches have shown the greatest efficacy.

Nicotine Replacement Therapies (NRTs)

The recommended first-line smoking cessation therapies include NRTs and bupropion. This is because of their use of nicotine as a drug to minimise nicotine withdrawal symptoms in people making attempts to quit (Ashton *et al.* 2010). Added to this, both of these therapies have the potential of increasing the odds of quitting about two-fold relative to other approaches (Hitsman *et al.* 2009). The focus of this study is on NRTs. There are different forms of NRTs, and the types used in the integrated programme were nicotine patches, which are most often called patches. This form of NRTs, sometimes referred to as transdermal nicotine systems, provides a measured dose of nicotine through the skin. Patches have different strengths or doses of nicotine. The general trend is that individuals, particularly heavy smokers are commenced on high doses of patches (e.g. 22mg of nicotine) and subsequently weaned of nicotine by gradually changing, over a course of treatment, to lower dose patches (e.g. 5-14mg nicotine) (Banham & Gilbody 2010). Although such an approach has been reported to be successful in reducing smoking rates, it has been highlighted that individuals using nicotine patches occasionally get addicted to them, and may experience serious side effects, such as cardiovascular diseases (Joseph *et al.* 1996). As a result of this, the use of NRTs should be carefully monitored to prevent the possibility of health problems. Another problem that relates to nicotine patches is that using the same over a prolonged period of time could result in another addiction.

Religion and Spirituality

There is increasing professional interest in the relationship of spirituality and religion to health in general, and in the linkage of addiction, religion and spirituality in particular (Ganga & Kutty 2012). While some researchers perceive religion and spirituality as conceptually distinct constructs, others refer to them as multi-dimensional constructs that overlap (Geppert *et al.* 2007). These constructs therefore deserve explanations.

Religion refers to an organised system of beliefs, rituals and practices intended to mediate an individual`s relationship to the community, and to the sacred (Josephson & Dell 2004). Sacred refers to the supernatural or God, and in Eastern religions, to the Ultimate Truth or Reality. This implies that religion can also involve beliefs about spirits, angels, or demons. The view that religion is an organised system suggests that it can be conceived to have specific beliefs about, for example, life after death and rules of how individuals who practice it are expected to behave within a social group. Apparently this is the case, as Koenig (2009:284) explains: "central to its definition, religion is rooted in an established tradition that arises out of a group of people with common beliefs and practices concerning the scared". Some of these practices, which include church attendance and personal devotion, provide some social structures that may prevent humans from engaging in self-destructive behaviours, such as drug and alcohol abuse (Koenig 2009). Religion is a form of social control and most traditional practices discourage the use and abuse of substances that may jeopardise people`s health (Dew *et al.* 2008). For example, Muslim and Mormon faiths totally proscribe the use of alcohol, an action referred to in the literature as religious injunction (Delaney *et al.* 2009). This injunction has also been extended to some Christians, such as the Seven-Day Adventists (Borras *et al.* 2010). This protective function of religion is a well-know phenomenon in mental health services. Besides offering protection from alcohol and substance use and abuse, religion can help people recover from addictions and mental disorders (Delaney *et al.* 2009).

In contrast to religion, spirituality is considered more subjective, as it relates to something people define for themselves that is in the main not associated with the rules, regulations and responsibilities of religious traditions (Ganga & Kutty 2012). Thus, an individual can be referred to as spiritual if his or her life and lifestyle reflected the teachings of his or her religious tradition without necessarily following all ritual practices. This suggests that spiritual individuals are a subset of religious people whose lifestyles are based on their faith tradition. Taking this into account, it could be safely stated that a person can be spiritual but not religious, and spirituality can add meaning to the practice of religion and the practice of religion can deepen spirituality. Acknowledging the discussions of spirituality and religion thus far, these constructs are related but not synonymous.

