

Indigenous youth, health, wellness, and social media: a scoping review

STATE OF KNOWLEDGE

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The members of the project team and the reviewers have duly completed their conflict-of-interest declarations and no situations of real, apparent, or potential conflict of interest have been identified.

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FOREWORD

The Direction des affaires autochtones of the Ministère de la Santé et des Services sociaux has commissioned the Institut national de santé publique du Québec to produce a knowledge synthesis on the links between social media, Indigenous youth, and health and wellness. This synthesis takes the form of a scoping review, i.e., a literature review describing the range and nature of the existing literature. This approach is intended to be exploratory, and it may serve as a foundation for future projects.

The present document is intended for public health decision-makers as well as managers and professionals in governmental and non-governmental organizations who work closely or remotely with Indigenous peoples, particularly young people.

This project is consistent with and in support of Measure 4.3 "Promouvoir la recherche et favoriser la diffusion des résultats en découlent" of the *Stratégie québécoise sur l'utilisation des écrans et la santé des jeunes 2022-2025* (Ministère de la Santé et des Services sociaux, 2022). The use of social media is one of young people's favourite screen-based activities, and knowledge of its effects on their health and development is at the heart of the Strategy.

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GLOSSARY

Aboriginals and Torres Strait Islanders: In Australia, authors use almost exclusively the term "Aboriginals and Torres Strait Islanders." This terminology underlines their distinct origins (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2020).

American Indians/Alaska Natives: Term used to refer to Indigenous people; it is abbreviated "AI/AN" in English-language publications from the United States. People with origins in any of the native peoples of North and South America (including Central America) who maintain a tribal affiliation or community attachment (National Congress of American Indians, 2020).

Digital culture: Technological developments, particularly the Internet, are giving rise to new cultural habits. Digital culture is therefore the techniques, practices, ways of thinking, and values that are developed through technology (Teixera *et al.*, 2017).

Indigenous: According to the United Nations Permanent Forum on Indigenous Issues, a formal and universal definition of the concept of Indigenous peoples would lead to the prioritization of some characteristics over others (Department of Economic and Social Affairs of the United Nations Secretariat, 2009). In addition, Article 33.1 of the United Nations Declaration on the Rights of Indigenous Peoples emphasizes the right of Indigenous peoples to "determine their own identity or membership in accordance with their customs and traditions. This does not impair the right of indigenous individuals to obtain citizenship of the States in which they live" (United Nations, 2007).

In Canada, "Indigenous" is a legal term used to define the first peoples who inhabited the territory before the arrival of European settlers and their descendants. The *Constitution Act* of 1982 recognizes three distinct peoples: First Nations, the Inuit, and the Métis. According to the 2021 Census of Population, there are 1.8 million Indigenous people, or 5% of the Canadian population (Statistics Canada, 2022).

In Quebec, no historic Métis community has been legally and politically recognized. The term "Indigenous" therefore refers to the ten First Nations and the Inuit. These First Nations are the Abenaki, Anishinaabe, Atikamekw, Cree, Huron-Wendat, Innu, Wolastoqiyik, Mi'kmaq, Mohawk, and Naskapi.

HIGHLIGHTS

Knowledge about young people's use of social media and their health is still fragmentary, and very rarely focuses on Indigenous youth. That is why this scoping review explores the extent and nature of knowledge about Indigenous users aged 15 to 29, and the health themes that emerge.

- Research into the use of social media by Indigenous youth and their health and wellness is an emerging field. Of the twenty-six publications selected, over three quarters were published in 2015 or later.
- Almost half the studies in the corpus—eleven in all—took place in Canada. They were mainly carried out using qualitative methodologies and target young adults, i.e., young people over the age of eighteen. In general, authors use exploratory designs and present descriptive results.
- The semi-structured interview is the most frequent method used to characterize use in over half the cases. All of the publications in the corpus cover at least one of the four characteristics of use: time, device, platform, or activity. The three most common social media activities are communicating (sending or receiving messages from friends and family), getting informed (seeking advice on anxiety, for example), and discovering and promoting one's culture (consulting pages or groups specific to Indigenous peoples).
- The examination of health themes in the corpus was guided by an Indigenous perspective on health and wellness. This is based on four facets—mental, emotional, spiritual, and physical and is rooted in culture and territory, at both the individual and the community level. Six health themes emerge from the corpus, presented in order of frequency: identity and culture, social relations, health information, cyberbullying, racism, and other forms of violence, mental health, and lifestyle habits.
- The use of social media raises many questions about its possible effects on health and wellness, which is why further research is needed. Different angles of research could be explored: mental health, sleep time, problematic use, information practices, social support, and identity pride as a determinant of health.

