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STACEY-MARIE CAMPBELL BSc MSc

A QUALITATIVE INVESTIGATION OF FIRESETTING WITHIN AN ADULT
INTELLECTUALLY DISABLED POPULATION.

Section A: An exploration of the antecedents of firesetting identified within intellectually
disabled adults:
A Literature Review

Section B: A qualitative exploration of firesetting conducted by adults with intellectual
disabilities: A grounded theory approach

Overall Word Count: 15,998 (597)

A thesis submitted in partial fulfilment of the requirements of
Canterbury Christ Church University for the degree of
Doctor of Clinical Psychology

APRIL 2016

SALOMONS
CANTERBURY CHRIST CHURCH UNIVERSITY

EXPLORATION OF FIRESETTING WITHIN INTELLECTUALLY DISABLED ADULTS

Declaration

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EXPLORATION OF FIRESETTING WITHIN INTELLECTUALLY DISABLED ADULTS

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I would like to thank the researcher supervisors, Andy Inett and Dr. Martin Anson, who enabled this study to develop from an initial idea through to completion. Their encouragement, wisdom and knowledge helped me overcome my fears of research and I have learned a great deal from them.

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Finally, to my friends and other important people who kept me smiling throughout this arduous task, thank you.

EXPLORATION OF FIRESETTING WITHIN INTELLECTUALLY DISABLED ADULTS

Summary of the MRP

Section A

Section A discusses firesetting within an adult intellectually disabled population with a focus upon the antecedents which may be recognised within this group. A systematic review of the available literature has been conducted, the results of the literature are narratively synthesised and are appropriately critiqued. The review offers clinical implications and directions for future research in the field of firesetting within an adult intellectually disabled population.

Section B

Section B qualitatively explores the experiences of firesetting within a group of adult males with intellectual disabilities. A grounded theory methodology was employed to allow the voices of the participants to be heard and to enable the researcher to analyse the data with the intention of producing a theory 'grounded' in data that could be compared against mainstream theories of firesetting. The limitations of the current study are considered, thought is given to the implications of the results for clinical practice and directions for future research are proposed.

EXPLORATION OF FIRESETTING WITHIN INTELLECTUALLY DISABLED ADULTS

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EXPLORATION OF FIRESETTING WITHIN INTELLECTUALLY DISABLED ADULTS

STACEY-MARIE CAMPBELL BSc MSc

Section A

An exploration of the antecedents of firesetting identified within intellectually disabled adults:
A Literature Review

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Abstract

Due to the risk posed by firesetting there is a need to explore the antecedents and psychological processes involved in firesetting within an intellectually disabled population. If these processes can be identified, psychological interventions could be tailored towards the needs of intellectually disabled firesetters, helping to reduce the risk of repeat offending.

Theories of firesetting applicable to firesetters of average intellect (which have minimal consideration of intellectually disabled firesetters) are described, and considerations about applicability to the targeted population are provided. Due to the lack of available literature for intellectually disabled firesetters, this systematic review briefly provides an overview of the insights into antecedents and psychological processes gained from child and adolescent studies of firesetting.

The introduction to this review explains the following terminology: firesetting, firesetter (s), arson, offence, offending behaviour and intellectual disabilities. A thorough literature search strategy is outlined for replication purposes and guides the reader to the reviewed empirical studies. An overview and quality of each study is presented. The key data has been extracted and a narrative synthesis of the main themes is provided.

The author discusses the clinical implications of the tentative conclusions drawn from the review and offers directions for future research, and a summary of the key themes and conclusions is provided.

Keywords: intellectual disabilities, firesetting, adults, antecedents

EXPLORATION OF FIRESETTING WITHIN INTELLECTUALLY DISABLED ADULTS

An exploration of the antecedents of firesetting identified within intellectually disabled adults: A literature review

Definition of terminology

The current review utilises the following terms when describing the available empirical and theoretical literature: firesetting; firesetter (s); arson; offence or offending behaviour; and intellectual disability. Firesetting refers to a set of behaviours that result in the deliberate setting of a fire by an individual.

Firesetter (s) will be used when referring to individuals who have chosen to set a fire regardless of whether they were charged with arson.

The legal term for firesetting that was planned is arson; this involves causing damage or destruction to property with the purpose of causing harm to the life of another person or if the action irresponsibly endangers life but the individual had no explicit intention to do so (Crown Prosecution Service, 2011).

Offence or offending behaviour describes an individual's engagement with conducting illegal or unlawful acts. Intellectual disability refers to the level of impairment experienced by an individual within three areas of adaptive functioning; conceptual or cognitive, social and practical (American Psychiatric Association (APA), 2013).

Firesetting in context

In England during 2014-2015, there were a reported 154,700 fires attended by the Fire and Rescue Service. 68,400 of these fires were believed to have been deliberately set; these fires resulted in 50 fatalities and 1700 non-fatal injuries (Department for Community and Local Government, 2015).

There is a deficit in the research that seeks to understand and explain the psychological, environmental and personal circumstances which lead to fires being

purposefully set within non-intellectually disabled and intellectually disabled populations. The prevalence of firesetting was explored using the national epidemiologic survey on alcohol and related conditions (NESARC) (Hoertel, Le Strat, Schuster & Limosin, 2011). The authors concluded that men of average intelligence were more likely to engage in firesetting with a lifetime prevalence of 1.7%, women had a lifetime prevalence of 0.4%.

Male who set fires showed reduced abilities to control their impulses and both male and female who set fires were more likely to have received psychiatric diagnoses. It would be prudent to try to ascertain why individuals set fires that can have devastating societal and personal impacts. In comparison to other offences that are associated with an increased risk of harm such as sexual offending, research into firesetting is now beginning to be understood to the same depth and there is a requirement for more research in this field (Tyler & Gannon, 2012).

Intellectual disabilities

The term ‘intellectual disabilities’ has been used within the Diagnostic and Statistical Manual 5th edition (DSM 5) (APA, 2013) to replace the term ‘mental retardation’. It has been widely adopted within professional, lay person and advocacy groups and therefore the phrase ‘intellectual disabilities’ will be utilised within this review. Intellectual disability (ID) or disabilities reflects the degree of impairment which an individual experiences in their intellectual and adaptive or social functioning which has been present since childhood (British Psychological Society (BPS), 2000).

For intellectual disabilities, the IQ score is generally measured by neuropsychological measures such as the Wechsler Adult Intelligence Scale, 3rd edition (WAIS III) (Wechsler, 1997). The mean IQ for average intelligence is reported to be 100 (APA, 2013), and one

standard deviation away from the mean represents a 15-point increase or decrease. Sub-groups are used to refer to the level of impairment experienced: mild, moderate or severe, and these represent the person obtaining a score which is two or more standard deviations below the mean (APA, 2013).

However, caution is used regarding an over-reliance on IQ scores and the DSM V does not include the numerical scores within their diagnostic criteria any longer but refer to it within their textual guidance for diagnosing an intellectual disability. In order for an intellectual disability to be diagnosed, there must be impairment in the person's ability to cope with the demands of everyday life (adaptive functioning) as well as impaired intellectual functioning, and it should not be diagnosed without an observable level of impairment in both of these realms (BPS, 2000; APA, 2013).

Psychological theories of firesetting

Until recently it has been difficult to identify a widely accepted theory of firesetting that is endorsed by both researchers and clinicians. Over the past few years firesetting has been subjected to empirical examination in a more systematic and carefully considered manner (Horley & Bowlby, 2011). It has been suggested that research needs to focus upon the cognitions and affect involved in firesetting to develop effective interventions which target the psychological needs of the individual. There are several identified theories which attempt to explain firesetting within persons of average intelligence or with mental-health difficulties who offend. The theories, some of which are quite dated are briefly outlined below. The most recent and comprehensive theoretical explanations of firesetting are then discussed.

The first theory applied to firesetting was social learning theory (Bandura, 1976). This single factor theory suggested an individual's behaviour is the response of observing the behaviour of others and the impact their behaviours had within the different contextual environments: familial, educational and societal. It proposed that behaviour could be positively and negatively reinforced by the responses elicited in others (external reinforcement) and/or reinforced internally through changes in affect, for example feeling less aroused and more relaxed. The theory described positive reinforcements as a motivating stimulus which is present following engagement in a behaviour and increases the likelihood of similar behaviours occurring in the future. Negative reinforcement occurs when the person finds something aversive and this is removed or avoided through engaging in a behaviour, increasing the likelihood of future occurrence.

This theory was built upon by Vreeland and Levin in 1980, who formulated firesetting as a response elicited through inappropriate or unsafe fire-use modelled by others. They suggested that the individual may develop positive beliefs and attitudes towards firesetting conducted by others which they then imitated. The attendance of the emergency services and the emotions and sensations experienced whilst watching a fire such as feeling excited or stimulated were highlighted as examples of positive (reinforcing) affect and cognitions associated with firesetting.

Jackson, Glass and Hope (1987) developed a multifactorial, functional analysis theory of firesetting to explain the interactions between an individual's previous circumstances, events and firesetting which becomes associated with specific values and beliefs that reinforce the behaviour. The authors provided an example of a socially isolated individual with poor problem-solving skills and lacking assertiveness, who felt they had increased their personal

effectiveness and created change by eliciting further support from their caregivers through firesetting. Firesetting was also thought to contribute to feelings of power through the mastery of creating fire which might positively influence an individual's self-esteem and internal locus of control. The power of sensory stimulation and excitement: sirens, flashing lights and use of equipment by the emergency services, were again highlighted as salient reinforcements.

The "only viable option" theory extended this describing negative behaviours as an adaptive response, in the eyes of the individual, to be employed in problematic circumstances. Jackson (1994) suggested firesetting would be used by an individual when their other problem-solving skills or abilities could not be used or did not achieve the desired response.

Jackson (1994) also concluded that the motivations of firesetters can be pseudo-rational or irrational dependent on the expectations the individual holds about what the consequences of firesetting might be. The following are examples of the suggested motivations which could lead to firesetting: peer influences; as a communication with authorities; to alert to the experience of physical or sexual abuse; to avoid discharge or relocation from residence/hospital; to improve self-esteem; to provoke a caring response; to seek notoriety; to upset family or friends or for revenge. The influencing factors were also noted, at times, to appear quite insignificant and therefore individualistic exploration of the antecedents and motivations is very important.

Another multifactorial theory was the dynamic behaviour theory. It proposed that a combination of historical psychological and social factors which have a predominant role in shaping the predilection towards firesetting (Fineman, 1980). This theory stated that it was the interplay between historical antisocial behaviours (witnessed or conducted) and previous

and instant environmental, internal and external reinforcements which combined to increase the risk of firesetting.

A more recent theory of firesetting is the Multi-Trajectory Theory of Adult Firesetting (Gannon, O'Ciardha, Doley & Alleyne, 2011) which employed a theory-knitting technique to draw together the existing theoretical firesetting knowledge. It proposed five trajectories which offer a theoretical understanding of the risk factors, antecedents and motivations present within adult firesetting (See Table 1). The authors proposed that associations with fire can be learnt in childhood, adolescence and into early adulthood; these can inform the person's beliefs about the uses and meaning of fire and can include distorted beliefs about fire. The authors viewed mental health as one of two moderators which can interact with psychological vulnerabilities to produce risk factors which are involved with firesetting. It is important to consider that the mental health of an individual may not only act as a moderator but it may also be a risk factor itself.

The five risk factor trajectories provide a framework which accounts for the different firesetting offender subtypes which appear to locate risk within the individual. Within the antisocial trajectory, fire is used within the context of multiple antisocial behaviours/acts. When firesetting is employed in the grievance trajectory, fire has been identified as a tool. Those with fire-interest may find firesetting pleasurable as it can provide strong sensory stimulation and can elicit positive emotions such as finding fire soothing. Individuals who fall into the emotionally expressive trajectory can report a sense that their needs are not met or heard by others and fire can be a tool to make sure their voices are heard. The final trajectory: multifaceted, included the presence of pro-offending attitudes, fire-interest, emotional regulation difficulties and communication difficulties. This focus on the individual,

locates the problem within them and does not allow much thought to be given to the external influences which may result in a person choosing to set a fire. This is something which appears often neglected in the firesetting literature.

Table. 1

Trajectories of firesetting outlined in the Multi-Trajectory Theory of Adult Firesetting

Trajectory	Risk factors	Clinical presentation
Antisocial	Pro-offending attitudes, self-regulation difficulties	Holds antisocial attitudes and values, can display impulsivity
Grievance	Self-regulation difficulties, communication difficulties, inappropriate fire script	Poor assertiveness, poor communication abilities, fire aggression fusion script, can present as angry/hostile
Fire-interest	Inappropriate fire-interest/script, offence supporting attitudes	Has fire-interest, can be impulsive and holds supportive attitudes towards fire
Emotionally expressive/need for recognition	Communication difficulties, self-regulation difficulties	Poor communication, can be impulsive, can display elements of depression, uses fire to cope, has a fire fusion script
Multifaceted	Pro-offending attitudes, inappropriate fire-interest, self-regulation difficulties, communication difficulties	Engages in pervasive firesetting and general criminal behaviour, has fire-interest, holds antisocial attitudes and values, presence of conduct disorder in childhood, Antisocial personality disorder in adulthood.

There has been limited exploration of firesetters with ID within the above mentioned theories.

A brief consideration of the relationship between ID and firesetting was mentioned by

O’Ciardha and Gannon (2011). They reported that implicit theories of firesetting can be

driven by an individual’s beliefs; these beliefs allow the individual to make a situational

interpretation which may suggest that firesetting is an appropriate response. The authors also

linked fascination with fire to ID, they proposed that ID individuals who witnessed firesetting

in childhood may develop believe firesetting is an acceptable activity. They may be unaware of the dangers associated with it and believe it will not cause harm to others.

Tyler, Gannon, Lockerbie, King, Dickens and DeBurca (2013) used grounded theory to develop the firesetting offence chain for offenders with mental health difficulties which explained three possible pathways to engaging in firesetting. The first involved the individual having an interest in fire together with mental health difficulties within childhood, the second involved no fire-interest but the presence of adult mental health difficulties and the third combined adult mental health difficulties with fire-interest. They suggested that firesetting could be associated with both positive and negative cognitions: excitement, fascination, achievement and power or fear, danger and negative consequences. The sample included two individuals with a borderline IQ; however once again the inclusion of the perspectives of those with ID was limited. In terms of risk factors and antecedents the authors found that negative experiences with caregivers, familial mental health difficulties or substance abuse, familial separation, firesetting at a young age, strong emotional feelings towards fire, engagement in antisocial behaviours, personal mental health difficulties and maladaptive coping strategies could predispose an individual to be more likely to set a fire. In early adulthood, they reported that interpersonal difficulties including problems with/or a lack of intimate relationships, poor problem solving abilities, deterioration in mental health and negative life events increased the risk of firesetting. Within this study the following motivations were identified: fire-interest (four individuals); experiencing hallucinations (eight individuals); a 'cry for help' (seven individuals) and protection (two individuals). The emotional responses elicited by the act of setting a fire created positive affect for five individuals and mixed affect for four individuals. Nine reported themselves as being indifferent.

Tyler, Gannon, Dickens and Lockerbie (2015) conducted a case control study with firesetters and non-firesetting offenders. It highlighted firesetters as more likely to be interested in fire and explosives and to have received a diagnosis of schizophrenia. Females were likely to have engaged in more incidents of firesetting. They also stated that fire-interest was the most significant predictor of repetitive firesetting. It would be useful to ascertain the prevalence of fire-interest within an ID population to identify if this is a risk factor which needs to be taken into account or not.

The theories discussed have emphasised internal risk factors of firesetting. It has been difficult to locate literature which thinks more explicitly about the external risk factors. Jackson (1994) suggested external risk factors that increase the risk of firesetting are living in an unstable or chaotic family, the experience of socio-economic and psychosocial disadvantage and the role of antisocial peers. Dolan, McEwan, Doley and Fritzon (2011) reviewed child firesetting and agreed that familial factors were a large external factor in firesetting.

Research on firesetting offences in intellectually disabled populations

Fraser (2002) stated that offenders with ID form “one of the most marginalised groups of marginalised people” (p.4). A systematic review on ID offenders (Simpson & Hogg, 2001) concluded there was no basis to suggest, from the literature, that individuals with ID are more likely than members of the general population to commit a crime of any severity. The authors suggested that for serious offences such as murder, individuals with ID are under-represented and suggested they engaged in crimes of a lesser severity.

When considering individuals with an ID who commit offences, Holland, Clare and Mukhopadhyay (2002) suggested that there appears to be two groups: one group is characterised by significant intellectual impairments, social disadvantage and mental health difficulties and may not be known to local services; the other are individuals with an ID who are known to services and have often been engaging with services over a period of time.

Lyall, Holland and Collins (1995a) suggested that high levels of staff tolerance for offending behaviours within ID services can result in under-reporting. The factors which stop the reporting of offending behaviour can include worries about the person being unfairly treated and concerns that the service will be viewed as not managing to contain offending or challenging behaviours (Lyall, Holland & Collins, 1995b).

There can also be an assumption among professionals that ID individuals who engage in criminal behaviours are doing so because they are experiencing peer pressure, copying modelled behaviours, or are unable to fully comprehend the consequences of their actions (Cant & Standen, 2007).

It could be argued that services need to be cautious about taking an approach which potentially minimises an individual's level of responsibility and removes the opportunity for learning. When offending behaviours have been reported and recorded as an offence there can be a range of sanctions which a person may receive at the discretion of the service they are within.

Firesetting is considered part of a spectrum of offending behaviours that are utilised by offenders without mental-health difficulties. Firesetters are frequently reported to have decreased assertiveness skills; however, there is little understanding of why firesetting is chosen as a method of problem-solving (Tyler & Gannon, 2012).

Those who set fires can be conceptualised on a continuum in terms of adaptive functioning, some individuals can be highly functioning in some areas but show large deficits in other areas (Gannon et al, 2011). Some of the over-representation of individuals with ID in terms of participating in sexual offending and firesetting has been suggested to relate to the individual not having the necessary skills or opportunities to conduct other types of crimes. For example, the sexual offending and firesetting individuals with ID participate in appears to be of a lesser severity when compared to individuals with an average or above average IQ (Holland, Clare & Mukhopadhyay, 2002).

Few studies have sought to explore firesetting in those who have an ID and it is evident that ID in themselves do not sufficiently explain why someone sets a fire (Murphy & Clare, 1996). When considering the prevalence of individuals with ID who engage in firesetting, the estimates range from 3% (Puri, Baxter & Cordess, 1995) to 10.3% (Enayati, Grann, Lubbe & Fazel, 2008).

A review of a community forensic service for individuals with an ID reported 15% of 113 clients seen within the first three years of the service opening had a history of firesetting (Benton & Roy, 2008). Tyler and Gannon (2012) in a review of firesetting of offenders with mental-health difficulties, reported that firesetters were typically younger males, with a lower IQ or ID. This makes the task of arriving at an accepted prevalence rate very difficult (Taylor, Thorne, Robertson & Avery, 2002).

Lindsay and Taylor (2005) reviewed the assessment and treatment of offenders with ID and included a summary of the available firesetting literature. However, the papers they reviewed were also identified in the literature searches for the current review, and in addition their review did not focus predominantly on firesetting, it was therefore not included.

Research on firesetting offences in children and adolescents

Given the paucity of research examining adult firesetting and more specifically firesetting conducted by adults with ID, it was considered helpful to include some evidence of the investigation of risk factors and antecedents as reported by children or adolescents. In addition, some ID adults have reported retrospective firesetting conducted during childhood or adolescence. As there is a large amount of literature available within the realm of firesetting conducted by children and adolescents, it is outside the scope of this review to provide a full summary of the literature; however, a brief summary of the identified risk factors and antecedents is provided below.

A literature search was conducted via Medline, psycINFO and Web of Science using the search terms; “firesetting” or “arson” and “child*” or “*adoles**” to access papers relating to firesetting in childhood and adolescence. This search returned a significant amount of papers and therefore a small number of reviews which the author could access were chosen to summarise the knowledge and understanding of antecedents and risk factors for firesetting within this age range. It was hoped that papers might exist commenting on children or adolescents with an identified ID who had set fires that could be included within the current review. However, the author was unable to identify any papers which commented on firesetting and ID within children and adolescents therefore the main review will not include any papers thinking about younger firesetters.

