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Recurrent child protection post-investigation services for First Nations children in the province of Quebec

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ABSTRACT

Background: The longitudinal trajectory of Indigenous children within child protection (CP) services, including their recurrent involvement, has yet to be documented.

Objectives: 1) To document whether First Nations children were at increased risk of a first recurrence of post-investigation CP services compared to children from the majority group. 2) To identify the characteristics associated with recurrence for First Nations children, and to compare these results to those for children from the majority group.

Method: Anonymized CP administrative data (2002–2014; n = 1150) of a region in the province of Quebec were used to conduct Cox proportional hazards modeling, in partnership with an advisory committee.

Results: The risk of recurrence of First Nations children did not significantly differ from the risk for children from the majority group (HR: 0.980, n.s.) while controlling for covariates. Among First Nations children (n = 459), being under two at the case closure (HR: 2.718, p < .05), having received short-term intervention (HR: 5.027, p < .001) and coming from a family already known to the CP agency (HR: 2.023, p < .001) were associated with an increased risk of recurrence.

Conclusions: The findings highlight the importance of studying First Nations children's trajectories within CP services as a group deserving full attention and for First Nations to be able to design or demand appropriate services responding to their population's needs. A family-based research perspective is recommended to understand better the full family history leading to and in relation to CP services, which could provide more sound practice recommendations.

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1. Introduction

Indigenous¹ children and youth are overrepresented in child protection (CP) services across countries with similar settler colonial histories (Fallon et al., 2021; Rouland et al., 2019; Segal et al., 2019; Yi et al., 2020). Canadian data from 2019 indicated that the estimated rate of investigations among First Nations² children was 151 per 1000 First Nations children, which was 3.6 times higher than the rate for non-Indigenous children (Fallon et al., 2021). This overrepresentation not only remained present across service involvement following the investigation, but actually increased throughout the continuum of services. For example, the rate of transfer to ongoing services at the end of the investigation (hereafter referred to as post-investigation services) for First Nations children was 6.6 times higher than for non-Indigenous children, and the rate of formal out-of-home placement was 14.2 times higher. Although not reported in the most recent Canadian Incidence Study of Reported Child Abuse and Neglect (Fallon et al., 2021), First Nations children were previously found to be more likely to have already been the subject of a CP investigation (Crowe et al., 2021; Sinha et al., 2011) and a previous case opening (Ma et al., 2019) than non-Indigenous or White children in the previous cycle of this study (Sinha et al., 2011) or in the Ontario Incidence Study of Reported Child Abuse and Neglect (Crowe et al., 2021; Ma et al., 2019). There is, however, a gap in knowledge regarding the extent to which the disparities in rates of CP investigations and transfers to post-investigation services are driven by disparities in the rate of recurring CP contact or intervention for First Nations children.

There have been many propositions as to what may drive this higher level of involvement of First Nations children within CP services. Before providing a brief overview of these, we emphasize that parenting norms and expectations among Indigenous populations, while different from western practices, have promoted, and promote to this day, children's healthy development (Cross et al., 2000; Croteau, 2017; Guay, 2015; Neckoway et al., 2007). Proposed drivers of the overrepresentation can be summarized in two broad categories, which can coexist and interact (Cram et al., 2015). The first group is composed of propositions indicating that First Nations are potentially experiencing more maltreatment as a result of increased risks in their environments. While in some ways this position indicates that higher level of involvement with CP services may be warranted to ensure the safety and healthy development of children, what has produced and continues to produce this higher level of risk, namely past and current colonialist policies and discrimination, must be acknowledged.

The second group advances the idea that First Nations children are potentially treated differently by the CP system, compared to children from the main cultural group. CP services in Canada have been posited as the neocolonial continuation of assimilationist and colonialist policies aimed at Indigenous populations that were executed through the residential schools and the 60s scoop (de Leeuw et al., 2010; McKenzie et al., 2016), with Indigenous academic Raven Sinclair (2007, 2016) putting forward the idea of a millennium scoop and naming CP an "Indigenous child removal system". Discriminatory actions based on misunderstanding of Indigenous worldviews and parenting norms have been documented (e.g., Guay, 2015; Viens, 2019). First Nations children involved with CP have different characteristics than non-Indigenous children, such as that they are younger, and are more frequently in contact with CP for issues of neglect (Fallon et al., 2021). Recent research continues to illustrate that, even after controlling for a host of characteristics known to influence decision-making in CP and known to differ in their distribution among CP involved-First Nations and non-Indigenous children, First Nations children remain more likely to experience some forms of involvement with CP services, such as placement (Quinn et al., 2022). In fact, characteristics of a child's environment, such as those of a caregiver (e.g., substance abuse), or of the household in which they live (e.g., lone caregiver or housing problems), have been found to be weighted differently by the CP system for First Nations and non-Indigenous children regarding the substantiation of neglect (Sinha et al., 2013).

Amidst these debates, and in search for ways to ensure better care and services for Indigenous children in Canada, a fair number of public calls have been made in the past decade. Most notably, Canada's Truth and Reconciliation Commission (TRC), 2015 following testimonies regarding the long-term impact of residential school on survivors, released 94 Calls to Action in 2015, with the first five calls targeting actions and changes needed in current CP services. In January 2016, the Canadian Human Rights Tribunal (CHRT) released a judgement indicating the federal government had been discriminating against First Nations children by underfunding their services (First Nations Child and Family Caring Society of Canada et al. v Attorney General of Canada, 2016 CHRT 2). The *Act respecting First Nations, Inuit and Métis children, youth and families* (2019), a federal response to the TRC's fourth call to action (setting national standards for CP services for Indigenous children and affirming the right of Indigenous groups to establish and maintain their own CP agencies, among others), has been effective since January 1st, 2020. Yet, translating these calls, judicial decision and legislation into actions that concretely enhance First Nations children's well-being is often not a simple or rapid process (Paul, 2016).