SUMMARY

Context

Social media is a participatory platform on the web where users can share information and publish content in the form of text, images, or videos. Collaboration and interaction between users are the hallmarks of social media. It can be used to create and sustain social relations.

Canadian studies have highlighted the increase in social media use among young people, as well as the possible health consequences, including lack of sleep and difficulty concentrating. What's more, social media use involves exposure to screens, which has numerous health repercussions (musculoskeletal, vision and hearing problems, sedentary lifestyle, repercussions on development, etc.).

However, knowledge about young people's use of social media and their health is still fragmentary, and rarely focuses on Indigenous youth. Due to the emergence of the phenomenon, a scoping review was carried out to answer the question, "What is the state of scientific knowledge regarding the use of social media by Indigenous young people aged 15 to 29 and their health?"

Main findings

A qualitative corpus focusing on young adults

Twenty-six publications make up the corpus: sixteen peer-reviewed articles, five research reports, and five university theses or dissertations. Eleven publications come from Canada, six from Australia, six from the United States, and three from New Zealand. Fifteen studies used a qualitative method. Half of the publications have a sample of young people over the age of eighteen, also known as young adults. More than three quarters of the documents in the corpus were published in 2015 or later.

Characteristics of use

The semi-structured interview is the most frequently used method in the corpus to characterize social media use (n=15). Four characteristics of use were covered: time, device, platform, and activity. Seven publications present data on time spent on social media, in terms of both frequency and duration, ranging from a few times a week to seven hours a day. In five of the eight publications mentioning the device used to access social media, the smartphone stands out. Facebook is the most studied platform, with a total of nineteen publications. The most frequently mentioned activities are communicating (n=14), getting informed (n=14), and discovering and promoting one's culture (n=11).

Health themes that emerge from the corpus

Indigenous definitions of health generally revolve around four facets: mental, emotional, spiritual, and physical. Health, rooted in culture and territory, is seen as the balance between these facets, at both the individual and the community level. This is also known as wellness. This vision guided the reading of the corpus: six health themes emerged.

One theme of interest is **identity** and **culture**, which are determinants of Indigenous health. Fourteen publications highlight examples of how social media can be used to promote pride in one's identity, share cultural practices, and challenge stereotypes.

Eleven publications explore the influence of social media on the **social relations** of Indigenous youth. In addition to the communication aspect, which is predominant in the corpus, social media is seen as a supportive space for Indigenous young people: they can ask for advice and offer help.

Eleven publications study social media as a **source of health information**, including stress management, diet, and physical activity. For Indigenous youth, however, as discussed in three publications, decoding the credibility and reliability of information available on social media, including health information, is a challenge.

Eleven publications look at **different forms of violence** targeting Indigenous youth on social media. Cyberbullying and racism are two of the most frequently described phenomena. A majority of surveyed participants in the studies have personally experienced racism on social media, and almost all have seen it. The repercussions of these experiences are also discussed in one publication, including anxiety and symptoms of depression. Lateral violence—mutual attacks between members of the same minority—was also a concern reported in two publications. Lastly, the issue of online security and privacy is highlighted in five publications.

Seven publications highlight issues related to social media use and the **mental health** of Indigenous youth. Three of these describe a use of social media for offering and requesting help related to mental health. In addition, the issues surrounding the sharing of emotions on social media are addressed in six publications: concerning posts about suicide and self-harm and reactions to these types of publications.

The theme of **lifestyle habits**—physical activity and alcohol use—appears in three publications. Two angles emerge: time spent on social media may encroach on other lifestyle habits, but may also become a channel for sharing these habits.

To go further

Research on Indigenous youth, health, wellness, and the use of social media is an emerging field. Nevertheless, a number of strengths emerge from the corpus. Methods of data collection involving the participants are used. These data collections refine our understanding of the phenomenon by providing an insider's view of digital culture. In addition, a majority of publications describe collaboration with Indigenous peoples. The corpus brings together a diversity of research angles, from the sources of health information used by Indigenous youth to the identity and cultural aspects of social media use.