The reviews identified were as follows: Dolan, McEwan, Doley and Fritzon, 2011; Fritzon, Dolan, Doley and McEwan, 2011; Lambie and Randell, 2011; Tranah and Nicholas, 2013. They offered an insight into the antecedents and risk factors thought to be prevalent within child and adolescent firesetting. It is considered important for clinicians and services

working with young people who set fires to not conceptualise them as a uniform group. This would underestimate the complexity involved both in the person's life and in the process of firesetting (Lambie & Randell, 2011).

Dolan et al (2011) suggested that 'normal' (e.g. safe, careful and minimal risk to self and others) fire behaviour in adulthood occurs from experiencing appropriate fire-related activities under supervision in childhood such as attending bonfire night parties, creating and controlling campfires and the use of log fires in the home. They stated that by the age of 10 years old, most children who had had this experience would have a basic knowledge of fire safety. In that review the authors suggested that firesetting was the product of intention, curiosity or accidental.

When young people have displayed inappropriate firesetting behaviours, exploration of the influences upon them appear to include psychosocial issues such as difficulties within the family and underlying mental health difficulties (Fritzon et al, 2011). Tranah and Nicholas (2013) provided more depth when considering the risk factors and outlined that social isolation, poor self-esteem, difficulties with communication and expression, a sense of frustration, a need to be in control and seeking revenge against society could be present for young firesetters. This paper however appeared to quote several empirical studies related to adult firesetting and applied the theory to young people. Other risk factors identified as influential in childhood and adolescence firesetting included deficits within social skills such as poor social judgement and planning as well as loneliness (Lambie & Randall, 2011) and also the idea that firesetting may be considered an emotional expression (Dolan et al, 2011).

In terms of considering ID, Tranah and Nicholas (2013) suggested that the risk factors and motivations for young people with ID would be similar to young people without ID. They felt that curiosity may be a feature for young persons with ID however this was not quantified with reference to any specific research. Lambie and Randall (2011) briefly considered that young people with ID who set fires may be more vulnerable to suggestibility and could be less receptive to understanding the negative consequences and outcomes of firesetting. Again this conclusion was not facilitated by empirical evidence but appeared to be a suggestion of the authors.

The current review

The aims of the review

The current review aims to draw together the empirical literature available on firesetting within an adult ID population, specifically with reference to the identified antecedents, risk factors, motivations and psychological processes. The review intends to explore whether risk factors and antecedents identified for this population are similar to those identified in the current mainstream theories of firesetting. If there are differences, it could suggest that an ID population warrants the creation of a theory of firesetting additionally generated from data gained within this population.

The scope of the review

The present review will draw together the available empirical literature which considers firesetting conducted by individuals above the age of 18 years old who have an identified ID. The author is aware of only one other published review (Lees-Warley & Rose, 2014) in this area of research. Firesetting within this population has not attracted a huge amount of research and therefore it is likely there will be some repetition between the existing review and the current review. The existing review will be discussed within the

context of this review which hopes to extend the foundations within the field that are already established.

Methodology

Literature search strategy employed

A literature search strategy was employed to identify the empirical studies which are relevant to researching firesetting conducted by adults with ID. A search was completed through several electronic databases; ASSIA, Cochrane Database of Systematic Reviews, MEDLINE, psycINFO and Web of Science. The databases were searched on four separate occasions: May 2014; August 2014; April 2015; and September 2015. This was to optimise access to the most up-to-date and relevant empirical studies. No limitations were placed on the time period the databases were searching; however, the databases did not return any results prior to 1970. The following search terms were utilised alongside the appropriate Boolean operators to search for multiple word endings: “fire setting” or “fire-setting” or “firesetting” or “arson”; and “adult”; and (“intellect*” “disabil*”) or (“learn*” “disabil*”). The use of (“intellect*” “disabil*”) or (“learn*” “disabil*”) within the same search returned a vast amount of papers therefore the author ran the searches twice using (“intellect*” “disabil*”) on the first search and (“learn*” “disabil*”) on the second to ensure papers reflecting both were found.

The inclusion criteria were considered within this review to be satisfied if the following points were met:

- It was an empirical study
- It was written in English
- It included a sample of individuals above the age of 18 years old

- It referenced the presence of intellectual or learning disabilities within the sample
- It included an exploration or investigation into firesetting behaviours
- The study provided an exploration, identification or commentary on antecedents, risk factors and psychological processes either before, during or after the act of firesetting.

The process of selection for inclusion according to the above criteria was as follows: the database search results were merged and returned 679 papers. The author excluded the majority of the results after reviewing the titles. 149 remaining hard copy papers were obtained and the abstracts were reviewed. 62 remaining papers were subject to a full review and the references lists were hand searched to identify other relevant papers. Through hand searching, duplicate references were identified and discounted; three new papers were found but discounted following a review of the abstracts. The author identified eight empirical studies and one systematic review focussing on firesetters with ID that were appropriate for inclusion within this review as follows: Clare, Murphy, Cox and Chaplin (1992), Devapriam, Raju, Singh, Collacott and Bhaumik (2007), Dickens, Sugarman, Ahmad, Edgar, Hofberg and Tewari (2008), Kelly, Goodwill, Keene and Thrift (2009), Lees-Warley and Rose (2014), Murphy and Clare (1996), Rose, Lees-Warley and Thrift (2015), Taylor, Robertson, Thorne, Belshaw and Watson (2006), Taylor, Thorne, Robertson and Avery (2002).

Structure of the current review

Table 2 provides a summary of the eight empirical studies and the systematic review with the sample population demographics, an overview of the research methodology and the published results. A critique of the studies will consider the areas of strength and weakness

within the publications, and the identified implications from the studies upon clinical practice and future research will be documented.

Data extraction tools

Due to the diversity of the empirical papers being reviewed the use of critical appraisal tools designed specifically for observational studies have been utilised (Appendix. B). The studies included in the review were a mixture of cohort, case-control, case-study and case-series studies; it was felt these tools would summarise the quality of the different research methodologies most effectively. A narrative synthesis of the main themes emerging from review of the empirical studies will be offered to draw the information together, thinking about the similarities and differences between the studies which equate to different strengths and weaknesses regarding the quality of the reported conclusions.

Synthesis of the empirical studies reviewed

Description of the studies

Lees-Warley and Rose (2014) conducted a systematic review into the available literature that explored firesetting within ID populations. This appears to be the only published review within the field and therefore the author felt it was important to build upon it by focusing on a more specific research question, and by including a recently published qualitative empirical study which was conducted by Rose, Lees-Warley and Thrift (2015). Some of the papers discussed within Lees-Warley and Rose (2014) are also discussed in this review. The repetition is unavoidable due to the dearth of empirical papers, however the current review has not included all of the studies used by Lees-Warley and Rose (2014) as some were unobtainable via the database searches conducted.

The studies included in the review are listed in Table 2 and the key data from each study has been extracted. As there are limited empirical papers within this field, the review includes several different methodological approaches: Clare et al (1992) conducted the only single case study of a 23-year-old male with ID and a history of arson convictions. A retrospective cohort study was conducted by Devapriam et al (2007) which identified 15 individuals with ID who had been involved in arson out of a potential sample of 1100 individuals who had contact with psychiatric services in the UK. There were three retrospective case control studies: Dickens et al (2008), Kelly et al (2009), and Murphy and Clare (1996). Two studies were case series studies: Taylor et al (2002) and Taylor et al (2006). One qualitative study utilised Interpretive Phenomenological Analysis (IPA) to understand the meaning of firesetting within this population has been included: Rose, Lees-Warley and Thrift (2015). Finally, the systematic review by Lees-Warley and Rose (2014) is discussed in terms of quality and utility for developing a fuller explanation of firesetting in an ID population.

Assessment of the quality of the included studies

When examining the literature, it is important to have a sense of the quality of the data presented to the reader and whether it is considered robust, reliable and valid. If there are concerns about the quality of the study in terms of the selected sample, methodology, procedural issues or the reported results, this may suggest that the study is less valid and therefore more caution should be exercised when interpreting the results. The CASP checklists for cohort, qualitative and case control studies, a case series checklist (Chan & Bhandari, 2011) and a case study checklist (Centre for evidence based management, 2014) was used to assess the quality of the studies (Appendix B). Through the completion of these, several strengths and concerns were noticed for the studies included in the review.

All of the studies appeared to have a clear focus and aim. It was felt that the methodologies employed were generally suitable for generating answers for the research aims; however, there were limitations which may have impeded the application of the results to a wider population. It was identified that minimising the potential for bias in terms of researchers being aware of the study aims and/or the allocation to cases or controls was not documented in the following studies: Devapriam et al, 2007; Dickens et al, 2008; Kelly et al, 2009; Murphy & Clare, 1996. This increases the potential for data collection to be skewed in favour of the hoped for outcomes. Confounding factors did not appear to be discussed in the following studies: Devapriam et al, 2007; Dickens et al, 2008; Kelly et al, 2009, that employed the use of data collection tools. The outcomes that were evidenced from the clinical notes were reported; however, identified anomalies were not discussed by Devapriam et al, 2007; Dickens et al, 2008; and Kelly et al, 2009.

The recruitment of participants and where appropriate, control groups appeared to fit the research aims and was documented to a good enough standard to allow for replication in each study. The results of each study appeared to complement each other and provided similar results despite the different methods employed to gather the data. ID can sometimes be considered a homogenous group which is a far too simplistic categorisation, there can be heterogeneity within ID individuals and this needs to be held in mind when thinking about the application of these results.

The systematic review by Lees-Warley and Rose (2014) was highly rated for quality assurances. It had a clear focus and included all of the relevant studies available. There was a clear search strategy documented for replication and the main text of the review thought about the quality of each paper as well as drawing together the similarities in terms of the outcomes. It seemed beneficial that the review, which was marginally limited by the number

of published empirical papers, had a wide lens that produced a broad range of themes encapsulating an overview of antecedents, risk factors, and intervention and treatment outcomes. The current review focuses on answering what are the specific antecedents reported by ID firesetters.

Table. 2
Empirical study information for the papers included within this review.

AUTHOR	SAMPLE	DESIGN	OUTCOME MEASURES	KEY OUTCOMES
CLARE, MURPHY, COX, & CHAPLIN (1992)	One male, 23 years old, receiving treatment in a specialist inpatient unit. Full scale IQ (FSIQ) 65 (WAIS-R). History of hoax calls to the fire brigade and two arson convictions.	Single case study for intervention outcomes. Received cognitive behavioural therapy.	The Fire Assessment Interview was conducted three times, pre-treatment, and post-treatment and at 30 months follow up. This consists of 32 statements related to events, affect and cognition pre and post firesetting which the individual is asked to rate if present and how frequent. A clinical notes review was also conducted to ascertain information.	Raised in deprived inner city borough; harelip and cleft palate (affected speech; facial disfigurement), When speech therapy was terminated, set a fire. On the FAI rated “perceived powerlessness”, “not being attended/listened to”, “feeling sad/depressed”, “feeling angry”, and boredom (not supervised well so could make hoax calls) present pre-firesetting. Post firesetting: attention from fire brigade; reduced sadness; anger and social isolation (although temporarily). Follow up no evidence of hoax calls or fires, 2 occasions when he has been tempted but had appropriately accessed support Query revenge motive but considered too simplistic
DEVAPRIAM, RAJU, SINGH, COLLACOTT & BHAUMIK (2007)	15/1100 people (7 male, 8 female) in a community psychiatric service. History of ID	Retrospective cohort, case note study, 20 year period.	Data collection tool was employed (age, gender, ethnicity, residential setting, degree of ID, psychiatric diagnosis, forensic history, reasons for committing arson, associated factors, family profile and personal profile)	Mean age at first fire: males 22 years old and females 30 years old All had previous contact with psychiatric services Average family size was 5 8 had childhood problems, 5 experienced childhood abuse, 4 had experienced a history of homelessness, 11 had

	and arson. 1 “borderline” ID 12 “mild” ID 2 “moderate” ID			experienced a history of unemployment and 11 had experienced a history of relationship difficulties Motives for firesetting: revenge (9), mental illness (1), suggestibility (3), pyromania (2). Psychiatric diagnoses: Schizophrenia (2), Bipolar affective disorder (1), schizoaffective disorder (2), recurrent depressive disorder (3), pervasive developmental disorder (1), no psych diagnosis (6).
DICKENS, SUGARMAN, AHMAD, EDGAR, HOFBERG & TEWARI (2008)	88 individuals (20 female/68 males) with “low IQ” (FSIQ <85) with a history of firesetting out of 202 people referred to forensic psychiatric service for arson assessment. Mean age at assessment 27.1 years old	Retrospective case control (low IQ v Ave IQ), over a 24-year period.	Data collection tool was employed to gather data from the clinical notes (sociodemographic information, family background, childhood factors, adult adjustment, firesetting history, motives. Features of pyromania and other offending).	Mean age at first fire 23.7 years old (not different between low IQ and average IQ) Low IQ evidence in notes of bedwetting, fighting, damage to property and elements of conduct disorder (e.g. truanting) in childhood. Low IQ made more hoax calls Relationship difficulties common for low IQ group (69/88 vs 71/114), reported to be more introverted In both groups unemployment, self-harm, previous psych treatment were risk factors Motives were not discussed in relation to low IQ but as a whole group: impulse 115/202, Bored 47/202 and accidental 9/202. 30% of total group no motive Less fires set following traumatic life event for low IQ group (33 vs 70) Jealousy motive for average IQ more than low IQ group (26 v 8)

KELLY, GOODWILL, KEENE, & THRIFT (2009)	20 males with a “mild” ID detained in a secure inpatient service. 10 had committed arson, 10 had not. One person had psychosis – matched in the control group	Retrospective case control.	Clinical notes assessed the presence of the following items using a binary code of “present” or “not present”: 1. Perceived inability to effect social change (evidenced of locus of control questionnaire or low assertiveness) 2. Early childhood (0-11 years) experiences of fire 3. family problems (absent parent, punitive parents, overprotective mother, father who drinks excessively, experienced physical abuse, poor conflict resolution)	A chi-squared analysis reported no significant associations between groups for arson and family problems. A significant association between arson and childhood experience of fire which accounted for 25% of variation was found. As well as a significant association between arson and perceived inability to effect social change (36% of variation). Lack of confidence to effect change led to use of indirect aggression (firesetting)
LEES-WARLEY & ROSE (2014)		Systematic review of 12 studies		5 studies referred to presence or problematic childhood behaviours and traumas 3 studies included info about psychiatric disorders, interfamilial and extrafamilial physical and sexual abuse, deprivation, neglect, poor parental control and periods of time spent in care, 1 study looked at childhood experience of fires, family problems and perceived personal ineffectiveness 2 studies mentioned interpersonal difficulties 8 studies referenced psychiatric disorders/4 referenced personality disorders. 5 studies looked at antecedents Details fire specific assessment and treatment Noted several studies did not report IQ adequately enough

MURPHY & CLARE (1996)	<p>10 (7 male/3 female) history of arson, detained in a secure service, mean FSIQ 68.4 (range 61-78 on WAIS-R). Mean age 26.4 years old (range 18-38)</p> <p>10 matched controls from two day centres, mean FSIQ 67.7 (range 58-88 on WAIS-R). Mean age 28.1 years old (range 20-41).</p>	Case control	<p>The Fire Assessment Schedule (FAS) and the Fire-interest Rating Scale (FIRS) which consists of 14 descriptions of situations that relate to fire and are given a Likert scale score ranging from “most upsetting” to “very exciting”.</p> <p>The FAS and FIRS were completed twice by arson group. The FIRS was completed twice by control group.</p>	<p>FAS 1st interview items endorsed by participants pre-firesetting: “feeling angry” (6), “feeling not attended/not listened to” (5) and “feeling sad/depressed” (4). Post firesetting: “feeling less angry” (5), “feeling attended/listened to” (3).</p> <p>2nd interview mean of 6.7 months similar endorsement.</p> <p>FIRS some items endorsed similarly between groups: “seeing a fireman hosing a fire” (4.9 arson v 4.6 control), “watching a fire engine come down the road” (5.0 arson v 4.6 control), “watching a bonfire outside” (5.4. arson v 5.4 control)</p> <p>3/10 “excitement” was one of a few motives and rated boredom/need for stimulation pre firesetting. Similar reporting at second interview suggesting this was an honest response.</p>
ROSE, LEES-WARLEY & THRIFT (2015)	<p>7 males with ID, (FSIQ 56-70 (WAIS III)) detained in low/med secure service. History of Arson.</p> <p>Mean age 36.3</p>	Retrospective case study.	Qualitative interviews using Interpretative Phenomenological Analysis. Participant demographics were provided to researcher post interview analysis.	<p>Age of first fire range 4-39 years old, 4/7 firesetting <18 years old, 3/7 firesetting > 18 years old.</p> <p>Antecedents reported verbally: physical violence/aggression in childhood (4), sexual abuse by family member (1), sexual abuse outside of family (1).</p> <p>Affect: anger and frustration reported by majority pre firesetting.</p>

	years old (range 23-46)			<p>Psychiatric diagnoses: recurrent depressive disorder (1), unstable borderline personality disorder (1). Physical health: neurofibromatosis (1)</p> <p>Firesetting could lead to sense of control, mastery gained post fire, sensory stimulation and managing negative emotions.</p> <p>Five superordinate themes: the importance of the first fire, firesetting to escape distress, firesetting enables positive emotional experiences, firesetting to communicate with services, the firesetters' treatment programme.</p>
TAYLOR, THORNE, ROBERTSON & AVERY (2002)	14 (8 males, 6 females) individuals in secure service, history of arson, mild/borderline ID (mean FSIQ 72.9 (range 64-84) on WAIS-R.) Mean age 33.7	Observational case series study, CBT intervention group (40 sessions)	FIRS, FAS, Beck Depression Inventory (BDI), culture free self-esteem inventory, Goals Attainment Scale (GAS), Novaco Anger Scale.	<p>Anger was the most frequently cited antecedent/affect.</p> <p>Anger, self-esteem and depression most frequently endorsed pre-firesetting.</p> <p>FIRS- 10/14 improved scores, 4 deteriorated/FAS- 10/14 improved, 2 no change, 2 deteriorated. Conclusion group reduced fire-interest and distorted attitudes</p> <p>GAS- 12/14 generally improved- (particularly victim issues, emotional expression and understanding of risk)</p> <p>Novaco- 9/14 improved</p> <p>Self-esteem- 10/14 improved</p>
TAYLOR, ROBERTSON,	6 women with ID living in a secure unit	Observational case series study	FIRS, FAS, GAS, Novaco anger, culture free self-esteem inventory, BDI all used.	<p>Provided qualitative summary of cases which identified the following antecedents: relational difficulties, removal of children</p>

THORNE, BELSHAW & WATSON (2006)	(FSIQ mean 74.0 – WAIS-R, range 64-82). Mean age 34.3 years old. Selected based on need for FS treatment. 2 “mild” 55-70, 4 “borderline” 71-85.	– CBT group intervention (40 sessions) with 2 year follow up. Similar format as reported in 2002	from home, drug and alcohol abuse, neglect, childhood physical and sexual abuse, low self-esteem, hearing voices. First age at firesetting reported at 3 years old and 7 years old for two participants. Not clear for other participants. Pre-firesetting rated on FAS: “feelings of anger”, “feeling not listened/attended to”, “feeling sad/depressed”. Post-firesetting: “feeling less angry”, “feeling attended/listened to”, “feeling less sad/depressed” “feeling less angry”. Detailed account of engagement in group. Fire-interest overall little change, self-esteem some positive improvement across the group, anger lowered, no fires in follow up 2 years
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Themes emerging from the review

Research methodology

The studies reviewed reflect an array of research methodologies. Three studies employed a retrospective design (Devapriam et al, 2007; Dickens et al, 2008 & Kelly et al, 2009). These studies relied upon data collection from clinical notes; the studies documented that the data collection was conducted by researchers who were aware of the study aims and which categories the participants would be classified within which increased the potential for bias to emerge in the collection of data that fits with the expected outcomes. The studies all reported their data collection tools were designed to enhance objective collection of information; however, the quality or content of the clinical notes assessed and the quality of the data collection tools used is unclear which limits the applicability of the conclusions drawn.

Two studies utilised a case control design, Murphy and Clare (1996) collected their data prospectively; however, it would appear this was in relation to historic firesetting as the study did not comment on the time elapsed between firesetting and completion of the measures. Dickens et al (2008) included a control group within their retrospective cohort design which was useful to draw distinctions between identified antecedents and risk factors for the low IQ versus average IQ group however they failed to separate the motives which were identified into the two groups. This meant that conclusions could not fully be drawn as to what motives may have been involved in firesetting in the lower IQ group.

