



WHAKARATONGA IWI

FIRE
EMERGENCY

NEW ZEALAND

THE NEW ZEALAND FIRE AWARENESS AND INTERVENTION PROGRAMME: REACH, UPTAKE AND BARRIERS TO ENGAGEMENT

May 2021

Fire and Emergency New Zealand Research Report Number 180

ISBN Number 978-1-92-728748-4

ISSN Number 2703-1705

© Copyright Fire and Emergency New Zealand

Tyler, N., Fortune, C.A., Dixon, L. & Neha, T. (2021). The New Zealand Fire Awareness and Intervention Programme: Reach, Uptake and Barriers to Engagement (Report No. 180). Victoria University of Wellington, Wellington, NZ: Fire and Emergency New Zealand.

This research was commissioned by Fire and Emergency New Zealand and undertaken by independent researchers. Publication does not indicate Fire and Emergency New Zealand's endorsement of the findings or recommendations.

Copyright ©. Except for the Fire and Emergency New Zealand emblem, this copyright work is licensed under the Creative Commons Attribution 3.0 New Zealand licence. In essence, you are free to copy, distribute and adapt the work, as long as you attribute the work to Fire and Emergency New Zealand and abide by the other licence terms. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/3.0/nz/>. Please note that the Fire and Emergency New Zealand emblem must not be used in any way which infringes any provision of the [Flags, Emblems, and Names Protection Act 1981](#) or would infringe such provision if the relevant use occurred within New Zealand. Attribution to the Fire and Emergency New Zealand should be in written form and not by reproduction of the Fire and Emergency New Zealand emblem.



Final Summary Report

The New Zealand Fire Awareness and Intervention Programme: Reach, Uptake and Barriers to Engagement

Report Date: 31st May 2021

Report Authors: Dr Nichola Tyler, Dr Clare-Ann Fortune, Professor
Louise Dixon, and Dr Tia Neha

Research Team: Harry Dent, Tara Nichols, Amelia Rhodes, and Jacinta
Rogers

Project Funder: Fire and Emergency New Zealand

ACKNOWLEDGEMENTS

This research was commissioned and supported by the Contestable Research Fund from Fire and Emergency New Zealand.

This research would not have been possible without the support of a number of people. First, thank you to all of the Fire and Emergency New Zealand staff who participated in and supported this research. A big thank you to Zoe Mounsey, Kylan McKeen, and Jane Rovins from the Fire and Emergency New Zealand research team (Te Ao Mārama), Steve Turek (National Manager, Community Readiness and Recovery), and Rachael Utumapu (Pou Herenga Wāhine and Acting FAIP Manager) who kindly provided support, assistance, and their subject knowledge expertise throughout the project.

Thank you to all of the research team based at Victoria University of Wellington, particularly Harry Dent, Tara Nichols, Amelia Rhodes and Jacinta Rogers for going above and beyond in their research assistance to ensure that the project and its aims were achieved.

And finally, a special thank you to all of those who participated in the interviews and online survey as part of this research, including FAIP practitioners, professionals, and whānau of rangatahi who had been referred to the FAIP. Without you taking the time to share your knowledge and experiences, this research would not have been possible. We are incredibly grateful for your time and generosity.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
EXECUTIVE SUMMARY	4
GLOSSARY	7
INTRODUCTION	8
METHOD	11
KEY FINDINGS	16
Fire Incidents Involving Rangatahi in Aotearoa New Zealand	16
Referrals to the FAIP	21
Characteristics of Rangatahi Referred to the FAIP	25
Facilitators and Barriers to Engagement: Professionals' Perspectives	31
Facilitators and Barriers to Engagement: Practitioners' Perspectives	43
Facilitators and Barriers to Engagement: Whānau Perspectives	58
CONCLUSIONS	66
RECOMMENDATIONS	68
REFERENCES	71

EXECUTIVE SUMMARY

Objectives

The current research aimed to examine (1) the characteristics of rangatahi identified as having set fires in Aotearoa New Zealand, (2) the reach and uptake of the Fire Awareness and Intervention Programme (FAIP) and, (3) factors which act as facilitators and barriers to engagement with the FAIP.

Method and Analysis

A mixed-methods approach was used to meet the objectives of the research. To identify the characteristics of rangatahi identified as having set fires and the reach of the FAIP, quantitative analyses were conducted on data routinely collected by Fire and Emergency New Zealand from the Fire Incident Reporting Management System (FIRMS) and the Fire Awareness and Intervention Programme (FAIP) database, for the period 1st July 2009 to 30th June 2019. Descriptive statistics were computed to describe the characteristics of rangatahi involved fire incidents and the characteristics of those referred to the FAIP. Comparisons between unintentional and deliberate fire incidents were made using chi-square.

To examine facilitators and barriers to engagement with the FAIP, individual interviews and focus groups were conducted with 16 professionals who work with rangatahi who had played with or set fires and 26 FAIP practitioners. In addition, an online qualitative survey was completed by 25 whānau whose rangatahi had been referred to the FAIP. Interviews and focus groups were conducted by telephone or audio-visual link (e.g., Zoom or Microsoft Teams) and were transcribed verbatim. The online qualitative survey was developed using the survey platform Qualtrics and distributed via community adverts online (e.g., national Facebook advertising) and on community pinboards (e.g., hard copy posters). Qualitative data was analysed using reflexive thematic analysis (Braun & Clarke, 2006).

Key Findings

Deliberate fires set by rangatahi were significantly more likely than non-deliberate fires to:

- Be set in urban locations.
- Be classified as vegetation fires, other fire - not classified or bin/skip fires.
- Require extinguishment.
- Involve male rangatahi, age 11 years and above, who were identified as being Māori or Pasifika.

Common characteristics of rangatahi referred to the FAIP (i.e., who the FAIP is reaching) include:

- Male, age 11 years plus, and living with a caregiver.
- A noticeable minority had experienced stress in the home in the previous 12 months.
- A noticeable minority had a psychiatric diagnosis and/or history of a head injury.
- Just under half had a history of previous firesetting.

Factors identified as facilitating referrals to the FAIP included:

- Positive perceptions of FENZ and FAIP held by the public and professionals.
- Maintaining communication and positive, reciprocal relationships with referring organisations.
- Referrers who are trusted and have mana are effective at facilitating engagement.
- Flexibility of the FAIP to accommodate the needs of whānau and rangatahi including time, location and content.
- The ability of FAIP practitioners to effectively build rapport and connections with rangatahi and whānau.
- Whānau support for the intervention is critical for facilitating uptake and completion.

Common barriers to engagement with the FAIP included:

- Lack of awareness of the FAIP amongst potential referrers and the general public.

- Lack of accessible information about what the FAIP involves (e.g., flexibility, length, and content of intervention), who it is suitable for (e.g., age, severity of fire behaviour), its confidential nature, and beneficial outcomes.
- Concerns that additional complex needs may impede engagement or need to take precedence over firesetting.
- Perceived stigma associated with being involved with an intervention targeting problem behaviours. Concerns that involvement may cause whakamā for whānau and rangatahi and damage the reputation of education providers.
- Poor communication between FENZ, referrers, and whānau can result in miscommunications and interventions not taking place.
- Difficulties connecting with whānau impedes uptake and engagement.
- Existing resources are outdated, not culturally specific to Aotearoa New Zealand, and not suitable for older rangatahi.
- Practitioners feel under-equipped to respond to rangatahi with complex needs.

Recommendations

- Increase regular promotion of the FAIP through a tailored marketing strategy.
- Improve accessibility and availability of information about the FAIP.
- Destigmatise the FAIP through communicating the strengths and benefits of the intervention and the suitability of this for a wide range of fire behaviours and needs.
- Need for wider community engagement including with whānau, hapū, and iwi.
- Need for more integrated working and improved communication with referrers.
- Provide a responsive referral process.
- Update FAIP resources to ensure these are engaging, interactive, culturally responsive and appropriate for both younger and older rangatahi.
- Provide training for practitioners centered on identifying and responding to needs of rangatahi including where onward referrals may be needed and to whom.

GLOSSARY

Term	Explanation
FAIP	Fire Awareness and Intervention Programme.
FENZ	Fire and Emergency New Zealand.
Fire region	Aotearoa New Zealand is divided into five geographical regions by Fire and Emergency New Zealand which are referred to as fire regions. These were formerly referred to as regions 1 to 5. Please see region definitions below.
FIRMS	Fire Incident Reporting Management System.
Hapū	Māori subtribe.
Iwi	Māori tribe.
Kaumātua Te Kura	Māori school elder.
Mana	Prestige, authority.
Ngā tai ki te Puku	Formerly Region 2: Contains the regions of Waikato, Bay of Plenty, and Gisborne.
Rangatahi	Young people including children and adolescents under 18 years of age.
Reflexive thematic analysis	An approach to analysing qualitative data often used in psychology and the social sciences, described by Braun and Clarke (2006). Patterns of meaning are identified across a dataset to answer questions about people's experiences, views and perceptions of a given phenomenon.
Tāmaki Makaurau	Auckland.
Te ao Māori	Māori worldview.
Te ao Pākehā	New Zealand European/Pākehā worldview.
Te Hiku	Formerly Region 1: Contains the regions of Northland and Auckland.
Te Ūpoko	Formerly Region 3: Contains the regions of Taranaki, Manawatū-Whanganui, Hawke's Bay, and Wellington.
Te Ihu	Formerly Region 4: Contains the regions of Nelson-Tasman, Marlborough, West Coast, and Canterbury.
Te Kei	Formerly Region 5: Contains the regions of Otago and Southland.
Whakamā	Shame or embarrassment.
Whānau	Family including extended family.

INTRODUCTION

Deliberate firesetting is a serious and enduring global public health issue, which significantly impacts the economy, the community, and the environment as well as human life (Tyler, Gannon, Ó Ciardha, Ogloff, & Stadolnik, 2019). In the US, between 2010 and 2014, it was estimated that 261,330 deliberate fires were started annually, resulting in 440 deaths and 1,310 casualties (Campbell, 2017). Similarly high numbers are reported for England and Australia (Home Office 2017; Smith, Jorna, Sweeney, & Fuller, 2014). In Aotearoa New Zealand, suspicious and unlawful fires represent approximately 8% of fires¹ attended by Fire and Emergency New Zealand (New Zealand Fire Service, 2011). Whilst the exact cost of deliberate fires is not recorded, in 2011 structure loss alone was estimated at \$223 million² (New Zealand Fire Service, 2011).

Deliberate Firesetting by Young People

A significant proportion of deliberately set fires are reported to be started by children and adolescents (Lambie & Randell, 2011), with up to a third of young people in community samples reporting having engaged in this behaviour (Del Bove, Caprara, Pastorelli, & Paciello, 2008; MacKay, Paglia-Boak, Henderson, Marton, & Adlaf, 2009), and as many as 59% of these reporting to engage in repetitive fire lighting (MacKay et al., 2009; Kolko, Day, Bridge, & Kazdin, 2001). In Aotearoa New Zealand, young people are reported to be responsible for between 50-63% of suspicious fires (New Zealand Fire Service Commission, 2011; Fire and Emergency New Zealand, 2017, as cited in Lambie et al., 2019); highlighting the need to effectively understand and respond to this behaviour.

Research suggests young people who set fires are likely to be male (Dolan, McEwan, Doley, & Fritzon, 2011; Lambie & Randell, 2011), experience family dysfunction and/or stress in the family (Kolko & Kazdin, 1990; Martin, Bergen, Richardson, Roegar, & Allison, 2004), lack

¹ Excludes reckless and other fires recorded as deliberate that may have been a result of arson.

² Based solely on the known rebuild cost of the area and type of building. Does not include loss of stock, personal property, or earnings.

supervision (Sakheim & Osborn, 1999; Perks, Watt, Fritzon, & Doley, 2019), and have adverse experiences (e.g., experiences of maltreatment, abuse; Martin et al., 2004; Root, MacKay, Henderson, Del Bove & Warling, 2008). In addition, firesetting youth report elevated levels of psychopathology (Brereton, Lamade, Lee, Shuler, & Prentky, 2020; Ellithy, Hawke, Ward & Henderson, 2021; MacKay et al., 2009), self-regulation difficulties (Kolko & Kazdin, 1991; Sakheim & Osborn, 1999), behavioural problems (McCardle, Lambie, & Barker-Collo, 2004; Lambie & Krynen, 2017), involvement in general antisocial behaviour (Kolko et al., 2001; Perks et al., 2019) and have a curiosity, interest, or attraction to fire (MacKay et al., 2009; Perks et al., 2019). Frequently reported motivations include peer pressure, anger, revenge, crime concealment, fascination with fire, self-injury, excitement, and curiosity (Perrin-Wallqvist & Norlander, 2003; Walsh & Lambie, 2013). These findings suggest that firesetting youth often have a range of psychosocial and fire related needs.

Fire Safety Education as an Intervention for Deliberate Firesetting

Internationally, fire safety education is the most commonly provided intervention for youth firesetting (Haines, Lambie, & Seymour, 2006; Palmer, Caulfield, & Hollin, 2005). In Aotearoa New Zealand, Fire and Emergency New Zealand (FENZ) is the sole provider of interventions targeting fire safety and firesetting by rangatahi³. These comprise a suite of primary prevention programmes which aim to teach fire safety education as part of the school curriculum - *Get Firewise* and *Be Firewise* – and a secondary prevention programme aimed at rangatahi who have set fires – the *Fire Awareness and Intervention Programme*.

The Fire Awareness and Intervention Programme (FAIP)

The Fire Awareness and Intervention Programme (FAIP) was established in Tāmaki Makaurau in 1992 to address the needs of firesetting rangatahi and reduce their risk of reoffending. The FAIP has since been rolled out nationally and today represents a key part of FENZ's community readiness and recovery strategy. The FAIP provides fire safety

³ Rangatahi is te reo Māori for youth/young people and will be used henceforth in this report.

education to rangatahi aged 2 to 17 years who have an expressed interest in fire, have engaged in inappropriate fire play, or have misused/lit fires. The intervention comprises at least two individual sessions, typically delivered in the home, with a specially trained practitioner. Sessions are tailored to the needs of rangatahi and their whānau. Referrals to the FAIP can be made by a variety of organisations or whānau can self-refer. Participation is voluntary unless mandated as part of a Family Group Conference or court order.

Previous research commissioned by FENZ has demonstrated that reoffending with fire is as low as 2% for rangatahi who complete the FAIP (Lambie, Randell, Ioane, & Seymour, 2009). Despite this, over the last ten years FENZ have observed a decline in the number of referrals to the programme. Although previous research has examined the effectiveness of the FAIP and rangatahi and whānau experiences of completing the programme (Lambie & Popaduk, 2008), no research has examined who does and who does not take up the programme, and factors which may facilitate or act as a barrier to engagement.