However, there are some shortcomings. As technologies and uses evolve rapidly, a new platform may emerge, for example, while others are abandoned by users. In the corpus, although Facebook is the most studied platform, it is being lefted out by young people in favour of Instagram, Snapchat, and TikTok. In addition, authors use exploratory designs and present descriptive results. Inferences are made about perceived or self-reported effects on healthrelated factors, but there were no objective measurements in the corpus.

Different angles of research then appear to need further investigation: mental health, sleep time, problematic use, information practices, social support, and pride in identity as a determinant of health. Incorporating questions that measure changes in social media use into health surveys conducted for and by Indigenous people is therefore relevant to better assess their effects on health and wellness, and to reduce risks where appropriate.

Methodology

Following the Johanna Brigs Institute guidelines for scoping studies, a literature search was carried out in the scientific and grey literature from the year 2000 onwards. The results were sorted according to selection criteria. An extraction grid was used to identify the characteristics of the publications, including the health themes that emerged. Thematic groupings have been developed a posteriori. The quality of the publications was not assessed.

1 INTRODUCTION

1.1 Context

Time spent on social media, one of the many uses of screen, is not negligible, and research into the use of these technologies and their impact on health and wellness is emerging (Kapoor *et al.*, 2018; Schønning *et al.*, 2020). However, most of the studies focus on young people as a whole, without taking into account specific characteristics, such as those of Indigenous youth. Various news articles testify to their presence on social media, where they highlight their realities using the hashtags¹ #indigenoustiktok or #nativetiktok (Bonnay, 2021; Mollen-Dupuis, 2021) or promote their involvement in politics (Baker III, 2022). The use of social media by Indigenous youth is also evident in the creation of online communities that cover such topics as Indigenous language revitalization, cultural activities, and suicide prevention (Social Sciences and Humanities Research Council, 2022). Moreover, the COVID-19 pandemic and its containment measures have highlighted the use of social media by Indigenous peoples to create and maintain links with food, territory, languages, and life stories (Corntassel *et al.*, 2020).

1.2 Defining social media

Social media is a participatory platform on the web where users can share information and publish content in the form of text, images, or videos (Newbold, 2014). Collaboration and interaction between users are the hallmarks of social media (Kietzmann *et al.*, 2011). Over the last fifteen years, a number of platforms have emerged, such as Facebook, YouTube, Instagram, and TikTok. Social media is one of the many activities available on the Internet, and can be used for work, study, or leisure. Furthermore, in contrast to Web 1.0, which offered static content, social media is frequently referred to Web 2.0 (Newbold, 2014). Around 2004, the Internet shifted from being a medium for posting information to one for promoting user-generated content (Kaplan and Haenlein, 2010). Users are now exposed to content that is partly freely chosen and partly suggested by the platform's algorithms, including targeted advertising (Zuboff, 2020).

¹ On social media websites and applications: a word or phrase preceded by a hash sign and used to identify messages relating to a specific topic (Oxford English Dictionary, 2018).

1.3 Why should we be interested in young people's use of social media?

While social media enables interaction with family and friends and maintaining relationships, among other things, Canadian surveys highlight the increase in its use and possible repercussions on health (Public Health Agency of Canada, 2021).

Data from Ontario show that by 2021, the vast majority (91%) of students aged 14 to 17 are using social media (Boak *et al.*, 2022). About one third of these spend five hours or more a day on social media, a proportion that has increased since 2019. The 2018 Canadian Internet Use Survey reports that 15- to 24-year-olds are the age group that uses social media most intensively; half use three or more platforms (Schimmele *et al.*, 2021). Lack of sleep is the most frequently reported consequence of use in the 15–19 age group, and difficulty concentrating in the 19–24 age group. In the national report of the 2020 Health Behaviour in School-aged Children Study, the impact of social media on the health of 11- to 15-year-olds was identified as a priority. The data from this survey reveal an increase in intensive, but also problematic, use of social media². In addition, age may be a risk factor for problematic use: adolescence is a developmental period when self-regulatory processes are not yet fully acquired (Public Health Agency of Canada, 2021). The *Enquête québécoise sur la santé des jeunes du secondaire*, for its part, points out that data on the subject is limited (Traoré *et al.*, 2018).