Three studies followed their cases through the completion of cognitive behavioural therapy interventions designed to reduce the risk of repeat offending (Clare et al, 1992; Taylor et al, 2002 & Taylor et al, 2006) although only Clare et al (1992) and Taylor et al (2006) included a two-year follow-up and were able to report that no firesetting behaviours

had occurred during between the end of the intervention and when the follow-up was conducted.

The use of psychometric measures provided some useful indications of antecedents involved; in firesetting however the structured nature of the measures and the quantitative scoring limited the answers which could be provided and left no space for elaboration. This was partly addressed by Rose et al (2015) who employed a qualitative methodology, IPA, to interview seven males to gain an understanding of the meanings they subscribed to their firesetting. There seems to be a gap in the research where qualitative methods have been used very little within this field. The Rose et al (2015) paper is the first attempt to begin to bridge the gap between quantitative and qualitative research seeking to understand firesetting within an ID population.

Full scale IQ reporting

There were discrepancies noted in the documentation of the presence of ID within the studies. A full scale IQ score as generated through a neuropsychological measure such as the Wechsler Adult Intelligence Scale Revised (Wechsler, 1981) and the Wechsler Adult Intelligence Scale 3rd Edition (Wechsler, 1997) was reported in five studies (Clare et al, 1992; Murphy & Clare, 1996; Rose et al, 2015; Taylor et al, 2002; & Taylor et al, 2006). Three studies did not comment fully on the levels of ID. Dickens et al (2008) utilised a clinical cut off of 85 and below which is in line with borderline intellectual disabilities; however, the authors did not stipulate the proportion of the participants who would be categorised as borderline, mild or moderate. It is not clear from this study whether the results could be applied to a mild or moderate ID population. Devapriam et al (2008) gave the distinctions in terms of categorising the number of individuals who were classed as borderline, mild or moderate intellectual disabilities but did not comment on where this evidence came from. The

study used clinical notes and a data collection tool but it cannot be assumed that these distinctions were made on the basis of the WAIS-R or WAIS III.

Mild ID was the term adopted by Kelly et al (2009) which again did not differentiate any further; it is not clear whether the participants in this study were on the cusp of mild/borderline ID, if they were at lower end of the boundary or if they were spread across the mild range. The authors once again did not document the evidence used for this categorisation, therefore we do not know if a measure of intellectual functioning had been employed or whether a sentence stating the person had a mild ID would have been considered sufficient using their data collection tool. The systematic review by Lees-Warley and Rose (2014) commented that they felt the reporting of intellectual functioning was not adequate enough across the range of studies they reviewed. As the majority of those studies are included in this review it is not a surprise that this conclusion is echoed.

Age and gender of participants

Across the studies the gender split of participants represented a total of 125 males and 46 females. This calls into question whether the antecedents identified would be representative of ID female who set fires. The overall sample size of 171 firesetters with an ID appears to be very small in contrast to the statistics and research available on sex offending within this population. In terms of the age range reflected within the studies, two studies Devapriam et al (2008) and Kelly et al (2009) did not report a mean age of the participants. Summing the available mean ages produced a mean across the reviewed studies of 30.1 years at the time of data collection. It was not clear in the studies at what age the firesetting behaviours had occurred and therefore the extent of possible recall bias is unknown.

Age of first reported fire

Three studies documented the age of the individual when they set their first fire (Dickens et al, 2008; Rose, Lees-Warley & Thrift, 2015; Taylor et al, 2006). The ages ranged from 3 to 23.7 years old. Dickens et al (2008) reported the mean age at the first fire was 23.7 years old and stated this was not significantly different between their low IQ and average IQ groups.

Other studies did not report the age of the first fire and therefore it is difficult to fully establish which antecedents may be considered as predisposing and which may have precipitated the occurrence of the firesetting. (Researchers might also consider that the reported lifetime prevalence rates of adult firesetting do not appear to be the same as childhood or adolescent prevalence rates indicating that reporting of firesetting as an adult maybe skewed). It could be suggested that as adults get older their ability to fully recall past events can be affected and therefore incidences of firesetting may be reported less. In terms of ID it is also important to consider acquiescence and pro-social responding as this could influence the reporting of firesetting behaviours and motivations.

It is also unclear whether the age of the participant at their first reported incidence of firesetting may skew the data. If adults are interviewed about firesetting which occurred in their childhood as opposed to a fire set beyond the age of 18 years old there is a need to consider the appropriateness of the explanations offered.

Predisposing antecedents

All of the studies documented several antecedents which could be described as predisposing in terms of creating a long-standing vulnerability (s) that may increase the risk of an individual with an ID engaging in firesetting. The majority of the predisposing antecedents were reported as difficulties experienced in childhood such as neglect, physical

and sexual abuse, behavioural difficulties, difficulties at school, large family sizes (more than 5), socioeconomic deprivation (Clare & Murphy, 1992; Devapriam et al (2007); Dickens et al, 2008; Rose et al, 2015, Taylor et al, 2006). Kelly et al (2009) reported a significant association between childhood experience of fire (fire play, personal experience of fire, symbolic significance of fire and indirect experience of fire) and engaging in arson. The authors did not however comment on whether this increased the risk for child and adolescent firesetting or adult firesetting.

Related to childhood experience of fire, is the concept of fire-interest (Gannon et al, 2011), where fire becomes associated with positive emotions that can reinforce engagement, for some individuals, in firesetting behaviours. It is proposed that fire-interest develops in childhood, interestingly the studies which employed the use of the Fire-interest Rating Scale (Murphy, 1990) did not report this as a particular concern (Murphy & Clare, 1996; Taylor et al, 2002 & Taylor et al, 2006). When this was investigated by Murphy and Clare (1996), they found the fire scenarios which were rated highly by the firesetting group were rated similarly by controls. They proposed that perhaps fire-interest had an association with ID in general.

Precipitating antecedents

Some of the studies discussed antecedents which were precipitating factors but this was not clearly documented. Relationship difficulties or relationship breakdowns, the removal of children from the family home, homelessness, unemployment and drug and alcohol abuse (Devapriam et al, 2007; Taylor et al, 2006) were reported as present in the person's life but whether these were present historically or immediately before the firesetting was unclear.

The influence of an individual's affective state was commented on in the majority of the studies. Anger was predominantly reported prior to engaging in firesetting (Devapriam et al, 2007; Dickens et al, 2008; Murphy & Clare, 1996; Rose et al, 2015; Taylor et al, 2002; & Taylor et al, 2006). Feeling sad or low and feeling unheard were also commonly reported as strong affective states prior to firesetting (Clare et al, 1992; Murphy & Clare, 1996; Taylor et al, 2002; & Taylor et al, 2006).

Perhaps more in line with intellectual disabilities, a sense of "perceived powerlessness" which manifested itself in a belief that the person cannot affect social change or that they are socially isolated was also replicated across the studies (Clare et al, 1992; Kelly et al, 2009; Taylor et al, 2002; & Taylor et al, 2006).

Related to the notion that fire-interest did not appear to be predominant within the studies reviewed, Murphy and Clare (1996) reported that 3 out of 10 in the firesetting group listed "excitement" as one of several motivations for firesetting; however, no-one identified it as their sole motivation across the studies. Dickens et al (2008) considered motives that were present prior to firesetting. Unfortunately, the authors did not differentiate between the low IQ and average IQ group so it is unclear the extent to which the identified motives (boredom, impulsive action, jealousy) applied to ID firesetters or not. Potential motives were also suggested by Devapriam et al (2007) who found "revenge" was documented in nine firesetting cases, mental illness in one case, suggestibility in three cases and pyromania (an obsessive desire to engage in firesetting) in two cases.

Maintenance cycles and the role of antecedents

When thinking about firesetting theories outlined at the beginning of this review, limited explicit exploration of the role of maintenance cycles is documented within the

reviewed papers. It is not clear how many individuals across the studies engaged in multiple firesetting but there was evidence in Taylor et al (2006) of some repeat firesetting. The theories of firesetting discuss its reinforcing nature and there is some evidence in the reviewed studies that suggest how firesetting can be maintained. Clare et al (1992) noted that attention from the emergency services can temporarily reduce a sense of loneliness and this can positively reinforce engaging in behaviours which elicit a response from the emergency services in the future. Firesetting has been reported to reduce feelings of anger, and sadness which could be reinforce future firesetting (Clare et al, 1992; Murphy & Clare, 1996; Taylor et al, 2002; & Taylor et al, 2006). It has also been suggested that a function of firesetting is increasing self-esteem through the sense of control or mastery (Rose et al, 2015) or through the responses from others which makes the person felt “heard” (Murphy & Clare, 1996; Taylor et al, 2006).

Discussion

Eight empirical studies and one systematic review were explored in the current review. These papers reflected the use of several different methodologies: single case study, case control studies, case series studies and a qualitative study. The methodologies included retrospective and prospective data collection however in terms of collecting data about firesetting, all participants discussed historical fires and in some cases, fires which had occurred in childhood and adolescence. This raised implications about potential biases which may skew the data reported such as recall bias, pro-social responding, and researcher selection of cases to fit the desired outcomes.

Due to the limited sample sizes and the over-reliance of participants from psychiatric services (both community based and secure services), the conclusions must be regarded with caution. The studies’ conclusions are limited by the disparities in quality identified in the

main text. One of the most important disparities was the reporting of full scale IQ. It seems sensible when investigating firesetting in an ID population, at a minimum to record IQ levels and to cite the sources used, for example the WAIS-III when making distinctions between levels of impairment which was not done in many of the studies reviewed. The quality issues identified in some of the reviewed papers fit with the conclusions of Tyler and Gannon (2012); that firesetting research is only just beginning to be explored as thoroughly as other high-risk offences and there is a requirement for more in-depth research in this field.

The studies highlighted similar antecedents and risk factors for ID firesetters. The most commonly reported antecedents in the reviewed papers matched the antecedents found within child and adolescence literature on firesetting and within the adult non ID firesetting literature. Chaotic early life experiences and psychosocial difficulties were reflected in the following studies: Clare and Murphy (1992); Devapriam et al (2007); Dickens et al (2008); Rose et al (2015); Taylor et al (2006). These risk factors experiences were also found in Dolan, McEwan, Doley and Fritzon (2011); Fritzon, Dolan, Doley and McEwan (2011); Gannon et al (2011); Lambie and Randell (2011); Tranah and Nicholas (2013); and Tyler et al (2013). In terms of affect and cognitions identified pre and post firesetting, anger was the most commonly cited affective state across the studies, followed by sadness, and a sense of feeling unheard. This appeared to fit with the findings of Gannon et al (2011) and Tyler et al (2013).

Clinical implications and future research directions

The research featured in this review represents the current insights into understanding the antecedents which increase the risk of ID firesetting. The empirical studies have not always distinguished between whether the influences and factors identified have increased vulnerability, played a casual role or maintained the person's involvement in firesetting.

There is a need for future research to unpack the influences (short-term and long-term) to enable effective psychological interventions to be offered. There may also be scope to consider whether the needs of those who set multiple fires are different to those with isolated firesetting. It is important to consider as well the extent to which adult samples of firesetters have actually engaged in firesetting above the age of 18 years old.

The studies generally commented upon the occurrence of the reported (quantitatively and qualitatively) antecedents; however, it did not provide a narrative which contextualised the antecedents into an explanation of firesetting within this population. A theory of the risk factors and reasons why a person with ID may choose to set a fire does not appear to exist. It may be appropriate for current theories such as the M-TTAF (p7) (Gannon et al, 2011) to be applied to this population, however it seems short-sighted that a one size fits all approach may be adopted without due care and attention.

Whilst two studies (Clare et al, 1992 & Taylor et al, 2006) prospectively followed their participants to establish whether firesetting occurred post treatment (they were reported not to have done), the other studies reviewed were unable to offer any data about further offending. Future research needs to focus prospectively on following cohorts of ID individuals identified as high risk in terms of firesetting to establish whether the retrospective antecedents and risk factors previously identified, hold true. It was unclear in the retrospective studies how much time had lapsed between firesetting and completion of questionnaires about their cognitions, affect and motivations. If researchers could access individuals more promptly following firesetting it would help to confirm whether retrospective reports are accurate or whether there are discrepancies.

Conclusions

The reviewed studies that explored the antecedents to firesetting within an ID population commonly cite anger as the most prominent affective state felt prior to engaging in firesetting behaviours (Devapriam et al, 2007; Dickens et al, 2008; Murphy & Clare, 1996; Rose et al, 2015; Taylor et al, 2002; & Taylor et al, 2006).

Following anger, experiencing sadness or depression or feeling unheard or being socially isolated precipitated firesetting. Interestingly excitement and fire-interest which was highlighted in the M-TTAF (Gannon et al, 2011) was rarely reported. When it was reported (Murphy & Clare, 1996) there were similar levels of fire-interest reported by both the ID firesetting group and ID control group which suggested that perhaps fire-interest was more relevant to ID than firesetting.

The predisposing and precipitating factors identified within this review and that of Lees-Warley and Rose (2014) found similar antecedents and risk factors to those proposed by the theories of firesetting which have been generated for non-ID individuals. Whilst these theories may be applicable to an ID population, it seems curious that qualitative methodologies are used infrequently in this population. The potential richness of ID voices is felt to be missed through the over-reliance on quantitative methods which could disguise other antecedents and factors that are important for ID individuals and could lead to the generation of a more explicit theory of firesetting in this population.

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Section B

A qualitative exploration of firesetting conducted by adults with intellectually disabilities: A grounded theory approach

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Abstract

This study investigated the antecedents and psychological processes inherent in firesetting within an adult intellectually disabled population. A qualitative methodology, grounded theory (GT) was employed to explore the experience of firesetting through verbal self-report. A sample of eight males with mild intellectual disabilities under the care of forensic learning disability services participated in interviews ranging from 27 minutes 14 seconds to 1 hour 21 minutes 22 seconds.

The data produced a preliminary GT that identified eight conceptual categories: Managing internal affective states, the experience of adversity, unsafe others, engaging in offending behaviours, voice entitlement, experiences of fire, and mediators of risk and the function of firesetting. These conceptual categories were linked by an overarching core category of '*powerlessness*' which was evident in several areas of the participants' lives and experiences of firesetting. It was concluded that this sense of powerlessness along with the conceptual categories should be considered when risk assessing, delivering firesetting specific treatment and psychological interventions.

The clinical implications are discussed and suggestions are made for replication of the current study with larger, more diverse samples and future directions for further research are proposed.

Keywords: Intellectual Disabilities, firesetting, adults, offending behaviour

EXPLORATION OF FIRESETTING WITHIN INTELLECTUALLY DISABLED ADULTS

A qualitative exploration of firesetting conducted by adults with intellectual disabilities: A grounded theory approach

Firesetting in context

In England during 2014-2015, 154,700 fires were attended by the Fire and Rescue Service. 68,400 of these fires were believed to have been deliberate, resulting in 50 fatalities and 1700 injured people (Department for Community and Local Government, 2015). In comparison to other criminal offences such as sexual offending, research into firesetting remains limited (Tyler & Gannon, 2012).

Intellectual Disabilities

'Intellectual disabilities' (ID) is used within the Diagnostic and Statistical Manual 5th edition (DSM 5) (American Psychiatric Association (APA), 2013) and widely adopted within professional, lay person and advocacy groups. To diagnose ID, there must be impairments in the person's ability to cope with everyday life (adaptive functioning) as well as impaired intellectual functioning, and it should not be diagnosed without an observable level of impairment in both of realms (British Psychological Society, 2000; APA, 2013).

For ID, an IQ score is generated by neuropsychological measures such as the Wechsler Adult Intelligence Scale, 3rd edition (WAIS III) (Wechsler, 1997). The average IQ is 100 (APA, 2013), one standard deviation (SD) away from the mean represents a 15-point increase or decrease. Subgroups represent the increasing level of impairment when an individual scores two or more SD below the mean IQ: mild, moderate or severe ID (APA, 2013). However, caution is advised regarding an over-reliance on IQ scores to diagnose ID.

Psychological theories of firesetting

Until recently there has not been a widely accepted theory of firesetting (Horley & Bowlby, 2011). Several theories which attempt to explain firesetting within persons with average intelligence or mental-health difficulties who offend are discussed below.

Social learning theory (Bandura, 1976), suggested an individuals' behaviour was related to observations of others' behaviours and the impact these behaviours had in different contextual environments. It proposed that behaviour is positively and negatively reinforced by the outcomes elicited. Positive reinforcement involved a motivating stimulus being present following engagement in a behaviour which increases the likelihood of further engagement in the behaviour. Negative reinforcement occurred when the person found something aversive and this was removed or avoided through their behaviour, increasing the likelihood of future occurrences. An example of positive reinforcement would be the sensory stimulation of the attending emergency services (Vreeland & Levin, 1980).

A functional analysis theory of firesetting (Jackson, Glass & Hope, 1987) explained the interactions between an individual's circumstances and firesetting. They proposed the following as influencing factors: increasing interpersonal difficulties, perceived inability to effect social change, anger, discontent with life and self and psychosocial disadvantage. Engaging in firesetting was argued to potentially increase perceived effectiveness and self-esteem, achieve environmental change and decrease emotional arousal.

The "only viable option" theory extended this and described firesetting as an adaptive response to problematic circumstances. Jackson (1994) suggested firesetting was employed when other problem-solving skills could not be used.

The “Multi-Trajectory Theory of Adult Firesetting” (Gannon, O’Ciardha, Doley & Alleyne, 2011) proposed five trajectories which offered an understanding of antecedents within adult firesetting: antisocial, grievance, fire-interest, emotionally expressive; and multifaceted. In the antisocial trajectory, firesetting was used within a context of multiple antisocial behaviours. In the grievance trajectory, fire was identified as a tool. Those with fire-interest found firesetting pleasurable as it elicited positive emotions such as finding fire soothing. Emotionally expressive individuals reported their needs were not met and fire was a tool to make sure their voices were heard. Some individuals fell into the multifaceted trajectory which included pro-offending attitudes, fire-interest, emotional regulation difficulties and communication difficulties.

Tyler, Gannon, Lockerbie, King, Dickens & DeBurca (2013) developed the firesetting offence chain for offenders with mental-health difficulties which involved three fire setting pathways. The first involved fire-interest together with childhood mental health difficulties, the second involved no fire-interest but the presence of adult mental health difficulties and the third combined adult mental health difficulties with fire-interest. They suggested firesetting could be associated with positive and negative cognitions: excitement, fascination, achievement and power or fear, danger and negative consequences. The sample however only included two individuals with a borderline ID. The authors found many predisposing factors to firesetting: negative early-life experiences; familial mental health difficulties; familial separation; childhood firesetting; strong emotions towards fire; antisocial behaviours; interpersonal difficulties; mental health difficulties and maladaptive coping strategies.

Tyler, Gannon, Dickens and Lockerbie (2015) identified that firesetters were more likely to have fire-interest and to be diagnosed with schizophrenia, fire-interest was suggested

as the most significant predictor of repetitive firesetting. Murphy and Clare (1996); however, found similar levels of fire-interest in an ID firesetting group and non-firesetting ID controls which questions whether it is a risk factor for ID firesetting.

Research on firesetting offences in intellectually disabled populations

Offenders with ID form “one of the most marginalised groups of marginalised people” (Fraser, 2002 p.4). There is no basis to suggest that ID individuals are more likely than members of the public to commit crimes (Simpson & Hogg, 2001). Few studies have explored ID firesetting and ID in themselves do not sufficiently explain firesetting (Murphy & Clare, 1996). Firesetting forms part of a spectrum of antisocial behaviours utilised by offenders without mental-health difficulties. Firesetters can also be conceptualised on a continuum in terms of adaptive functioning, some are highly functioning in some areas but show large deficits in other areas (Gannon et al, 2011).

Firesetters are frequently reported to have decreased assertiveness skills; however, there is little understanding of why firesetting is chosen as a method of problem-solving (Tyler & Gannon, 2012).

When considering the prevalence of ID firesetting, the estimates range from 3% (Puri, Baxter & Cordess, 1995) to 10.3% (Enayati, Grann, Lubbe & Fazel, 2008). This makes generating an accepted prevalence rate very difficult (Taylor, Thorne, Robertson & Avery, 2002). It could be argued that firesetting theories for non-ID firesetters may not be wholly applicable to ID firesetters as they have not been adequately represented in the literature. Researchers need to ascertain whether a specific theory is required to understand firesetting within this population.