Aims and Objectives of the Current Research

Given the significant community and public health issue that deliberate firesetting represents, FENZ and referring organisations need to understand how to maximise the reach and uptake of interventions that reduce the risk of further firesetting; to ensure that the FAIP appropriately targets and adequately captures those at risk of repeat firesetting. The current research aimed to examine the reach and uptake of the FAIP as well as facilitators and barriers to engagement with the programme. Four key questions guided the research:

1. What are the characteristics of rangatahi who set fires in Aotearoa New Zealand?
2. Who is referred to the FAIP, and why, and who is not referred and why?
3. Who does and does not complete the FAIP, and why?
4. What are the facilitating factors and barriers for engaging with the FAIP?

METHOD

Design

A mixed-methods approach was employed; quantitative analysis of routinely collected data was conducted to examine the characteristics of fire incidents involving rangatahi, the characteristics of rangatahi referred to the FAIP, and the reach of the programme.

Qualitative methods were used to examine factors which were perceived to act as barriers and facilitators to engagement with the FAIP. The methodological approach for each type of analyses is outlined in the following sections.

Ethical Approval

Ethical approval was granted by Victoria University of Wellington's Human Ethics Committee (HEC References: 28073 and 28313). In addition, research access approval for the qualitative research was obtained from the New Zealand Police Research Panel (Reference: EV-12-540); two district health boards which provide physical and mental healthcare (Reference: DHB10/09/2020); and Oranga Tamariki Research and Data Access Committee.

Quantitative Data Sources and Analyses

Secondary analysis was conducted on routinely collected data from two FENZ databases: the Fire Incident Reporting Management System (FIRMS) and the Fire Awareness and Intervention Programme (FAIP). The FIRMS database was analysed to examine characteristics of rangatahi involved fires between 1st July 2009 and 30th June 2019. The FAIP database was analysed to examine characteristics of rangatahi referred to the FAIP over the same period.

FIRMS Database

The FIRMS database is a national recording and reporting system maintained by FENZ for all fires attended across Aotearoa New Zealand and is held by FENZ Head Quarters. Standard information is collected and recorded for each fire attended by FENZ including

demographics, geographic information, incident factors (e.g., source and object ignited), damage caused, and response factors.

Twenty-four variables of interest were identified from a review of the FIRMS data dictionary and were extracted for analysis. A FENZ Information Analyst extracted data for these variables for all fire incidents that involved rangatahi aged 0-10 years and 11-19 years⁴ between 1st July 2009 and 30th June 2019. Initial screening of the data revealed there were large amounts of missing data or instances where information had not been recorded. Therefore, only variables with sufficiently complete data were included, and analyses conducted on completed cases only.

FAIP Database

The FAIP database is a national recording and reporting system maintained by FENZ and contains information relating to all FAIP referrals. Standard information is collected and recorded on a referral form for rangatahi referred to the programme including: age, gender⁵, ethnicity, residence, if FAIP have been involved previously, details of the firesetting incident, motivation for firesetting, organisation/person making the referral to the programme, and the region the incident occurred in. Rangatahi who accept and commence the programme complete a questionnaire which captures demographics, geographic information, firesetting history, and engagement in other antisocial behaviour. Data was extracted from the FAIP for all referrals between 1st July 2009 and 30th June 2019. Cases that involved individuals over the age of 19 were removed, to match the FIRMS age ranges.

Initial screening of the data revealed there were large amounts of missing data or instances where information had not been recorded for a number of variables of interest. This was mainly due to the FAIP intervention questionnaire having gone through several revisions/iterations during the period from which data was extracted. Therefore, analyses were only conducted on completed cases.

⁴ Age categories determined by how these are reported in the FIRMS database.

⁵ Gender is reported as it is recorded in the FAIP database.

Data Analysis

Descriptive statistics (e.g., frequencies) were computed to provide an overview of the characteristics of rangatahi involved fire incidents in Aotearoa New Zealand, and the characteristics of rangatahi referred to the FAIP. Comparisons between unintentional and deliberate fire incidents, as recorded in the FIRMS database, were made using chi-square.

Qualitative Data Sources and Analyses

Facilitators and barriers to engagement with the FAIP were examined through interviews and focus groups with FAIP practitioners and professionals who work with rangatahi who have set fires, and through a qualitative survey with whānau whose rangatahi had been referred to the FAIP. We also intended to capture the experiences of rangatahi who completed the FAIP, however, we were unable to recruit participants from this group for the research.

FAIP Practitioners and Professionals

FAIP practitioners were provided with information about the research through a series of online regional briefings, in collaboration with FENZ research staff, which were then followed up with an email including the information sheet and consent form. Practitioners who were interested in participating were directed to contact the research team via email. A date and time for a focus group or individual interview was organised, based on participant availability and preference.

Professionals working for organisations who have contact with or support rangatahi were contacted by the research team and invited to take part in the research. Initial contact was made with senior personnel within organisations, either via telephone or email, and permission sought to share information about the research with staff. Organisations who felt the research was relevant to them or that they had staff who had experience of working with rangatahi who had misused fire, shared an invitation email about the research within their service. Those professionals who were interested in participating in the research were able to contact the research team directly via telephone or email to obtain further information and to arrange a time to take part in an individual interview.

Informed consent (either written or verbal) was obtained from all participants prior to being interviewed. Due to COVID-19, interviews and focus groups were conducted via telephone or audio-visual link (e.g., Microsoft Teams or Zoom). Following the interview, all participants were provided with a debrief sheet and thanked for their participation.

Whānau

A qualitative online questionnaire was developed using Qualtrics, a secure online research platform specifically designed to support research surveys. The questionnaire asked participants to complete a series of open and closed questions about their experiences of the FAIP including demographic information, how they found out about the FAIP, how they were referred, the context around the referral, their experience of the referral process and those involved in this, their motivations for self-referring or accepting the referral, whether they declined, completed, or partially completed the FAIP, their experience of the FAIP (if they completed or partially completed), as well as any factors they felt facilitated or hindered them accepting, taking up, or completing the FAIP.

A project Facebook page was created which contained information about the study and a link to the online survey. In addition, posters advertising the research were attached to the back of the FAIP questionnaire and follow-up questionnaire, and displayed on community noticeboards in areas accessed by rangatahi and whānau (e.g., community centres, libraries, dairies, supermarkets, sports and aquatic centres, cafés, citizens advice bureaus, information centres, early learning centres, play/family centres, and kindergartens).

National Facebook advertising was paid for to promote the study to all Facebook users aged 18 to 65 years currently residing in Aotearoa New Zealand. The advert/survey information on the Facebook page was 'boosted' three times during the recruitment period. The Facebook advertising reached approximately 65,000 people between November 2020 and February 2021. In addition, over 180 posters were placed on community noticeboards in both rural and urban areas across all five fire regions including: Auckland and Northland, Wellington,

Wairarapa, Kāpiti Coast, Manawatū, Horowhenua, Hawke's Bay/Napier, Waikato, Bay of Plenty, East Coast (South Island), West Coast (South Island), and Southland.

Participants self-selected into the study by accessing the survey using either a web link or QR code. Upon accessing the survey, participants were provided with an information sheet followed by a consent statement. Upon agreeing to the consent statement, participants were presented with the survey questions. Following the survey questions, participants were advised that the research team were also interested in speaking to rangatahi about their experiences of the FAIP and asked to indicate whether or not they thought their rangatahi might be interested in participating in a short interview. Participants were also asked if they would like to receive a \$15 voucher as a thank you for their participation. If participants indicated 'yes' to either of these questions they were redirected to a separate Qualtrics survey to provide contact information. The separate survey approach was used to maintain participants' confidentiality. A debrief sheet was provided at the end of the survey.

Data Analysis

Interview and focus group transcripts and qualitative surveys were analysed using reflexive thematic analysis (Braun & Clarke, 2006) to identify patterns (themes) in participants' self-reported experiences and perceptions of the FAIP. We used a mix of deductive and inductive approaches as we were seeking to identify factors which facilitated or prevented engagement with the FAIP, and then develop themes directly from participants' own experiences and perspectives (i.e., what they said). We applied a critical realist epistemological paradigm (i.e., reporting on participants' self-reported reality/experiences) and a semantic approach to coding with the aim of identifying themes that directly reflected participants' experiences.

KEY FINDINGS

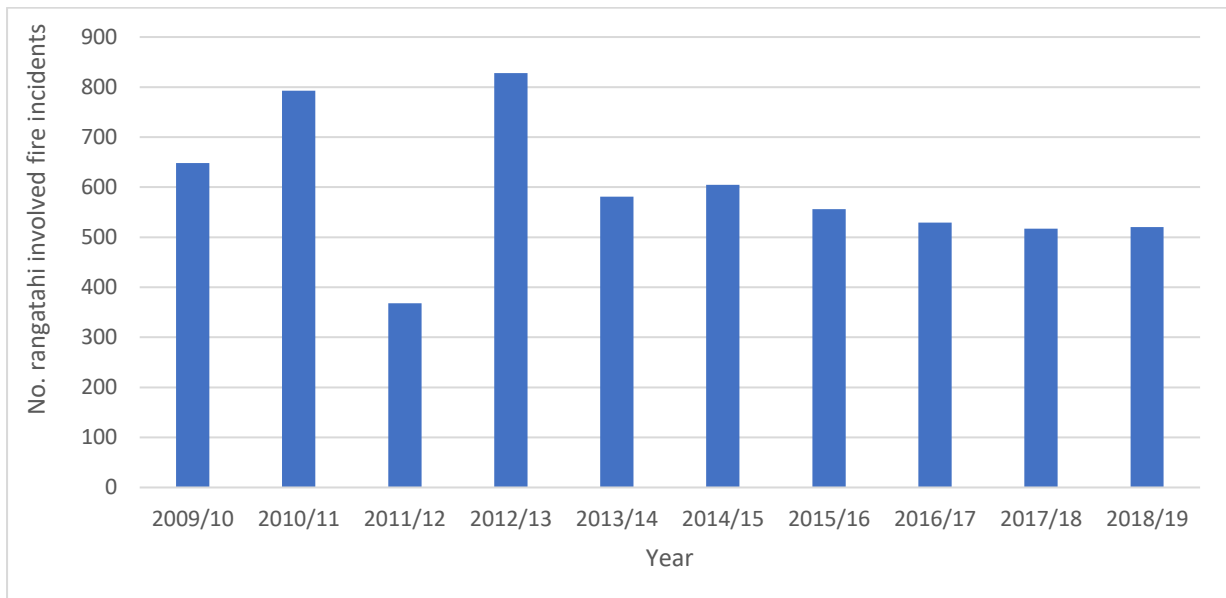
Fire Incidents Involving Rangatahi in Aotearoa New Zealand

This section of the report explores the characteristics of fire incidents in Aotearoa New Zealand that involve rangatahi and identifies differences in the features of deliberate and non-deliberate fire incidents, using fire incident data extracted from the FIRMS database.

Number of Fire Incidents Involving Rangatahi

A total of 5,945 fire incidents involving a rangatahi under 19 years of age were recorded between 1st July 2009 and 30th June 2019. Fire incidents involving rangatahi appeared to peak in 2010-2011 and again in 2012-2013. However, following this, they have remained relatively stable, at between 517 and 605 incidents per year (see Figure 1).

Figure 1. *Number of Rangatahi Involved Fire Incidents Per Year 2009-2019*



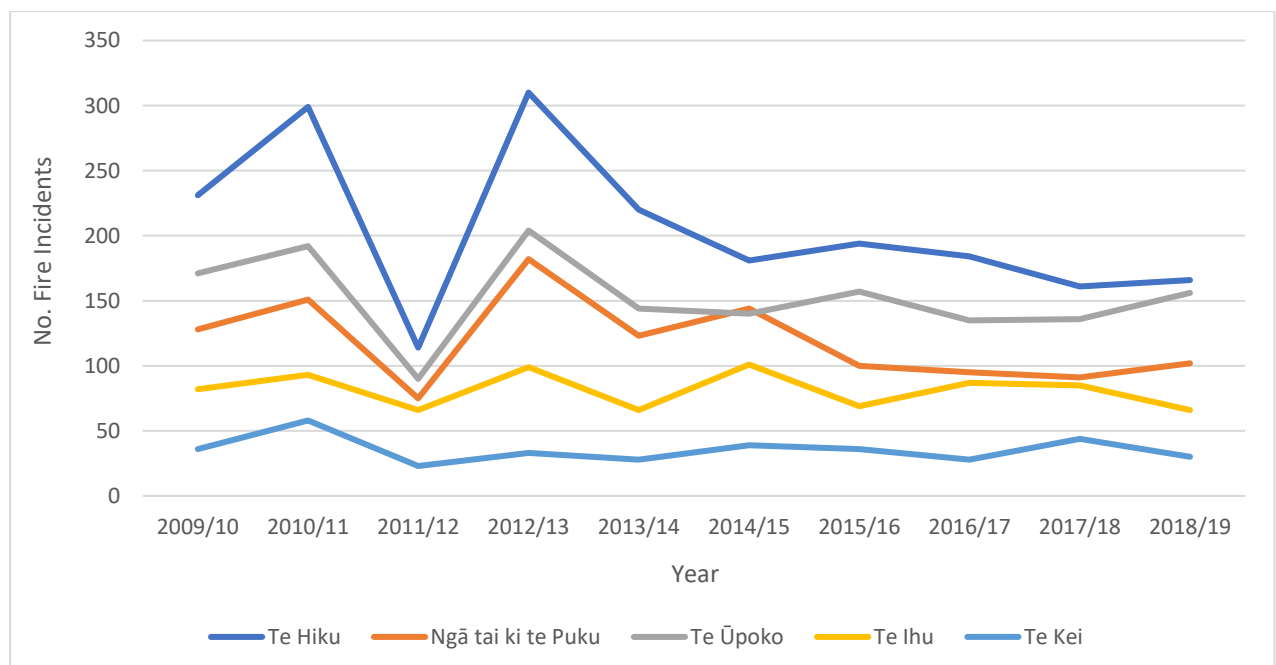
Characteristics of Rangatahi Involved Fire Incidents

Descriptive statistics were computed for geographic factors, fire incident factors, fire causes, and demographic factors recorded in the FIRMS database, to provide an overview of the characteristics of rangatahi involved fires (see Table 1 for a breakdown of characteristics).

Geographic Factors

The majority of rangatahi involved fire incidents were recorded as occurring in urban locations. Approximately one third occurred in Te Hiku (34.7%, $n = 2060$), 20.0% ($n = 1191$) in Ngā tai ki te Puku, 25.7% ($n = 1525$) in Te Ūpoko, 13.7% ($n = 814$) in Te Ihu, and 6.0% ($n = 355$) in Te Kei. Te Hiku consistently recorded the highest number of rangatahi involved fire incidents, reflective of population distribution. Although the number of rangatahi involved fire incidents have declined since 2012/2013, there has been a small increase in the last year across Te Hiku, Ngā tai ki te Puku, and Te Ūpoko (see Figure 2).