It should be noted that social media is accessed through screens, which are themselves associated with health issues. In particular, the World Health Organization mentions musculoskeletal, vision, and hearing problems, a sedentary lifestyle, and the impact on the overall development of children and young people (World Health Organization, 2015). Work by the INSPQ presents all the health effects of screens in a *Modèle logique de compréhension des déterminants des impacts liés à l'usage des écrans* (Lemétayer *et al.*, 2022).

² Intensive use corresponds to a declared frequency of social media use "almost all the time, all day long." Problematic use is defined using a nine-point scale that measures whether the respondent's use of social media approaches addiction.

1.4 Indigenous youth, social media, health, and wellness: a body of literature in need of exploration

Indigenous people aged 15 to 24 account for just over one sixth of the Indigenous population, a higher proportion than among the non-Indigenous population (T. Anderson, 2021). They live in specific economic, political, and historical contexts that have influenced and continue to influence their health and wellness, whether they live in an urban setting or in an Indigenous community located more or less far from a major urban centre (Gouvernement du Québec, 2019). For example, Indigenous youth are less likely than older age groups to report very good or excellent mental health (T. Anderson, 2021). Although education levels are improving, a gap persists between Indigenous and non-Indigenous graduation rates (T. Anderson, 2021). In this respect, for some Indigenous youth, the pursuit of post-secondary education is one of the reasons they move to the city, and then travel back and forth between it and their community of origin, a process known as hypermobility (Regroupement des centres d'amitié autochtones du Québec, 2020).

Social media is as much a part of everyday life for Indigenous people as it is for non-Indigenous people. It offers the opportunity to connect, despite distances, between Nations and communities (Carlson and Frazer, 2018; Taylor, 2011). In fact, despite patchy data on the subject, the increase in social media use is also occurring among Indigenous youth. In the *Qanuilirpitaa?* 2017 survey,³ Inuit youth aged 16 to 20 spent the most time on social media. More than one third of Internet users in this age bracket responded that they use social media three to six hours per day (Bélanger *et al.*, 2020).

In Quebec, as in the rest of Canada, there are not many studies examining Indigenous youth's use of social media and its links to health and wellness. Considering their distinct realities, their demographic significance, and the presumed increase in the use of social media, an understanding of the possible effects of this use on Indigenous young people's health and wellness seems necessary.

³ *Qanuilirpitaa*? 2017 is a survey for and by Inuit. It analyzes the health status of the population in the fourteen villages of Nunavik.

1.5 Research question and objectives

Given the emergence of this phenomenon, it seems appropriate to examine the extent and nature of the existing literature. A scoping review was carried out to answer the question, "What is the state of scientific knowledge regarding the use of social media by Indigenous youth aged 15 to 29 and their health?"

It is structured around three objectives:

- Describing the corpus, i.e., the studies carried out, the research angles, and the various uses examined.
- Identifying health themes in the literature concerning the use of social media by Indigenous youth.
- Identifying the strengths and limitations of the corpus.

2 METHODOLOGY

2.1 Choosing the scoping review methodology

To our knowledge, two systematic reviews address social media and the health of Indigenous youth (Li and Brar, 2022; Rice *et al.*, 2016). However, social media are included across the spectrum of all digital technologies. In addition, the study by Rice *et al.* (2016) focused exclusively on literature about Aboriginal and Torres Strait Islander youth in Australia. For their part, Li and Brar (2022) considered the effects on the mental health of Indigenous youth presented in peer-reviewed articles. The angle of this project is different because the focus is on scientific knowledge about social media and health as a whole.

The scoping review methodology was chosen because we hypothesized that the potentially relevant literature is diverse (Levac *et al.*, 2010). Indeed, because of the broad nature of the questions asked in scoping studies, which are part of an exploratory approach (Canadian Institutes of Health Research, 2010), they are useful for gathering data from heterogeneous sources (Peters *et al.*, 2020). For the present scoping review, the Johanna Brigs Institute guidelines were followed (Peters *et al.*, 2020).

2.2 Unpacking the research question

The research question was formulated using the acronym PCC: "Population, Context, and Concept."