In mental health practice, the term spirituality is broadly defined to capture the needs of both religious and non-religious people. Spirituality is about having a positive sense of meaning and purpose in life, connection with others, peacefulness, comfort and joy (Koenig 2009). Given that there is no agreed universal definition of spirituality, this study uses this definition because of its inclusiveness and connectedness to the construct of religion. The term religion is increasingly associated today with conflicts and wars. It is therefore not surprising to note an increasing popularity in the use of the concepts of spirituality in discussions of people`s beliefs, relationships and health issues. In fact it noted to be frequently used in the 21st Century in the place of religion in in-faith and between faith discussions of meaning and purpose of life in relation to addiction (Geppert *et al.* 2007). Acknowledging this, the term spirituality is used in this report to include the concept of religion and discussions associated with it. Fankl`s (1978: 26) hypothesis put forward several decades ago supports this choice of terminology: "addiction is at least partially to be traced back to feelings of meaninglessness". The point for clinicians is therefore to explore ways of enabling services to develop their spirituality, in other words to enable them to find meaning or purpose in their lives.

Service users receiving mental health services often use spirituality to cope with their distress and other life difficulties. It is repeatedly mentioned in the literature that people with schizophrenia consider engagement in spiritual activities, such as church attendance, the most beneficial alternative to health practice (Russinova *et al.* 2002). Perhaps, this is a function of the view that spirituality is available to anyone at any time, irrespective of people`s experiences. It can therefore be relied upon to offer resilience, coupled with a sense of meaning and purpose even during adverse life circumstances (Dew *et al.* 2008). In relation to depression and anxiety disorders, a large number of studies revealed an inverse relationship between spiritual involvement and experiences of symptoms (Koening *et al.* 2001). Simply, this means that people with these disorders may experience symptom improvement when actively engage in spiritual activities. This is consistent with outcomes of a range of controlled trails which indicate that incorporation of service users` spiritual themes into treatment can significantly increase the efficacy of psychological therapies (Borras *et al.* 2010). In contrast, there has been relatively little attention given by

researchers on the incorporation of spirituality in the treatment of addictions. This lack of attention represents a considerable gap given the posited protective roles of spirituality with regard to addiction (Dew *et al.* 2008).

Methodology

Participants

Service users who were felt to be psychiatrically stable and expressed willingness for participation were referred by their psychiatrist to take part in the integrated smoking programme. A total of 30 service users were referred by their consultant psychiatrist, but only 15 of them met the eligibility criteria for participation, which include being a smoker and a male with a diagnosis of schizophrenia. All participants provided voluntary verbal and written informed consent prior to their inclusion in the study. They were hospitalised on male-only wards of a large secure mental health hospital in the United Kingdom. Service user were randomly allocated into three groups with five users (participants) per group. Each group of participants was offered the integrated smoking programme study by an experienced group facilitator. Each group of participants was offered the treatment separately once per week. All participants were over 40 years old and began smoking when they were between 20 and 25 years old. This means participants had been smoking for approximately 20 years. Permission to conduct the study was sought and gained from the Trust`s Research Ethics Service.

Application of the Integrated Smoking Cessation Programme

This is a 10-week programme that commenced with a comprehensive assessment of all service users involved (n=15). This was carried out by the service users` psychiatrist two weeks before starting the cessation treatment. This was to develop an understanding of the service users` medical and psychiatric histories, including smoking behaviour, dependence and motivation to quit. The Heaviness of Smoking Index (HSI), a two-item scale was used to establish service users` nicotine dependence. All participants reported to smoke an average of 24 cigarettes per day, and their reported time to first cigarette was between 6 and 30 minutes. The mean HS1 score for participants was 4 (HSI=4). This score indicates severe nicotine dependence. Despite this, all participants expressed a desire to quit smoking but acknowledged limited confidence in their ability to do so. According to them,

their intention to quit smoking was mainly driven by health concerns, as most of them had respiratory disorders, such as chronic bronchitis and emphysema.