The data currently available for research and its lack of optimization for longitudinal monitoring has made it difficult to gauge whether CP services are responding more adequately to First Nations children and families' needs over time. For example, the previous Canadian-wide data were from 2008 (Sinha et al., 2011), leaving a 10-year gap in knowledge regarding the situation of First Nations children within CP services and how it changed, or not, over that period. In addition, research has documented the overrepresentation of First Nations children cross-sectionally in the early stages of CP intervention – namely at the investigation stage – but has yet to document the longitudinal trajectory of Indigenous children and youth within those services, including their recurrent involvement. Not knowing what happens to First Nations children once CP services provide post-investigation intervention impedes our collective capacity to implement and/or support Indigenous-led changes beneficial for First Nations children, families and communities. The

¹ In this article, Indigenous peoples refers to the original peoples of settler countries (more specifically Canada, the US, Australia and New Zealand) and their descendants.

² In Canada, Indigenous peoples are defined by the government using three distinct categories: First Nations, Métis and Inuit peoples. The most precise terminology will be used throughout the article, from Indigenous peoples to the specific name of a First Nation, according to the context.

current study, by providing a longitudinal analysis of the first recurrence of post-investigation CP services for First Nations children within a mainstream CP agency, aims to contribute to a better understanding of longitudinal trajectories of First Nations children within CP services.

1.1. Recurrent involvement with CP services: quick overview of the main conceptual and methodological approaches

Recurrence refers to the repetition of an event (Merriam-Webster, n.d.). As it relates to CP services, recurrence has mostly been defined as the recurrence of child maltreatment, or of ongoing risk and/or need, measured by a form of additional contact with CP services following a first contact (see Jenkins et al., 2017 for a critical review). Most studies on recurrence have been conducted in the US and have looked at the occurrence of a screened-in report or of a substantiated screened-in report following an initial contact, mostly defined as a screened-in report or a substantiated screened-in report (e.g., see also systematic reviews by Hindley et al., 2006 or by White et al., 2015). These studies have generally not given much attention as to whether post-investigation services were offered following the initial contact (some, but not all studies, specify that children placed in out-of-home care were excluded). Studies from other jurisdictions sometimes construct and understand recurrence differently. For example, Australian scholars have called for an understanding of recurrence using CP data to be conceived as such, recurrence of contact or service with CP, and not as recurrence of child maltreatment per se (Jenkins et al., 2017). To operationalize their concept, Jenkins et al. (2017) advocate for a measure that defines recurrence at the exit stage of the CP service continuum, instead of recurrence at an entry point. They propose to understand factors related to recurrence based on groups of children categorized according to their most frequent trajectories in CP services: those who mainly exit after being reported, those who mainly exit after being investigated, and those who mainly exit after services.

Methodologically speaking, while true rates of recurrence can be derived from CP data, this approach requires a wait time that is often not conducive to timely research. Estimations derived from longitudinal survival models (e.g., see Singer & Willett, 2003), drawing on cases with varied observation times, have enabled researchers to more promptly estimate recurrence rates or identify factors associated with it and have become the norm for studies of recurrence (again, see systematic reviews by Hindley et al., 2006 or by White et al., 2015).

1.2. Rates of recurrence: is recurrence a frequent phenomenon among Indigenous children?

Data on recurrence rates for Indigenous children are sparse. In the US, estimates derived from the National Child Abuse and Neglect Data System (NCANDS) indicate that among children with a screened-in report before the age of 12 (estimated at about 32 % of the corresponding child population), 42.3 % of them (47.7 % of Indigenous children and 44.9 % of White children) will have at least a second one before the age of 12; similarly, among all children under 12 with at least one CP substantiation (estimated at about 10 % of the corresponding child population), 27.9 % (30.1 % for White children and 27.1 % for Indigenous children) will have a second one before reaching 12 years old (Kim & Drake, 2019). These data indicate that recurrence is relatively common, and that there does not seem to be important differences in rates of recurrence between White and Indigenous children. That being said, data about Indigenous children in the NCANDS need to be interpreted with caution as the transfer of information from Indigenous agencies (operating under the Indian Child Welfare Act, 1978) to NCANDS may be incomplete (Fox, 2003). Most recent studies of recurrence in Australia (Jenkins et al., 2018; Queensland) and Canada (Hélie et al., 2013; Quebec) did not report or estimate rates specifically for First Nations children. A descriptive study conducted in Quebec reported rates for recurrence of post-investigation services in the year following case closure; the 18 % rates for Indigenous youth appeared vastly higher than the 9 % among non-Indigenous youth (De La Sablonnière-Griffin et al., 2016).

1.3. Factors associated with recurrence in the general population

Although studies of recurrence have varied conceptually and methodologically, two systematic reviews summarized the findings of studies published until 2015. According to Hindley, Ramchandani and Jones (2006; 16 studies published until January 2003) the literature supported four factors as increasing the risk of recurrence: the presence of previous maltreatment episode(s), as measured by previous contact with CP services; neglect; parental conflict; and parental mental health issues. White, Hindley and Jones (2015; 15 studies, 2003-2015) concluded that the factors listed above were still valid, but that additional factors were also salient: parental substance abuse; family stress; low social support; and a child's young age. While 11 of the 15 studies included ethnoracial background of the child or the parents in their analyses, White et al. (2015) were unable to draw firm conclusions as to the role this characteristic may play in relation to recurrence. Indeed, these 11 studies were almost evenly distributed across three conflicting groups of findings: four found no relationship between ethnoracial background and risk of recurrence; three found that children from minority groups were at increased risk of recurrence; and four found that children from the minority groups were at lower risk of recurrence. These studies defined minority groups mostly as non-white children, or with a combination of black, Latino or Hispanic, and/or other children, and only two studies looked at Indigenous children as a distinct group (Connell et al., 2007; Fluke et al., 2008).

1.4. Being Indigenous and risk of recurrence: what do we know?

A limited number of studies considered the risk of recurrence for Indigenous children compared to non-Indigenous or White children. Three US-based studies, using NCANDS data for multivariate longitudinal modeling and defining recurrence as the repeat of a screened-in report (Connell et al., 2007; Fluke et al., 2008) or the repeat of a substantiated report (Palusci, 2011), found that

Indigenous children were no more likely than White children to experience recurrence. However, [Fluke et al. \(2008\)](#) found that the Indigenous children were at higher risk of a substantiated screened-in report following a first screened-in report (irrelevant of the substantiation status of the first screened-in report), compared to White children.