Figure 2. Number of Fire Incidents Involving Rangatahi July 2009 – June 2019 by Fire Region



Fire Incident Factors

Vegetation fires, other – fire not classified and structure fires (with or without damage) were the most commonly reported fire incident types. The most frequently reported locations⁶ for fire incidents included housing or residential property, public or recreational facilities (e.g., theatre, sports facility, pool, park, zoo, aquarium), rural or vegetation, educational facilities, and on the road. Action was required by FENZ in 99.5% of rangatahi involved fires, with extinguishment used in half of all incidents.

Fire Causes

Three quarters of rangatahi involved fire incidents were recorded as either being deliberately started or the result of fire play (76.7%, $n = 4561$). Of those fires which were deliberately started, the most common causes included unlawful ignition (54.1%, $n = 2469$), incendiaries or suspicious ignition (22.8%, $n = 1041$), people playing with heat sources or combustibles (13.1%, $n = 599$), and reckless behaviour with fire or fireworks (6.8%, $n = 309$).

Demographic Factors

Very few demographic characteristics are routinely collected in the FIRMS database. Therefore, analyses were restricted to age, gender⁷ and ethnicity. The majority of fire incidents were reported to involve rangatahi who were age 11 to 18 years, male, and who were identified as being either New Zealand European/Pākehā or Māori. Ethnicity and gender were recorded as 'unknown' for nearly a third of fire incidents (i.e., this had not been determined by responding staff). Therefore, findings for ethnicity and gender should be treated with caution due to the large number of "unknown" cases.

⁶ Based on general use of property.

⁷ Gender is reported as it is recorded in the FIRMS database.

Factors Distinguishing Unintentional and Deliberate Fires

To identify factors associated with deliberately set fires, incidents within the FIRMS database were categorised as either ‘non-deliberate’⁸ or ‘deliberate’⁹, based on the fire cause. Data was recorded as “unknown” at a significantly higher rate for deliberately set fires than non-deliberate fires. Therefore, analyses were only conducted on completed cases. Chi-square tests of independence were used to examine associations between the different characteristics and fire status (e.g., deliberate or non-deliberate). Bonferroni correction was applied to the significance level to adjust for Type 1 error ($p \leq .002$).

A number of significant differences were identified between deliberate and non-deliberate fire incidents (see Table 1 for a detailed breakdown of results). Deliberate fires were significantly more likely to be started in urban locations and be classified as a vegetation fire, other fire – not classified, or an outside rubbish bin/skip fire; extinguishment only was also significantly more likely to be used as an action for deliberate fires than non-deliberate fires. In terms of demographic factors, deliberate fires were significantly more likely to involve rangatahi who were male and age 11 years or above. Rangatahi identified as being Māori or Pasifika were over-represented in incidents involving deliberately set fires.

In comparison, non-deliberate fire incidents involving rangatahi were significantly more likely to be a structure fire (with or without damage), or a mobile property fire. Actions such as extinguishment and ventilation, investigation only, and extinguishment, salvage and ventilation were significantly more associated with non-deliberate fires than deliberate fires. Rangatahi who identified as New Zealand European/Pākehā were also significantly more likely to be associated with non-deliberate fires than deliberate fires.

⁸ Accidentally turned on/not off, animal, controlled, cooking, design deficiency or failure, equipment not operated properly, exposure fire, extreme conditions, failure to clean/maintain, falling asleep smoking, accidental spill of flammable material, friction – sparks, heat source too close to combustibles, backfire, improper container, inadequate fire control, lawful, legality not known, careless disposal smoking and smouldering, outside fire/burn-off, impaired mentally/physically/substances, carelessness with heat/ignited material, reignition, solar, spontaneous ignition, thawing, undetermined, collision/overturn/knockdown.

⁹ Deliberately lit not classified, incendiaries/suspicious, playing with heat source/combustibles, reckless with fire/fireworks, suspicious, unlawful.

Table 1. Demographic Characteristics of Rangatahi Involved in Fire Incidents

Variable	Total Sample % (n)	Deliberate % (n)	Non-deliberate % (n)	χ^2	ϕ
Geographic Factors					
Urban	88.7 (5265)	90.2 (4115)*	83.1 (1150)	47.34	-.089
Rural	11.3 (669)	9.6 (436)	16.8 (223)	-	-
Incident Type					
Vegetation	32.0 (1902)	36.7 (1674)*	16.5 (228)	199.69	-.183
Other fire – not classified	22.7(1351)	25.0 (1142)*	15.1 (209)	59.71	-.100
Structure fire with damage	21.8 (1295)	19.4 (886)	29.6 (409)*	63.91	.104
Structure fire no damage	13.3 (791)	8.7 (395)	28.6 (396)*	366.45	.248
Outside rubbish bin/skip	6.6 (393)	7.8 (358)*	2.5 (35)	48.68	.090
Mobile property fire	2.9 (175)	1.8 (84)	6.6 (91)*	83.27	-.118
Hazardous substance fire	0.6 (38)	0.5 (22)	1.2 (16)	7.59	-.036
Action Taken¹⁰					
Extinguishment only	50.3 (2989)	56.5 (2575)*	29.9 (414)	299.25	.224
Extinguishment and ventilation	8.6 (512)	7.4 (336)	12.7 (176)*	38.61	.081
Investigation only	26.4 (1569)	24.2 (1106)	33.5 (463)*	46.31	.088
Ventilation only	4.0 (237)	2.2 (99)	10.0 (138)	168.79	.169
Extinguishment, salvage, and ventilation	7.9 (472)	7.3 (334)	10.0 (138)*	10.19	.041
Gender¹¹					
Gender – Male	81.3 (3157)	87.3 (2396)*	66.9 (761)	219.70	.238
Gender – Female	18.7 (727)	7.7 (350)	27.2 (377)	-	-
Age					
Age – under 10 years	28.8 (1710)	31.9 (1453)	18.6 (257)	91.50	.124
Age – 11+ years	71.2 (4235)	68.1 (3108)*	81.4 (1127)	-	-
Ethnicity¹²					
Ethnicity – Māori	42.9 (1824)	48.3 (1481)*	29.4 (343)	122.47	-.170
Ethnicity – NZ European/Pākehā	39.5 (1677)	34.1 (1044)	54.3 (633)*	145.17	.185
Ethnicity – Pacific Island	12.5 (532)	13.9 (425)*	9.2 (107)	16.80	-.063
Ethnicity – Other	5.1 (215)	3.8 (116)	7.0 (82)*	20.05	.069

*indicates significant finding at $p < .002$; χ^2 = chi-square value; ϕ = phi (strength of relationship).

¹⁰ Analyses completed for top 5 actions only as these represent 97.6% of total actions.

¹¹ Gender was recorded as unknown for 34.7% ($n = 2061$) of cases. Therefore, analyses have been conducted with 3884 cases.

¹² Ethnicity was recorded as unknown or not recorded for 29.2% ($n = 1740$) of cases, missing for 0.9% ($n = 54$) and there was 1 incident where no person was recorded as being involved so ethnicity was not recorded. Therefore, analyses have been conducted using 4204 cases.

Referrals to the FAIP

This section of the report examines referral patterns to the FAIP, between 2009 and 2019, to identify any trends in referrals over time and who is/who is not making referrals to the programme.

Referrals from FENZ Attended Incidents

Analysis of FIRMS data indicated that 84.6% of rangatahi involved fire incidents attended by FENZ were appropriate for referral to the FAIP. Only one incident was recorded as not being an FAIP incident and the remaining 15.4% ($n = 913$) were recorded as unknown.

The FAIP was reported as being offered by FENZ staff in 22.6% ($n = 1341$) of cases. The most commonly reported reason for not offering the FAIP was because the parent or caregiver was not known (see Table 2 for a detailed overview). Of those individuals who were offered the FAIP, 58.5% ($n = 784$) accepted the referral.

Table 2. *Frequency That FAIP Was Offered or Not by FENZ July 2009 to June 2019*

Was FAIP offered or not?	% (n)
FAIP not offered as not relevant to incident	3.3 (198)
FAIP not offered – parent or caregiver unknown	71.7 (4261)
FAIP not offered – parent or caregiver known	2.4 (145)
FAIP offered but not accepted	9.4 (557)
FAIP offered and accepted	13.2 (784)

Who Makes Referrals?

Analysis of the FAIP data indicated rangatahi were referred to the FAIP by a range of different people and organisations. The most common referrers to the FAIP were Police (including Youth Aid), public/family members, FENZ, and educational facilities (e.g., schools,

kindergarten, early years). See Table 3 for a breakdown of referrals by referring organisation.

Table 3. *Frequency of Referrals to FAIP by Referring Organisation (2009-2019)*

Referrer	% (n)
Police	30.8 (1375)
Public/family member	21.8 (974)
FENZ	18.3 (819)
Education	15.1 (675)
Unknown	9.2 (41)
Oranga Tamariki	7.7 (342)
Social services	2.3 (103)
Health services	1.3 (59)
Mental health services	0.3 (13)
Justice system	0.2 (10)
Community services	0.2 (8)
Disability services	0.2 (8)
Individual	0.2 (8)
Multiple	0.2 (8)
Maori mental health services	0.2 (7)
Private company	0.1 (6)
Psychologist	0.1 (5)
Support worker	0.1 (4)
Foster carer	0.1 (3)

Have Referral Patterns Changed Over Time?

Referrals to the FAIP have steadily declined year on year since 2009/10, reducing from 647 referrals per year to 310 per year (a 47.9% decrease over ten years); with referrals dropping to below 400 per year in 2015/2016 (see Table 4 for a summary).

Analysis of referrals by region indicate Te Ūpoko has increased the number of referrals they receive (and sustained this increase) over the seven-year period where region was recorded, and now receive the largest number of referrals nationally. In comparison, referrals within Te Hiku have shrunk by 65.1% in the same period. Ngā tai ki te Puku and Te Ihu have also seen reductions in referrals (41.7% and 34.5% respectively).

Table 4. Total Referrals to the FAIP per Annum (2009-2019)

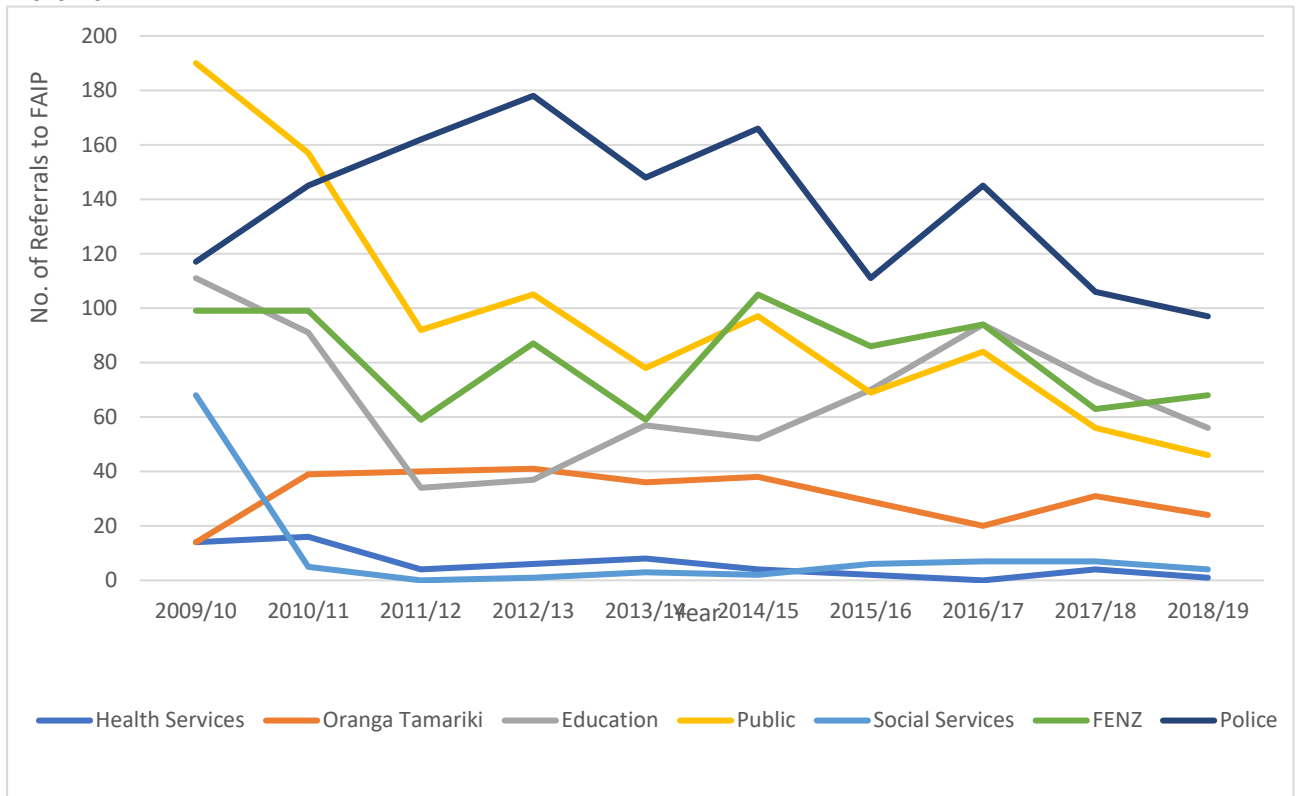
Year	Total No. Referrals	Te Hiku	Ngā tai ki te Puku	Te Ūpoko	Te Ihu	Te Kei
2009/10	647	-	-	-	-	-
2010/11	562	-	-	-	-	-
2011/12	400	-	-	-	-	-
2012/13*	460	129	72	101	107	33
2013/14*	410	149	50	104	72	25
2014/15*	489	109	57	162	100	47
2015/16	379	79	44	136	88	32
2016/17	454	103	63	146	89	53
2017/18	357	74	49	105	78	51
2018/19	310	45	42	124	70	29

*Missing data: 2013/14 = 18, 2013/14 = 10, 2014/15 = 14

To investigate referral trends further, the number of referrals made by different organisations were examined, to see if any increases or decreases in referrals from particular organisations may have contributed to this overall reduction. Results show referrals have declined across the majority of referring organisations. However, the largest reductions appear to be in referrals made by healthcare services, educational facilities and whānau (see Figure 3). Although showing a slight decline in recent years, referrals from Oranga Tamariki, FENZ and Police have remained relatively consistent. Referrals from community services (e.g., not for profit organisations), independent psychologists, mental health and disability services, the youth justice system, and Māori/Iwi health services¹³ remain consistently low.

¹³ Excluding Oranga Tamariki and Police as these are recorded separately.

Figure 3. FAIP Referrals by Top Referring Organisations between 2009-2019 Split by Referrer



Characteristics of Rangatahi Referred to the FAIP

This section of the report builds upon analysis of the FIRMS data and explores the characteristics of rangatahi referred to the FAIP, to develop a more comprehensive understanding of this group.

A total of 4468 rangatahi were recorded as having been referred to the FAIP between 1st July 2009 and 30th June 2019. Descriptive statistics provide an overview of the characteristics of those referred to the FAIP and are presented in Tables 5 and 6. Key trends are discussed below.