Given the severity of nicotine dependence observed among the participants, they were commenced on NRTs (patches). Participants were clearly instructed on how to use the patches. A reducing regime in the context of nicotine patch strength was adopted over the course of the programme. Dosing began at 22mg/day for six weeks and was then switched to lower doses of 14mg/day and 7mg/day for two weeks each. Patches were provided in conjunction with group motivational interviewing.

Group motivational interviewing (MI) was offered to all participants on a weekly basis for a period of 10 weeks. Each MI session lasted for approximately 70 minutes. The sessions were facilitated by the author of this report who is a mental health practitioner as well as a certified facilitator in smoking cessation programmes. The sessions focused on enhancing participants` motivation and commitment to change, identifying triggers to smoke and developing coping strategies to manage identified triggers. Participants` motivations were assessed by exploring their perceptions of confidence and importance of change. This was achieved by asking questions using a scale with graduations from 0 to 10 for each of the dimensions. The participants were asked, for example, the following questions on importance: on a scale of 0 to 10, how important do you think it is for you to quit smoking? On this scale, 0 is not at all important and 10 is extremely important, where would you say you are? Similar questions were asked about confidence: on a scale of 0 to 10, how confident do you think that you can quit smoking? On the same scale, 0 is not at all confident and 10 is extremely confident, where would you say you are? This strategy enabled the participants to verbalise and process their ambivalence further.

Motivation for change was further explored by examining participants' perceptions of the advantages and disadvantages of smoking. In this context, they were initially asked to make a list of their likes and dislikes about smoking, as a preface to listing and talking about the likes and dislikes of abstaining from smoking. This strategy enabled the participants to clarify both sides of their ambivalence. This was generally followed by the use of double sided reflections on the benefits and costs of smoking with the view of strengthening change discussions. For example, it is important for you to

smoke in order to deal with the stresses of the ward, but you also wish you could quit in the interest of your health. This approach enabled participants to focus discussions on their need for change. Discussions relating to coping with stress were held. In this context, participants were asked to make a list of factors on the ward that caused them stress and how they addressed them. This strategy generated discussions of situations, such as feelings of boredom participants perceived to be stressful and alternatives ways of coping without the use of cigarette.

At the end of the 10-week programme, 5 out of the 15 participants experienced difficulties with quitting smoking. The 5 participants were provided an additional 6-week integrated programme that included spiritual discussions and all the elements of the original version, which were nicotine patches and MI. The participants were on 7mg/day nicotine patch. Group MI sessions were offered to the participants, and each of the sessions ran for about 70 minutes. These sessions focused on eliciting participants` own self-motivational statements and affirming that change is always possible but can sometimes be difficult to achieve. The sessions also concentrated on enabling participants to consider the advantages and disadvantages of continued smoking versus smoking cessation and to formulate a realistic and acceptable individualised change plan. Towards the end of the second session, three of the participants talked about attending church and the need for them to adhere to the practices of their faith. The other two participants joined the discussion. The third MI session was commenced with a summary of the previous session and this included issues of spirituality talked about in the same. All participants (n=5) requested during the session for the hospital to organise a regular visit from a Chaplin. Facilitator promised to raise this issue with the hospital managers. Participants also discussed their need for regular church attendance and for spiritual discussions to be part of the remaining MI sessions. Spiritual beliefs were discussed during MI sessions only when raised by participants. The participants claimed their beliefs about well-being, meaning and purpose of life proscribe or discourage cigarette smoking, illicit substance and alcohol use