One Australian study, using bivariate longitudinal analyses on Queensland administrative data and looking exclusively at a child's first screened-in report (completed, but irrelevant of the status of the investigation), found that Indigenous children with a first screened-in report during the study period were at increased risk of recurrence, as defined by 4 different recurrence indicators (new report; repeat screened-in report; subsequent screened-in report substantiated; subsequent screened-in report substantiated and leading to post-investigation services) ([Jenkins et al., 2018](#)). The hazard ratios³ (HR) for Indigenous children, as compared to non-Indigenous children, varied from 1.39 (experiencing another report, whether screened-in or not) to 2.28 (subsequent screened-in report resulting in services). In a follow-up study using the same data, [Jenkins et al. \(2019\)](#) found that being Indigenous was linked to high screened-in report rates (having been the object of at least 3 screened-in reports in a 12-month period) but was negatively associated with a high substantiation rate (having 50 % or more of the screened-in reports received over a 12-month period substantiated). In brief, Indigenous children were often investigated, but the proportion of these situations being substantiated was low. However, these analyses remain limited as they were bivariate, therefore not controlling for other elements of a child's situation that may have influenced CP investigations and decisions.

Two Canadian-based multivariate longitudinal recurrence studies that included Indigenous identity conducted analyses on age-based cohorts and relied on administrative data from the province of Quebec ([Hélie et al., 2013](#); [Hélie et al., 2014](#)). [Hélie et al. \(2013\)](#) selected all children with a completed first event of post-investigation CP services and defined recurrence as a substantiated screened-in report following this initial case closure. Two factors increased the risk of recurrence across the three age groups (0–5; 6–11; 12–17): prior screened-in reports and being Indigenous. The hazard ratios for being Indigenous ranged from 1.57 (age 6–11) to 1.77 (age 0–5). [Hélie et al. \(2014\)](#) conducted analyses on a different sample composed of children who were placed in out-of-home care and whose case was eventually closed by means of reunification, adoption, or tutorship after post-investigation intervention, according to five age-groups (under 3, 3–5, 6–11; 12–14; 15–17). Recurrence was defined as a substantiated screened-in report occurring after the end of all post-investigation CP intervention. Being Indigenous was associated with recurrence for the 3–5 (HR: 3.05) and the 6–11 (HR: 5.13) children.

1.5. Brief review of CP decision-making and intervention process in Quebec, Canada

This brief overview of the CP process in Quebec ([Government of Québec, 2010](#)) will situate better the conceptual framework of the study presented in the next section. The *Youth Protection Act, n.d.* is a law of exception, meaning that it is strictly reserved for situations in which a child's security or development are compromised and is not a law of service; i.e., CP must not serve as a mechanism for providing services for families in need but in which the child's security or development is not compromised. Alleged situations that may require intervention by CP services are first notified to CP by diverse reporters (e.g., police officers, teachers, family members) and summarily assessed to determine if the situation will be fully investigated or not. In the province of Quebec, the grounds for CP interventions are broad and include: abandonment, neglect, psychological ill-treatment, sexual abuse, physical abuse or serious behavioral disturbance (that the parents cannot address). It also includes situations of serious risk of neglect and sexual or physical abuse, i.e. there are elements that could lead to these forms of maltreatment in the life of the child but there has technically been no incident per se yet related to this specific child. An active or immediate danger to the child is not necessary as it is the future probability of a danger that is assessed.

Reports that are screened-in are investigated by CP workers whose unique mandate is to assess the child's situation and who need to reach up to two decisions: whether the allegations are substantiated (using preponderance of evidence as a standard for substantiation) and, if they are, whether the child's safety and development are in danger (i.e., compromise). When the latter is found to be the case, the same worker sends the case for "orientation", concretely meaning the determination of court-ordered or voluntary protective measures, although short-term intervention is also possible. As a form of post-investigation CP services, short-term intervention is intended for low-risk families agreeing to collaborate. While akin to voluntary protective measures, it has some specificities, such as much shorter length of intervention (the services must be exclusively rendered within 60 days) and an absence of chronicity regarding the situation. Nevertheless, it is always possible for the CP worker in charge of the short-term intervention (the same who conducted the investigation) to escalate the situation to a longer-term voluntary protective measure intervention if needed. After the determination of the protection measures – court-ordered or voluntarily agreed – post-investigation services are implemented to address and overview the protective measures. These services are offered through the state-based CP agencies (by workers that are different than those conducting the investigations), although it is one responsibility that can be delegated outside of the state-based system, including to First Nations social services agencies, and which has been taken by a vast majority of communities (see [Hélie et al., 2022](#) for an overview of CP responsibilities delegation for each First Nations communities in Quebec in 2019). These services can include home-based intervention and out-of-home care. When the investigation deems the situation unsubstantiated or when the case is substantiated but the security and development of the child are not in danger, the child's family can be referred to public and community

³ A hazard ratio is the ratio of the hazard rate (here, probabilities of recurrence for each unit of time as measured in the study) for a one-unit difference in a predictor. In the example discussed above, the statistically significant hazard ratios >1 indicate that Indigenous children are at higher risk of recurrence in each time unit and throughout the length of the observational period compared to the non-Indigenous children; these ratios are also displaying the probability of hastened recurrence for Indigenous children.

resources as needed.

Once a child receives post-investigation services, under voluntary or court-ordered measures, the case is periodically reviewed by a CP worker of the state-based system, whose specific mandate is to conduct these reviews, to determine if the child's safety and development remain in danger. A CP case is closed once the child's safety and development are no longer considered in danger and represent the end of all post-investigation services; otherwise, the protective measures are renewed or modified for an additional period of time. There are multiple pathways to achieving a situation in which the security and development of the child is no longer in danger, including but not limited to: parents having taken adequate measures to remedy the situation, the child reaching 18 years of age, adoption, custodianship, emancipation, and long-term placement.