Research on firesetting in children and adolescents

Adults with ID often report retrospective childhood firesetting therefore the antecedents reported by children or adolescents is considered here. Several reviews (Dolan, McEwan, Doley & Fritzon, 2011; Fritzon, Dolan, Doley & McEwan, 2011; Lambie & Randell, 2011; Tranah & Nicholas, 2013) offered an insight into the antecedents of child and adolescent firesetting. Dolan et al (2011) suggested 'normal' adult fire behaviour occurs from experiencing appropriate fire-related activities (attending bonfire night parties, creating and controlling campfires and the use of log fires in the home). They suggested firesetting was the product of intention, curiosity or was accidental.

When young people display inappropriate firesetting behaviours, the antecedents reported include psychosocial issues, mental health difficulties (Fritzon et al, 2011), social isolation, poor self-esteem, communication difficulties, frustration, a need to be in control and seeking revenge against society (Tranah & Nicholas, 2013), social skills deficits social skills such as poor social judgement, planning and loneliness (Lambie & Randall, 2011) and firesetting can be an emotional expression (Dolan et al, 2011).

Tranah and Nicholas (2013) suggested the antecedents for ID young people will be similar to young people without ID. They felt curiosity may feature for ID young persons; however, this was not quantified. Young people with ID may be more vulnerable to suggestibility and less receptive to understanding the negative consequences and outcomes of firesetting (Lambie & Randall, 2011). Again this conclusion was not facilitated by empirical evidence.

Rationale for the current study

Rose, Lees-Warley and Thrift (2015) conducted a phenomenological study examining the narratives of several firesetters with ID. This paper emphasised the influences of the “importance of the first act of firesetting”, “using firesetting to ‘escape distress’”, “firesetting as enabling positive emotional experiences”, “firesetting as a communication tool with services” and “the participant’s experience of a firesetting treatment programme”.

To the best of the researcher’s knowledge, studies have not explicitly examined the antecedents within ID populations and considered the applicability of mainstream firesetting to this population. Lees-Warley and Rose (2014) stated existing evidence highlights the uncertainty of whether the psychological needs of ID and non-ID firesetters are different and suggested more extensive research is required. A qualitative approach incorporating theory development will generate knowledge about the antecedents of ID firesetting with the aim to improve psychological intervention and clinical practice.

Research questions

The main study aim is to explore the antecedents which may contribute to firesetting in an ID population with a view to helping inform psychological treatment needs. The research questions are:

1. How do individuals with an ID explain their experience of setting a fire?
2. What are the similarities and differences between the individuals’ experience which may form the basis of a theory of firesetting which is specific to this population?
3. Does the qualitative data give an insight into the possible psychological processes underpinning the individuals’ experience of firesetting?

4. Can psychological theory enhance the understanding of risk factors and antecedents for firesetting in this population?

Methodology

Recruitment

The study used two research sites: a low secure inpatient and community-based NHS forensic learning disability service and a private low secure learning disability service.

Inclusion criteria

Participants were included in the study if they satisfied the following criteria:

1. A full scale IQ score within the range of 55-75. Although ID is recognised as an IQ below 70 in both DSM V (APA, 2013) and ICD-10 (WHO, 1992), to maximise the sample this was extended to include borderline intellectual functioning (up to 75 FSIQ).
2. There must be previously documented firesetting which the participant acknowledges (it may cause undue emotional harm to interview someone who denies involvement in firesetting).
3. If the individual has multiple incidents of firesetting, they would be asked to select the incident they can recall most fully to discuss.
4. The participant must have English as a first language.

Participant sample

The participants were eight males. Six were detained under the Mental Health Act (Department of Health, 2007) within low security forensic learning disability services. Two were under the community forensic learning disability service and lived in supported accommodation. Eleven individuals were approached; however, three declined to participate.

The researcher was given demographic information after completing data collection. The participants were between 19 and 57 years old, (mean age 30.12 years, SD 12.5). Full scale IQ scores were not obtained for all participants (Table. 3); however, all participants were under ID forensic services (experience of significant impairments in social functioning and ID documented through other sources such as GP letters. They had also been diverted to the ID forensic service instead of prison for their involvement in offending behaviours). It is important to note that the firesetting discussed did not warrant involvement with ID forensic services for all participants, some had subsequent offences which had brought them into the service. The available scores (WAIS-III or WAIS V) ranged from 57-75, (mean 70.4, SD 4.6).

Ethical approval

The current study gained favourable NHS ethical approval (Appendix C), research and development approval (Appendix D) and approval from the research sites' clinical governance meetings. The study was conducted in line with the BPS code of ethics and conduct (2009).

Information for participants

The written documents provided to participants to make an informed decision about participation had previously been reviewed by an ID service-user panel to assess readability and ease of access to the information. An information sheet (Appendix E) specifying the details of the study was given to participants. Those who agreed to participate were asked to complete an informed consent form: non-pictorial (Appendix F) and pictorial (Appendix G). The participants were given time to consider their involvement and to ask questions prior to giving consent. Following the interviews, they were provided with a space for questions.

Table 3.
Demographics of the interview participants

Participant	Full Scale IQ and measure used	Age of the person at the time of the fire they chose to discuss	Age of the person at the time of the research interview	Documented psychiatric diagnoses (Intellectual disability will be referred to as ID)
1	79 (WAIS-III)	15	34	Mild/Borderline ID, Autism Spectrum Disorder traits, Antisocial personality disorder traits
2	65 (WAIS-III)	14	21	Mild ID and Attention Deficit Hyperactivity disorder
3	70 (WAIS-IV)	6	22	Mild ID
4	No formal assessment available	19	19	Mild ID
5	67 (WAIS-III)	30	57	Mild ID and Paranoid Schizophrenia
6	57 (WAIS-IV)	19	26	Mild ID and Emotionally unstable personality disorder
7	No formal assessment available	21	25	Mild ID
8	No formal assessment available	33	37	Mild ID

Design

The current study employed a non-experimental, qualitative design using grounded theory (GT). It involved theoretical sampling; the researcher approached a specific population most likely to provide insights into firesetting. GT (Glaser & Strauss, 1967) is an inductive process that encourages hypotheses to emerge from the data. It has been adapted and newer versions of GT promote the researcher holding a constructionist epistemological position (Charmaz, 2006). The current study was constructionist as the researcher was aware that knowledge and reality are shaped through mutual construction and negotiation of meaning

(Yardley, 2000). This allowed the researcher to be reflexive about their preconceptions held during data collection and analysis. Both Charmaz (2006) and Glaser and Strauss (1967) identify GT as providing a preliminary framework for organising the emerging concepts from the data collected.

Measures

An interview guide (Appendix I) was co-constructed with the external research supervisor. The interview guide was reviewed by a panel of ID service-users. The interview guide contained some general questions to establish rapport and enabled flexibility to prompt, clarify and follow participants' responses if they discussed additional influences.

Procedure

The responsible clinicians for both research sites provided a list of potential participants who met the inclusion criteria. The researcher provided these individuals with verbal and written information about the study. They were given seven days to consider and discuss the information with their care-teams. The researcher scheduled a second meeting to assess interest, gain informed consent and conduct the interview. To assess the participant's ability to provide informed consent, an adaptation of a questionnaire by Arscott, Dagnan and Sternfert-Kroese (1998) (Appendix H) was used.

This questionnaire assessed their recall of the study details. All participants answered each question satisfactorily; they were able to retain, consider and weigh the information up. The interviews ranged from 27 minutes 14 seconds to 1 hour 21 minutes 22 seconds. The average length was 43 minutes 13 seconds. Participants received £10 for completing the interview.

Data analysis

The interviews were audio recorded. Each participant was assigned a number to maintain anonymity and the recordings were transcribed verbatim.

The researcher conducted three initial interviews using Nvivo software for line-by-line coding (Charmaz, 2006) before conducting further interviews. It is crucial during data collection that the researcher remains open to rejecting ideas that are not reinforced (Morse, Barret, Mayan, Olson & Spiers, 2002), therefore data collection and analysis occurred concurrently. This helped to identify areas where adaptation of the questions could encourage data saturation (Glaser & Strauss, 1967).

Theoretical memos helped the researcher to notice their internal dialogue as they moved through the analysis (appendix M). As the researcher moved between the data, the codes were formed into conceptual categories (Charmaz, 2006). These representative conceptual categories then allowed the development of a GT (Glaser & Strauss, 1967; Charmaz, 2006).

In terms of achieving data saturation, the researcher included two further participants once the six initial interviews were not felt to produce further insights into firesetting. The two extra participants evidenced the existing codes and produced new codes. Data saturation was partly achieved as the emerging new codes were minimal.

Strauss (1987) stated that a core category should be an explanatory concept describing the relationship between conceptual categories as well as between a category and the core category. Although Charmaz (2006) does not suggest the need for a 'core category' as Corbin and Strauss (2015) do, in the formation of the conceptual categories following GT according to Charmaz (2006) an overarching category emerged which appeared to link the categories together. This presented a dilemma about whether the methodology was becoming

confused as the epistemological position of GT utilised by Strauss (1987) and Corbin and Strauss (2015) is less clear than the constructivist position Charmaz (2006) holds.

Research involves participants making sense of their experiences and presenting these to the researcher who makes sense of that information, according to their own experiences (Corbin & Strauss, 2015). They argue self-reflexivity is extremely important with regard to researcher influences on the evolving research. As this is in line with constructivism a core category was included in the analysis.

Quality assurance

To promote credibility, the researcher utilised several methods to increase quality assurance (Mays & Pope, 2000). The researcher participated in a bracketing interview to elicit personal assumptions and biases so the researcher is explicitly aware of them prior to immersing herself in the data. This interview revealed the researcher's position of considering firesetting within an ID population to be multi-faceted and driven by the person's experience of a combination of internal and external risk factors. The researcher kept a self-reflexive research diary following the research process. An abridged version (Appendix J) shows the development of the GT, supplemented by a coded transcript (Appendix K). The researcher used coding memos to document personal assumptions and relationships emerging from the data (Appendix M). The coding process was explored with the external supervisor, disparities were discussed and integrated decisions made. In line with Mays and Pope (2000), triangulation of the verbal data was also conducted by confirming the narratives heard by the researcher matched documented descriptions of the fires held by the service as well as matching verbal descriptions the lead psychologist had been told by the same individuals. This allowed the researcher to have confidence that the fires discussed were consistent with other documented discussion or written reports.

Results

The data from the study consisted of quotations from participants which supported the emergence of conceptual categories. Eight conceptual categories emerged which appeared to be influential in understanding antecedents to firesetting and a core category that encompassed the overarching concept present in all of the conceptual categories is offered by this preliminary GT (Figure 1). The eight conceptual categories identified in the analysis were:

1. Managing internal affective states: understanding what emotions were most easily recognised and individual responses to these.
2. The experience of adversity: the impact of negative life experiences on the individual
3. Unsafe others: the experience of interpersonal difficulties
4. Engagement in offending behaviours: understanding firesetting within a spectrum of offending behaviours
5. Voice entitlement: *the individual's sense of their* voice being unheard by others
6. Experiences of fire: what role did previous experiences of fire play?
7. Mediators of risk: the presence of protective factors minimising the risk of repeat firesetting
8. The function of firesetting: understanding the outcomes of firesetting

Category 1: Managing internal affective states

This category encapsulated the following subcategories: emotional regulation difficulties, triggers for intense emotions, anger and response to emotional distress.

Emotional regulation difficulties pointed to the participant being overwhelmed by their emotional experience and unable to regulate their levels of arousal. This led to attempts to manage their arousal as best they could.

“I’ve had people talk about my family and my family are not around, erm, obviously because they’ve had difficulties and they’re in heaven, erm... yeah so if anyone talks about my, mine, I just go to my family and say these, they’re talking about my, my mum, dad and they’ll sort it out for me because if I sort it out, there, it’d be big consequences for me sorting it out.”

Participant 2.

The triggers identified by participants often included a sense of not being listened to or others doing something that is perceived as negative towards the individual.

“it’s like when you try and ask them something and you try telling them somethin’ and what like, they don’t want to know, so you keep repeating yourself over and over again...it’s like when you’re trying to have a conversation like and you know like and merged into that like...” Participant 1.

Anger was the most easily recognised emotion for all participants. They were able to recall experiences which had made them angry and the impact that this had had upon them.

“but it’s little, slight problems I let it build and let it build up till it gets to be a big problem and then, then I get angry with people... yeah over a matter of weeks, yeah then I’ve got to, got to say to someone who’s involved, who keeps picking on me or like taking the mickey out of me, I’ve got to say “look mate will you please stop doing this mate like” and then I take the chance that if they hit me, I’ll hit them back.” Participant 5.

Responding to heightened emotional arousal, the participants recognised themselves becoming verbally and physically aggressive and noticed that they had learned more adaptive coping strategies for dealing with emotional expression.

“Umm, oh yeah, yeah...I can pick up a chair and throw it against the wall, it just depends on what kind of, you know, action I take or you know, something that gets on the wrong side of me, you know sometimes, sometimes but not that very often I do things like that.” Participant 8.

“when I’m angry I normally just sit in my room or just scream but I’ve never lashed out and hit somebody for it...I’d just hit something else like... a pillow or so, it’s always better to hit a pillow to get your anger out.” Participant 2.

Category 2: The experience of adversity

This category summarised several adverse life experiences which could damage a person’s psychological and physical well-being. It included the subcategories: loss of stable base, separation from significant others, experience of abuse, family dysfunction and difficulties at school.

Regarding the loss of a stable base, four participants (1, 3, 6, and 7) spent time in local authority (LA) care due to familial difficulties which included poor parental health and experiencing abuse. They described finding foster care as quite difficult at times.

“Ermm, I lived with me mum, me brother and me sister... No, well, I was in foster care, had a few foster carers ... erm...about three I think, three or four...erm... some was alright and some was wasn’t but a couple of them I’ve been too they was alright...” Participant 1

For Participant 5, his loss of a stable base and being unable to meet his basic needs occurred when he was separated from his wife and children following a breakdown of the marital relationship. He felt that this had had a significant role in precipitating his firesetting:

“I started taking drugs and umm, anyway I err, I think worse comes to the worse I started sleeping rough, I didn’t sleep, I had nowhere to go, no food, no money and nothing.”

Participant 6 explicitly described his abuse experiences which led to him being placed into LA care. Thinking about the experience of abuse and being removed from their family of origin, it is not surprising that this could have a negative psychological impact upon a person:

“(sighs) domestic violence, smashing plates over my head, punching me in the nose, and I got a broken nose after that and had a nose bleed, and (Pause 4 seconds) basically it went all downhill after that” and “I got sexually abused, raped, raped when I was younger.”

The impact of familial dysfunction which was not as extreme as experiences of physical or sexual abuse but still had a negative impact was described. This sense of the familial system struggling appeared to be common within the sample and perhaps offers some explanations about how the participants’ sense of self developed.

“My childhood was difficult, there was a lot of fights and a lot of arguments, erm, and my mum and dad didn’t get on very well, and they, they, they split up and then we moved away.”

Participant 2.

Finding school difficult was expressed by the majority of the participants who stated that there had been interpersonal difficulties or difficulties engaging with their lessons:

“boring, I got kicked out, I didn’t like it...I smacked the headmaster in the face... yeah, he annoyed me so I was like nah, cos he said to this girl, she had these flip-flops on he’s like what are you wearing, she goes I can’t wear school shoes cos she’s got an ingrown toenail, I was like she wears...so I had to write lines and I said to him I’m bored now, so I threw the book at him (R: ok), I found it quite funny.” Participant 7.

Category 3: Unsafe others

This category reflected the interpersonal difficulties described by the participants. The subcategories were: relationship breakdowns; others are threatening; need to protect self and others; and new experiences are anxiety provoking.

The breakdown of relationships is upsetting; however, individuals with ID can experience social isolation which creates much smaller support networks for them. For participant 5, his marriage breakdown was particularly traumatic as it appeared to have been unexpected:

“Anyway err, I got up one morning, wok-woke up and me, me wife wasn’t laying, laying next to me like I normally do and and me, and I, I got up I checked me, checked the other bedrooms where me daughters was er like sleeping and then they was all gone, me wife and me three daughters had gone.”

In terms of “others are threatening”, several participants spoke about being bullied and difficulties navigating interpersonal relationships. This fostered a sense of wanting to protect others and highlighted how important close relationships were to the participants:

“I didn’t really have much friends, I, you couldn’t really trust them, erm, when, I, I, I started hanging around with the wrong people, that’s, that’s how I didn’t really make friends properly, I just made enemies and different friends as enemies...I’m good at helping, just making sure everyone’s alright, making sure that I can protect them, cos I want to protect my family and like, I’ll make sure they don’t hurt, so I like to protect people and that.”

Participant 2.

The participants did not generally comment on what made them feel scared or worried. This may have related to emotional recognition difficulties. One participant noticed that new experiences could create anxiety but this could be alleviated with appropriate preparation:

“Umm, yeah possibly yeah I can actually, it’s when possibly if you’ve got something to go to like a meeting or umm, pfft, maybe someone was coming to you well me, but I knew you were coming so I wasn’t scared (R: yeah but I wonder) because I met you from yesterday.”

Participant 8.

Category 4: Engagement in offending behaviours

Seven participants engaged in offending behaviours (OB) in adolescence and adulthood. This created several subcategories: engaging in a spectrum of OB, minimising/normalising OB as a developmental stage, rationalising OB as the only option and using OB as a coping strategy.

The spectrum of OB that an individual may adopt can include firesetting. The participants spoke about OB ranging from minor offences to more serious offences. However, no-one offered an explanation into the progressive journey through OB.

“... I’ve been in trouble with the police a couple of times, you know...erm, hitting my mum’s side door car and getting nicked for that and spent the night in the cell and then there was no charge. Erm, I got nicked for street robbery and sent to prison for that, erm also got nicked for theft and got nicked and put in jail for that, erm I got accused of erm, rape, and they found out, that the woman was telling a lie and she got arrested for it herself so I didn’t get arrested for that.” Participant 2.

Some participants viewed OB as a developmental stage, almost a rite of passage and in the context of growing up in LA care, the encouragement to go through this ‘rite of passage’ appeared to be particularly strong. It may have been a way of gaining friends or status in situations where this was difficult to achieve.

“...At the time no... no cos when you’re a kid and that you don’t think of that do ya... well weren’t really erm, kinda like the thefts and the other bit, yeah, it was just like schoolboy things and like, with your mates and all that lot, you know but with the more serious stuff I was like, like, I like, I don’t know I’d drink and then do whatnot” Participant 1.

OB appeared to occur when there were no alternative options or the individuals did not have the appropriate problem-solving skills or support networks around them:

“I was thinking to myself this is the wrong thing to do but he owed me money and one way or another I was going to get my money even if I had to steal it.” Participant 2.

Regarding the use of OB as a coping strategy, underage drug and alcohol use was discussed by some of the participants:

“Erm cannabis, speed but apart from that, that’s it...yeah I was, I, was, I was on loads, I think I started those at the age of around thirteen – fourteen, yeah... it was when I was, erm, probably both actually, when I was living in foster care and when, at, at home, yeah... no, it was probably like just being with the wrong crowd init” Participant 1.

Category 5: Voice entitlement

This category reflects the individual’s sense of their voice. The subcategories which emerged from the data were: communication difficulties, lack of assertiveness, sense of being unrecognised and low self-esteem.

Several of the participants noted that talking to others could be difficult. The participants reported several experiences during which they felt that others were not listening to them and this resulted in feeling injustice and anger.

“Hmm, hmm yeah some people don’t listen...hmm...hmm someone at school... annoying...it was like the teachers, you’d talk to one of them like a kid’s hit you and they don’t listen...the teachers sometimes you go tell them and they don’t help you... cos I got into a fight and they didn’t help, so they just left me with a bowby hand.” Participant 4.

In terms of personal assertiveness, the participants spoke about help seeking and difficulties doing this. The lack of response from others reinforced a sense that their voice

was not as important as others' which could perhaps relate to deciding to engage in firesetting which cannot be ignored.

“well I'd say I've got a problem and they'd just say well I'm not interested, it's the same old thing again and I was like alright fine, see you later...yeah cos then I, I don't like it when people don't listen....” Participant 7.

The lack of voice related to the experience of feeling unrecognised and as though their needs did not matter. This appeared to confirm beliefs about being disrespected, not held in mind or unvalued and related to low self-esteem which was prevalent across the sample.

*“obviously the team leader ***** that was supposed to be me support worker at the time was the one who originally in the first place had said ohhh sorry I haven't got the time..., so I thought well you're supposed to be my keyworker, you should have the time to speak to me and I needed help, maybe yeah I can understand you be busy but there's always time for a resident you're looking after but twice.” Participant 8.*

Category 6: Experiences of fire

This category thought about the experiences individuals have had with fires including positive and negative experiences of fire, setting fires in childhood and an awareness of fire safety.