Results and Discussion

This study adopted an integrated approach to smoking cessation that mainly utilised NRTs and motivational interviewing. The cessation programme also included discussions of spirituality with five participants who experienced some difficulties with quitting smoking. All participants were observed to be severely addicted to cigarette, in other words dependent on nicotine, a chemical (alkaloid) in cigarette that causes dependence. The severity of nicotine dependence was indicated by participants' average HSI score of 4, which was part of an outcome of assessments conducted before the commencement of the programme. The HSI has two items which are implicated in smoking cessation. The first item relates to the time to first cigarette after a smoker wakes up. This is claimed to be the most informative item related to smoking cessation, as there is consistent relationship between the number of cigarettes smoked per day and urgency to smoke. The second and final item is the number of cigarettes a smoker consumes per day. This has also been a useful index for measuring the efficacy of cessation programmes. Participants reported to smoke an average of 24 cigarettes per day, and their reported time to first cigarette was between 6 and 30 minutes. Added to this, participants also reported to have smoked for an average of 20 years. This account reflects not only the chronicity of the behaviour, but it also indicates the degree of nicotine dependence. Acknowledging this, participants` need for nicotine replacement was expected. They were therefore commenced on high doses of nicotine patches, with dosing strengths gradually reduced as treatment progressed. The approach was adopted to gradually wean participants from their dependence on nicotine, as individuals who are heavily dependent on this substance may find it difficult to abstain from smoking (El-Guebaly *et al.* 2002).

Generally, such difficulties are a function of high nicotine dependence, caused by long duration of smoking and large amounts of daily cigarette consumption (Kisely & Campbell 2008). This was the case for the participants of this study, and it was reported that their frequent cigarette smoking was attributable to boredom and stresses associated with institutionalisation. Experiences of feelings of boredom and being controlled and loss of control of some activities of daily living, such as when to retire to bed, were acknowledged by participants to generate stress, which they claimed sometimes made them feel angry and frustrated. In such a heightened emotional state, customary ways of coping, which may include

social interaction, may be ineffective in restoring emotional calmness. This was apparently the case for participants of this study who employed cigarette smoking as an approach to regain emotional control. Despite this, it is claimed that group or individual counselling can facilitate cessation and improve rates of abstinence even in heavily nicotine dependent individuals (Hall *et al.* 1998). It is believed that abstinence rates can be improved when people are offered integrated psychological and pharmacological therapies (Evins *et al.* 2005). On the basis of this, participants were also offered weekly group MI sessions that facilitated discussions of smoking cessation, which in turn offered emotional support to group members.

All the participants (n=15) completed a 10-week programme. 10 participants (67%) quitted smoking and remained completely abstinent (verified using carbon monoxide technique) when followed-up at six months after the programme. The motivation for these participants to quit smoking and their commitment partake in the cessation programme was influenced by health concerns. Although this was the case, participants expressed limited confidence and ability to stop smoking. This is an indication of low self-efficacy to quit. Hence, one of the key tasks during the application of motivational interviewing was to enhance participants` confidence, motivation and coping skills that would enable them to engage in behaviour change. Motivation for change was enhanced by enabling participants to explore the advantages and disadvantages of quitting smoking. In addition to saving money, all participants reported that quitting save their lives as it would help minimise the risk of developing health problems. At the end of the 10th MI session, all participants spoke about how they disliked tobacco odour. This was a significant motivation noted among participants to engage in quit attempts despite expressed lack of confidence to do so.

Feedback was used to address the issue of confidence. Provision of personalised feedback using normative data, such as time to first cigarette in the morning and amount of cigarettes smoked per day, was significant in raising participants` confidence and motivation to quit. Other MI strategies were used to strengthen participants` need to quit smoking. Examples of these include eliciting participants` own self-motivating statements and strengthening their confidence. With regard to the latter, this was achieved by exploring with participants their personal strengths and support for change. So, questions, such as what is there about you that would help you

quit smoking? Are there others that could help you to make this happen? 10 out of 15 participants quitted smoking. This shows that people with schizophrenia also have the ability to quit smoking. Therefore, quitting should not be considered impossible for individuals suffering from this disorder. However, it is critical to note that some service users with schizophrenia may find it difficult to stop smoking.