Individual Characteristics

Demographics

The majority of rangatahi referred to the FAIP identified as male. Just over half were 11 to 19 years of age at the time of the intervention¹⁴. Fifty-two percent identified as New Zealand European/Pākehā, 36.1% as Māori, 7.2% as Pasifika, 1.5% as Asian/Indian and 1.2% as Other¹⁵. Over 90% of rangatahi were recorded as living at home/in their caregiver's home. See Table 5 for further details.

Psychological Wellbeing

Seventeen percent of rangatahi were recorded as having a pre-existing psychiatric diagnosis and 10.6% as having a head injury. Just under a third reported experiencing stress in the family in the 12 months prior to the FAIP. The most frequently reported stressors¹⁶ included: parental separation (12.4%, $n = 170$), multiple stressors (11.3%, $n = 155$), death of a family member (9.0%, $n = 124$), experienced or witnessed abuse (7.4%, $n = 102$), and family dysfunction (7.2%, $n = 99$).

¹⁴ Age at time of intervention was not recorded for 1.5% of participants.

¹⁵ Ethnicity was not recorded for 2% ($n = 89$) of participants.

¹⁶ The type of stressor in the family were only recorded for 1376 cases.

Table 5. Individual Characteristics of Rangatahi Referred to the FAIP

Variable	% (n)
Gender	
Male	85.9 (3836)
Female	14.1 (632)
Age	
Age < 10 years	41.1 (1834)
Age 11- 19 years	57.4 (2569)
Ethnicity¹⁷	
New Zealand European/Pākehā	52.0 (2277)
Māori	36.1 (1581)
Pasifika	7.2 (315)
Asian/Indian	1.5 (65)
Other	1.2 (51)
Living Situation¹⁸	
Home/Caregiver home	94.6 (4028)
Institutional care	2.3 (99)
Other	1.4 (58)
Psychological Wellbeing	
Psychiatric diagnosis ¹⁹	17.3 (677)
Head injury ²⁰	10.6 (337)
Stress in the family in previous 12 months ²¹	32.6 (1376)

Fire Incident/History

Referral Incident

Rangatahi referred to the FAIP engaged in a range of fire-related behaviours. The most frequently reported behaviours were intentional fire lighting, fire play and inappropriate fire behaviour/interest. The majority of rangatahi started a fire using a lighter or matches and engaged in fire lighting/inappropriate fire behaviours in residential settings, at school, or in an outside location away from home. Accelerant was reportedly used in a minority (15.7%) of cases. A significant minority of rangatahi (14.6%) reported they had intended to destroy property through their fire lighting. The influence of peers was also evident in fire lighting

¹⁷ Ethnicity was recorded as unknown for 23 cases therefore ethnicity has been calculated using 4445 cases.

¹⁸ Living situation was not recorded in 212 cases therefore prevalence is based on 4256 cases.

¹⁹ A response to the question on psychiatric diagnoses was not recorded in 550 cases therefore analysis is based on 3918 completed cases

²⁰ Head injury was not recorded for 1283 cases therefore prevalence has been calculated based on 3185 cases.

²¹ Stress in the family was not recorded for 245 cases therefore prevalence is based on 4223 cases.

behaviour with just over two thirds of rangatahi reporting they were part of a group at the time of the fire incident. See Table 6 for further details.

Previous Fire Use

Fifty-five percent of rangatahi referred to the FAIP were reported to have no previous history of inappropriate fire use and 44% were reported to have used fire inappropriately on at least one previous occasion²².

Motivations

Multiple motivations were reported by rangatahi for their fire lighting. The most common motivations included boredom, experimentation, and peer pressure.

Who Does and Does Not Complete the FAIP?

Whether the intervention took place or not was regularly recorded in the FAIP database from January 2013. Of the 2562 cases that were referred to the FAIP between 1st January 2013 and 30th June 2019, 83.9% ($n = 2149$) were recorded as having taken place, with 6.4% ($n = 164$) recorded as not having taken place²³. Reasons for why FAIP interventions were not completed are outlined in Table 7. The most frequently reported reasons for non-completion were unable to contact child/family (34.8%, $n = 57$), no reason recorded (19.5%, $n = 32$), caregiver declined intervention (13.4%, $n = 22$), and child not available/present (12.2%, $n = 20$).

²² Information on previous inappropriate fire use was not collected for 38.3% of participants.

²³ Completion/non-completion was not recorded for 9.7% ($n = 249$) cases.

Table 6. Characteristics of Fire Incidents of Rangatahi Referred to the FAIP

Variable	% (n)
Firesetting Incident	
Intentional fire lighting	59.5 (2570)
Fire play	28.7 (1281)
Inappropriate fire interest/behaviour	7.6 (338)
Accidental or carelessness with fire	5.2 (216)
Attempted fire lighting	1.9 (87)
Activation of alarms or malicious calls	1.2 (52)
Ignition²⁴	
Lighter	72.1 (2781)
Candles	0.8 (31)
Matches	18.0 (693)
Fireworks	1.7 (74)
Heating device	1.7 (64)
Other	4.4 (171)
Unknown	1.0 (37)
No fire	0.9 (35)
Accelerant used ²⁵	15.7 (604)
Area of Origin²⁶	
Residential (e.g., house, care home)	33.8 (1318)
School	26.6 (1038)
Outside away from home (e.g., park, bush, public area/street)	23.9 (931)
Other structure (e.g., abandoned building, shed)	6.4 (251)
Community service (e.g., sport/community club, church, toilet)	1.8 (72)
Vehicle	1.2 (46)
Other	5.1 (201)
No fire	0.3 (11)
Unknown	0.9 (35)
Previous History of Firesetting²⁷	
Previous inappropriate fire use	44.0 (1203)
Motivations^{28*}	
Boredom	35.1 (1568)
Experimentation	24.9 (1113)
Peer pressure	17.5 (782)
Attention	6.6 (297)
Anger	5.8 (259)
Unknown	13.6 (609)
Other Incident Factors	
Part of a group at time of incident ²⁹	68.1 (2880)
Intended to destroy property ³⁰	17.0 (652)
Understands consequences of actions ³¹	83.4 (3495)

**Does not add up to 100% as multiple motives could be selected.*

²⁴ Missing data for 13.7% ($n = 613$) of cases – frequencies based on number of cases with complete data.

²⁵ Missing data for 614 cases – frequencies calculated using 3854 cases with completed data.

²⁶ Missing data for 12.6% of cases – frequencies computed using complete cases only.

²⁷ Missing data for 38.3% ($n = 1734$) of cases – frequencies calculated using only cases with complete data.

²⁸ Motive was not recorded for 12.8% of cases. Only the top 6 motives are reported.

²⁹ Missing data for 237 cases – frequencies based on 4231 completed cases.

³⁰ Missing data for 643 cases – frequencies calculated based on 3825 completed cases.

³¹ Understanding of consequences of actions not recorded for 275 cases – frequency calculated on 4193 cases.

Table 7. Reasons Why FAIP Interventions were not Completed

Reason	% (n)
Unable to contact child/family	34.8 (57)
No reason recorded	19.5 (32)
Caregiver declined intervention	13.4 (22)
Child not available/present	12.2 (20)
Family avoided scheduling/intervention	8.5 (14)
Group talk at Youth Justice Facility	1.8 (3)
Intervention still to take place	1.8 (3)
Child ran away	1.8 (3)
FAIP was not appropriate/necessary	1.8 (3)
Location considered unsafe	1.2 (2)
Unknown or N/A	1.2 (2)
Denies involvement in fire lighting	1.2 (2)
Child refused intervention	0.6 (1)

It was not possible to make comparisons between those who did and did not complete the FAIP as the FAIP questionnaire was not completed with rangatahi whose intervention did not go ahead. However, we were able to look at the prevalence of barriers and facilitators to completing the FAIP based on the practitioners' summary of intervention comments.

Practitioner intervention summary comments were coded by two Research Assistants using a coding dictionary that was developed from reviewing approximately 50% of the data. Of the 4468 cases in the FAIP database, 4302 had a summary of intervention comment. Of these, 52.9% ($n = 2362$) reported facilitating factors and 29.4% ($n = 1315$) reported barriers to engagement. The most frequently reported facilitators were having cooperative clients (55%, $n = 1299$) and having supportive parents – parental cooperation (40.9%, $n = 965$). The most frequently reported barriers were the client being reserved/unwilling to talk to the practitioner (21.2%, $n = 279$) and the client/family having complex needs that take precedence over the FAIP (19.4%, $n = 255$) (See Table 8 for an overview).

Table 8. *No. Cases Identifying Facilitators and Barriers in Intervention Summary Comments*

Factor	% (n)
Facilitator	
Cooperative clients	55.0 (1299)
Supportive parents – parental cooperation	40.9 (965)
Client understands consequences/takes accountability	27.8 (657)
Effective teaching resources	15.8 (373)
Rapport with client	2.8 (67)
Barriers	
Client reserved/unwilling to talk to practitioner	21.2 (279)
Clients/Family have complex needs that take precedence over FAIP	19.4 (255)
Difficulty maintaining attention	14.8 (195)
Apathetic/incongruent emotional response	13.3 (175)
Hostile/defensive clients (e.g., negative attitudes, deny any harm/risk)	12.3 (162)

Data does not add up to 100% as only top 5 reasons for each category are reported and summary comments may have included multiple facilitators and barriers.

Facilitators and Barriers to Engagement: Professionals’

Perspectives

This section of the report examines factors which were viewed as facilitating or hindering engagement with the FAIP from the perspective of professionals working with rangatahi who had been involved with fire.

Participants

Sixteen professionals who work with rangatahi who had played with or misused fire participated in individual interviews. Professionals were recruited from across all five fire regions and from a range of organisations (e.g., youth justice, schools, health services, fire investigation, Oranga Tamariki, and New Zealand Police). Participants held a variety of roles (e.g., School Principal, Assistant School Principal, Kaumātua Te Kura, Police Youth Aid Officer/Youth Services, Police Sergeant, Police Manager, Social Worker, Private Fire Investigator, Mental Health Professional, Youth Court Judge) and had a variety of experience, ranging from 3 years to 33 years in their role (see Table 9 for a summary of key demographics).

Due to the small number of participants in some of the referrer groups and the lack of distinct differences in the experiences reported between different referrers, interviews from all participants were analysed together and themes identified across the interviews.

What Factors Act as Facilitators and Barriers to Making Referrals to the FAIP?

Analyses identified three themes which described professionals’ experiences of the FAIP and their perceptions of facilitators and barriers to referral. These three themes were named: *promoting good practice increases likelihood of referral, referrers’ perceptions of programme suitability, and individual and whānau factors moderate referrals*³².

³² Quotes directly reflect what referrers said, however, they have been edited for fluency (e.g., editing out occurrences of “erm”, “um” and partial and repeated words).

Table 9. *Summary of the Key Demographics of Referrers*

Demographic	<i>n</i>
Organisation	
Youth Court	1
School	6
District Health Board	1
Fire Investigation	1
Oranga Tamariki	1
Police	6
Region	
Te Hiku	5
Ngā tai ki te Puku	2
Te Ūpoko	5
Te Ihu	2
Te Kei	2

Promoting Good Practice Increases Likelihood of Referral

This theme described referrers' perceptions that there was a need to promote the FAIP and its benefits, to facilitate referrals to the programme. Not adequately promoting the FAIP was perceived as creating a barrier to referrals.

Visibility. A key determinate of whether professionals had made a referral to the FAIP or not was related to whether they were aware of the programme. Several participants commented that they had not even heard of the FAIP prior to receiving information about the research:

“So, it’s not a resource that I was aware of until I was contacted by [one of the researchers] really ...” (R29, District Health Board).

Even those who had made referrals to the programme commented that they did not believe the FAIP was well-known by colleagues or the general public:

“I’d say they’d [School Principals] certainly be open to using it but I’m not sure they’d be aware of it.” (R32, School Principal).

“I think, awareness in terms of from the general public, I’d say you know, there’d be very few people in the general public that would know that such a FAIP programme exists.” (R38, Police Manager).

This lack of awareness was considered a barrier across professional groups and appeared to be related to the accessibility of information about the programme. Some professionals believed information about the programme would be quite easy to find:

“Yeah. I mean, if you just did a Google search on fire lighting I think it comes up.”

(R42, Police Youth Services).

However, others believed information about the FAIP could be more easily accessible:

“I didn’t know there was an FAIP website ... I may have been told and I may just be old and forgetful, but I don’t recall anything [about] a website.” (R37, Police Youth Aid Officer).

When information about the FAIP was part of professionals’ organisational procedures and protocols this appeared to improve visibility of the programme and resulted in referrals becoming part of standard practice. However, a lack of awareness or knowledge about fire lighting amongst staff within referring organisations was noted to potentially result in under-recognition of the risks associated with fire lighting and act as a barrier to referral:

“I guess the difficulty sometimes comes from when frontline police staff go to a job where, it may be low level in terms of what’s actually completed, the action that’s actually completed, and they don’t refer it to us. Because if they had referred it to us then we’d look at all these other factors ... so then we’d say actually that’s a risk factor lets refer that kid.” (R38, Police Manager).

Due to the infrequency of fire lighting cases that some professional groups encountered, ongoing engagement and promotion of the programme was identified as something that would help raise and maintain awareness of the FAIP with potential referrers:

“the only thing I’d say is... we really rely on people reminding us about what’s out there.” (R28, School Principal).

In regions where regular engagement already happened, this was reported to be critical for maintaining relationships between FENZ and referring organisations and keeping the programme at the forefront of potential referrers' minds.

Positive Reputation of FAIP and FENZ. The positive reputation and high regard that organisations had for both the FAIP and FENZ was considered a key programme asset. More specifically, past positive experiences, endorsements from colleagues/other agencies, and the perceived effectiveness of the FAIP were important factors that influenced referrals:

“I think it’s great. The little I know about it, so no, I don’t need any more persuasion. And I guess I’m probably also relying on the fact that the Police seem to endorse-- or the Police that I’ve worked with here in [place name], seem to endorse it as well as social workers, so.” (R27, Youth Court Judge).

Having FAIP practitioners who were experts on the risks and dangers of fire (i.e., serving firefighters) was an important selling point for referrers and those they referred:

“You would think that they’re the experts in this field so, they will be better... they will have the knowledge and that to help with the underlying issues that are contributing to that ...” (R40, Police Pacific Coordinator).

The skills and attributes that FAIP practitioners possessed were viewed as important for effectively working with rangatahi. In particular, the quality and competence of FAIP practitioners was viewed as contributing to the programme’s overall effectiveness and facilitating a service that professionals would want to refer to:

“... the people are chosen and they have the right attributes to do the job. You know, the personalities and the things that, those things you can’t train, they’re naturally there, and they have the right demeanour, the right everything to do the role. So, they have some sort of interest and passion for what they’re doing with it as well, so it works very well.” (R31, Private Fire Investigator)

The importance of maintaining communication and transparency between FENZ and potential referrers was highlighted, particularly for tailoring the FAIP to the needs of rangatahi and providing feedback on their progress. Maintaining these relationships was felt to provide confidence in the FAIP and help facilitate programme completion:

“If I had any questions about their sort of commitment, I would pass that information on to the coordinator and might say [something] along the lines of “you might have problems engaging with the family for these reasons.” (R41, Police Youth Aid Officer).