1.6. Conceptual framework

Although being Indigenous appears to be associated with an increased risk of experiencing recurrence, the evidence is scarce regarding factors associated with recurrence for this specific population group. None of the studies looking at various risk factors and including Indigenous children as a distinct group of children were focused on understanding the experience of recurrence specifically for Indigenous children, and therefore none worked in partnership with Indigenous peoples, communities or organizations to design their study or situate their findings. While implementing gold standards of research with Indigenous peoples, such as OCAP® principles (First Nations Information Governance Centre [FNIGC], 2022), may be difficult when using administrative CP data from mainstream public agencies, there are alternate ways to ethically conduct research with Indigenous peoples. In accordance with the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research (CIHR) et al., 2018) chapter on ethical research involving First Nations, Inuit and Métis Peoples of Canada, this study was designed and conducted in partnership with an advisory committee including Indigenous representatives, which is described in more detail in the methodology section of this article.

First Nations children are overrepresented in CP services (e.g., Fallon et al., 2021), and this overrepresentation either remained present even after controlling for characteristics associated with CP outcomes such as placement (Quinn et al., 2022), or was found to be associated with differing considerations of characteristics of the child's living environments by the CP workers when substantiating neglect (Sinha et al., 2013). In this context, studying recurrence as a phenomenon occurring in relation to the CP system and how it interacts with First Nations children and families, and not purely as recurrence of maltreatment or ongoing need or risk as proposed by Jenkins et al. (2017), was deemed necessary. As such, recurrence was conceived as a compound of both how CP services interact specifically with First Nations children and families and how situations that can be served through CP become known and are processed through the system. It does not completely evacuate the notion that recurrence of some form of CP contact can actually represent recurrence of maltreatment or ongoing need or risk experienced by children and families, but it complexifies this relationship.

Another element that was considered in conceptualizing recurrence in our study was that previous contacts with CP services are a known risk factor of recurrence and First Nations children appear to have more repeated contacts with CP services. Recurrence was thus limited to the first repeated event, to reduce the compounding effects of previous contacts.

As for the events considered in defining recurrence, the decision was to focus on post-investigation CP services. Our decision was taken in partnership with our advisory committee, which had local knowledge, and drew from Jenkins et al. (2017). The committee highlighted that some of the deepest impact of CP on the First Nations families were those related to receiving post-investigation services as this meant, from the standpoint of children and families, a form of repeated long-term involvement with CP services during which they were expected to abide by and perform according to the protective measures. This decision was also grounded on an approach to studying recurrence from an exit point (Jenkins et al., 2017), and we selected, in fact, the final exit point, which is exiting CP services after having received post-investigation services. As for the recurring event, we selected the moment of re-entry into post-investigation services.

1.7. Purpose of the study

The purpose of this article was to document whether First Nations children were at increased risk of a first recurrence of post-investigation CP services compared to children from the majority group, to identify the characteristics, noted in or derived from a child's CP case file, associated with a first recurrence of post-investigation CP services for First Nations children, and to compare and contrast these characteristics with those for children from the majority group.

2. Methods

2.1. Data source

Anonymized administrative CP data from the Côte-Nord region, a northern region in the province of Quebec, have been used. The OCAP® principles (ownership, control, access and possession) are the gold standard of data governance and research with First Nations peoples in Canada (First Nations Information Governance Centre [FNIGC], 2022). In the context of the present study, it was not possible to fully implement these principles as the mainstream regional CP organization physically possessed and controlled the access to the data they gathered about the First Nations children they served. To nonetheless provide some control and in recognition of the ownership of the data by the First Nations, this research was conducted under the guidance of an advisory committee comprised of

representatives from the regional CP organization and from the delegated Innu social services agencies. A larger regional consultation mechanism was also used periodically to validate the research objectives, preliminary results, and interpretations, with delegates from all Innu social services agencies of the region, as not all communities were represented on the advisory committee. Access to the data for all children serviced under the regional mainstream CP agency, including First Nations children, was thus granted by the organization and the relevant ethics certificate were obtained.

2.2. Selection of children for the cohort

The data available for this longitudinal study spanned April 1st, 2002, to September 9th, 2014. The current analyses were part of a larger project that looked at the first entry into post-investigation CP services, as well the first case closure following post-investigation services for First Nations children (please consult [De La Sablonnière-Griffin et al., 2022](#) and [De La Sablonnière-Griffin et al., 2023](#) for more details).

A total of 1367 children (aged 0–17) had a CP case closed between April 1st, 2002, and March 31, 2013, after having received post-investigation CP services for the first time. All these children had a first ever screened-in report made to the agency during the same time period, although the first post-investigation service episode may have happened after a subsequent report (i.e., not all cases opened for post-investigation services were opened on the first ever screened-in report, although all first screened-in report for the children in the study were received during the study period). The end date was selected to allow a reasonable minimal case file length of about one year and five months, specifically from March 31st, 2013, to September 9th, 2014.

Our study cohort included 1150 out of the 1367 children. These 1150 children were identified either as being from a First Nation and living in a First Nations community, or as being from the majority group (French-speaking Quebecers of European colonial descent). These two groups of children represent the majority of children in the region during the study period (84 %) and aligned with our positioning (comparing First Nations children to the majority group, and not to other potentially marginalized groups), and with our partnerships (with First Nations agencies serving First Nations children living in First Nations communities). The remaining 217 children, excluded from the present article, were: First Nations children living outside of a First Nations community, from another First Nation with a specific agreement with the federal and provincial governments or from another Indigenous group, such as the Inuit ($n = 134$), non-Indigenous children that were not part of the majority group (e.g. English-speaking, racialized or immigrant children; $n = 35$) and children with no ethnoracial information available ($n = 48$). When taking into consideration all children with a first case closure during the study period ($n = 1367$), 43.4 % of all case closures concerned a First Nations child ($n = 593$).

2.3. Dependent variables

The outcome measured is the recurrence of post-investigation CP intervention. Given that the analyses on this cohort are longitudinal, time was measured in days. For children with a recurrence during the observation period, time is calculated between the date of the case closure and the date at which the decision to re-open the case for post-investigation CP intervention was taken. For censored cases, meaning children who did not experience recurrence at the end of the study period, time was calculated between the date of the case closure and either September 9, 2014, or the date at which the child reached 18 years of age.

2.4. Covariates

All the covariates are dichotomous and, unless otherwise stated, mutually exclusive. The covariates are divided in three groups: characteristics of the child, characteristics of the CP situation, and interactions between the family and CP services.