The participants who failed to stop smoking reduced the number of cigarettes smoked per day as observed at the end of the programme. This finding indicates not only the chronicity of participants' smoking behaviour, but it also indicates the need to offer more support as well as stress that change is possible. The efficacy of interventions for some service users can be increased by extending their duration (Miller & Rollnick 2002). This was noted in this study as some participants only quitted smoking when offered an additional cessation treatment that included elements of spiritual discussions. This outcome suggests that smoking cessation is possible for individuals with schizophrenia when treatment is tailor-made to incorporate their wishes. These participants` motivation to stop smoking was significantly influenced by their spirituality that was mainly related to their religious beliefs and practices, such as church attendance. They also stated that smoking is not good for their well-being.

The discussions so far presented indicate that spiritual involvement is protective against substance use and abuse as well as promotes people`s recovery from the same (Delaney *et al.* 2009). Noting this, it critical for healthcare professionals to be committed and prepared to enable service users explore their beliefs about substance use. Although health professionals may not be experts in service users` religious traditions, they occupy a unique position to generate spiritual discussions. Not engaging with service users does not only indicate disregard for this important aspect of diversity, but it may also prevent assessment and identification of spiritual their needs. Thus, it is critical for assessments during admissions and even during in-patient stay to include discussions of service users' spiritual beliefs. Doing so may result in referral to appropriate spiritual leaders for in-depth in-faith discussions. Hence, it is helpful for mental health professionals to have knowledge of local spiritual leaders for referral and consultation purposes, and to encourage them to make regular visits to clinical areas. Mental health

services should therefore create multi-faith environments for spiritual discussions or meetings.

This study has some limitations as it was carried out in a single Trust in England as well as utilised a small sample of services users with schizophrenia. Thus, its findings cannot be generalised to smokers with this disorder across secure settings as a whole. However, they are transferable across these settings, as they provide valuable insights and context for understanding smoking cessation with this service user group.

Conclusions

Nicotine dependence is the most common dual diagnosis for individuals with schizophrenia. The study demonstrates that service users with this disorder are motivated to quit smoking, seek support with cessation and are receptive to cessation interventions. Smoking cessation treatment can be effective for service users with mental distress, including those with a diagnosis of schizophrenia. However, because service users with schizophrenia do experience severe nicotine dependence, as they consume many cigarettes, say an average of 20 per day, cessation can be challenging for this service user group. So, the intensity of interventions, including its elements may have to exceed the traditional smoking cessation programmes.

However, integrated smoking cessation programmes can be effective for treating people with high nicotine addiction. The effectiveness of such programmes can be enhanced by healthcare professionals` willingness and commitment to engage with service users. These professional attributes are essential as the duration of programmes may be extended to accommodate the chronicity of smoking behaviour, severity of dependence of this population and institutional barriers, such as boredom and feelings of loss of control to cessation. Taking these issues into account, progress along the path of cessation must be determined by service users` ability and readiness for change. Service users should therefore not be coerced to stop smoking as taking this stance may generate resistance from the same, which can be manifested in a number of ways, such as unwillingness to change and reluctance to engage.

This study explored the impact of an integrated smoking programme of service users smoking. The experience was that the combined treatment of

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NRTs, MI and discussions of spirituality was effective in enabling service users to quit smoking. It was noted that spiritual beliefs can influence people`s smoking behaviour. This was reflected in this study as service quitted smoking because of their spiritual beliefs. Hence, healthcare professionals should identify at the outset during admission whether service users embrace the norms of abstinence or have negative reactions against them. When faced with the latter, the advice is not to confront but to roll with resistance, as shifting focus in this case may be perceived as disrespectful.

Spiritual discussions may sometimes fall outside the remit of healthcare professions. So, they may encounter some difficulties with commencing and engaging in spiritual discussions with service users. The advice is to use open questions, as they are good place to start. An example could be what do you believe in or have faith in? In sum, healthcare professionals need to be aware of the spiritual beliefs of their service users, appreciate their value as a resource for addressing problems of addiction.

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