More integrated working between FENZ and referring organisations was reported as being one way to improve both the FAIP completions and referrals to the programme:

“... this might be doing them a disservice because I don’t know, maybe they did ring me and tell me they’d finished but ringing and letting me know they’d finished. And ... If there are some things I need to watch out for in the future?” (R34, School Principal).

Effective Programme Referral Process. The importance of having an easy, straightforward, and responsive referral process was emphasised as a key factor for facilitating referrals to the FAIP. Those professionals who had made referrals generally found the process to be *“simple”*, *“straightforward”* and effective. However, having an established or existing connection with FENZ was perceived to facilitate the referral process. Not having these existing links was perceived as a potential barrier, particularly for those who might seek support through their local fire station:

“I was lucky I rang the right fire brigade; I don’t know what would have happened if my local fire brigade was something else.” (R34, School Principal).

FENZ being able to respond quickly to a referral was important to professionals. Delays in this process were seen as a barrier to referral:

“A short waiting list, being blunt. I think if we knew that the service would be able to engage with them pretty quickly, that’s a big deal for us because our average length of stay is three to four months. So anyone that’s-- you know, if there’s going to be a six month waiting list or something we’d end up, again, referring back to the local area and that’s not a great process ...” (R29, District Health Board).

However, not all delays were attributed to FENZ. Some professionals reported their own organisational processes affected how quickly they were able to make a referral:

“... when you get an arson in the Police, it goes straight to the Investigation side. You know, detectives and court and the frontline guys arrive first, and they hold the scene ... and then what happens is there’s a delay-- there could be a delay of a month before I’ll even get the file, and in that month time is just gone and wasted...” (R39, Police Youth Aid Officer).

Finally, the flexibility and helpfulness of FAIP practitioners was identified as key for overcoming delays and ensuring the intervention went ahead at the earliest opportunity:

“Again, thinking on the last referral I completed they were very fast ... the gentlemen was so flexible around different programme delivery times and was really accommodating.” (R36, Oranga Tamariki Social Worker).

Referrers’ Perceptions of Programme Suitability

Professionals’ views about who the FAIP is and is not appropriate for were identified as influential factors for informing decision making about whether to refer or not.

Rangatahi Need Fire Safety Education. A number of professionals held the opinion that any young person who came to their attention for involvement with fire, no matter how big or small, would benefit from fire safety education and therefore a referral to the FAIP:

“The idea is that we will refer anyone who we have concerns about their interest and any sort of fire activity. And that can range from pretty low-end stuff which is sort of

exploration to the higher end stuff where they're deliberately causing arson or they're endangering life.” (R38, Police Manager).

Professionals who held positive views about fire safety education and its wide-ranging benefits tended to be regular referrers to the FAIP; viewing this as a positive learning experience for rangatahi who perhaps were not aware of the dangers of fire:

“It was just by no fault of their own. You know, just, in the wrong place at the wrong time, using matches, then creating a fire, then [it] got out of hand ... But it wasn't any loss of life or anything. Just damage to property but ... that's all. I think they learned from that ... And the system that we went through to get help for the whānau, and, student, in particular for the young child, it worked well, it was good.” (R35, Kaumātua Te Kura).

Fire Lighting Rangatahi Have Complex Needs That FAIP Alone Cannot Address. Some professionals noted fire lighting could be a complex behaviour and an indicator of additional complex needs. This view acted as a facilitator to referral for some professionals and a barrier for others. For example, some professionals viewed the FAIP as having some benefit for rangatahi if this was one of their primary needs:

“If we have information that they are ... high risk, and this is about a really concerning behaviour, then we will address it, that will be one of those top... complex needs that we will address.” (R36, Oranga Tamariki Social Worker).

For others, firesetting was sometimes not seen as the most concerning behaviour and therefore may be less of a priority to address compared to other immediate needs:

“We have our own issue within the education system trying to deal with those sorts of things and systems in place to help the student cope in all ways. But at the end of the day we have a very high statistic as far as suicide goes and those sorts of issues we need to deal with now.” (R35, Kaumātua Te Kura).

In addition to having to balance the often competing and complex needs of rangatahi in their care, some professionals also believed some of the underlying factors associated with fire lighting would not be adequately addressed by the FAIP and therefore onward referral to other agencies would be paramount:

“I think the fire service are good at delivering information: this is how quickly fire can spread, this is the dangers of it, but then it needs that follow up with that social worker or even counsellor or something that can unpack the reasons behind why they’re doing it, as opposed to just like what happened ...” (R38, Police Manager).

The need to engage and work with wider support structures around rangatahi, such as whānau, hapū and iwi, to address other factors that may be associated with fire lighting, was also highlighted as critical for providing an integrated and culturally appropriate response:

“If you can get a good understanding on the te ao Pākehā and te ao Māori, there’s two different worlds ... But at the same time, we all need to come together and work together as one, and that’s the key Right? If we can get to the whānau, we get to the hapū, we get to the iwi ...” (R35, Kaumātua Te Kura).

Individual and Whānau Factors Moderate Referrals

Related to *referrers’ perceptions of programme suitability*, this theme described how professionals often made judgements about whether the FAIP was appropriate or not for rangatahi based on individual and whānau factors. These factors appeared to moderate whether a referral was made or not (e.g., may represent a facilitator or a barrier).

Referrers’ Judgements About Individual Responsivity to the FAIP. Professionals reported considering a variety of individual responsivity factors when making decisions about who to refer and who not to refer to the FAIP. One key responsivity factor revolved around the age of the child. There appeared to be a shared view that there was an appropriate or ‘just right’ age range for the FAIP to be beneficial. Rangatahi who were perceived as too

young or too mature were identified as groups that referrers would potentially not refer to the programme:

“Yes, and I had two. I think they were 14 to 15 years old. They had done a relatively minor lighting of grass and scrub and it didn’t get out of control, but it necessitated the fire service attending. And I found that they were too mature for the content of the course ... they considered it beneath them and upon reading it’s very much focused on the younger person rather than say teenagers ... I would say [its suitable for] up to 12 at a stretch, depending on maturity.” (R37, Police Youth Aid Officer).

This appeared to relate to the perception that the FAIP was great for early intervention but perhaps was less suitable for older rangatahi and those engaging in more serious fire lighting:

“I believe it’s very very effective particularly where you’re dealing with young children like that before they can become contaminated as such, you know what I mean, you can guide them and point them in the right direction.” (R31, Private Fire Investigator).

However, some referrers saw the FAIP as suitable for all age groups, citing the flexible nature of the intervention and its ability to be tailored to different age groups as a strength:

“If you sent a five year old along to the programme-- or the Fire come out to do the programme to a five year old, the way they present that is a lot different than if they were talking to a 16 year old teenager. So, they tailor the programme to suit the person that they’re delivering [to] ... and they can include the family. So, if a fifteen year olds got younger siblings, they will include them in the programme as well. So, you’re getting the whole range of everybody getting involved, which is great.” (R41, Police Youth Services).

In addition to age appropriateness, concerns about rangatahi either being willing to or able to engage due to other responsivity needs (e.g., mental illness, low cognitive functioning,

antisocial and/or antiauthoritarian attitudes) were reported as important considerations for making a referral:

“If they were likely to pose a risk to the therapist or they were likely to cause a problem in terms of engagement I guess we might have to think twice about it. I’m not sure if it would stop us referring, necessarily, we’d just have to put safety measures [in place] to make sure that engagement could go ahead ... And I guess the other thing would be [the] state of florid psychosis, for instance, or an intellectual disability severe enough that they’re not going to be able to make meaningful use of it.” (R29, District Health Board).

The suitability of the FAIP for different cultural groups was also considered by professionals. Some professionals felt both FENZ and their own organisations were well equipped to ensure referrals and interventions were delivered in a culturally appropriate way:

“No, I don’t see that there are any barriers. I guess... culturally appropriate, you know, whether there’s those aspects there ... for example, if it’s a Pacific family that were involved then I think both organisations, Police and FENZ, have the capacity to deal with that, you know, through various offices and skillsets ...” (R40, Police Pacific Coordinator).

However, as noted in *referrers’ perceptions about programme suitability*, others perceived that the programme and its processes may need to be more culturally responsive and that FENZ could work more closely with different cultural groups in the community to support this.

The Barometer of Fire Severity. The perceived severity of fire behaviours was an important point of consideration for professionals when deciding whether an intervention was necessary. There was a sense that some fire behaviours were “*normal*” or “*minor*” and that an intervention like the FAIP was not needed:

“At this level the kids don’t set big fires, they’re more likely to be playing with cigarette lighters. You know, it’s the little bits of paper and things like that. I think we’ve had an

incident where we've walked past the toilet and smelt paper burning. And they've set off a piece of paper in a rubbish bin, or in the sink or that sort of thing. [These ones] I would just have a very caring and loving conversation with the child about safe use of a cigarette lighter.” (R28, School Principal).

However, there appeared to be a threshold at which fire lighting was viewed as problematic and risky and therefore required intervention. This threshold included fire behaviours which were *“intentional”, “more than just curiosity”, or “posed a risk to the individual or others”*.

Rangatahi who were considered to be at increased risk of further fire lighting were reported as being more likely to trigger a referral, particularly if professionals were concerned that the fire lighting may escalate or result in rangatahi ending up in the criminal justice system:

“... when you keep setting fires and don't get caught you keep setting fires and then sometimes you burn something down, and then that's a sure-fire way to end up into the criminal system, when we really don't want that to happen because probably... it's more of an act that got out of control, than a criminal act ... So, I think it's important because it is a way that I think you might end up in the system and the system isn't that great to be in when you're a young kid.” (R34, School Principal).

Whilst a number of professionals reported that the severity of fire behaviour formed part of their assessment of whether to refer or not, others reported that they believed having some intervention was *“better than not doing anything at all”* as there was *“nothing else out there”*.

Concerns About Causing Whakamā for Whānau. Professionals reported that being referred to the FAIP may cause some families shame or embarrassment and this would stop them making a referral, especially if the family were not expressly happy about this:

“Oh, I think stigma will be the biggest barrier. People don't want their child to be known as the child who lights fires ... And that comes back to feeling like your parenting's being judged.” (R34, School Principal).

A more inclusive, community focused approach that promoted the FAIP's role in protecting rangatahi, whānau, and the community was suggested to help overcome stigma and whakamā:

“If we put families in a place of whakamā then, some of these things can rebel on us ... So, we've had to do it in a more sort of inclusive type of methodology.” (R28, School Principal).

Facilitators and Barriers to Engagement: Practitioners’ Perspectives

This section provides an overview of the qualitative findings exploring facilitators and barriers to engagement with the FAIP from the perspective of FAIP practitioners.

Participants

Twenty-six FAIP practitioners participated in the research; eleven attended focus groups (five focus groups with two to three practitioners in each), and fifteen completed individual interviews. Practitioners represented all five fire regions and a range of experience levels (see Table 10 for a summary of practitioner characteristics).

What are Facilitating Factors and Barriers for Engagement with the FAIP?

Seven themes were identified describing factors which practitioners felt either facilitated engagement with the FAIP or acted as barriers. These were named *getting buy in through positive public perceptions*, *difficulties initiating referrals*, *getting it right from the get go*, *role of the practitioner*, *having the right tools*, *optimal learning experience*, and *limits of the FAIP*³³.

³³ Quotes directly reflect what referrers said, however, they have been edited for fluency (e.g., editing out occurrences of “erm”, “um” and partial and repeated words).

Table 10. *Demographic Characteristics of FAIP Practitioners*

Demographic	N
Region³⁴	
Te Hiku	4
Ngā tai ki te Puku	4
Te Ūpoko	7
Te Ihu	5
Te Kei	4
Length of Time as a Practitioner	
1-3 years	14
4-6 years	2
7-9 years	2
10+ years	8
No. of Interventions Delivered³⁵	
1-10	5
11-20	2
21-40	3
41-50	2
51-100	5
100+	3
Gender^{36*}	
Male	16
Female	3
Ethnicity**	
New Zealand European/Pākehā	16
Māori	4
Pasifika	3
European	1
Other	2

**7 practitioners did not provide demographic information.*

***Ethnicity does not add up to 100% of responding participants as multiple ethnicities could be selected.*

Getting Buy in Through Positive Public Perceptions

This theme described the importance of creating awareness and increasing uptake of the FAIP through positive public perceptions.

Being Known For Being Good. Trust and positive regard for FENZ was highlighted as a key factor associated with rangatahi and whānau engagement in the FAIP:

³⁴ Region was not reported by two practitioners.

³⁵ No. of interventions delivered was not provided by one participant.

³⁶ Gender is reported how participants self-identified.

“We’re quite lucky in that we’re an organisation through FENZ that, we can go into someone’s home, people will invite us into their homes, because we’re seen as the good guys.” (P10).

This was coupled with trust in the expertise and experience of practitioners, due to them having lived experience as firefighters, and the respect the FENZ uniform carries:

“Most helpful is actually your own experience in the uniform ... In fact, the uniform is the key to everything ... To deliver a programme with no uniform, you’re not wearing your fire service – or FENZ now. If you walked in in your mufti day you wouldn’t make a connection ... you’re just another person talking. But the uniform and the respect and how it’s held in the community and society... it’s a big input into it.” (P9).

Fostering Positive Relationships and Community Awareness. Although trust and respect in the FENZ brand was considered an important factor for facilitating engagement, practitioners highlighted that this alone was not enough to encourage referral and uptake of the programme. Effective marketing as well as developing and maintaining community connections were identified as crucial strategies for increasing awareness of the FAIP and for ensuring the public and relevant organisations know about the non-operational work that FENZ undertake:

“I think it’s up to the areas, where you basically get a promotion group and they say “we want you to drop pamphlets off at doctors surgeries” or when you’re tryna push Firewise in schools we told all the Firewise ambassadors to give out pamphlets and tell all the teachers. And sometimes it’s word of mouth and word gets out there.” (P5).

Practitioners perceived there was a lack of awareness amongst referrers and the public about what the FAIP is and its aims. This lack of awareness was felt to be associated with missed opportunities for promotion. There was also consensus amongst practitioners that current promotional strategies are ineffective. A lack of promotional material (e.g., fliers and

posters) and difficulties finding information on the FENZ website and through internet search engines were highlighted as particular examples of ineffective promotion:

“So, we don’t have, as far as I’m aware, any fliers or posters. I did a brief bit of research last night on what’s actually available on the web. I just typed in what a parent would type in, so I just typed in ‘my child is lighting fires what should I do?’ sorta thing on Google, and it-probably about five or six down the list on Google it came up with just a basic sheet, or a webpage, on the FAIP programme. I thought that could probably be promoted a wee bit better.” (P25).