Characteristics of the child were gender, (boy or girl [reference category]); age, calculated at the date of the case closure, consisting of a series of 4 dichotomous variables (under 2; 2 to 5; 6 to 11 [reference category]; 12 to 17) and First Nation identity (First Nations living in a First Nations community or child from the majority group [reference category]). The age categories were preferred over a continuous variable as they represent distinct developmental and vulnerability periods that are assessed differently within the CP services. For example, the very young children (under 2) are highly vulnerable. In addition, the teenagers (12 to 17) can, in the jurisdiction under study, be served under CP services for serious behavioral issues that parents are unable to address, which affects the number of cases opened for teenagers, but is also likely to shape the decisions and service trajectories of this age group.

The characteristics of the situation first included the reasons for CP intervention at the case closure. The reasons for intervention consist of a series of five dichotomous variables (physical and/or sexual abuse, including serious risk of physical and sexual abuse [reference category]; neglect; serious risk of neglect; psychological maltreatment, including exposure to intimate partner violence; serious behavioral issues that parents are unable to address), which are not mutually exclusive (a child can have up to three reasons). It also included if there was a change to the main reason for intervention between the investigation decision and the case closure (no [reference category] or yes); the number of investigations conducted before the first decision to provide post-investigation CP intervention (1 [reference category] or 2 or more); placement, at anytime from the investigation to the case closure (no [reference category] or yes); the initial orientation type (short-term intervention, voluntary measures [reference category], or court-ordered measures); and service length (under 368 day [reference category] or 368 days or more). Case length was measured through a dichotomous variable separating cases around measures of central tendencies (median case length was 365 days and the mode was 366 days). Thus, this variable highlights the possible differences between cases that were opened for longer than the majority of cases before the first case closures and all the other cases.

Two variables pertained to the interaction between the family and CP services. Family known to the CP agency (yes or no [reference

category]) identified if one or both parents of the child in the cohort were previously identified as parents for another child for whom an investigation was completed before the reception of the first screened-in report concerning the child under study. The unidentified parent variable (yes or no [reference category]) indicated case files in which only one parent, or no parent at all, were identified. These cases represent an array of circumstances, but mainly identify children living with only one parent in their current households (generally the mother) and for which the agency did not pursue the investigation to include information about the second parent or could not obtain the information.

2.5. Analytical framework

For the first objective of the study (documenting whether First Nations children were at increased risk of recurrence compared to children from the majority group), we started by conducting Chi-square analyses, allowing us to compare the presence of the different characteristics across the two groups studied (see Table 1). Bivariate Cox proportional hazards models were then used to assess the association of each variable under study to the outcome measured over time, for all children in our study cohort (see Table S1, provided in Appendix A). This type of analysis models time to the event of interest while taking into consideration the different lengths of observations for each individual under study. Cox models also allow for multiple independent variables. Multivariate Cox proportional hazards modeling was then used to answer the first objective (see Table 2), knowing the initial association of each variable to the outcome. This first model, conducted on all children studied, allowed the comparison of the risk of recurrence for First Nations children to the risk for children from the majority group, while controlling for the other variables.

For the second objective of the study (to identify the characteristics associated with recurrence for First Nations children, and to compare and contrast the results to those associated with recurrence for children from the majority group), we initiated our analyses with bivariate Cox models, between each covariate and the outcome, for First Nations children (see Table S2, provided in Appendix A) and for children from the majority group (see Table S3, provided in Appendix A). We then ran multivariate Cox models for each subgroup of children (Table 2). To avoid multicollinearity, tolerance and variance inflation factor (VIF) values were observed. No multicollinearity between the covariates was noted as in each of the multivariate models the highest VIF value did not exceed 2.3. Therefore, all the independent variables were included in the multivariate models.

Table 1
Characteristics at case closure, according to First Nations identity.

Characteristics	First Nations children in a community	Children from the majority group	X ²
	n = 459	n = 691	
Gender			
Boys	227 (49.5)	377 (54.6)	2.880
Age			
0–1	50 (10.9)	48 (6.9)	5.5511*
2–5	159 (34.6)	145 (21.0)	26.450***
6–11	123 (26.8)	213 (30.8)	2.163
12–17	127 (27.7)	285 (41.2)	22.109***
Reasons for intervention			
Abuse (physical or sexual)	27 (5.9)	91 (13.2)	15.905***
Neglect	200 (43.6)	284 (41.1)	0.692
Psychological maltreatment	129 (28.1)	195 (28.2)	0.002
Serious behavioral issues	87 (19.0)	209 (30.2)	18.398***
Serious risk of neglect	230 (50.1)	222 (32.1)	37.381***
Change to main reason for intervention			
Yes	82 (17.9)	147 (21.3)	2.009
# of investigations			
2 or more	92 (20.0)	190 (27.5)	8.277**
Placement			
Yes	176 (38.3)	200 (28.9)	11.076**
Initial orientation			
Short-term intervention	49 (10.7)	102 (14.8)	4.037*
Court-order measures	181 (39.4)	300 (43.4)	1.797
Voluntary measures	229 (49.9)	289 (41.8)	7.252**
Case length			
368 days or more	205 (44.7)	273 (39.5)	3.017
Family known to CP agency			
Yes	210 (45.8)	135 (19.5)	90.254***
Unidentified parent			
Yes	50 (10.9)	79 (11.4)	0.081
Recurrence of services			
Yes	134 (29.2)	178 (25.8)	1.645

* p < .05.

** p < .01.

*** p < .001.

3. Results

Descriptive analyses are presented in Table 1. No differences were noted between First Nations children and those from the majority group for some variables, such as gender, change in the main reasons for intervention or service length. There were, however, some important distinctions. For example, there was a greater proportion of children under the age of 6, served for serious risk of neglect, placed, and coming from a family already known to CP services among First Nations children. The cumulative percentage for neglect and serious risk of neglect was 77.1 % for First Nations children and 62.5 % for children from the majority group. A chi-square test of independence, $X^2(1, N = 1150) = 27.198, p < 0.001$, indicated that the overall presence of neglect and its serious risk was more prevalent among cases involving First Nations children.

3.1. Bivariate associations

Individual variables that were associated with an increased risk of recurrence among all children were: being 2 to 5 years old at case

Table 2
Cox models predicting recurrence on a first case closure.