The participants all recalled positive experiences of fire in social situations such as attending bonfire nights and barbeques. These were described as pleasant activities:

“Barbeques, bonfires...yeah it was exciting and happy just to see it all going on”.

Participant 2.

“

Some experiences of fire within childhood and adolescence however had been negative and involved a sense that fire could be dangerous:

“a spark come out of the fire and went in with my box of fireworks...and all the fireworks, they went all in the sky, all in the air, all went off in one go and I was sick as a pig I was sick as a dog weren't I, you know what I mean cos I was a, it spoilt me bonfire night...”

Participant 5.

Some of the participants described childhood firesetting although there was a split between purposeful and accidental firesetting. Purposeful firesetting related to the desired functions of firesetting whereas the accidental firesetting was described as occurring in the context of being with peers and not intending to start a fire.

“I'm going to say six years old...I erm put motorbike erm batteries next to this, next to my mum's front room window it was some and there was no one involved it was just me on my own and erm I put a load of sheets over it and put my shoes in the middle, went into the kitchen, grabbed a match, lighted it and threw it on there and erm I went up to my sister's bedroom, looking out the window...my mum and dad came running down and er all they saw was, were my little shoes in the middle of the fire so they started screaming and saying my little boy's dead and I was sat, I was up on top of the window laughing my head off and erm I did get a beating and that, after that, I'll tell you I did and I felt really bad afterwards ... I just thought that I wanted to be dead.” Participant 2.

“...I don't think we was intending to set it alight, we was just out walking ...we was walking across the field, yeah and there was me, two family members as well, me step-brother and me step-sister and a few friends... we decided to sit on top of it, having a cigarette... we just

flicked the fag and *erm the wind was going one way...* so it came back and fell inside it *which we didn't know at first right, until we see smoke and we started trying...*" Participant 1

The participants appeared to be aware of fire safety and used this knowledge to minimise the danger of the fires they witnessed or had set:

"... we had to quickly get a, not a fire extinguisher but water and just pour it on the floor cos we thought the floor was going to go up but the petrol didn't actually burn the floor, it went, it turned into little flames and went ok but the lighter just went like that (gestures) and all flames came out of it." Participant 4.

Category 7: Mediators of risk

This category considered what reduced the risk of firesetting for an individual, who had several of the above experiences. The subcategories were: improving relationships, better support and negative reflections and consequences of previous OB. Although not explicitly discussed, access to the means to create fire has been included here. Without access to flammable materials, sources of fire and under appropriate supervision, opportunities to set fires become more limited.

Some of the participants spoke about having better relationships in adulthood and how this has been a positive change for them which had resulted in them feeling more secure within themselves and within their relationships.

"my relationships and my friendships have got better in my life since I was young kid, they weren't so accurate but now, they're all good now... it started to change since I've been in hospital really cos it's teached me a couple of little bits and it's getting me to know people, more better, so yeah, it's been good." Participant 2.

“And I’ve got a girlfriend now, I’m 26 now and I’m a lot more mature than I was so I know about relationships and that now.” Participant 6.

Most of the participants felt that they were now getting the support they needed which had been lacking previously. This enabled them to better adapt to difficult situations and reinforced their sense of ‘me now’ as someone who could cope:

“If I have a problem, I would either go and speak to my parents or go and speak to the staff or something...if I had a problem instead of bottling it up inside cos that’s the sort of thing I used to have to do cos you know, they were, they were just useless”. Participant 8

Thinking about OB and firesetting, the participants recognised that they did not want to continue to engaging in OB. It appeared that the consequences had prompted the individuals to re-evaluate the use of OB:

“I don’t know, there was one, one thing that I would change if I could, if I could go back in life err, err... go back to... when I was younger again and that but I’d change what, what I did wrong and that (R: ok) and not, not, not wish it never happened in the first place.”

Participant 3

Category 8: The function of firesetting

The functions of firesetting are important as they point towards the motivations involved in firesetting as well as highlighting possible reinforcement cycles which is useful for understanding multiple firesetting. Internal functions included: enabling emotional expression; reducing emotional and physiological arousal; and the presence of positive

emotions and experiences associated with firesetting. The external functions were: connection to others increases, fire is a tool for change and fire is a communication to others.

The participants described experiencing reduced emotional arousal when looking at fires. They associated fires with a sense of relaxation which enabled them to regain control of their emotions. This created positive associations between their experiences of fire which could potentially reinforce future use of firesetting.

“yeah I just go down, lay down and that on the floor ... just relax, yeah...I don't know but.. sometimes I'd just like, lay there, sometimes I'd just sit there and sometimes I'd just lay there and just like fall asleep for a little while, yeah...I used to feel like very relaxed and that, like you know, just go home and that.” Participant 1

“yeah, yeah it calms me down and if you were, like when I put it on tv and just watch that, and it makes you all relaxed and that just watching it...quite a long...and when it goes out there's just like charcoal left.” Participant 4.

Using firesetting to communicate relates to the internal function of emotional expression. Three of the participants spoke about the ‘message’ that was communicated through their firesetting that they had felt unable to verbalise:

“yeah it was because of all the arguments and that was going on with my mum and dad and me and my dad, we were shouting and screaming...yeah it was, it was trying to tell them that I didn't want to be around, it's like, yeah... I just thought that I wanted to be dead”.
Participant 2.

“yeah... I was just running away from the care home...I didn't, didn't like how I was being treated at the care home.” Participant 3.

“perhaps I wasn't, I wasn't thinking straight cos I was having a nervous breakdown at the time... me mind was thinking if I do something it'd, it'd make them think to themselves “oh he's getting back now so we'll let him get on with it” like...” Participant 5.

Through this communication, the firesetting brought a response from care-givers and services which allowed the participants to feel a greater connection to those around them

“I was thinking how much trouble was I going to be in with my Dad and that...yeah I spoke to him on the day and we sorted it out and that, yeah.” Participant 3.

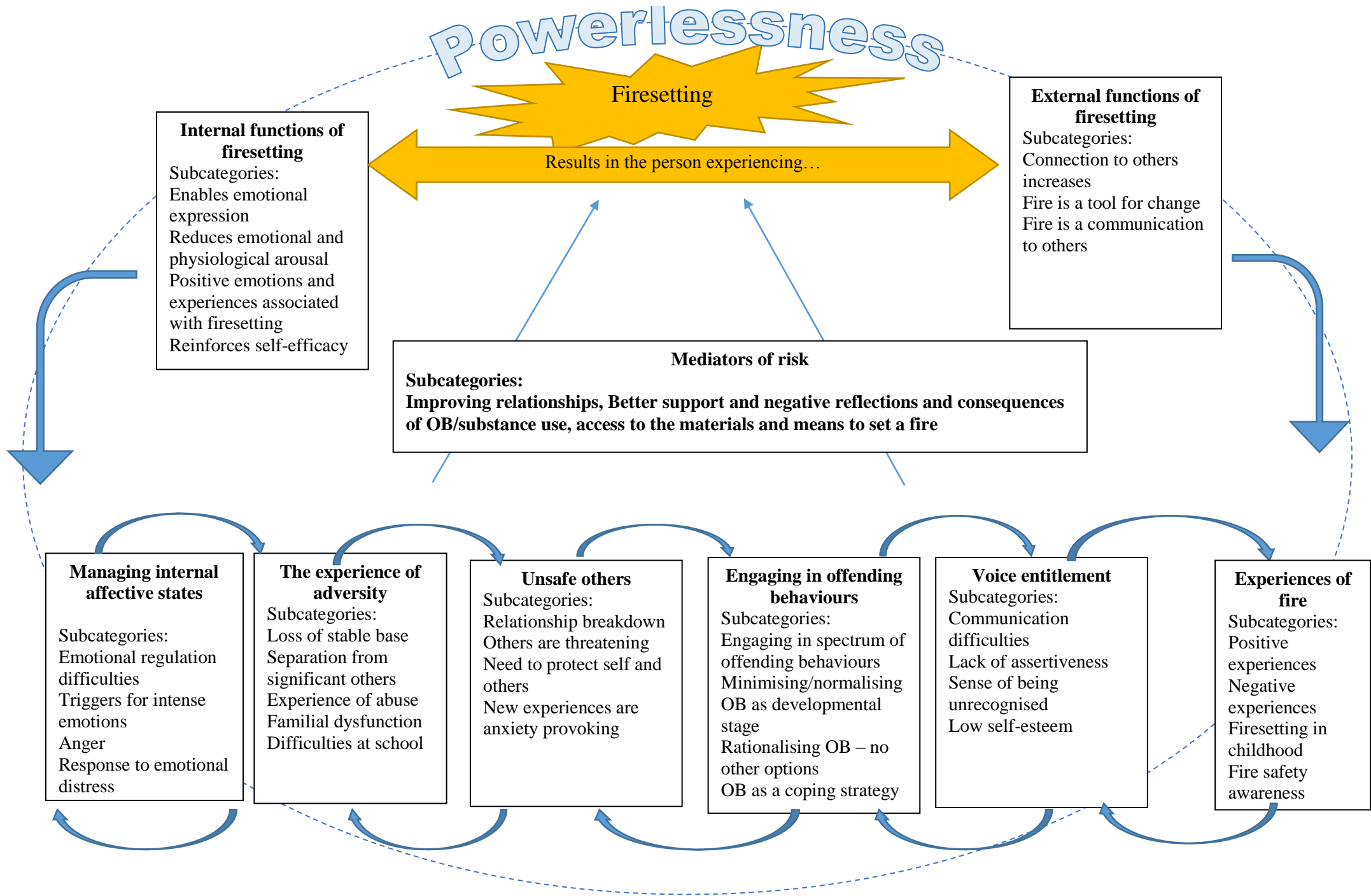
Related to firesetting as a communication is firesetting effecting change if the individual is unable to do so themselves. One participant gave an example of a secondary gain to firesetting which allowed him to refuse returning to his care home where he had been very unhappy:

“...they came out and said you're going back to where you came from and I said oh no, oh no I'm not going back there... I don't wanna go back cos I though, I thought somewhere down the line it's going to happen again... I said I wanted to leave, staff said no, you're going anywhere you're not leaving this place, you can't move on anywhere else, so I said listen this is my life, you can't tell me what I can't do.” Participant 8.

When thinking about how the conceptual categories were connected it was apparent they all involved a sense of the person being vulnerable, isolated and having limited means to effect change. The core category which was present within the conceptual categories and

connected them was the concept of 'powerlessness'. Powerlessness pertains to an actual or perceived absence of ability, power or influence; which could have a detrimental impact upon a person and cause significant psychological distress.

Figure. 1



Discussion

The results generated a preliminary GT which suggested that ID firesetting occurs within a context of 'powerlessness'. Powerlessness was prevalent in several areas of the participants' lives and importantly, the participants offered thoughts on how their risk levels had minimised since their firesetting. The participants spoke about protective factors that separated the 'me then' from the 'me now'. The 'me now' involved increased self-esteem, self-confidence and assertiveness which instilled a sense of personal effectiveness. In most cases this occurred through accessing psychological treatment and interventions through forensic learning disability services.

Considering the study's initial research question supports the use of GT within an ID population. The first research question was 'How do individuals with an intellectual disability explain their experience of setting a fire?' all of the participants offered their thoughts about what factors influenced their firesetting; early life experiences, emotional reactions and thoughts of being a lesser person. Firesetting was discussed as accidental and participants could think about their role, the role of others and offer their perspective on where the blame might lay. Firesetting was also explicitly discussed as intentional and participants were able to reflect on their decision-making and engagement in firesetting. For the second and third research questions 'What are the similarities and differences between the *individuals' experience which may form the basis of a theory of firesetting which is specific to this population?*' and 'Does the qualitative data give an insight into the possible *psychological processes underpinning the individuals' experience of firesetting?*' the invaluable data gained from this study generated a preliminary GT that offers an explanation of why firesetting is committed by some individuals with ID. The similarities between the

sample led to the development of the conceptual categories and the differences became mediators which were considered to increase or decrease the risk of firesetting.

To address the fourth research question 'can psychological theory enhance the understanding of risk factors and antecedents for firesetting in this population?' it is necessary to consider the existing literature and the findings of this study. In particular, the relationship between the Multi-Trajectory Theory of Adult Firesetting (Gannon et al, 2011) and this study's findings are considered as the trajectories included similar antecedents to those found in this GT. The M-TTAF proposed that in the antisocial trajectory, fire is used within the context of multiple antisocial behaviours and in the emotionally expressive trajectory, fire has been identified as a communication tool. Two participants in the current study appeared to use firesetting within a spectrum of OB which fits with antisocial and they spoke about fire being a communication, they may be considered to straddle the antisocial and emotionally expressive trajectories.

Those with fire-interest may find firesetting pleasurable as it provides sensory stimulation and can elicit positive emotions. One participant reported finding fires 'relaxing'. This was the closest replication of fire-interest within the current study. It would be useful to ascertain the prevalence of ID fire-interest to identify its saliency as a risk factor.

Emotionally expressive individuals report that their needs are not met and fire is a tool to make their voices are heard. This trajectory had the largest connection with this GT as all participants spoke about their needs not being met and this resulting in negative affect. The emotionally expressive trajectory also fits with the core concept of powerlessness and is it understandable in the context of powerlessness and your needs not being met that the individual may feel forced into extreme action. This also relates to Jackson (1994)'s only

viable option theory which suggested firesetting is utilised when an individual's usual problem-solving skills cannot be used or do not achieve the anticipated outcome.

The multifaceted trajectory included pro-offending attitudes, fire-interest, emotional regulation and communication difficulties. This was reflective of the experiences described in the current study, suggesting that this GT validates the use of the M-TTAF with ID adult firesetters.

This GT also mirrors the findings across childhood and adult firesetting: Dolan et al (2011); Frizton et al (2011); Jackson (1994); Lambie and Randell (2011); Tranah and Nicholas (2013); and Tyler et al (2013). All of these papers suggested negative caregiving experiences; familial separation; childhood firesetting; strong emotional reactions towards fire; emotional regulation difficulties; engagement in offending behaviours; mental health difficulties; poor self-esteem; interpersonal difficulties; poor problem-solving skills; and maladaptive coping strategies could increase the risk of firesetting. This suggested that individuals with ID who engage in firesetting are not dissimilar to non-ID firesetters.

Implications for clinical practice

The findings of this study suggest that difficulties in several areas of the life of a person with ID this may increase the risk of engaging in firesetting. This does not suggest that all individuals with ID who experience difficulties will adopt firesetting as a coping strategy as the GT proposes a quite specific set of difficulties which may facilitate firesetting. Perhaps the most useful clinical implication of this study is the support provided for using the M-TTAF with an ID population. Other clinical uses of this study include considering the focus of firesetting treatment: improving emotional regulation, enhancing assertiveness, and alteration of pro-offending and pro-fire attitudes. Although fire-interest was minimally represented within the current study, it would be important to think about the function of fire-

interest as well as the beliefs or fire-scripts (Gannon et al, 2011) which accompany firesetting. The author is aware that the NHS service in the current study is currently piloting an ID firesetting treatment programme which hopes to address some of the identified difficulties.

Limitations

The study was a preliminary GT for male ID firesetters. The sample size whilst adequate for a qualitative methodology, was not representative of all ID male who set fires. This limits the conclusions and may be compounded by the use of specific recruitment sites, the majority of participants were detained under the MHA (DoH, 2007). Inclusion of sites such as prisons may produce more varied data. The exploration of ID females who set fires may offer different insights into firesetting.

The study used self-reported data that may be vulnerable to biases such as recall errors and answering in a socially desirable manner (shame and guilt may have fed into the desire to present oneself in a positive manner). Acquiescence within ID populations has been extensively researched and despite the researcher's efforts, it cannot be ruled out fully. The reliance on verbal interactions may have been affected by the differing intellectual abilities of participants and some questions may not have been fully understood which could have affected the responses. The participant selection by the external supervisor and responsible clinicians may have been skewed towards those more likely to engage and therefore potentially dismissed the input of other individuals.

The researcher was aware the analysis could be influenced by their assumptions, steps were taken to minimise this although the methodology did allow the co-construction of data between researcher and participants. Classic GT methods (Glaser & Strauss, 1967) encourage data collection prior to a literature review to limit the knowledge influencing the

researcher. This was unachievable in the current study. GT assumes data saturation will be achieved however time constraints and limited participants meant this was not fully achieved. At the end of data collecting fewer codes emerged suggesting saturation was near; however, this study cannot claim to have explored all insights into firesetting.

The grounded theory model cannot fully account for the reasons which may result in a person with ID setting a fire. The model does not consider conflict or feelings of revenge which have been reported in the firesetting literature as the current participants did not provide any explicit evidence to support its inclusion. The model implicitly thought about conflict, in terms of needs not being met however, a larger sample may identify the need to think more carefully about this. The use of 'powerlessness' as the overarching concept could generate different meanings. The researcher used it to represent being unable to produce an effect and not having control which is related to a person's self-efficacy (beliefs that they can be successful within a situation) as well as their locus of control; do they control and influence their lives (internal) or does something or someone else govern them (external). This was not explored in the current study and may limit the true extent to which participants may have felt powerless.

Further research directions

Building upon the current study, future research should continue using qualitative and quantitative methodologies in ID firesetting populations. Larger sample sizes across learning disability services and the criminal justice system would be beneficial. The inclusion of female ID firesetters would provide grounds for a useful gender comparison. The researcher was unable to locate research exploring ID child firesetting. This would be a helpful area to investigate, particularly as the adult sample in the current study discussed historical

childhood fires. The majority of the literature for ID adults is retrospective. Prospective research on ID children at risk of firesetting may allow the processes involved in the firesetting decision-making to be explored and may provide a different perspective that could be lost over time when adults recall historical firesetting. The service which hosted this study has piloted an adapted version of the firesetting intervention programme for mentally-disordered offenders (Gannon & Lockerbie, 2011); this intervention targets the psychological needs and vulnerabilities identified within this study. The outcomes of this group may support the use of this model in the assessment of ID firesetters.

Conclusions

This study utilised GT to analyse the contributions of eight males with intellectual disabilities to investigate the antecedents and risk factors which led to their engagement in firesetting. Eight main categories developed from the data which formed the basis of a preliminary GT. The core concept which linked the categories together was a sense of powerlessness that was experienced in several aspects of the individuals' lives. The individuals recognised that with the support of services, this sense of powerlessness became less prominent and they reported feeling better able to manage emotional, social and personal difficulties through more adaptive coping strategies therefore reducing the risk of recidivist firesetting.