Suggestions for more effective promotion comprised both national and targeted marketing strategies including television, radio, social media, and targeted talks for relevant professionals (e.g., teacher training, police college). The need for promotion within FENZ was also highlighted, particularly among operational staff who are likely to come into contact with rangatahi and whānau involved in fire incidents when attending call outs:

“One of your biggest referrers is through the fire service itself. We’re shocking in [region name] and I’ve personally presented to all of the local brigades to try and highlight the programme, when they would use it on a job, the types of things they’re looking for. We just need to get better at promoting the service full stop, I think, across all avenues.” (P22).

Practitioners perceived that the poor visibility of the programme resulted in the FAIP being overlooked by external agencies and the public.

Need for Increased Investment. Practitioners identified a need for increased investment in the FAIP to ensure there are adequate resources to support both promotion and delivery of the programme. In particular, a lack of funding and resources was perceived to be related to a shortage of practitioners in some regions and the removal (i.e., disestablishment of previously existing roles) or lack of a dedicated person in each region to coordinate and facilitate the growth of the programme and community connections:

“I think it should be a dedicated programme which has dedicated staff to managing it more than what we have at the moment ... Stuff like regional co-ordinators who are dedicated to that solely, to building relationships, to building awareness of the programme. I truly think it’s hugely beneficial and there’s more that we could do with it as an organisation.” (P24).

The Power of Whānau Support. Engaging with the wider network (e.g., whānau, schools, social worker, community, police) around rangatahi was reported as helpful for maintaining contact during the referral process. However, having caregiver and whānau support and involvement in the intervention was perceived as vital for both acceptance and completion of the FAIP:

“... the ones that I have done, their parents have been absolutely supportive of the programme... Absolutely supportive... Yes ... Definitely, because they’re more than welcoming for you to come back, ya know, into the home and see them, so... it is really good.” (P1).

Practitioners perceived that caregiver and whānau support often reflected a caring parent-child relationship.

Difficulties Initiating Referrals

Although practitioners perceived low community presence to be a significant factor which prevented the public and referrers from finding out about the FAIP, this theme detailed factors which may inhibit individuals from referring to/taking up the programme.

Problems in the Referral Process. Issues with the referral process were perceived to impact upon the ability of referrers, rangatahi and whānau to engage with the FAIP.

Practitioners perceived that referrals tended to rely on having key contacts in organisations. However, high staff turnover meant links within these organisations often moved on and awareness of the FAIP was lost in this process:

“a lot of these organisations, like Police Youth Aid, Oranga Tamariki, they chop and change personnel all the time ... So you’re not, sort of dealing with the one person for x amount of years. So that’s also something in itself ... Because they move on, forget about the programme, they might pass that information on, they might not So that’s when it breaks down, and we might not get the referrers that we should be getting. It might sort of, drop by the wayside.” (P10).

Practitioners also perceived that the FAIP was overlooked by potential referring organisations either because the fire lighting was not seen as a serious issue or it is not prioritised due to the many other competing demands for their time. Issues with interagency communication also impacted the referral process through causing delays in making referrals (e.g., after initial contact), limited information provided on referral forms, breakdowns in communication when arranging interventions, and the lack of a coordinated approach within FENZ to establish interagency links.

Finally, practitioners described issues that may occur for whānau who want to self-refer to the FAIP or take up a referral that had been made on their behalf. For example, the process of contacting FENZ was perceived as potentially intimidating for whānau, especially those who directly contacted their local fire station:

“it’s quite daunting sometimes I reckon to ring the fire station ... And when you ring the fire station, you don’t get the FAIP Practitioner ... You do not get the right person.” (P9).

Issues with accessing technology were identified as a barrier later in the referral process, particularly when it came to making contact with whānau and/or returning calls following a referral:

“...sometimes difficulties in getting a hold of people, people don’t like talking on the phone and if they are on a prepay mobile plan then having to pay for every text is an issue as well.” (P14).

Fear of Negative Social Perceptions. Practitioners considered fear of negative social perceptions to be a significant obstacle to engagement for both referring organisations as well as rangatahi and whānau. More specifically, there appeared to be shame and stigma associated with fire lighting as well as stigma associated with participating in an intervention that deals with problem behaviour:

“our whole teaching - all the teachers are gonna be tarred. You know, ‘that’s the school with the arsonist.’” (P13).

Due to the fear of negative social perceptions, practitioners reported whānau and referring organisations would sometimes try and deal with the issue themselves rather than refer to the FAIP.

Exacerbating the Problem. Whilst fear of negative social perceptions reflected referrer and whānau concerns about stigma associated with the programme, concerns about confidentiality and how involvement with the FAIP may lead to rangatahi getting into further trouble (e.g., through onward referral by FENZ) were also identified by practitioners:

“I think other organisations probably aren’t aware of what our goals are and we’re not there to set the clients up or to get them in more strife.” (P5)

Getting it Right from the Get go

This theme outlines the ways that practitioners try to overcome barriers associated with initiating referrals. Practitioners identified that it was important to get things right from the start to maximise the likelihood of uptake and engagement.

Efficient and Effective Referrals. The importance of effective and efficient referrals for facilitating engagement with the FAIP was emphasised. Effective referrers were identified as those who were authentic, responsive, and trusted by rangatahi and whānau. In particular, operational firefighters who introduced the programme when attending fire incidents were viewed as a successful vehicle for promoting engagement:

“If I’m on a truck and we go to a fire and we find out a kid’s involved, I’ll generally get tasked with sorting out the paperwork with the parents and then they can refer themselves.” (P17).

The need for a trusting relationship between the referrer, rangatahi and whānau was highlighted as key for ensuring buy in for the FAIP, emphasising the need to work with other agencies to ensure the right person was making the referral.

In addition, the importance of referrers being “onto it” and quickly responding with a referral once they have identified someone who may benefit from the FAIP was emphasised, especially when this was part of legal proceedings, since families may move or change their contact details:

“It would be really good if the Police could streamline that process without hanging onto it for too long. I know if it’s going through the court process and everything else they obviously need to sit on it for a wee while but if they don’t, if it’s just a basic referral for something that’s only minor, might be a first time offender, then [it would] be good to be able to do it a bit quicker.” (P20).

Doing Your Homework Prior to Contact. The need for careful preparation and planning prior to making contact with whānau about the intervention was highlighted. Practitioners expressed that information on the referral form was key for guiding preparation and planning in advance of an intervention. Preparation and planning were seen as particularly important for engaging families who might be experiencing difficulties and for rangatahi who may have particular developmental needs:

“It’s more about you and yourself thinking okay, how am I going to adapt what I’ve got? So, I guess the resources are there and it’s just about us doing some groundwork ... Because you do make it work because it’s what you’ve got ... but you’ll just talk to the parents and see what do they suggest would work well and then you see what you’ve got and apply that to the situation.” (P26).

Engagement was viewed as most effective when the practitioner was matched to the needs of rangatahi by the regional coordinator, based on their skills and experience:

“You had someone who was aware of the practitioners and their abilities and stuff and so you know, if you had a Practitioner that was better suited towards you know, a kid that had been in foster care for ten years and like stabbing people and setting fire to rooms and things then you probably wouldn’t send a brand new practitioner out with them, and give that more experienced practitioner a seven-year-old who found a match and the parent was worried about it.” (P13).

Clear Messaging. Clear messaging about the goals of the FAIP (i.e., that it is not a punishment or to get rangatahi into trouble), the accessibility of the programme in terms of time and cost to clients, and the wider safety benefits to whānau, provided an important mechanism for getting buy in from families to take up the programme:

“When we make our first contact and say who we are and give a full explanation of what the programme’s about. Then, that’s a good start. And if they can understand that it’s an educational tool ... Rather than something else, because it’s all really about the consequences of fire and fire safety and that’s what we’re trying to get through to the parent and to the client as well.” (P2).

Creating Emotional Safety for Whānau. Practitioners discussed the necessity of creating an emotionally safe and confidential space for whānau to facilitate engagement with the FAIP. Creating emotional safety was related to the subtheme of *clear messaging* in that it reflected the importance of communicating the confidential nature of the programme:

“I think the important factor about talking about that programme before you go in there is by telling [them] that this programme is strictly confidential. So, the confidentiality side of it is important as well. So, as they can understand that what we’re going to be talking about no one else is going to know.” (P2).

Emotional safety was also achieved through practitioners showing flexibility when arranging and preparing for the intervention. For example, arranging for the intervention to take place at a convenient time, in a place that is comfortable and safe for both rangatahi and whānau, whether that was at home or at another location:

“Yeah, I try and give them the option, by saying look we could have it at home, if you’re not happy with that or not comfortable with that, we can arrange to have it somewhere else. I’ve had them at the station, I’ve had them at schools ... I think people appreciate the option of having it somewhere else, if need be.” (P15).

The need to create a safe personal connection between the practitioner, rangatahi and whānau was also emphasised. Delivering the intervention discretely to increase anonymity and reduce stigma, as well as fostering a safe space for open and honest disclosure was perceived to be particularly important:

“... well, the fact that we go with the family in their house and deal with it on a one-to-one I think is the ideal situation. The stigmatism that may or may not go with it, so try to have an unmarked car ...” (P6).

Role of the Practitioner

This theme describes how FAIP practitioners are integral for maintaining engagement during and across intervention sessions to ensure successful completion of the programme.

Responsive to Clients’ Needs. Having the skills and experience to be adaptable, tailor the intervention to the client’s needs, and be responsive to a range of presenting behaviours (e.g., firesetting, fire play, unsafe fire behaviour) and individual factors (e.g., age, learning style) was highlighted as critical for successful intervention completion:

“It’s a reason the people who are practitioners are practitioners I think, because you wanna do it, but also you got the personal skills, and whatever’s inside you, to go and deal with different people in different ways.” (P12).

Being able to identify the need to work systemically with whānau as part of the FAIP was also perceived to be important for supporting continued engagement in the intervention:

“If you got whānau that are willing to be part of it that’s a huge help. Because then they’ll help ... they’ll work as a family you know we really try and make sure it’s like ‘hey, you do a family escape plan.’ So maybe you’re getting an eight-year-old do a picture of a house but it’s no good if he’s the only one who knows how to do it.”

(P12).

Peer support from other FAIP practitioners was identified as a key resource for aiding the adaptation of materials/the intervention and supporting practitioners to identify appropriate strategies and resources for responding to clients’ needs.

Personal Connection and Rapport. The importance of practitioners building rapport with rangatahi and whānau was also emphasised:

“...yeah I think getting a good working rapport with the client and the parent ... Yeah I think that’s critical and I think that starts when we make our first contact.” (P2).

Being passionate, motivated, genuine, and showing care and investment in rangatahi were identified as key ways to build and maintain rapport, and ensure intervention success.

Having the Right Tools

Practitioners described the importance of having effective educational resources that kept rangatahi engaged, whilst also delivering core fire safety messages.

Effective Resources. Resources that highlighted the consequences of fire were considered effective as well as engaging:

“My go-to video is probably the Bradford stadium fire which is... yeah... the speed of fire and they really sorta get a good understanding of how that sorta goes ...” (P1).

Interactive resources (e.g., videos, games, technology-based tools) were perceived as most engaging, particularly as rangatahi are increasingly using technology in their daily lives:

“I mean if they’re not buying in you can kind of be like oh if you-if we just do this little bit more then we can watch a video together kinda thing ... kids love technology!” (P8).

Problems with Investment and Quality of Resources. Although practitioners identified some tools as more effective than others, there was a shared view that more investment was needed to provide support, case consultation, and improve resources for the FAIP. In particular, existing resources were considered to be less engaging for older rangatahi (e.g., teenagers), were outdated, and of poor quality. Existing resources were also considered to not always be relevant to Aotearoa New Zealand culture and the types of fire lighting children engage in:

“stuff from America ... yes fire is pretty relative to all countries, but ... having something New Zealand [would] be far better.” (P10).

Whilst interactive tools, such as videos, were highlighted as facilitating engagement, practitioners reported the use of such resources was not always possible due to a lack of tablets (e.g., some practitioners had them and some did not). Some practitioners were also concerned that becoming over reliant on technological resources risked the intervention becoming impersonal and could lead to reduced engagement.

Optimal Learning Experience

In this theme, the contribution of rangatahi *environmental* (e.g., homelife) and *individual factors* were identified as important for providing optimal conditions under which learning and engagement were most likely to be successful.

Environmental Factors. A positive stable living environment was perceived as being critical for intervention engagement and completion, providing a good atmosphere for learning and

engagement: *“If the home environment is good, well then we’ll have a successful intervention.”* (P2).

In contrast, instability in the environmental, familial and social life of rangatahi was identified as having a negative impact on intervention success. Negative caregiver relationships, low caregiver support and a chaotic or unstable living environment were identified as factors which may impact engagement with the FAIP; creating barriers such as communication issues, difficulties establishing a day/time for the intervention, and busy and distracting home environments.

In addition, transient families or rangatahi being moved households by Oranga Tamariki, creates logistical issues for FAIP completion which may also lead to disengagement:

“Several cases I have had have not proceeded due to clients and their families moving away. Frequently it is not possible to get a new address, so passing on information to another practitioner is not an option.” (P15).

Individual Factors. In addition to environmental factors, the age, nature of the firesetting, and the receptiveness of rangatahi were considered important facilitators for engagement. Rangatahi who were receptive to the intervention and keen to learn were considered to have the most successful outcomes. However, rangatahi who held antisocial attitudes, including distrust of authority and lack of empathy, were considered more difficult to keep engaged:

“If the intervention goes well and it often depends on how receptive the client is. If they’re keen to learn and to try and change their behaviour but majority of the time it’s pretty successful.” (P5).

Rangatahi in their mid-teens were identified as a group who were often more difficult to engage and build rapport with and were suggested to often be diverted to the FAIP via the criminal justice system. Interestingly, FAIP interventions that were mandated (e.g., by police and courts) or were associated with negative consequences (e.g., suspension from school)

were seen as more likely to go ahead than voluntary interventions, however, engagement was perceived to be more superficial:

“You’ve probably got a young person who’s not engaged at all but they’re essentially being told it has to happen.” (P12).

Practitioners considered that rangatahi who were experimenting with fire, as opposed to deliberately starting them, were more likely to successfully complete the FAIP. Practitioners perceived this was because the fire had been unintentional and had shocked the child:

“There’s a lot just experimenting I suppose and they didn’t realise it was gonna do what it did and they got a shock themselves.” (P1).

Practitioners also reported that rangatahi with intellectual and developmental difficulties may find the FAIP more difficult to complete:

“Kids with disabilities are probably a little bit harder to get to complete ... if it’s a disability ... ADHD or a condition like that... their focus, their concentration.” (P3).