	Recurrence – entire cohort (n = 1150)			Recurrence among First Nations children (n = 459)			Recurrence among children from the majority group (n = 691)		
	Model 1 ^a			Model 2 ^b			Model 3 ^c		
	B	SD	HR	B	SD	HR	B	SD	HR
Gender									
Boys	0.032	0.115	1.033	-0.117	0.180	0.890	0.556	0.227	1.745*
Boys*time							-0.001	0.000	0.999**
Age									
0-1	0.190	0.215	1.209	1.000	0.420	2.718*	0.025	0.313	1.026
0-1*time				-0.001	0.001	0.999*			
2-5	0.185	0.143	1.203	0.115	0.219	1.122	0.263	0.190	1.301
6-11 (ref.)									
12-17	-0.193	0.189	0.824	-0.371	0.343	0.690	-0.172	-0.230	0.842
First Nation identity									
First Nations in a First Nation community	-0.020	0.126	0.980						
Child from majority group (ref.)									
Reasons for intervention									
Abuse (ref.)									
Neglect	0.133	0.126	1.142	-0.019	0.201	0.981	0.197	0.164	1.218
Psychological maltreatment	0.121	0.139	1.129	-0.900	0.344	0.460**	0.224	0.185	1.251
Psychological maltreatment*time				0.001	0.000	1.001***			
Serious behavioral issues	0.242	0.208	1.274	0.357	0.377	1.429	0.198	0.257	1.219
Serious risk of neglect	0.191	0.139	1.210	0.189	0.212	1.209	0.309	0.193	1.362
Change to main reason for intervention									
No (ref.)									
Yes	-0.020	0.155	0.980	0.442	0.232	1.555	-0.349	0.211	0.706
# of investigations									
One (ref.)									
2 or more	0.284	0.130	1.329*	0.112	0.223	1.118	0.336	0.166	1.400*
Placement									
No (ref.)									
Yes	-0.075	0.143	0.927	-0.169	0.212	0.844	0.048	0.201	1.049
Initial orientation									
Voluntary measures (ref.)									
Short-term intervention	0.801	0.259	2.227**	1.615	0.435	5.027***	0.174	0.246	1.190
Short-term intervention*time	-0.001	0.000	0.999*	-0.002	0.001	0.998*			
Court-ordered measures	0.041	0.127	1.042	0.361	0.192	1.435	-0.217	0.171	0.805
Case length									
1-367 days (ref.)									
368 days or more	0.252	0.144	1.286	-0.049	0.226	0.952	0.486	0.189	1.626*
Family known to CP agency									
Yes	0.437	0.126	1.548**	0.704	0.187	2.023***	0.331	0.186	1.393
Unidentified parent									
Yes	0.071	0.175	1.074	-0.194	0.311	0.823	0.225	0.219	1.252

^a $[X^2(18, 1150) = 42.32, p = .001]$.

^b $[X^2(19, 459) = 56.81, p < .000]$.

^c $[X^2(17, 691) = 36.41, p = .004]$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

closure, having been served for risk of neglect at case closure, having entered post-investigation services after two or more investigations, having been served for 368 days or more, and coming from a family known to the agency. Those associated with a decrease in recurrence were: being 12 to 17 years old at case closure and having been served for physical or sexual abuse at case closure. At the bivariate level, being from a First Nation was not statistically significantly associated with recurrence (see Table S1, provided in Appendix A, for all results).

Only two variables (when there had been a change in the main reason for intervention and coming from a family known to the agency) were associated with the risk of recurrence among First Nations children, and both were associated with an increased risk (see Table S2, provided in Appendix A). Similarly, among children from the majority group, the variables statistically significantly associated with recurrence were all associated with an increased risk. The four variables associated were: being 2 to 5 years old at case closure, having been served for risk of neglect at case closure, having entered post-investigation services after two or more investigations and having been served for 368 days or more (see Table S3, provided in Appendix A).

3.2. Comparative model

The first Cox model conducted (Model 1 in Table 2) compared the risk of recurrence between First Nations children and those from the majority group, while controlling for the covariates. The results indicated that the risk of a first recurrence of post-investigation CP services was similar between the two groups of children, as being a First Nations child was not statistically significantly associated with recurrence. Two variables were associated with a higher risk without being time-varying: children who had entered post-investigation CP services after at least two investigations (1.329 times more likely to experience recurrence than those who entered services upon their first investigation), and children from a family known to CP services (HR: 1.548). Both of these variables were identified at the bivariate level; the other variable significantly associated with the outcome at the bivariate level were no longer associated with it at the multivariate level.

One variable, having received short-term intervention, initially increased the risk of recurrence but was time-varying, meaning that the risk of recurrence decreased with each passing day from the date of the case closure. Children served through short-term intervention were initially 2.227 times more likely to recur, although this risk diminished over time.

3.3. First Nations children

The model for recurrence among First Nations children only is presented as model 2 in Table 2. The results indicated that only one non-time-varying variable increased the risk of recurrence, which was being from a family known to CP services (HR: 2.023), which was identified at the bivariate level as well. Two time-varying variables were initially associated with increased risk: children who received services through short-term intervention (HR: 5.027) and children aged under two at the time of case closure (HR: 2.718). A single variable had the opposite, time-varying, effect; the initial hazard ratio for psychological maltreatment was 0.406, but the risk of recurrence increased with each passing day. While a change in the main reason for intervention was significant at the bivariate level, it was not the case when controlling for other variables.

3.4. Children from the majority group

The model for recurrence among children from the majority group is presented as model 3 in Table 2. Children who entered services after at least 2 investigations and those who were served for 368 days or more were at increased risk of recurrence, which were identified at the bivariate level. Being a boy was significantly associated with recurrence but was time-varying; the initial hazard ratio of 1.745 indicated that boys were more likely to initially experience recurrence, but that this risk diminished over time. While at the bivariate level, being aged 2 to 5 at case closure and having been served for risk of neglect were associated with the outcome, this was no longer the case when controlling for the available variables.