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STACEY-MARIE CAMPBELL BSc MSc

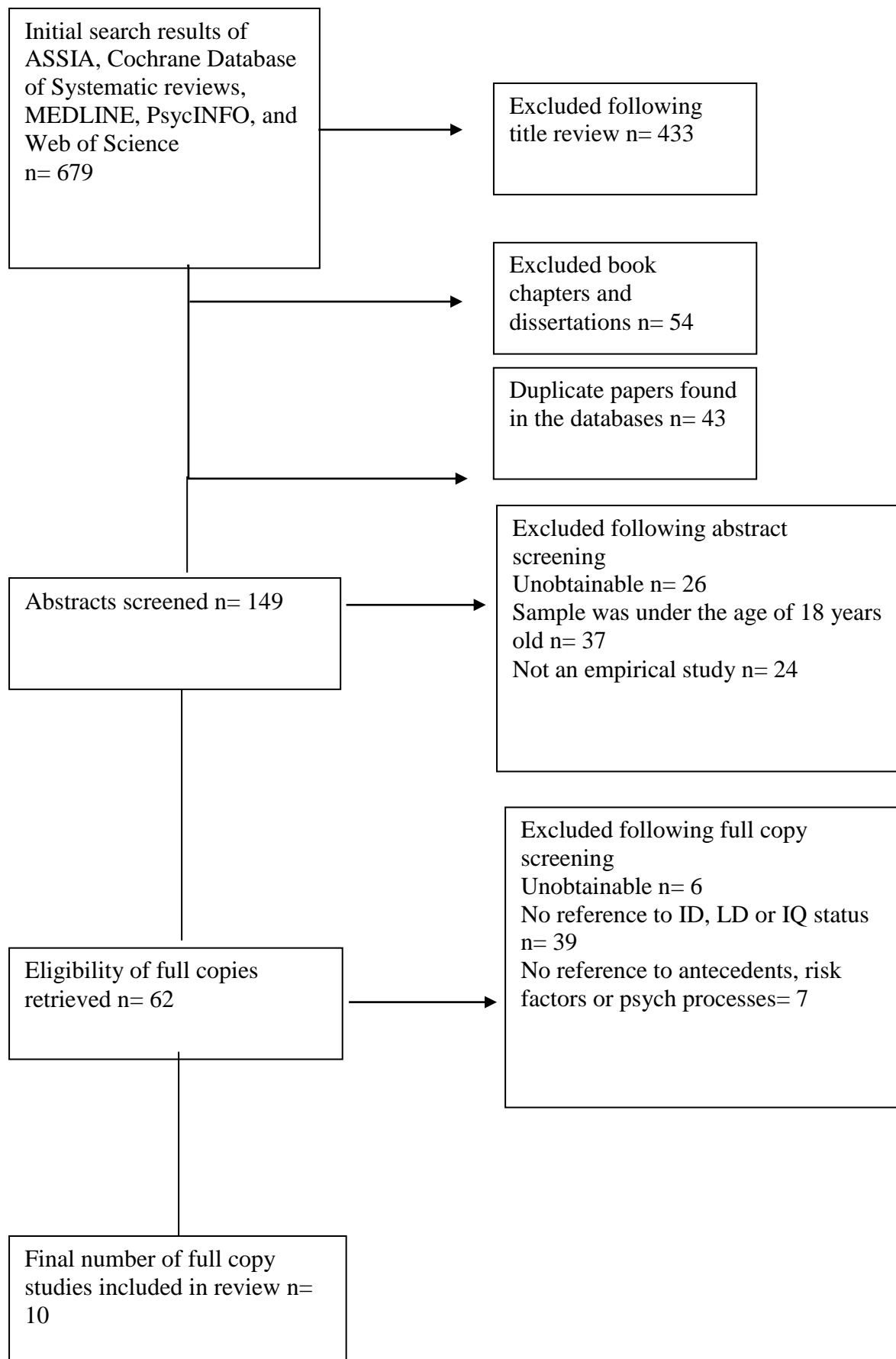
Section C
Appendices of supporting material

A thesis submitted in partial fulfilment of the requirements of
Canterbury Christ Church University for the degree of
Doctor of Clinical Psychology

APRIL 2016

SALOMONS
CANTERBURY CHRIST CHURCH UNIVERSITY

Appendix A Flowchart of literature search strategy



Appendix B checklists used for data quality assurance with the reviewed studies

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Appendix C Ethic Panel Letter

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Appendix D NHS Research and Development Approval

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Appendix E Information Sheet

Information Sheet

We would like to invite you to take part in a study being carried out by a PhD student. This study is being carried out as part of the student's university course. Here is some information about the study for you to look at, read and discuss. We would like you to talk to other people about the study before you decide whether to take part.

Why is the research being done?

We would like to find out what has led to people setting fires in the past.

You have been asked to read about the study and to think about whether you would like to be involved because you have set a fire (s) in the past.

We would like to find out more so we can understand what the person was thinking, feeling and doing around the time they set a fire. The information may help us offer treatment options which may be useful to people

What will I be asked to do?

You will be asked to meet with the researcher Stacey-Marie Campbell to talk about your experience of firesetting. You will meet in a private room with Stacey and she will ask you some questions.

The interview may cause you distress and you may feel upset answering some of the questions. If you become upset you can ask for a break from the interview. You can say that you no longer wish to continue the interview. If you do not comment on your distress and Stacey feels that the interview is becoming too difficult for you to continue with, she will pause or stop the interview. If you choose to have a carer with you in the interview, they can ask for a break or for the interview to be stopped too.

The content of the interviews will generally only be heard or seen by Stacey and her research supervisor, Andy Inett. The interview will be asking about a previous fire (s) you have set. If you discuss any other activity associated with law breaking or if you reveal that there may be harm to others or to yourself during the interview, Stacey will have to inform your clinical team and give them the details you have shared with her.

The interview will be recorded on a small audio recorder, this is so she can type up the interview and look to see if different people share similar thoughts and feelings about setting a fire.

Who will the researcher talk to?

Stacey will be working with Andy Inett (Forensic Psychologist) who you may already know. They will be speaking about the interviews together.

What if there is a problem?

If you are worried about the study Stacey and Andy would like you to tell them.

If you have any questions about the study you can ask to speak with Stacey or Andy.

If you would like to make a complaint about the study, Stacey and Andy can tell you how to do this.

If you would like to pause the interview you can ask Stacey to stop at any time.

If you decide you do not want to do the study anymore you can tell Stacey or Andy.

What are the benefits for me if I take part?

If you decide to take part your interview will help Stacey and Andy to understand what you were thinking and feeling when you set fires in the past. This will help professionals to support people who have set fires before and will improve the treatments people will be offered.

Do I have to take part?

You do not have to take part in the study.

If you decide that you do not want to take part at any time you can stop the interview.

If you stop, your treatment or care will not be affected in any way.

Who will see the results?

Your name will not be included in the results or the report which Stacey will write.

The results will be typed up into a report. With your permission this report will be shared with the clinical team supporting you.

The report will be given to Stacey's university to mark.

Can I see the results?

Yes. If you would like to know the results Stacey will give you a summary of what she found in the interviews to read or she can arrange to meet with you and tell you the results of the study.

If I have questions who can I ask?

If you have any questions you can call Stacey on 0333 0117070. You might have to leave a message; Stacey will call you back if you do not speak directly to her.

Appendix F Non Pictorial Consent Form

Participant Consent Form

I know that this research study is about firesetting. I will be asked about a fire (s) that I have set in the past.

I've read the information sheet telling me about the study.

**I have asked questions.
My questions have been answered and I am happy with the answers.**

**I know the interview will take place in a private room.
The interview will be a maximum of one hour.
The interview may be upsetting for me.**

**I know that the interview will be recorded on a small recording device.
This will only be heard by the staff involved in the project.**

If I get upset during the interview, it is not my fault.

I have had time to think about if I want to do the interview.

I agree to help with the project, and I will try to answer questions and do what I'm asked to do by the researcher.

**I can stop the interview at any time if I am upset.
I can choose not to take part at any time during the study,
this will not affect the care I receive.**

I can have my carer in the room the whole time if I want.

**I can see the results and the finished report if I want to.
This may take a while to be completed by the researcher.**

I would like the researcher to meet with me at the end of the study

**to talk to me about what she found out from doing the study.
I know this will be in approximately 12 months time.**

My doctor (RMO) has agreed for me to do this.

**The information from the interview will be held in a locked
cupboard, only people on the clinical team who work
with me and know me will look at it.**

I agree to take part in the research study on firesetting.

Name of patient

Date

Signature

Researcher










Date


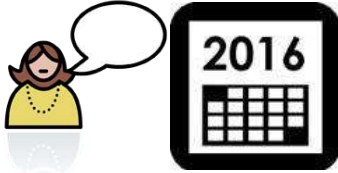
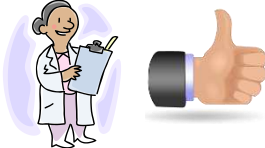
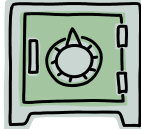

Signature

(NB All participants will be over the age of 18 years).

Appendix G Pictorial Consent Form

Participant Consent Form

<p>I know that this study is about firesetting. I will be asked about a fire (s) that I have set in the past.</p>		<input type="checkbox"/>
<p>I've read the sheet telling me about the project.</p>		<input type="checkbox"/>
<p>I have asked questions. My questions have been answered, I am happy with the answers.</p>		<input type="checkbox"/>
<p>I know the interview will happen in a private room, will take no more than an hour, and that it may be upsetting for me.</p>		<input type="checkbox"/>
<p>I know that the interview will be recorded. This will only be heard by the staff involved in the project.</p>		<input type="checkbox"/>
<p>If I get upset, it's not my fault.</p>		<input type="checkbox"/>
<p>I have had time to think about if I want to do it.</p>		<input type="checkbox"/>
<p>I choose to help with the project, and I will try to answer questions and do what I'm asked to do.</p>		<input type="checkbox"/>
<p>I can say "stop" if I'm upset, and the session will stop. I can stop it at any time. I don't have to do it if I don't want to.</p>		<input type="checkbox"/>
<p>I can have my carer in the room the whole time if I want.</p>		<input type="checkbox"/>

<p>I can see the results and the finished report if I want to. This may take a while.</p>		<input type="checkbox"/>
<p>I would like to be told about the results at the end the study. I know this will be in approximately 12 months time.</p>		<input type="checkbox"/>
<p>My doctor (RMO) has agreed for me to do this</p>		<input type="checkbox"/>
<p>The information from this will be held in a locked cupboard, only people on the clinical team who work with you and know you will look at it.</p>		<input type="checkbox"/>
<p>I agree to take part in the above project</p>		<input type="checkbox"/>

Name of patient

Date

Signature

Researcher

Date

Signature

(NB All participants will be over the age of 18 years).

Appendix H Questionnaire adapted from Arscott, Dagnan and Stenfert Kroese (1997) to assess the recall and comprehension of information given to participants in order for them to provide informed consent to participate in the research study.

Question	Scoring criteria for responses
<p>What will I be talking to you about?</p>	<p>Score 1: the participant gives a partial description of the study (e.g. you will be asking me about setting fires) Score 0: participant gives a vague answer (e.g. you will be asking me questions)</p>
<p>How many times will I want to talk to you?</p>	<p>Score 1: the participant recalls I would meet with them once to interview them. Score 0: the participant does not correctly state how many times I will interview them.</p>
<p>Are there good things about talking to me?</p>	<p>Score 1: the participant gives an answer with some face validity (e.g. I will enjoy talking to you, I will be helping you). Score 0: the participant says 'yes', 'no' or 'I don't know' and offers no explanation</p>
<p>Are there bad things about talking to me?</p>	<p>Score 1: the participant gives an answer with some face validity (e.g. it will take up some of my time, I might become upset whilst talking to you) Score 0: the participant says 'yes', 'no' or 'I don't know' and offers no explanation</p>
<p>What can you do if you decide that you do not want to talk to me anymore?</p>	<p>Score 1: the participant gives an answer which suggests they understand they can stop and withdraw from the study (e.g. I can ask to stop, I can tell you I don't want to do the study). Score 0: the participant gives an answer which suggest they do not understand they and stop and withdraw from the study (e.g. I don't want to stop, I do want to take part).</p>

Appendix I Interview guide
Interview Guide

General Questions:

Before you were in hospital where did you live/who did you live with?
Can you tell me about your childhood?
Can you tell me about your friendships/relationships growing up?
Did you ever get into trouble as a child? What did you get into trouble for?
What happened after you got into trouble?
Did you understand what you did was wrong? (If appropriate)
Did you ever see/play with fires growing up? If yes, did the emergency services attend? What did you think/feel when they arrived? If positive emotions associated with fire, explore further.

Strengths and Difficulties Questions:

What things are you good at?
What sort of things do you enjoy doing?
What sort of things do you dislike doing?
What makes you angry?
What makes you sad, scared, and confused?
What do you do when you're angry?
If you have a problem what will you do? If that doesn't work what will you do?
Do you ever have difficulties when talking to people?
Do you feel people listen to you? Do people listen if you have a problem?
Can you describe your friendships/relationships you've had as an adult?

General Offending Questions:

Have you ever been in trouble with the police?
What did you do?
What happened after that event?
Did you know what you were doing was wrong/ you could get into trouble for doing it?
(Think about the possible influence of alcohol/drugs when talking about offending behaviours).

Firesetting Specific Questions:

Can you tell me about fire you set?
What were you thinking about before you set the fire?
What/How were you feeling before you set the fire?
How did you decide where/how to set the fire?
What were you thinking once the fire started/ material or items started to burn?
What/How were you feeling once the fire started/ material or items started to burn?
What happened after the fire?
What were you thinking after you set the fire?
What/How were you feeling after you set the fire?
If you imagined seeing a fire now, how does that make you feel? What are you thinking?

Closing questions

Is there anything else you would like to tell me today?
Do you have any questions for me?
Would you like to have a copy of the results when I have written the report? (If yes let them know that it will be a few months before the report will be completed).

Would you like me to come back to see you in approximately six months to tell you about the results?

Appendix J Abridged Research Diary

Date:	Research notes:
29.11.2013	Research fair at Salomons, some interesting topics, one speaker jumped out at me, Andy Inett – has a forensic link and I'm keen to do some sort of research within forensics, my years working in a medium secure unit provided me with such rich experiences I really want to get back involved in those settings.
10.12.2013	Email to Andy Inett (Forensic Learning Disability service) to register my interest in potentially working with him/in his service. Offered some initial ideas of research that I would be interested in; differences in staff attitudes between a LD and Non-LD forensic service and getting involved with the sex offender treatment programme evaluation which he had mentioned.
12.12.2013	Email conversations continue with Andy, he's happy to support and brainstorm potential ideas, SOTP idea has already been taken up by a fellow trainee. Conversation revolves around my interest in doing qualitative research. Andy proposes his interest in firesetting which could be an area I explore. I agree to look at the literature and see if I can find an angle of research that feels interesting and necessary. Andy agrees to be external supervisor and I begin thinking about/approaching internal supervisors.
15.04.2014	Still in the process of developing ideas and I have been reading around the area of firesetting and intellectual disabilities as Andy works in a forensic LD service. I have noticed that there is a real shortage of qualitative research in this field, I find myself second guessing my literature searching abilities but running several searches produces very little qualitative research. I feel like this is the rationale I need to pursue qualitative which excites me. I propose an idea of looking at the M-TTAF and how it maps onto an ID population. This is the latest theory of mainstream firesetting and had minimal ID in the sample, I feel as though ID always gets slightly overshadowed and potentially that theories/interventions/understanding could be subscribed to this population without much thought behind it. Identifying a gap in the literature reinvigorates me to think about the MRP and I'm excited to get going. I meet with Rachel for the first time and I'm able to share my provisional idea with her.
19.05.2014	I meet with Andy to think about the MRP proposal and to think about his links to secondary sites as I need to list these, he has connections to a private provider which reassures me that I may be able to access some participants across both sites. Andy agrees that there is a lack of qualitative research in ID firesetting (I feel validated and quite pleased with myself for noticing this myself) and agrees qualitative is a good direction for the MRP. He suggests IPA as he's used it previously and it seems suitable. We thought about a mixed methods approach and I spoke with a member of the research team at Salomons who suggested it would be better to keep it 'clean' and said to keep to qualitative methods.
End of May 2014	MRP proposal submitted for review; IPA methodology, exploring the ability for the M-TTAF to map onto ID firesetters' experiences.
18.06.2014	Attend the Salomons MRP proposal panel which is terrifying, I am so nervous about this meeting as I know research is not my strong point and I can feel myself physically shaking in the room which is unusual for me. The feedback leaves me feeling quite dejected, I feel as though I was being dissuaded from using qualitative methods. Whilst I appreciate a rationale of there is very little qualitative research in this field may not be a sufficient enough argument for the VIVA I feel as though the panel don't hear just how big a gap this is in the literature. They suggest that if I am adamant about using qualitative methods either my questions need to change tack

	or the method does.
26.06.2014	I meet with Andy to talk about the panel and their feedback and try to figure out how to move forward. I leave feeling as though I can put forward a rationale which is appropriate and will allow me to continue to pursue qualitative research.
08.07.2014	A reworked proposal is submitted to Andy and Rachel for consideration.
25.07.2014	Rachel has informed me that a member of staff (Martin Anson) would be better placed as a supervisor as he's just joined the team and has lots of research experience. Attend a handover meeting to think through the reworked proposal. Both suggest I delay resubmission until sept 2014 to iron out a few elements. Starting to feel as though the proposal stage is more of an obstacle than anything else, I'm surprised by how long the process is taking me.
12.09.2014	I get approval to use a grounded theory methodology with my original research questions about whether the M-TTAF maps onto an ID firesetting population as well as using the methodology to generate a theory so that if the M-TTAF isn't appropriate I can offer ideas from my data about what a theory for ID firesetting might want to focus on. I feel as though a big hurdle has been overcome and start thinking about the NHS ethics procedure/form.
29.10.2014	Andy emails to confirm that the patient experience group in his service agreed to review my consent and information form and felt that both were readable, non-patronising (which was a concern of mine) and they said they would be happy to complete the forms if they were asked to.
28.01.2015	Andy and I are still emailing about the ethics form which has taken a slight back seat due to other course pressures. Andy confirms that he has raised the research proposal at the clinical governance meeting for his service and the MDT have given the ok for us to use them as a site. Andy authorises the IRAS form, it's nearly ready to be sent which is anxiety-provoking but also a weight off my mind as it's been an ongoing task for a few months.
04.02.2015	I've been liaising with the local R&D department which has been useful but I'm finding it tricky to negotiate and navigate so much paperwork and conversations to get the research approved. I request that a NHS to NHS honorary contract form is completed by my employing trust so the research site trust can accept it as confirmation that I am who I am and I have the necessary paperwork in place to prove that I am eligible to work in the NHS and have a current CRB/DBS/
19.02.2015	After submitting my NHS ethics form to the London Dulwich REC, I receive an email stating there are some errors with the paperwork. None are too worrying but it's another hold up in the process which is beginning to feel very lengthy as it's over a year since I first approached Andy about the MRP.
24.02.2015	The form is accepted and I am notified that I should attend my panel meeting on 11.3.15 which is relieving and scary. I continue to liaise with R&D and the NHS REC as they copy certain documents to the R&D department and it's all becoming quite confusing but I'm just about able to keep stock of who needs what information and by when.
11.03.2015	I attend my NHS REC panel, I'm kept waiting for an hour which is less than some of my cohort but it just serves to intensify my nerves about presenting. When I'm called into the meeting the chairman seems surprised I'm on my own and 'don't have my supervisor with me to help me take the hits'. My anxiety goes increasingly high but I'm able to answer the questions posed to me. One person seems to misunderstand the concept of individuals with a learning disability/intellectual disability can provide informed consent if the researcher puts the necessary steps in place; pictorial aids, simplified communication, carer in the room if wanted, questions assessing ability to recall, retain and weigh up the info. I start to feel as though I'm making little sense

	however the chairman who is a psychiatrist understands what I am saying and supportively backs up my procedure for gaining informed consent which quietyens the other man down.
20.03.2015	I receive provisional ethical approval from the REC which amazes me as I felt I was grilled and had not responded overly well during the meeting. I am asked to provide letters of support from both sites, to check the version numbers and dates on the documents and to add in some information to the consent and information forms. I feel as though half the battle is won as I have very nearly received ethical approval.
29.04.2015	I resubmit the required documents to the REC. I am notified that they have gone to the sub-committee for approval and I'm really hoping this is a quick turn-around as I really want to get started with planning my data collection.
06.05.2015	Favourable ethical approval comes through. I am so excited that this box has now been ticked as I did not consider it would take half as long as it did to achieve.
01.07.2015	I have sent several emails to the secondary site link psychologist asking him to electronically authorise the R&D forms without any response. I feel extremely frustrated that I am being held up and I'm powerless to change this. I check in with R&D who tell me that I can send the forms to them regardless as the secondary site is a private provider, the R&D department does not get involved with their clinical governance procedures.
08.07.2015	R&D are sent all of the necessary paperwork, I have found the R&D man extremely helpful throughout the whole process and he appears to be quite a warm, friendly person via email which makes me feel a little better about the constant queries and delays.
29.07.2015	R&D is being processed and the person I am liaising with continues to be very supportive and helpful, he notifies me that a NHS to NHS honorary contract from which I asked SABP to complete in February 2015 has still not been sent to him. He gives R&D approval to begin data collecting on the provision that he receives this document shortly. I inform him I am on annual leave for three weeks and therefore the data collection will not begin before he has received this form.
03.08.2015	After emailing SABP the honorary contract form has been completed and sent to the R&D department who have confirmed receipt of this.
07.08.2015	Meeting with Andy to discuss how to being approaching possible participants, he has a list of potential names and the RCs have provided their consent for us to approach. We decide that Andy will let me know who is interested in the research and I will then begin to approach them. Arrange to meet in September to being data collection.
17.09.2015	Meeting with Andy who introduces me to some potential participants 1, 2, and 3. All agree to meet with Andy and I to hear about the study, all say that they will think about it and I book in to meet with them all a week later to gain informed consent. I was surprised by how comfortable I felt on the wards, I have previously worked in secure units so I was not nervous of the setting but I hadn't expected ward staff and possible participants to be so keen on helping me navigate the surroundings/want to hear what I have to say.
18.09.2015	I ask one of my cohort to help me to conduct a bracketing interview, I have done some reading around the topic of bracketing interviews and although we don't have a formal schedule of questions, we have been able to put a list of questions together that we hope will help me to connect with my assumptions and biases. During and post interview I've been struck by the personal sense I have that there will be mitigating circumstances which will have put the person in a situation that means they chose firesetting as a response. It has surprised me that I appear to find it difficult to consider that a person with an ID may purposefully choose to set a fire