The importance of being flexible and adapting interventions to fit the needs of rangatahi was highlighted. However, some practitioners felt under-equipped to effectively work with rangatahi with specific responsivity needs:

“I don’t feel overly well prepared to deal with some of the situations that may arise, you know, I can deal with any of the fire behaviour well but when it’s clients who have say ADHD for example maybe a better training around the awareness of what that entails and how you need to alter what you do to get the most out of the interaction with them?” (P24).

Limits of the FAIP

This theme describes practitioners’ perceptions on the limits of the FAIP and who it was and was not appropriate for.

Unable to Meet High Need and Intensity. Although the brief nature of the FAIP was highlighted as a strength of the programme, practitioners perceived it was not always enough for rangatahi with high needs. More specifically, practitioners reported some rangatahi were in contact with a range of services and presented with psychological and behavioural needs which were outside the remit of their expertise and the focus of the FAIP:

“Well, I guess you know we’re not, we’re not trained counsellors ... We’re firefighters, trying to prevent people from getting burnt or killing someone or themselves or burning down the house. We’re there to talk about fire safety, we don’t have all that other training which some of these kids need.” (P11).

Accessibility and Flexibility. Access to the FAIP was also not felt to be consistent across Aotearoa New Zealand. Urban areas were perceived to be better served than rural areas. Practitioners in some regions reported travelling long distances to complete interventions:

“Distance [is a barrier] because ... if I gotta travel to [location] to do an intervention that’s a 400k return trip. So, distance is probably one of them.” (P2).

Facilitators and Barriers to Engagement: Whānau Perspectives

This section of the report outlines the findings from the qualitative survey with whānau and their perceptions of facilitators and barriers to engagement with the FAIP.

Participants

Eighty-eight people accessed the online survey between 26th November 2020 and 28th February 2021. Partially completed surveys (i.e., where the qualitative questions had not been completed) were excluded from analyses. A total of 27 participants completed the survey in its entirety: a completion rate of 30.68%. Given the unique target group (e.g., whānau whose rangatahi had been offered the FAIP) the completion rate is relatively good and is not greatly below that found in research using similar recruitment methods³⁷. Two further surveys were excluded as it was clear from the responses that participants were talking about experiences unrelated to the FAIP, leaving 25 in the final sample.

Participants were recruited from across all five fire regions. The majority identified as female (92%) with only one participant identifying as male and one who said that they would prefer not to say. In terms of ethnicity, 60% of participants identified as New Zealand European/Pākehā and just over one third identified as Māori. Only one participant identified as Pasifika. See Table 11 for an overview of participant demographics.

³⁷ Barnes, Barclay, McCaffery, Rolfe, & Aslani (2020) reported a response rate of 23.1% based on post clicks and 42.7% survey link clicks in their online study on the experiences of pregnant women in Australia which recruited participants using national Facebook advertising.

Table 11. Demographics for Whānau Survey Participants

Demographic	Total Sample n = 25 % (n)	Completed FAIP n = 16 % (n)	Partially Completed FAIP n = 3 % (n)	Declined FAIP n = 6 % (n)
Age				
18-24 years	4 (1)	6.25 (1)	0 (0)	0 (0)
25-34 years	24 (6)	25 (4)	33.33 (1)	16.66 (1)
35-44 years	36 (9)	31.25 (5)	33.33 (1)	50 (3)
45-54 years	24 (6)	18.75 (3)	33.33 (1)	33.33 (2)
55-64 years	12 (3)	18.75 (3)	0 (0)	0 (0)
65 years or above	0 (0)	0 (0)	0 (0)	0 (0)
Gender³⁸				
Male	4 (1)	6.25 (1)	0 (0)	0 (0)
Female	92 (23)	87.5 (14)	100 (3)	100 (6)
Other	0 (0)	0 (0)	0 (0)	0 (0)
Prefer not to say	4 (1)	6.25 (1)	0 (0)	0 (0)
Ethnicity*				
New Zealand European/Pākehā	60 (15)	62.5 (10)	66.66 (2)	50 (3)
Māori	36 (9)	31.25 (5)	100 (3)	16.66 (1)
Pasifika	4 (1)	0 (0)	33.33 (1)	0 (0)
Asian	20 (5)	25 (4)	0 (0)	16.66 (1)
European	8 (2)	12.5 (2)	0 (0)	0 (0)
Other	4 (1)	0 (0)	0 (0)	16.66 (1)
FENZ Region				
Te Hiku	28 (7)	37.5 (6)	0 (0)	16.66 (1)
Ngā tai ki te Puku	24 (6)	18.75 (3)	33.33 (1)	33.33 (2)
Te Ūpoko	20 (5)	25 (4)	0 (0)	16.66 (1)
Te Ihu	20 (5)	12.5 (2)	33.33 (1)	33.33 (2)
Te Kei	8 (2)	6.25 (1)	33.33 (1)	0 (0)
Year Referred to FAIP				
2018	40 (10)	43.75 (7)	0 (0)	50 (3)
2019	24 (6)	18.75 (3)	66.66 (2)	16.66 (1)
2020	32 (8)	37.5 (6)	0 (0)	33.33 (2)
2021	4 (1)	0 (0)	33.33 (1)	0 (0)
Referral Source				
Self-referral	28 (7)	25 (4)	33.33 (1)	33.33 (2)
Oranga Tamariki	4 (1)	0 (0)	33.33 (1)	0 (0)
Police/Youth Aid	8 (2)	6.25 (1)	33.33 (1)	0 (0)
Fire and Emergency	16 (4)	18.75 (3)	0 (0)	16.66 (1)
School	36 (9)	43.75 (7)	0 (0)	33.33 (2)
Other	8 (2)	6.25 (1)	0 (0)	16.66 (1)

*Please note ethnicity does not add up to 100% in each column as people were able to select more than one ethnicity.

³⁸ Gender is reported how participants self-identified.

What are the Barriers and Facilitators to Engagement with the FAIP?

There were no distinct differences in responses between those who declined, those who had partially completed, and those who had completed the FAIP. Therefore, all participants' responses were analysed together. Analyses identified three themes that describe factors whānau reported as impacting their ability or decision to engage with the FAIP: *programme reachability and accessibility*, *motivation to engage*, and *programme content and delivery*³⁹.

Programme Reachability and Accessibility

This theme describes how the reach and accessibility of the FAIP represented both a facilitator and a barrier for whānau engagement.

Lack of Awareness and Available Information. Whānau perceived that a lack of awareness amongst the general public about the availability of the FAIP, who it is suitable for (e.g., age groups, types of fire behaviours), and the benefits of completing the FAIP potentially prevented people from self-referring or taking up the programme:

“More awareness in the community, schools, public events, TV, social media, homes, etc. For anyone with children etc. to be able to be referred.” (W11, completed FAIP).

There also appeared to be a misconception that the FAIP was only able to be accessed by rangatahi who had committed criminal firesetting or acts of arson:

“Make it more inclusive to others as well, not just the ... offending youth.” (W20, completed FAIP).

This misconception appeared to be related to some whānau experiencing involvement with the FAIP as stigmatising. Making the programme more *“inclusive”* and *“available to others”* (i.e., non-offending youth) was suggested as a way to *“destigmatize”* the programme.

³⁹ Quotes directly reflect what whānau reported in the survey, however, they have been edited for spelling and flow.

Accessibility Issues. After being referred to the FAIP, some whānau reported they found the programme difficult to access in their area, which affected their ability to take up the FAIP. For example, those residing in smaller communities “declined” the intervention as they were unable to access the programme due to the lack of practitioners serving the area:

“We don’t live in the area that the programme is delivered.” (W27, declined FAIP).

Others reported that “*access to reliable transport*” impeded their participation. Given the FAIP is delivered in participants’ homes, it was unclear whether the above accessibility issues occurred due to miscommunication on the part of the referrer (i.e., saying the intervention was not available) or a lack of resourcing (i.e., not enough practitioners to cover the area).

Some participants reported a lack of communication between FENZ and whānau resulted in them not completing the intervention as they “*forgot about them*”:

“We didn’t know where to go etc. and waited for a call. I think if someone had sent a reminder before and on the day with the time date, and place [it] would have definitely encouraged me.” (W19, declined FAIP).

The time commitment needed for whānau to engage in the FAIP was a recurring barrier reported by participants. Fitting the intervention into an already busy schedule was identified as challenging and creating additional strain, particularly for mothers:

“... the reality is we are a busy household and this was just one more thing to cart ourselves around to/make time for ... there seems to be an assumption that mums have endless time and energy to organise their kids to be at places and do things and sometimes we are just very tired and it’s a bit much ... I didn’t have the emotional energy or capacity to engage with yet another bloody service wanting to do stuff with our kids.” (W25, declined FAIP).

Finally, wider societal challenges, outside of FENZ's control, were identified as creating barriers to engagement. For example, the COVID-19 pandemic impacted several participants' completion due to Aotearoa New Zealand going into national lockdown.

Easy Referral Process. Although reachability and accessibility represented barriers to whānau self-referring and engaging with the FAIP, those who had been referred and completed the programme felt that overall the referral process was quick, easy and straightforward. For those who were referred by an organisation, having a trusted, respected, and supportive individual recommending the programme increased the likelihood of accepting the referral:

“Yes, because I know his Principal only wants what is best for him.” (W13, completed FAIP).

For those who self-referred, value was placed on personal recommendation. In addition, those who self-referred highly valued this as an option and saw it as empowering whānau to make their own decisions for their rangatahi:

“One aspect I like is that unlike many other things whānau can self refer. Including this option is empowering as always having to go through professionals and other outside gatekeepers can be intimidating, especially for people who haven't had positive experiences with these groups. It makes us feel that we can be trusted to know what is best for us and our kids rather than having to “fit” other people's criteria and jump through their hoops.” (W21, completed FAIP).

Motivation to Engage

This theme outlines how the personal motivation of whānau was considered an important factor that influenced uptake and engagement with the FAIP.

Concerns About Fire Behaviours. Whānau were predominantly motivated to engage with the FAIP as either they or a trusted other (e.g., school) were concerned about their rangatahi

and their fire behaviours. Concerns about fire behaviours were not just restricted to fire lighting but ranged from elevated interest in fire (*“He is autistic and loves fire”*, W2, completed FAIP), fire play/experimentation with fire (e.g., *“Loves playing with matches or lighters”*, W7, completed FAIP), careless fire behaviour (e.g., *“He’s interested in survival and the outdoor and would make “campfires” without regard to safety”*, W21, completed FAIP), to more serious or intentional incidents of fire lighting (e.g., *“School was very concerned about his lighting of a fire on school premises”*, W18, completed FAIP).

Desire to Increase Fire Safety Knowledge. Due to concerns about rangatahi fire behaviours, whānau expressed a want or need to increase their child’s knowledge about fire safety, raise awareness of the dangers and consequences of fire lighting, and discourage concerning fire behaviours; this desire contributed to them accepting the offer of the FAIP. Some participants were motivated to increase fire safety knowledge due to concerns that unsafe fire behaviours could have negative consequences for both rangatahi and whānau:

“I was nervous that the severity of it put all our lives at risk.” (W29, complete FAIP).

“Hooks” for Rangatahi. Specific “hooks”, or selling points, for rangatahi were perceived by whānau as influencing their motivation to engage with the FAIP. Parental support was reported as important for increasing rangatahi motivation to engage in the FAIP. However, when parental motivation or capacity was lacking, this acted as a barrier (e.g., when asked about potential barriers *“it was probably my laziness”*, W19, declined FAIP).

Other perceived reasons for why rangatahi were motivated to take part in the FAIP included wanting to receive help, to be a better person, and to repair hurt caused to whānau:

“He wanted to prove that he could be better and make better choices, he was unaware of the severity of what he had done.” (W24, completed FAIP).

Realising the seriousness of fire lighting and the potential consequences for their future was also identified as a motivating factor for rangatahi engagement:

“He was definitely shocked at how seriously everyone took it ... He also realised a repeat offence could muck up his chances of playing on teams ... which is very important to him.” (W17, completed FAIP).

In addition to “hooks” for accepting the intervention, the provision of incentives by FAIP practitioners such as wind up radios, torches, and assigning rangatahi to the role of household fire safety officer were cited as “hooks” that facilitated continued engagement.

Programme Content and Delivery

The quality and nature of programme delivery was described as helpful for initiating and maintaining engagement with the FAIP.

Perceived Quality of the FAIP. Participants generally described the FAIP as being “*awesome*”, “*perfect*” and “*pretty good*”. More specifically, the programme was viewed as being appropriate for addressing concerning fire behaviours: “*I asked for help and this was the right type of help we needed*” (W12, completed FAIP).

In particular, getting information from someone with mana was perceived as a strength of the FAIP: “*[I] wanted to stop/discourage at a more formal level than just from a mum perspective.*” (W24, completed FAIP).

Nature of Delivery. The delivery format of the FAIP (e.g., one-to-one intervention, two sessions, flexible approach) was also seen as a facilitator for programme engagement. Despite whānau indicating that the time commitment required from the FAIP was a potential barrier, they generally described the number of sessions as being appropriate. However, some participants felt more sessions were needed to ensure retention of learning:

“It's not something they can learn overnight or in a couple of sessions. One, because the seriousness of it all, and because they are still developing etc. at their own pace. So, they need much longer, to fully take it seriously and remember.” (W11, FAIP completed).

Having the intervention delivered at home, flexible completion times, friendly staff, and engaging content were noted as important for engaging whānau and increasing accessibility:

“It was good to have the programme delivered at home, where my son felt comfortable.” (W29, completed FAIP).

The accommodating nature of the intervention and practitioners to include those who have had other types of fire experiences (e.g., unsafe fire behaviours that were not necessarily antisocial or having witnessed a house fire) was also noted as a strength by participants:

“Like I said we only just scraped in but that’s ok, because the priority should be young people whose fire setting had an antisocial motivation. This said, I didn’t find the process difficult and was really impressed by their willingness to accommodate us.” (W21, completed FAIP).

CONCLUSIONS

Characteristics of Fire Involved Rangatahi

Deliberate fires set by rangatahi were significantly more likely than non-deliberate fires to:

- Be set in urban locations.
- Be classified as vegetation fires, other fire - not classified or bin/skip fires.
- Require extinguishment.
- Involve male rangatahi, age 11 years and above, who were identified as being Māori or Pasifika.

Common characteristics of rangatahi referred to the FAIP (i.e., who the FAIP is reaching) include:

- Male, age 11 years plus, and living with a caregiver.
- A significant minority had experienced stress in the family in the 12 months before.
- A significant minority had a psychiatric diagnosis and/or history of a head injury.
- Just under half had a history of previous firesetting.

Facilitating Factors for Engagement with the FAIP

Facilitating factors identified across the qualitative data included:

- Professionals and the public hold positive perceptions of FENZ as an organisation and view them as being the best people to support fire lighting interventions.
- Maintaining communication and positive, reciprocal relationships with referring organisations is vital for sustaining referrals to the FAIP.
- Referrers who are trusted and have mana are particularly effective in facilitating acceptance and uptake of the FAIP.
- The flexibility of the FAIP to accommodate the needs of whānau and rangatahi including time, location and content.