4. Discussion

This longitudinal study is the first, to our knowledge, to have identified factors associated with a recurrence of post-investigation CP services for First Nations children. Our results suggest that First Nations children who exit CP post-investigation services are no more likely than children from the majority group to experience a recurrent episode of post-investigation CP services. For First Nations children, being young, coming from a family expected to be able to resolve the substantiated CP situation rapidly, or coming from a family with an history of contact with CP services characterised the children most likely to be the subject of a recurrent episode of post-investigation CP services. None of these factors were related to recurrence among children from the majority group. Our results support previous findings regarding the relationship between younger age, repeated contact with CP services and recurrence, and confirm that these are significant factors in First Nations children's CP service trajectories.

Our result suggesting that First Nations children are no more likely than children from the majority group to experience recurrence of post-investigation CP intervention is in line with most of the findings from the US studies, but contrast with previous Canadian and Australian studies which found that being Indigenous was associated with an increased risk of recurrence. Previous studies in Canada defined recurrence as a new screened-in report that was substantiated but did not necessarily lead to provision of post-investigation services. It could be that First Nations children were more likely to experience a new substantiated report, but for which the security and development were not considered compromised.

In our model comparing First Nations children and those from the majority group, factors other than being a First Nation were associated with a higher risk of recurrence, namely entering services after two or more investigations, coming from a family known to CP services, and having been served through short-term intervention. Combined with the fact that the profiles of children from each subgroup, at case closure, were distinct according to several variables, and that these different profiles were present from the first screened-in report (De La Sablonnière-Griffin et al., 2022), this highlights the importance of studying First Nations children not simply in a comparative way, but as a group that deserves attention in itself in order for First Nations to be able to design or demand appropriate services that will respond to their population's needs.

First Nations children accounted, in 2017, for about 26 % of the child's population in the region under study (Public Inquiry Commission, 2018), while they accounted for 44.3 % of case closures in this study. Thus, it remains that CP involvement is far more prevalent among First Nations children than children from the majority group, population-wise.

Our study found that First Nations children under the age of two at case closure, those coming from families known to CP services, and children receiving short-term interventions experienced a heightened risk of recurrence. First Nations children were significantly less likely to receive short-term intervention than were children from the majority group. Yet, First Nations children who received short-term intervention were initially five times more likely to recur compared to other First Nations children, with the risk abating over time. This time-varying effect means that if cases initially served through short-term intervention were to recur, it would happen rapidly after case closure. We interpret this finding in the light of two elements of our conceptual framework, namely that interactions between First Nations families and CP services may differ from those with non-Indigenous children, and that recurrence is the product of the interaction between the child/family and the system over time. Given that short-term intervention was not significantly related to recurrence among children from the majority group, it appears that the increased risk may stem from specific circumstances in the lives of the First Nations families and/or from the ways the CP system, and more generally the environment in which the child/family lives, interprets and reacts to the situations faced by the First Nations families. Previous findings from the data used in this study highlighted that CP services appeared to compensate for a lack of accessible and effective support and prevention services to meet the First Nations families' needs (De La Sablonnière-Griffin et al., 2023): First Nations children receiving post-investigations CP services were mostly coming from families already known to the CP agency and they were entering services at an early age and for reasons of serious risk of neglect, in addition to receiving services for longer periods of time when neglect or serious risk of neglect were involved. These questions regarding available or accessible services are additionally set in the context of discriminatory funding practices of the Canadian government regarding First Nations children, acknowledged by the CHRT (First Nations Child and Family Caring Society of Canada et al. v Attorney General of Canada, 2016 CHRT 2), and of difficulties in accessing public services by First Nations in Quebec, acknowledged in a provincial inquiry (Viens, 2019). Therefore, it may be that selecting a less intrusive intervention regime was based on the premise of resources that were expected to provide additional support to the families but that these resources were not, in fact, available to First Nations families.

The other two results are consistent with findings from existing, general population studies of recurrence. Young age at case closure is one of most identified factors related to recurrence (White et al., 2015). Infant and very young children are dependent on caregivers and the resulting vulnerability is taken into consideration during CP services decision-making; it is, therefore, not surprising that risk of involvement with CP services is highest for young children (see, for example, Kim & Drake, 2019, illustrating that the highest age-specific risk of CP substantiation is before the age of one) and that this group is at higher risk of recurrence. In previous analyses of the same data, being under two years old was associated with an increased risk of entry into post-investigation CP intervention and with a decreased risk of case closure (therefore, longer service time; De La Sablonnière-Griffin et al., 2023). Children under the age of two were thus more likely to enter service and stay in service; yet, of those whose case was closed when they were still below the age of two, they were at higher risk of recurrence. In the context of recurrence, and particularly post-investigation CP services recurrence for First Nations families, this finding raises questions, similar to those raised by the previous finding, regarding resources available to First Nations families once CP services are no longer involved. Family known to CP services is a marker of repeated contact with CP services, which is also a recognized risk factor for recurrence. Given our conceptual approach, this finding raises questions about the initial service spell and the resources available to First Nations families but puts these questions in the larger context of the family's involvement over time. It additionally raises question regarding the interaction of the CP system with the family and how these previous or ongoing interactions, concerning other children, may direct certain courses of action or decisions for another child of the same family.

Results from this study add to reflections regarding methodological recommendations for future studies of recurrence. The present study sought to study the first recurrence of post-investigation CP intervention at the individual child level to limit the influence of the known effect of previous CP contacts (Hindley et al., 2006) in our analyses, and aligns with the Quebec CP system of intervening for each child individually. We recognize, however, that the trajectories of many First Nations children in our study were embedded within a family trajectory of contact with CP services, given that just under half (45.8 %) of the children had at least one sibling who was investigated before the first screened-in report on their behalf was received, and that this variable was positively and significantly associated with an increased risk of recurrence. While the current CP system warrants a child-based approach, our results raise questions as to how the family situation may be considered in processing a CP situation and decision-making, and whether it is considered differently among First Nations families. We recommend that CP recurrence, for the general population but particularly for First Nations children given the pattern of contacts evidenced in this study, be studied from a family perspective. Henderson et al. (2017) found that the eldest child in a family (according to maternal birth order) received their first CP intervention at an age older than their siblings, leading to consequences such as being less likely to gain permanency if placed in out-of-home care. Documenting the contact, decision and service trajectory of an eldest child, and the siblings' temporal pattern of CP contacts, decisions and services in relation to the eldest's trajectory would provide a better understanding of the recurrent patterns of involvement of First Nations

children with CP services. Illuminating whether siblings' trajectories are embedded and intertwined, and if these patterns differ between First Nations families and those from the majority group, through research, could support changes in practice to both better use family-based knowledge relevant to decision-making (such as current needs, strengths and risks) and lessen the influence of family-based knowledge rooted in the past no longer representative of the situation.