	<p>unless they have been 'forced' by the circumstances around themselves to do so. I have also identified that I suspect some of the more widely considered psychological vulnerabilities will be present but probably exacerbated or exaggerated for individuals with ID. It has been a really useful exercise to think carefully about the lens in which I currently think an explanation about firesetting for individuals with ID may sit.</p>
<p>21.09.2015</p>	<p>Return to the primary research site and complete my first research interview, I talk to the other two potential participants who suggested that they might want to be involved and they decline interviews this week as they would like some more time to think about participating. I meet with another possible participant who says that he would be interested in doing an interview once he has heard about the study and we agree to meet on 1st October 2015.</p> <p>Impressions from my first interview: I'm not surprised when I hear that participant one has experience of foster care, I realise that this can often be the case for individuals in the criminal justice system/forensic systems, my viewpoint is related to working with individuals who had a difficult start in life but also being aware from the literature review which I've had to conduct prior to data collection that inadequate care in childhood can be a risk factor. As the participant explicitly spoke about foster care and his experience of it, the data is reflective of his opinion and life experiences which encourages me as I'm very aware that I don't want to influence the data with my own thoughts/assumptions if I can try to avoid doing so. I start to wonder if other interviews might talk about separation/instability in care arrangements. The participant also talks about the positive emotions associated with fire (relaxing/chilling out/watching the world go by) and I'm not sure yet whether this represent 'fire-interest' or whether it is something about the function of firesetting = reduced arousal. This participant has engaged in several types of offending and I wonder if this will be common across the sample or unusual. Participant 1 spoke about a history of drug and alcohol use although I didn't get the impression these were involved in his firesetting. I'm aware that 'going in blind' is useful to get the information from the participant as they want to describe it but I'm aware that I feel as though I'm in the dark a little bit and feel a little uneasy relying on self-reports and not having access to formal documents about the nature/severity/frequency of offending behaviour. Participant one described his incident of firesetting as accidental and I realised I had not fully anticipated this, I thought because the inclusion criteria said that there must be a recorded incident of firesetting, it may be possible for a person may minimise their role but I didn't account for someone saying it had been purely accidental.</p> <p>I'm keen to continue interviewing and see what other things strike me when I'm listening in the interview/transcribing.</p>
<p>08.10.2015</p>	<p>I complete two research interviews today, interviews 2 and 3. Interview 3 is facilitated by the ward manager at the participant's request. One of the initial participants who suggested they were interested is deemed to be too unsettled by the clinical team and I am advised not to approach him. The ward manager said that she would liaise with him when he is more settled and let me know his final decision about whether to complete an interview or not. I remind her that it is voluntary and therefore he does not need to do it, she is already aware of this but explained that he gets a sense of satisfaction and achievement when he participates in similar activities and that he talks about his need to be encouraged.</p>

Impressions from interview 2: spoke about family separation although this was about parents splitting up acrimoniously rather than physically separated from the family. I got a sense from participant two that he was wary of others, he spoke about not being able to trust other people and making enemies instead of friends, I wondered if this would be reflected in the other interviews, a sense of others or the world being unsafe (it's not a fully formed idea in my mind yet) . He told me that he was from a travelling community and I have to admit that my mind jumped to wondering if offending behaviour would be more prominent in this community, I tried to locate where that thought had come from and found myself thinking about the portrayal of the traveller community on TV which can be very stereotyped and can involve suggestions of their involvement in offending. He did go on to talk about multiple incidents of offending behaviours and an experience of being in prison, I began to think about how firesetting in the first two interviews was appearing to occur in amongst several antisocial/offending behaviours rather than a stand-alone incident. This made me wonder about the links between types of offending and the decision to set a fire. The fire that participant two chose to tell me about was when he was six, I was shocked when he said this as I found myself thinking six years old as very young to engage in firesetting. The context of the fire appeared to be in an attempt to manage the difficulties at home between his parents and he spoke about a sense of wanting to be dead. I hadn't considered there may be a link between firesetting and suicidality although participant 2 appeared to have some suicidal thoughts he set the fire and watched from indoors whilst his parents discovered the fire and his shoes which he had placed so they looked like he was in the fire. I found myself thinking about the function of fire as an effective communication tool, he spoke about wanting his parents to be aware of him and his distress and whilst this was an extreme communication it did serve to open up communication in the family/with services.

Impressions from interview 3: Described a chaotic childhood which saw him placed in with foster care and a care home, he appeared to have been involved with peers who encouraged his involvement in antisocial behaviours including criminal damage, theft from shops and alcohol and drug use (again this confirmed the sense I had picked up in the first two interviews of firesetting within a range of offending rather than being the only offence type). He spoke about feeling safe when he had experienced police custody and this made sense to me that in the context of instability and not having a secure base that the police could offer this. I thought about authority, respect, professional as being containing although these were thoughts that came to me after the interview so I was unable to check them out with participant three. There was sense of regret around his firesetting which had been to gain access to his Dad's property as he was unhappy at his care home (thinking about fire as a communication tool as he used it to voice his distress at being in the care home). He was the first person to talk about being under the influence of alcohol and drugs at the time of the firesetting which was an interesting concept to think about – would firesetting had occurred when not under the influence of substances? Participant three also spoke about the role of employment (apprenticeship) in keeping him out of trouble, I'd like to see if others have employment opportunities and how this relates to their sense of self/offending behaviours.

I decide to use the next few weeks to transcribe my first three interviews and to begin conducting the qualitative analysis as this will allow me to think about areas which may be emerging from the data that aren't on the interview guide and I can

	<p>incorporate this into my future interviews. I am coding line by line as suggested by Glaser and Strauss (1967) and I'm already beginning to notice that the coding is helped by the knowledge I already hold from doing the interviews and transcribing them, I have ideas in mind already about predisposing and precipitating antecedents which are confirmed with the raw data when I import the data into Nvivo and begin going through it line by line. I am cautious that I don't want my codes to be too focused at this stage so I try to make sure that I am coding line by line to generate a large amount of codes to be narrowed down further into the analysis and data collection process. The items which are standing out as noticeable currently relate to separation and instability in terms of home life/relationships with care givers, multiple offending, fire can be a communication of/or attempt to manage emotions, the influence of substances, antisocial peers/difficulties with peers (I found myself thinking about being 'led' or 'performing' for peers and social isolation), difficulties managing emotions more generally, some communication difficulties.</p>
27.11.2015	<p>I meet with Martin to think about a recently published review that I have found which I am concerned invalidates the review that I have been preparing to do. He is not as concerned as me and talks about how in research there is often overlap and some replication. We talk about how I can extend the published review or come at it from a different angle which would mean it is not a direct replication but adds something more to the bigger picture.</p>
10.12.2015	<p>I completed interview 4 today. This participant requested that his mother join us and initially this was very helpful as he was not that communicative in terms of answering the questions, he looked towards his mother to answer some of the questions at the beginning of the interview but as the interview progress he found his confidence in being able to provide answers for himself. I wondered about the presence of his mother and whether this would affect his ability to be honest but I did not get the impression that it really had a bearing on what we were talking about.</p> <p>He was suggested as a possible participant due to documentation about setting fire to his bathroom at home however his narrative of this which was supported by his mother indicated it was an accidental fire, there was some indications from his mother that she felt he could be risky but this didn't seem overly evident in the interview. I was unclear whether to retain his interview as it did not overly fit with the inclusion criteria. The participant did however have a history of playing with lighters and spoke different experiences with fire so it felt as though he could add some useful data to the sample. When coding this interview I noticed that it was quite different from the first three, no separation from the family, no previous offending, and his firesetting was dubious, drug and alcohol use didn't seem to be present, some difficulties managing emotions/relationships and there was some evidence of antisocial peers.</p>
08.01.2016	<p>I met with another possible participant who has previously been at the research site but had a successful discharge and had recently been recalled to the service. He listened to the information about the study and we arranged for me to return on 14th January 2015 to gain his consent and complete the interview. I am finding it quite difficult to balance placement, data collection, transcription and analysis and I am aware that the concurrent collection and analysis is beginning to feel more of a hindrance than helpful.</p>
14.01.2016	<p>I completed interview 5 today. Impressions from interview 5: this was the first interview in which mental illness appeared to play a role in the presence of firesetting behaviour, he termed it a 'nervous breakdown', as he spoke I found myself wondering if he was describing experiencing schizophrenia and felt a little</p>

	<p>concerned that I was unable to corroborate the information given to me against any other sources at this stage of the analysis. This interview was interesting as the participant had a lot to say and it was quite difficult to keep him on track/get a word in. I felt that he was very keen to demonstrate how much he had changed since initially coming into the criminal justice system/secure services and wondered if this would affect his reporting of the firesetting. When we got to the questions about firesetting I felt that he actually gave me a very honest account of the circumstances. He gave his rationale for firesetting as an explicit communication to the police who had been moving him from people's houses (breaking and entering as he was sleeping rough). He provided new codes in thinking about the presence about influence of mental illness and the breakdown of his marital relationship which appeared to be a catalyst for loss (loss of relationship, loss of home, loss of access to children, loss of employment- although I wasn't clear at which point this occurred, loss of his personal identity).</p> <p>I have found myself going back and forth between the list of codes and the transcripts I have so far to check that the codes are feeling as though they capture the data effectively and as some of the codes are replicas I am able to merge them so that the list is feeling more comprehensive. I find that this is beginning to feel a little easier as the data is supporting the codes which I have already found, there are minimal new codes emerging and I am beginning to think about how the codes can be grouped together to reflect sub-categories and categories. The data analysis is feeling exciting, this is why I wanted to do the research, to access the direct voices of experience and to make sense of what they report as predisposing and precipitating antecedents and risk factors. It's taken me some time to get my head around Nvivo but I feel now that it's useful software to help me think about my analysis.</p>
22.01.2016	<p>I email the secondary site as I'm concerned that I am not going to have enough participants. The psychologist who has agreed to be the principle investigator for site invites me to attend the next clinical governance meeting to present the research idea. This is frustrating as time is beginning to be of the essence and this is not something which was flagged up to me in previous correspondence. I would have preferred to have attended this much earlier in the process so if I needed to access their site, it would be a quicker process.</p>
18.02.2016	<p>I attend the clinical governance meeting to present my research, the site involves a three hour round trip (driving) and I am in the meeting for about 5 minutes. The psychologist is off sick which is unavoidable however I feel as though I'm being made to jump through hoops unnecessarily. The MDT agree that I can recruit from their site and the RCs agree to get a list of initials to me asap to approach.</p>
26.02.2016	<p>I meet with Martin to think about the blocks I am experiencing to writing part A. I feel in part this speaks to my personal expectations of myself which can border on wanting to be 'perfect' as well as my two research pieces of work for the course so far having been marked as referrals. This has confirmed my self-belief that I am not able to do 'research' and this is a notion I am struggling to get past. I am finding that whilst reading part As available online does initially help me to plan my own part A, when I sit down to write it I get a mental block which I think is related to anxiety.</p>
09.03.2016	<p>I attend the secondary site, facilitated by the two assistant psychologists to meet the individual who I have been told I can approach. I'm informed that the other potential has not engaged with the RC and therefore the RC was of the opinion that I should not approach her. The participant I do approach are interested in the study and give initial agreement to be involved. I scheduled interviews with them for next week. Recruitment to psychological research feels like a huge task to undertake, I thought it would be difficult but I did not imagine that I would still be data collecting so close to</p>

	the MRP deadline.
14.03.2016	I finally sent my part A draft to Martin to check through for me. I have found that it has been easier to avoid the piece of work rather than admit that I have no confidence in my abilities to write a good literature review. It seems ridiculous to leave it so late in the day when I know research is not my strong point but I did not want to explicitly admit just how much I feel I am struggling with part A. I feel better that I have something submitted so that Martin can help direct me on how to improve it.
18.03.2016	I complete interview six, the other potential participant declines to be involved any further. During interview six I hear for the first time about the participant's experience of abuse (sexual, physical, and emotional). It was difficult to hear this as it involved another family member and despite not being a mother, I feel quite maternal towards the people I work with and can struggle to understand the atrocities people inflict on those they are supposed to love and protect. I hear evidence of being in care and adaptation being difficult, drug and alcohol use is discussed and prevalent at the time of the firesetting. Interestingly, this was another occurrence of someone reporting an accidental fire, I find this throws me a bit especially when he stated that he was sectioned on a 37/41 of the MHA following the fire which makes me think there was enough evidence of his involvement for the courts to apply the section. Participant six spoke quite a bit about standing up for people and his own rights and when I looked at my codes I noticed that this was something that had been spoken about a little bit in other interviews. I began to think about the concept of protection and retaliation and how these were similar/dissimilar and if there was relationships between these and ID or these and offending or whether there wasn't evidence of relationships to either. This interview provides further evidence for lots of the codes I've already generated and I find myself becoming slightly overwhelmed by having a list which is approaching 200 codes but I'm also struck by a sense of powerlessness running as a core concept through the interviews so far. I'm not clear at this stage how I can demonstrate links between the codes and 'powerlessness' but I'm aware that I have a strong feeling of the importance of 'powerlessness' from what I've been told by my participants.
23.03.2016	Andy emails me to say that he's got two more potential participants if I would like to approach them, I'm unsure about this due to the very present time constraints however I do think it would be useful in terms of demonstrating data saturation. I agree to meet with them both and they
24.03.2016	Meeting with Martin to discuss Part A draft amendments and to talk through my analysis so far. This meeting has given me some confidence back in terms of helping me see how much work has been done and although there is a lot outstanding it does appear to be manageable.
30.03.2016	I complete interview seven, the interview provides further support for the idea about separation and instability in childhood and a sense of me then vs me now which I have seen evidence of in other interviews, he spoke about at times struggling to manage his emotions and sometimes feeling unheard- again this is something that I've had a growing aware of as I've coded the interviews and then looked at my codes and gone back to other transcripts to check what they had said. This incident of firesetting appears to be another accidental report during which the friend is given the blame for the fire and the interviewee described his attempts to put the fire out/whether to notify staff at his supported accommodation, he was quite insightful when he spoke about his thoughts at the time of the fire and in the aftermath. This participant spoke about getting kicked out of school which was a new code that related to previous codes thinking about difficulties at school engaging in subjects or

	<p>with peers. Few new codes emerged and there was lots of connection in the text to the pre-existing codes which made me think that I was starting to approach data saturation, or at least as much data saturation as I was likely to achieve within a time limited research study.</p>
31.03.2016	<p>I complete interview eight and again find that most of the codes are replicated with the data from the interview once I have transcribed it. Some new codes/ideas which emerge include the notion of taking things from other people to get back at them as a response to feeling angry, firesetting having a function of effecting change – getting moved to another supported accommodation placement. He also spoke more explicitly about experiences of bullying/witnessing bullying which provided evidence for codes I had already generated looking at difficulties in peer relationships.</p>
April 2016	<p>I have spent my time working in close connection with my data to firm up the theory that is emerging, I have found that at times I feel quite paralysed in trying to move from descriptive codes to more theoretical codes. I feel as though I know what I'm trying to say and I'm clear that the categories/concepts are driven by the data which gives me some confidence within them but I find that my mind is sometimes unable to step back from looking at a micro level to a macro level and achieving the meta-perspective that I think is required. Developing the theory is also quite unnerving as I'm aware that it has a degree of subjectivity to it and I find myself second guessing my ability to do justice to the interviewees and to represent their voices in the write up. I have found that going back to my scribbled notes when conducting interviews and memos that I wrote as I have been toing and froing with the data analysis helps to concretise in my mind the components and elements of my theory. I also have found that discussing it with clin psych peers and my supervisors has helped me to look at the study with fresh eyes and to pull together the information into something which I feel is useful and does represent those who took part in a meaningful manner. The write up of the study has been far more time consuming than I realised it would be but I have also discovered that some of my 'lightbulb' thoughts have occurred at random times and probably as a process of my brain quietly working its way through the complex weaves of information I am holding in mind when I have given myself the space to think properly. I find that the model unexpectedly comes together after several weeks of thinking about and once it comes together I can clearly see the conceptual categories forming and as they do a core category of powerlessness suddenly strikes me as it runs through all of the categories uniting them. This feels extremely exciting to have arrived at a model which I was unsure would ever come together.</p>

Appendix K Coded Transcript of Participant Interview

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Nodes\\Anger response

Appendix L examples of Nvivo coding

Document

Internals\\Participant 1

No 0.0124 2

1 SC 22/03/2016 16:41

you've already said about how you might have a strop and go back to your bedroom
 1: yeah, I just go, I just go to my room and that and play on my games and that, I listen to a bit of music then like ten minutes later I'll come out like, with like, like nothing's happened

2 SC 22/03/2016 16:41

No, I wouldn't, before I would've probably really reacted (R: Ok) I probably would've swore and that (R:ok) sometimes I'd kick doors

Internals\\Participant 2

No 0.0109 2

1 SC 22/03/2016 17:13

2: well I lash out

2 SC 22/03/2016 17:14

2: when I'm angry I normally just sit in my room or just scream (R: ok) but I've never lashed out and hit somebody for it (R: ok), I've just sat in my room and screamed and, or I'd just hit something else like... a pillow or (R: mmm) so, it's always better to hit a pillow (R: ok) to get your anger out

Internals\\Participant 3

No 0.0132 2

1 SC 22/03/2016 17:42

: speak to staff or (R: hmm mm) go and talk to someone (R: very good answers is that what you would have always had done?), no (R: and what would you have done differently in the past?), hmm... I don't know, I would have probably...

2 SC 22/03/2016 17:42

not, no, I'd say I'd just throw things about and I don't really trash my room, I just (R: ok) throw things around.

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Internals\\Participant 4

No 0.0062 5

1 SC 23/03/2016 10:33

so if you go out when you're feeling angry, what will you be like out in the street?

4: annoyed (R: ok) and angry

2 SC 23/03/2016 10:33

4: hmm, go round my friends

3 SC 23/03/2016 10:39

4: hmm, already done the wall, broke the wall

4 SC 23/03/2016 10:40

we've got hit an old motorcycle helmet to try and calm him down whenever he gets angry, he goes into the back garden and he can like smash that up with a hammer or something

5 SC 23/03/2016 10:40

is it generally things that you break, you're breaking things rather than hitting people

4: yeah

Internals\\Participant 5

No 0.0134 2

1 SC 23/03/2016 11:29

what I should do is, instead of me talking, I do talk to people sometimes, (R: hmm mmm) but when it's a little small matter I, I don't bother (R: ok), like if it's a big problem then I go to staff or go to the people (R: brilliant) and, and explain the problem and talk it over and, and get advice (R: that's really good), that's what I normally do

2 SC 23/03/2016 11:30

but it's little, slight problems I let it build and let it build up till it gets to be a big problem (R: ok) and then, then I get angry with people (R: and that happens over a long period of time, so quite a few weeks), yeah over a matter of weeks (R: things will get on top of you), yeah then I've got to, got to say to someone who's involved, who keeps picking on me or like taking the mickey out of me, (R: hmmm) I've got to say "look mate will you please stop doing this mate like", (R: yeah, yeah so you

Internals\\Participant 6

No 0.0068 3

1 SC 23/03/2016 11:51

normally swear (R: hmm mmm)... slam doors (R: hmm mmm)... say nasty things

2 SC 23/03/2016 11:52

ok, will you get a bit shouty? (6: nods head)

3 SC 23/03/2016 11:52

just relax in my room

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Internals\\Participant 7

No 0.0028 2

1 SC 04/04/2016 16:27

talk to someone

2 SC 04/04/2016 16:28

ok, do you ever shout or swear at people?
7: Only when they annoy me

Internals\\Participant 8

No 0.0066 2

1 SC 04/04/2016 17:03

angry...hmm, probably (R: so how do you respond), it can react for me in diff, different ways you know

2 SC 04/04/2016 17:04

I can do sometimes yeah (R: you can do, yeah, can you say nasty things sometimes?). Yeah you fucking bastard or fuck you

Nodes\\Foster care

Document

Internals\\Participant 1

No 0.0053 3

1 SC 24/03/2016 12:05

I was in foster care, had a few foster carers

Aggregate Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 SC 24/03/2016 12:05

erm...about three I think, three or four

3 SC 24/03/2016 12:05

erm... some was alright and some was wasn't but a couple of them I've been too they was alright

Internals\\Participant 3

No 0.0036 1

1 SC 24/03/2016 12:05

I was in (5 second pause), errr, my, my ***** children's home in ***** which is in, erm, near near *****

Internals\\Participant 6

No 0.0086 3

1 SC 07/04/2016 13:15

how old were you when you went into foster care, can you remember?