- The ability of FAIP practitioners to effectively build rapport and connections with rangatahi and whānau.
- Whānau support for the intervention is key for facilitating uptake and completion.

Barriers to Engagement with the FAIP

Common barriers to engagement from the qualitative data included:

- Lack of awareness of the FAIP amongst potential referrers and the general public.
- Lack of accessible information about what the FAIP involves (e.g., flexibility, length, and content of intervention), who it is suitable for (e.g., age, severity of fire behaviour), its confidential nature, positive outcomes, and wider benefits.
- Concerns that additional complex needs of rangatahi may impede engagement or need to take precedence over firesetting.
- Perceived stigma associated with being involved with an intervention targeting fire lighting/problem behaviour and related concerns that involvement may cause whakamā for whānau and rangatahi, and damage reputation of education providers.
- Poor communication between FENZ, referrers, and whānau can result in miscommunications and interventions not taking place.
- Difficulties connecting with whānau impedes uptake and engagement including lack of contact details, family demands/commitments, suitability of home environment for intervention, and low motivation to engage.
- Existing resources are outdated, not culturally specific to the Aotearoa New Zealand context, and not engaging for older rangatahi.
- Practitioners feel under-equipped to respond to complex needs (e.g., ADHD, intellectual disabilities).

RECOMMENDATIONS

This project is the first to explore facilitating factors and barriers for engagement with the FAIP. Based on quantitative analysis of the FIRMS and FAIP dataset, and qualitative responses from FAIP practitioners, professionals, and whānau whose rangatahi had been referred to the FAIP, we make the following recommendations for FENZ consideration:

- Need for increased support, investment in, and promotion of the FAIP to maximise the reach, accessibility and uptake of the programme. This includes a tailored marketing strategy to engage both referrers and the general public (see Table 12 for specific recommendations).
- Improve accessibility and availability of information about the FAIP. Improve visibility and accessibility of website and offline information about the programme.
- Destigmatise FAIP through communicating the strengths and benefits of the intervention and the suitability of this for a wide range of fire behaviours and needs.
- Need for wider community engagement and consultation with whānau, hapū, and iwi to ensure the FAIP is culturally responsive and meets the needs of rangatahi.
- Need for more integrated working with referring organisations including improving communication around referrals (e.g., provide update on intervention outcome).
- Responsive referral process – reducing delays in the referral process through integrated working with referrers and by being responsive.
- Ensure FAIP content is engaging, interactive, culturally responsive and age appropriate. Update resources to reflect the New Zealand context and culture and develop content that is suitable for older rangatahi (e.g., 12 to 18 years of age).
- Provide training for practitioners centered on identifying and responding to needs of rangatahi including where onward referrals may need to be made and to whom.

Table 12: Overview of Marketing Considerations to Promote Awareness of FAIP

Consideration	Referrers	General Public
Target audience	Promote the FAIP amongst both those organisations who already refer to the programme and those who have the potential to refer but currently do not, including GP's, burns units, child and adolescent mental health/intellectual disability services (including youth forensic services), youth justice, private fire investigators, early learning centres, and the New Zealand College of Clinical Psychologists.	Widespread national advertising is needed to engage with whānau of rangatahi. This could also be supported by local marketing activities to promote awareness and connect with whānau in the local community. Include consultation with FENZ Māori advisors, whānau, hapū, and iwi to ensure advertising is culturally responsive and engaging.
Awareness	The FENZ brand is respected, however, accessible and informative marketing that demystifies the FAIP is needed for professionals. Promotion should highlight the wider benefits of FAIP (i.e., not just for antisocial youth), the content of the programme, and its appropriateness for a range of needs.	The FENZ brand is well-known and well respected, however, FENZ should regularly promote awareness of non-operational activities they offer to the public (e.g., FAIP). Promotion should highlight the wider benefits of the FAIP (i.e., not just for antisocial youth).
Activities	Work with organisations to embed the FAIP into their organisational processes so that a referral to the FAIP becomes a best practice response when rangatahi involvement with fire is identified. This might include developing information to be shared at training events (e.g., video in police college training, teacher training programmes), promotion in national circulars (e.g., education gazette), and through the development of memorandums of understanding. Develop tangible marketing material (e.g., flyers or brochures) that can be distributed via a nationally coordinated effort (e.g., mailout and/or electronic distribution) to a wide variety of organisations.	Increase accessibility of information about the FAIP so whānau can access this in a safe (non-stigmatising) way including: Social media promotion (e.g., Facebook, Twitter, YouTube videos). Poster promotion in community organisations (e.g., community centres, sports centres, libraries, supermarkets, play centres). Work with local and national media to provide contact details for the FAIP at the end of fire-related news articles. Targeted campaigns associated with national initiatives (see NFPA Fire Prevention Week for an example). Consistent and regular promotion to maintain awareness.
Unique advantages	Highlight the strengths of the FAIP: <ul style="list-style-type: none"> - Free - Flexible - Confidential - Consequence based fire safety education - Delivered by experts 	Highlight the strengths of the FAIP: <ul style="list-style-type: none"> - Free - Flexible - Confidential - Consequence based fire safety education - Delivered by experts
Communication	Maintain interagency links through promotion of the FAIP. Work with referrers to establish reciprocal referral processes.	Accessible information that is jargon free and non-stigmatising.

Strengths and Limitations of the Research

The current research has a number of strengths and limitations which should be kept in mind when interpreting the findings. A strength of the quantitative analyses is that it utilises routinely collected data which is recorded in a uniform way by FENZ personnel. The large number of cases in both the FIRMS and FAIP databases as well as the extended period of time over which data was collected (10 years) are also strengths, increasing the validity of the findings and allowing for the identification of patterns over time. However, it should be noted that there were large amounts of missing data for some variables, and because the FAIP questionnaire had undergone multiple iterations over the time period examined, certain variables were unable to be examined, limiting the conclusions that can be drawn.

A strength of the qualitative analyses is that it represents the views of a wide range of stakeholders including FAIP practitioners, professionals (from a variety of organisations), and whānau (including those who accepted, declined and partially completed the FAIP). Further, views from groups across all five fire regions in Aotearoa New Zealand were obtained, in addition to views across a range of organisations who refer or have the potential to refer to the FAIP. This ensures the voices of people from all regions and across a range of professions were here. However, there were some groups who were either under-represented or whose views were unable to be solicited. More specifically, rangatahi and some referrer groups were unable to be recruited to the research including not for profit organisations, GP's, burns units, and frontline FENZ staff; therefore, their views are not reflected in the findings. Further, whānau participants were overwhelmingly female, and had completed the FAIP programme. Thus, the views of male family members and those who declined or partially completed the FAIP are under-represented in the findings. Finally, although the study sample has a similar proportion of participants who identify as Māori and New Zealand European/Pākehā to those referred to the FAIP, views of Pasifika families are under-represented in the findings.

REFERENCES

- Barnes, L.A.J., Barclay, L., McCaffery, K., Rolfe, M.I., & Aslani, P. (2020). Using Facebook to recruit to a national online survey investigating complementary medicine product use in pregnancy and lactation: A case study of method. *Research in Social and Administrative Pharmacy*, 17(5), 864-874. <https://doi.org/10.1016/j.sapharm.2020.07.011>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Brereton, A.L., Lamade, R.V., Lee, A.F., Schuler, A., & Prentky R. (2020). Retrospective study of fire setting amongst boys in a child welfare sample. *Youth Violence and Juvenile Justice*, 18(3), 256-273. <https://doi.org/10.1177%2F1541204020906425>
- Campbell, R. (2017). *Intentional Fires*. National Fire Protection Association. Retrieved from: <http://www.nfpa.org/news-and-research/fire-statistics-and-reports/fire-statistics/fire-causes/arson-and-juvenile-firesetting/intentional-fires>
- Del Bove, G., Caprara, G. V., Pastorelli, C., & Paciello, M. (2008). Juvenile firesetting in Italy: Relationship to aggression, psychopathology, personality, self-efficacy, and school functioning. *European Child and Adolescent Psychology*, 17, 235-244. <https://doi.org/10.1007/s00787-007-0664-6>
- Dolan, M., McEwan, T.E., Doley, R., & Fritzon, K. (2011). Risk factors and risk assessment in juvenile fire-setting. *Psychiatry, Psychology, and Law*, 18(3), 378-394. <https://doi.org/10.1080/13218719.2011.559154>
- Ellithy, A., Hawke, L.D., Ward, A., & Henderson, J. (2021). The study of developmental risk factors for early fire involvement. *Child Psychiatry and Human Development*. <https://doi.org/10.1007/s10578-021-01122-9>
- Haines, S., Lambie, I., & Seymour, F. (2006). International approaches to reducing deliberately lit fires: Prevention programmes. New Zealand Fire Service Commission Research Report Number 63. Retrieved from:

<https://fireandemergency.nz/assets/Documents/Research-and-reports/Report-63-International-Approaches-to-Reducing-Deliberately-Lit-Fires-Prevention-Programmes.pdf>

- Home Office (2017). *Fire Statistics: Deliberate fires attended*. Retrieved from <https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables#deliberate-fires>
- Kolko, D.J., Day, B.T., Bridge, J.A., & Kazdin, A.E. (2001). Two-year prediction of children's firesetting in clinically referred and nonreferred samples. *Journal of Child Psychology and Psychiatry*, 42(3), 371-380. <https://doi.org/10.1111/1469-7610.00730>
- Kolko, D.J., & Kazdin, A.E. (1990). Matchplay and firesetting in children: Relationship to parent, marital, and family dysfunction. *Journal of Clinical Child Psychology*, 19(3), 229-238. https://doi.org/10.1207/s15374424jccp1903_5
- Kolko, D.J., & Kazdin, A.E. (1991). Motives of childhood firesetters: Firesetting characteristics and psychological correlates. *Journal of Child Psychology and Psychiatry*, 32(3), 535-550. <https://doi.org/10.1111/j.1469-7610.1991.tb00330.x>
- Lambie, I., & Krynen, A. (2017). The utility of the Strengths and Difficulties Questionnaire as a screening measure among children and adolescents who light fires. *Journal of Forensic Psychology and Psychiatry*, 28(3), 313-330. <https://doi.org/10.1080/14789949.2016.1275747>
- Lambie, I., & Popaduk, T. (2008). *Sparking up an old flame: A process evaluation of the Fire Awareness and Intervention Programme (FAIP) in New Zealand*. New Zealand Fire Service Commission Research Report Number 97. Retrieved from: <https://fireandemergency.nz/assets/Documents/Research-and-reports/Report-97-Process-Evaluation-of-the-FAIP-in-NZ.pdf>
- Lambie, I., & Randell, I. (2011). Creating a firestorm: A review of children who deliberately light fires. *Clinical Psychology Review*, 31(3), 307-327. <https://doi.org/10.1016/j.cpr.2010.12.010>
- Lambie, I., Randell, I., Ioane, J., & Seymour, F. (2009). *An outcome evaluation of New Zealand Fire Service Fire Awareness and Intervention Programme*. New Zealand Fire Service

Commission Research Report Number 98. Retrieved from:

<https://fireandemergency.nz/assets/Documents/Research-and-reports/Report-98-An-Outcome-Evaluation-of-New-Zealand-Fire-Service-Fire-Awareness-and-Intervention-Programme.pdf>

Lambie, I., Randell, I., Krynen, A., Reed, P., & Ioane, J. (2019). Risk factors for future offending in child and adolescent firesetters following a fire service intervention program. *Criminal Justice and Behavior*, 46(6), 832-852. <https://doi.org/10.1177%2F0093854819842907>

MacKay, S., Paglia-Boak, A., Henderson, J., Marton, P., & Adlaf, E. (2009). Epidemiology of firesetting in adolescents: mental health and substance use correlates. *Journal of Child Psychology and Psychiatry*, 50(10), 1282-1290. <https://doi.org/10.1111/j.1469-7610.2009.02103.x>

Martin, G., Bergen, H.A., Richardson, A.S., Roeger, L., & Allison, S. (2004). Correlates of firesetting in a community sample of young adolescents. *Australian and New Zealand Journal of Psychiatry*, 38(3), 148-154. <https://doi.org/10.1080%2Fj.1440-1614.2004.01318.x>

McCardle, S., Lambie, I., & Barker-Collo, S. (2004). Adolescent firesetting: a NZ case controlled study of risk factors for adolescent firesetting. New Zealand Fire Service Commission Research Report Number 46. Retrieved from:

<https://fireandemergency.nz/assets/Documents/Research-and-reports/Report-46-Adolescent-Firesetting-a-NZ-case-controlled-study-of-risk-factors-for-adolescent-firesetters.pdf>

New Zealand Fire Service (2011). *National arson reduction strategy*. Wellington, New Zealand.

Palmer, E.J., Caulfield, L.S., & Hollin, C.R. (2005). *Evaluation of interventions with arsonists and young firesetters*. Office of the Deputy Prime Minister: London, UK.

Perks, D.L.C, Watt, B.D., Fritzon, K., & Doley, R.M. (2019). Juvenile firesetters as multiple problem youth with particular interests in fire: a meta-analysis. *Aggression and Violent Behavior*, 47, 189-203. <https://doi.org/10.1016/j.avb.2019.04.003>

- Perrin-Wallqvist, R., & Norlander, T. (2003). Firesetting and playing with fire during childhood and adolescence: Interview studies of 18-year-old male draftees and 18-19 year old female pupils. *Legal and Criminological Psychology*, 8(20), 151-157.
<https://doi.org/10.1348/135532503322362933>
- Root, C., MacKay, S., Henderson, J., Del Bove, G., & Warling, D. (2008). The link between maltreatment and juvenile firesetting: Correlates and underlying mechanisms. *Child Abuse & Neglect*, 32(2), 161-176. <https://doi.org/10.1016/j.chiabu.2007.07.004>
- Sakheim, G.A., & Osborn, E. (1999). Severe vs. nonsevere firesetters revisited. *Child Welfare*, 78(4), 411-434.
- Smith, R.G., Jorna, P., Sweeney, J., & Fuller, G. (2014). *Counting the costs of crime in Australia: A 2011 estimate*. Australian Institute of Criminology: Research and public Policy Series 129. Canberra. Retrieved from
http://www.aic.gov.au/media_library/publications/rpp/129/rpp129.pdf
- Tyler, N., Gannon, T.A., Ó Ciardha, C., Ogloff, J.R.P., & Stadolnik, R. (2019). Deliberate firesetting: an international public health issue. *Lancet Public Health*, 4(8), E371-E372.
[https://doi.org/10.1016/S2468-2667\(19\)30136-7](https://doi.org/10.1016/S2468-2667(19)30136-7)
- Walsh, D.P., & Lambie, I. (2013). "If he had 40 cents he would buy matches instead of lollies": Motivational factors in a sample of New Zealand adolescent firesetters. *International Journal of Offender Therapy and Comparative Criminology*, 57(1), 71-91.
<https://doi.org/10.1177%2F0306624X11422224>