Among children from the majority group, those with a service length of over a year, those who entered post-investigation CP intervention after at least two investigations and boys were more likely to experience recurrence. Service time has only been studied in a limited number of studies, with two finding no relationship between case length and recurrence (Fuller & Zhang, 2017; Hélie et al., 2013) and one indicating that longer service time increased the chance of recurrence (Bae et al., 2010). Longer service time could be related to clinically more complex cases, which could then explain the increased risk. Entering services after at least two investigations is a marker of repeated individual contact that corroborates previous findings in studies of recurrence. As for the gender of the child, it is generally not found to be associated with the risk of recurrence. The only study identifying gender as significantly associated with recurrence (Fluke et al., 2008) found that girls appeared more at risk of recurrence, which is contrary to our present finding. While this could represent a particularity of the jurisdiction under study, this result suggests future studies may further explore issues of gender and CP services.

When combining the findings from the three models, it appears that, of the three factors found in the comparative model, two were only at play among First Nations children (family known and short-term intervention) and one was only at play among the majority group (at least two investigations before service provision). In fact, no factors were common among both groups of children, and the models per group highlighted factors that were not found in the comparative model, namely gender among the children from the majority group and being under two years old for the First Nations children. In sum, while the risk of recurrence is similar across groups, the profiles of children at case closure and the factors associated with recurrence are different, supporting the need to look into First Nations children's trajectories separately, and in collaboration with First Nations partners, to ensure adequate services responding to their and their family's needs.

4.1. Implications

Practice & policy implications. Findings from this study suggests that a family perspective on recurrent involvement with CP services in subsequent research could promote a deeper understanding of how and when family-based information, and what type of information, should and could be used by CP workers. For example, our results hint at the possibility that CP workers may draw from the full family history leading to and in relation to CP services, as family known to the CP agency is a risk factor for recurrence (and was a risk factor for entry into services; De La Sablonnière-Griffin et al., 2023). Family-based information from previous or ongoing intervention with siblings which could enhance services and the CP worker responses includes: the strengths of the family, resources currently or previously mobilized, and how the situation at hand is, or is not related, to previous/ongoing involvement, such as whether it is a repetition or an extension of a situation already known to their service or whether it is a new situation stemming from, for example, new elements in the lives of the family members or new developmental challenges as the children age. Yet, we also contend that, in the context of past and ongoing issues of CP providing adequate services to First Nations families, the contrasting recommendation of focusing specifically on the family's current, as opposed to past, situations, strengths, challenges and needs may be warranted.

Our current findings, combined with our previous findings regarding a first entry into and exit from post-investigation CP services (De La Sablonnière-Griffin et al., 2022, 2023), highlight the distinct longitudinal patterns of CP services for First Nations children and the distinct profiles of First Nations children served and recurring as compared to children from the majority group. These findings support the need for intervention services that are designed to respond more specifically to the needs of First Nations children, families and communities. One way to achieve such services is through Indigenous led and governed services, which is the path privileged by First Nations peoples in the province of Quebec (Awashish et al., 2017) to enhance and support children, youth and families well-being (as opposed to adapting mainstream services to better fit the needs of First Nations children, youth and families). The federal *Act respecting First Nations, Inuit and Métis children, youth and families* (2019) affirms Indigenous groups' right to develop their own legislation and services, recognizing the importance of prevention services and of cultural safety. Nonetheless, this law gave limited attention to the funding mechanisms underlying such opportunities (Metallic et al., 2019), which could weaken the Indigenous-led and governed services if not adequately funded. This legislation is additionally currently under review by Canada's Supreme Court, following the jurisdictional contestation by the Quebec provincial government (Supreme Court of Canada, 2022); this upcoming judgement may further support, or may greatly reduce, Indigenous Peoples' capacity to develop and govern their services.

Research implications. As indicated above, research regarding recurrence for First Nations children should favor a family framework given that previous family contact was associated with an increased risk of recurrence. The quantitative results from this study led the advisory committee to conduct a file review for a limited number of families with recurrence to better understand the situations that were at play, the decision-making process of the workers, and the trajectory of services among siblings of a family. While this follow-up work was not conducted as a research project, it highlights the importance of working in partnership with Indigenous partners to propose projects that are aligned with their needs and the importance of mixed-methods studies to further advance our understanding of recurrent involvement with CP services.

4.2. Limitations

While this study is unique in allowing for an ecological analysis of factors that increase a First Nations child's risk of experiencing recurrence of CP services, it is not without limitations. One such limitation is our inability to identify children who moved to the region

under study during the observation period, who may have previously received CP services in another region. The first service recurrence captured in the study may, possibly, not be a child's first CP service recurrence due to this limitation of the data.

Our findings are limited to First Nations children living in First Nations communities, as our partnership was with the delegated agencies serving these First Nations children. Further research is needed to explore recurrence of CP services for First Nations children residing outside of First Nations communities (for example, in urban settings) or for First Nations for whom services are funded through a different mechanism.

Finally, by relying solely on administrative data, this study could not account for some caregiver factors identified as playing a role in recurrence, such as parental mental health issues and substance abuse or low social support (Hindley et al., 2006; White et al., 2015).

5. Conclusion

This study contributes to a better understanding of the longitudinal trajectory of First Nations children in CP services. It also highlights the importance of studying First Nations children as a group deserving committed research attention and the importance of doing so with First Nations partners. It raises questions regarding the specificities of CP trajectories and patterns of contact and services among First Nations siblings, bringing forward the importance of understanding these patterns within the context of a child's family. Finally, adequately funded, autonomous and First Nations-led child and family services must be foreseeable for all Nations and communities identifying this path as the best to meet the needs of their children and families.

Declaration of competing interest

None.

Data availability

The authors do not have permission to share data.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.chiabu.2023.106243>.

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