6: probably... when I was... five or six, well I can't even remember

2 SC 07/04/2016 13:15

a few

3 SC 07/04/2016 13:15

nah, they were alright all except for one

Internals\\Participant 7

No 0.0233 4

1 SC 04/04/2016 16:06

first off I was in ***** (R: ok) with a foster carer (R: yeah), then I moved to ***** with another foster carer...got kicked out of there (R: right ok) cos I was a naughty boy

2 SC 04/04/2016 16:07

ohh, she kept nagging at me so I put me hand through the door (R: ok) and got kicked out of there

3 SC 07/04/2016 13:17

Nah, I was in a care home (R: in a care home, ok)

R: so a couple of foster placements (7: uh huh) and then a care home (7: yeah so then)

Nodes\\Attempts to stop fire**Document****Internals\\Participant 1**

No

we're trying to put it out you know, we tried putting it out loads time so you know like, like you do, you urinate on top of it, trying to put it out but it wouldn't go out and we tried pulling it you know, pulling the big bale outs but nope wouldn't work

Internals\\Participant 2

No

but I think I told the staff it happened and then we all got hoses and buckets and tried to put it out until the fire brigade got there

Internals\\Participant 7

No

Cos I knew what would happen (R: ok), so I tried to stamp the thing out(R: ok) but before I could do that it went like that (indicates doubling in height) (R: right), I was like ok time to go (R: ok). I think someone saw the smoke and called the ambulance, no not the ambulance, the fire engine (R: ok)

I was like, I was like can I roll on it, I was like pfft (throws hands up in the air) but I thought nah it'd be too hot, burn me arms (R: yeah) and then I thought right let's go

Nodes\\Childhood experiences of firesetting

Document

Internals\\Participant 1

No

0.0071 4

1 SC 22/03/2016 16:35

yeah you see a lot of fires and that

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 SC 22/03/2016 16:36

only, only the other kids and that were they burn the outsides and that

3 SC 22/03/2016 16:36

yeah the fire brigade and police and that

4 SC 22/03/2016 16:36

thinking oh my god, erm... erm (5 seconds) I don't know, see that's a long time ago

Internals\\Participant 2

No 0.0159 3

1 SC 22/03/2016 17:06

2: umm, when I was quite young I started a fire in my back garden and put my shoes beneath the fire so it looked like I was dead

2 SC 22/03/2016 17:07

2: I was six when that happened

3 SC 22/03/2016 17:07

2: and erm, I was in a school aged thirteen and I flicked a fag into this shed (R: yeah), and it caught, caught on fire because there was petrol in there (R: oh wow), but I think I told the staff it happened and then we all got hoses and buckets and tried to put it out until the fire brigade got there

Internals\\Participant 3

No 0.0110 3

1 SC 22/03/2016 17:33

Did you ever set any fires when you were you were a child or teenager?

3: mmm yeah (R: you did?), mmm

R: did the emergency services ever attend those (3: yeah)

2 SC 22/03/2016 17:37

3: I don't know, I wasn't there to hang around,

3 SC 22/03/2016 17:37

yeah, sometimes I'd stay, sometimes I'd stay at a far distance (R: mmm) and sometimes, I, I'd run off and that.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Participant 6

No 0.0031 1

1 SC 23/03/2016 11:49

Did you ever set any fires when you were growing up?

6: yeah

Appendix M Examples of coding memos in Nvivo

Memos\\Alcohol does not appear to be a risk factor

1

SC

29/03/2016 17:08

Noticing that there are differences in the uses of alcohol, some participants report drinking a lot, some report minimal drinking. Alcohol affects everyone on an individual basis and that is evident here, some report getting 'drunk' on very small amounts of alcohol, others talk about drinking much larger quantities. Those that drink less appear to not be that keen on it and engage in drinking on occasions such as Christmas/parties. Others alcohol use appears to be a coping strategy that they have employed. Not clear how influential it is in firesetting, only one person cites being under the influence when engaging in firesetting. It may be that the data set is too small or it may be that for ID firesetters, alcohol may not be an explanatory precipitating factor. Age of alcohol use varies across the sample, one person drinking from 12 in the context of quite a chaotic childhood and reported being drunk when he set a fire so for him we might suggest the alcohol increased his risk but for the others it is unclear.

Memos\\Bereavement

Four participants noticed that they had lost significant family members (parents/grandparents) and although some did not go into detail about the impacts of this they became noticeably quieter in the room and appeared to be connecting with their feelings of sadness. I thought about how bereavement can impact upon a person's sense of self, their place and role within the world. I thought about the loss of very close family members and how this could lead to a sense of isolation and potential distance from others, in part I am aware that I am connecting to my own experience of losing a parent and I am thinking about how I come from a large extended family who provided support to my immediate family. My sense from the interviewees has been of an impoverished social/support network and I wondered if the loss of a significant family member from a smaller unit would be felt more acutely. I also thought about how this connected to being separated from their family units through living in foster care/care homes and how this may have diluted these relationships which again leads me to think about isolation from families and possibly from society.

Memo**Memos\\Negotiating and navigating school**

No

Thinking about the experience of getting into trouble at school and what this involved for the participants who mentioned it. I'm wondering about the context of getting into trouble, as mentioned in the quotes interpersonal difficulties played a role and in my mind I'm thinking about the presence of bullying but I'm aware that this was not elaborated on in the interviews and it's an assumption of mine that people with ID may experience more bullying. This is due to personal experiences of seeing it happen when I was at school and my mum is a sense so I hear about stories of bullying. I am also aware that the interpersonal difficulties I may be assuming places the individuals in a 'victim' role without exploring this with them, it may be the case but it may also have been the case that they were reactive to others - this could be due to misinterpretation of social cues, they may have found an educational setting overwhelming in terms of ID and ability and may have had less tolerance due to the demands upon them to navigate and negotiate not only school and academic work but friendships, timetables etc.

Memos\Firesetting as a communication

I have found myself thinking about the function of firesetting within the sample of men I have interviewed, for half of the sample firesetting appears to have had the function of being a communication tool. It was used to communicate distress and emotions when it felt as though the person's voice was not being heard. For two of the sample the communication was not only distress but also served as a bit of a warning, a reminder to not mess around with the person. I find myself thinking about Jackson's only viable option model and whether this might fit here, that potentially these individuals are driven to set fires when other forms of communication go unheard or unrecognised. This taps into my earlier sense of thinking about the potential for isolation/being on the edge of society and how perhaps having a sense of being on the fringes for individuals with an intellectual disability may in part lead to their engagement in behaviours which aren't seen as 'acceptable' in mainstream society. I am also thinking about the other half of the sample which describe their firesetting as accidental and how this continues to surprise me as I did not anticipate that people would tell me about incidents of firesetting in which they felt their role was minimal or influenced by others. Here the concept of antisocial peers appears in part to have a role in the firesetting, I wondered about intellectual disabilities and how there can be a view within society that these individuals can 'go along' with actions/behaviours to gain acceptance or to seem similar to their peers. I noticed that I am finding it difficult to conceptualise this as some of the sample are detained within low security services which would suggest that there has been an offence committed, it is unclear to me at this stage who might be detained with firesetting as their index offence and who have been detained for other offences and firesetting is in their history of antisocial/criminal behaviours.

Memos\Me then versus me now

There appears to be a sense within the interviews of the participants describing themselves as me then and me now, whilst these are my words to capture what they are talking about, all of the participants were able to talk about how things were in the past of them including their ways of coping/managing difficulties and how these have altered. It would seem with the passage of time and input from services, the participants are able to recognise that some previous coping strategies (drinking alcohol, drug use, smashing objects, being aggressive) were no longer functioning in a helpful manner for them and they all spoke about feeling more able to walk away from situations which would previously anger them, to talk to staff/peers, to keep trying to problem solve and talk with people and to take themselves away for some quiet time. They also appeared to have made distinctions between the version of themselves who would engage in offending behaviours or become aggressive and how they now do not think they would. The mechanism of change appeared to be something about the support of services which appears to have equipped them with more adaptive coping strategies/confidence to manage overwhelming emotions or situations. I am aware however that how services have helped them was not an explicit focus of the interviews. Some of the sense that services have helped may be related to my experience of forensic services and what psychological/psychiatric and occupational interventions can/are offered. Some of the participants are still in forensic services and therefore as a researcher I need to keep in mind that these services are restrictive in terms of access to substances/abilities to engage in offending behaviours so I do not know that the more positive 'me now' would necessarily extend in the community and I am curious about whether this is indicative of lasting change or whether it is a temporary change brought on in part by the restrictive nature of the services they are in. Two of the sample are living in the community and for them, the personal growth and move away from offending behaviour does appear to be transferrable and they appear to be managing well in the community and not presenting any risks to themselves or others.

Appendix N Example of refining the coding process

Raw data from transcripts	Initial coding	Focused coding	Theoretical coding
<i>"I don't know, I would have probably... exhales... trashed my room or something" Participant 3</i>	Can be physically aggressive	Emotional regulation difficulties	Managing internal affective states
<i>"first off I was in ***** with a foster carer, then I moved to ***** with another foster carer...got kicked out of there (R: right ok) cos I was a naughty boy" Participant 7</i>	Moving from carer to carer	Loss of stable base	The experience of adversity
<i>"well I would, at school I used to get really bullied at, I had a couple of quite big bullies, who bullied me and a couple of others but yeah...well I sort of tried to stayed out of their way and err I was scared to go onto the playground...because I knew they were gonna be there you know" Participant 8</i>	Bullied at school	Others are threatening	Unsafe others
<i>"it all comes to a point that if he says no and then what are you supposed to do because he's living in your place, and he's not paying for any electric, or anything like that, or petrol to erm keep it running so the boys and us jus, just decided to take somefink of his just to get the money" Participant 2</i>	Stealing to get money	Rationalising offending behaviour- no other options	Early pro-offending attitudes and beliefs
<i>"it was like the teachers, you'd talk to one of them like a kid's hit you and they don't listen...cos I got into a fight and they didn't help, so they just left me with a (?) hand" Participant 4</i>	Teacher didn't listen to me	Communication difficulties	Voice entitlement
<i>"barbeques, bonfires...yeah it was exciting and happy just to see it all going on" Participant 1</i>	Social uses of fire	Positive experiences of fire	Experiences of fire
<i>"erm, sssss, I don't know some days I'd spend in that, I'd spend like three or four hours (R:ok), just like laying there (R: yeah), yeah, used to have like cigarettes and that (R: yeah), yeah so three or four hours laying there" Participant 1</i>	Laying by the fire is calming	Reduced emotional and physiological arousal	Internal functions of Firesetting
<i>"so I went back to, thinking, me mind was thinking if I do something, it'd, it'd make them think to theirselves "oh he's getting back now so we'll let him get on with it" like...So I went back and I put a match to the hay stack" Participant 5</i>	I'll get back at them	Fire is a communication to others	External functions of firesetting

Appendix O Easy read summary of result for participants

Dear

I am Stacey and I am a trainee clinical psychologist. We met when I talked to you for my research into why people set fires.



I interviewed eight males in total.



There was one main idea from the interviews which was people feeling powerless.



Interviewees talked about being separated from family and living in foster care or care homes and how this could be difficult.



They talked about relationships being tricky whilst they were growing up.



Some people talked about asking for help which was sometimes ignored or not carried out very well.



Some people found school difficult; the lessons could be hard, teachers were sometimes unhelpful, friendships could be tricky and some people experienced bullying.



During the interviews people talked about how they coped with anger and other strong emotions.



Most interviewees had memories of attending BBQs and bonfire nights and thought these were nice things to do.



Everyone knew that fires could be dangerous and had ideas about how to help: telling someone or calling the fire brigade if they came across a fire.



Some of the firesetting we talked about involved friends and may have occurred as a result of being careless or may have been encouraged by their friends.



Firesetting could be a way of saying something to other people. It helped them tell people about the strong feelings they were having.



Everyone thought there had been positive changes for them since their firesetting: they felt more confident in themselves and in their relationships.



Everyone talked about learning better coping strategies to help them manage difficult situations. This was really encouraging to hear.

Coping Skills



Thank you so much for your help in my research. It was lovely to meet you and hear about your experiences.



**Thank
You!!!**

Appendix P End of study declaration for NHS REC panel

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Appendix Q Summary of results for NHS REC panel and R&D team

Summary of findings for study 15/LO/0364 sent to the NHS ethics committee
Exploring firesetting in an Intellectually Disabled population: A grounded theory approach

Overview of the study, aims and research questions:

This study explored the experiences of eight male adults with intellectual disabilities who had engaged in firesetting using a qualitative methodology (grounded theory). The aims of the study were to establish what antecedents were present in the lives of these individuals that may have increased the risk of engaging in firesetting behaviours and whether this knowledge could help to inform psychological treatment needs and intervention. The eight men were interviewed using an interview guide that provided areas of interest for the researcher to enquire about whilst also allowing some flexibility for the researcher to follow the participant's lead if they began discussing items which were not on the guide. All of the participants were given verbal and written information prior to giving their informed consent. The written material and consent forms were produced in an easy read format to enable accessibility to these documents.

The researcher questions for the study were as follows:

1. How do individuals with an intellectual disability explain their experience of setting a fire?
2. What are the similarities and differences between the individuals' experience which may form the basis of a theory of firesetting which is specific to this population?
3. Does the qualitative data give an insight into the possible psychological processes underpinning the individuals' experience of firesetting?
4. Can psychological theory enhance the understanding of risk factors and antecedents for firesetting in this population?

Results:

The participants were all able to engage with the interview process, the interviews ranged from 27 minutes 14 seconds to 1 hour 21 minutes 22 seconds, the average length of the interviews was 43 minutes 13 seconds. Half of the sample talked about their involvement in firesetting from the perspective of the firesetting being accidental and half openly admitted their intentions and actions within setting a fire. The sample as a whole appeared to have several similarities in terms of antecedents and risk factors which helped to form the grounded theory.

The results of the study consisted of quotations from the participant interviews which provided evidence supporting the emergence of conceptual categories. This evidence enabled the generation of a core category which was felt to encompass the overarching concept present in all of the categories offered by the theory. Across the eight participants, eight categories emerged which felt reflective of the antecedents that appeared to be influential in their engagement in firesetting. The categories reflected a preliminary grounded theory understanding of how engagement in firesetting within intellectually disabled adults occurs. The core category and nine related categories identified in the analysis were:

Core category: Powerlessness

1. Managing internal affective states
2. The experience of adversity
3. Unsafe others

4. Engagement in offending behaviours
5. Voice entitlement
6. Experiences of fire
7. Mediators of risk
8. The function of firesetting

Discussion:

The preliminary grounded theory offered here suggested that for adult males with an intellectual disability engagement in firesetting behaviours was mediated through an overwhelming sense of powerlessness. This powerlessness presented itself in several key areas of their lives which led them to engage in firesetting as a method of communication or as an act within a spectrum of antisocial behaviours which again could be argued held communicative values. The antecedents and categories discussed in this study were compared against a mainstream theory of firesetting, the Multi-Trajectory Theory of Adult Firesetting (Gannon, O'Ciardha, Doley & Alleyne, 2011), to see whether the antecedents and risk factors identified in the current study's sample mapped onto the antecedents found within mainstream offenders who had engaged in firesetting.

When thinking about the current grounded theory and the M-TTAF, there was evidence that the antecedents and categories formed within the current study linked to the five trajectories proposed by the M-TTAF. The five trajectories included: antisocial – firesetting occurs in the context of multiple antisocial behaviours, grievance- Firesetting is a tool to be utilised by the individual, fire-interest – firesetting produces strong sensory stimulation and positive emotions for the individual, emotionally expressive – the person's needs are not being met and firesetting is a communication tool to get their voices heard and multifaceted- this includes the presence of pro-offending attitudes, fire-interest, emotional regulation difficulties and communication difficulties. For the current study, there was evidence of firesetting occurring in the context of other antisocial/offending behaviours, it had a communicative purpose, and it decreased arousal and could on occasion produce pleasurable emotions (feeling soothed, calm or relaxed).

Conclusion:

Qualitative methodologies can be usefully employed with an intellectually disabled population which the researcher found extremely encouraging as a literature review had produced very few qualitative papers with this population. The grounded theory has given some insight into the psychological processes which can underpin an individuals' experience of firesetting and therefore psychological theory can be used to understand and therefore offer meaningful interventions to intellectually disabled individuals at risk of firesetting or who have already engaged in firesetting.

References:

- Gannon, T. A., O'Ciardha, C., Doley, R. M., & Alleyne, E. (2011). The multi-trajectory theory of adult firesetting. *Journal of Aggression and Violent Behaviour*, 107-121. doi:10.1016/j.avb.2011.08.001

Appendix R Submission guidelines for the Journal of Intellectual Disabilities and Offending Behaviour

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For newspaper articles (authored)	<p>Surname, Initials (year), "Article title", Newspaper, date, pages.</p> <p>e.g. Smith, A. (2008), "Money for old rope", Daily News, 21 January, pp. 1, 3-4.</p>
For newspaper articles (non-authored)	<p>Newspaper (year), "Article title", date, pages.</p> <p>e.g. Daily News (2008), "Small change", 2 February, p. 7.</p>
For archival or other unpublished sources	<p>Surname, Initials, (year), "Title of document", Unpublished Manuscript, collection name, inventory record, name of archive, location of archive.</p> <p>e.g. Litman, S. (1902), "Mechanism & Technique of Commerce", Unpublished Manuscript, Simon Litman Papers, Record series 9/5/29 Box</p>

3, University of Illinois Archives, Urbana-Champaign, IL.

For electronic sources

If available online, the full URL should be supplied at the end of the reference, as well as a date that the resource was accessed.

e.g. Castle, B. (2005), "Introduction to web services for remote portlets", available at: <http://www-128.ibm.com/developerworks/library/ws-wsrp/> (accessed 12 November 2007).

Standalone URLs, i.e. without an author or date, should be included either within parentheses within the main text, or preferably set as a note (roman numeral within square brackets within text followed by the full URL address at the end of the paper).

Appendix S Consent to publish results of the study form approved by the NHS REC

Dear.....

I am writing to you as we completed an interview about firesetting together. I recently sent you a summary of the results; I hope you found it interesting to read.

I would like to submit the study for publication in a healthcare journal as I think it would be useful for staff working with people with learning disabilities who may be at risk of setting fires. This means that I would write a report about the interviews and the results. The report will **not include** your name or any identifying information about you.

I would like to include quotes from the eight interviews I completed, the quotes will be introduced by number, for example "*Participant 1 said...*" This may be published on the internet for people to read.

If you agree that I can use quotes from your interview please initial the boxes on the form below and sign your name. You can return the form in the stamped envelope included with this letter.

Many thanks

Stacey Campbell
Trainee Clinical Psychologist.

Participant consent to publication form

I have completed an interview with Stacey about fire setting.



I agree that Stacey can use quotes from my interview in any research papers she publishes. I understand any quotes used will be given a number so that I cannot be identified.



Name of participant

Date

Signature

Researcher

Date

Signature

Appendix T Opt-out letter to participants that could not be contacted regarding publication of results of the study, approved by the NHS REC

Dear.....

I am writing to you as we completed an interview about firesetting together. I recently sent you a summary of the results; I hope you found it interesting to read.

I thought the interviews were very useful; I said in the participant information sheet that the information from the interviews may help professionals to support people who have set fires before and will help to improve the treatments people will be offered. To do this I would like to put the report or an edited version of it forward for publication in medical/professional journals and websites. The journals may or may not decide to use my report.

As I discussed with you previously, I will not use anyone's names or locations in the report. This is to protect the people who took part but I would like to use some of the words which people used in the interviews.

Please could you let me know by the end of June 2016 if you **do not** want me to publish the report? You can contact me using the following details:

Phone and leave a message on **0333 0117070**

Email me on s.campbell783@canterbury.ac.uk

Write to me at Stacey-Marie Campbell

Salomons centre for applied psychology

Canterbury Christ Church University

Runcie Court

David Salomons Estate

Broomhill Road

Tunbridge Wells, Kent

TN3 0TF

Many thanks

Stacey Campbell

Trainee Clinical Psychologist