Population

Indigenous youth aged 15 to 29 were targeted, a period that includes important years of transition in the development of adolescent and young adult identities (Secrétariat à la jeunesse du Québec, 2021).

Context

The study was conducted in a context similar to that of Quebec, in other Canadian provinces and other countries where Indigenous people live (New Zealand, Australia, and the United States), which are grouped under the designation CANZUS.

The pan-Indigenous approach chosen meets the objective of a scoping review to explore the literature with a wide-ranging approach. These countries share a common history of colonization and assimilation. In 2007, the United Nations Declaration on the Rights of Indigenous Peoples was welcomed with reluctance by CANZUS countries (Gover, 2015). The beliefs, practices, and geographical contexts of the Indigenous peoples of these countries are obviously unique and diverse. There are, however, similarities in their worldviews. The holistic concept of individual and community wellness is one example (K. Anderson *et al.*, 2022).

Concept: social media use

Social media use refers to the viewing and dissemination of content by Indigenous youth. Note that the term "social media" has been used rather than "social networks" as it is more encompassing (Obar *et al.*, 2015). In addition, virtual game worlds are not included in this definition. Four characteristics of use are grouped together: time (frequency, number of times per day or week, or duration, number of hours); platform (Facebook, Twitter, etc.); device used to access the platform (computer, smartphone, etc.); and activities undertaken (getting informed, communicating, entertainment, etc.).

Concept: health

An indigenous perspective on health has guided this scoping review. Although there are as many definitions of health as there are Indigenous peoples, they generally revolve around four fundamental and interdependent facets: the mental, emotional, spiritual, and physical (Bergeron, 2022). Balancing these facets is essential to achieving individual and collective wellness. For many Indigenous people, this wellness is seen as health, which is why both terms are used in this scoping review. The various facets are intimately rooted in Indigenous cultures, social and family ties, and relationships with the land. These elements are also considered determinants of health (Bergeron, 2022). The term "holistic" is often used to define health in the sense of whole, comprehensive, balanced, and circular (Canadian Institutes of Health Research, 2014).

2.3 Literature search

First, a literature search strategy was developed in collaboration with an INSPQ librarian, based on the following three concepts: social media, youth, and Indigenous people. These concepts, expressed in various iterations and combinations, guided the search of the Medline, PsychInfo, Global Health, Health Policy Reference Center, Psychology and Behavioral Sciences Collection, Public Affairs Index, SocINDEX, and CINAHL databases. For the sake of completeness, the databases were queried from the year 2000 onwards. (It should be remembered that Facebook was created in 2004.) The strategy produced a list of 463 publications. After deduplication, 325 results were found. Using the criteria in Table 1, based on the acronym PCC, an initial selection was made by the author from titles and abstracts (n=52). In an interjudge process, a second selection was made by two professionals after the documents selected in the first selection had been read in their entirety (n=10)⁴.

In a second phase, a complementary search was carried out, again in collaboration with an INSPQ librarian, using various methods: expert Google search, search of the websites of 46 Canadian and international public health organizations and Indigenous organizations, search of

⁴ The health concept was not broken down into different keywords in order to allow a broader search for publications dealing with social media and Indigenous youth. The health angle of the publications was validated at the time of selection.

the Santécom database, and review of the bibliographies of the documents selected in the first sorting. The search produced a list of 42 publications. Using the selection criteria, 15 publications were chosen after being fully read by two professionals.

The search and sorting were carried out in May and June 2022. One publication, identified in October 2022 in the Indigenous Health Team's scientific monitoring, was added to the corpus. In all, 26 publications were included. Details of the strategy and the literature search flowchart can be found in Appendix 1.

Table 1 Selection criteria

Criteria for inclusion	Criteria for exclusion
Indigenous youth aged 15 to 29 from CANZUS (specific results are reported for them; they may be in a larger sample or reported by their parents or entourage).	Publications reporting the use of social media from an intervention perspective are excluded, as are those using social media as a recruitment tool for research.
One (or more) of the characteristics of social media use by young people is reported.	Cost-benefit analyses, opinion articles, editorials, book chapters, research protocols, symposium or conference proceedings.
One (or more) facets of health are addressed.	
In English or French.	
From the year 2000 onwards.	

2.4 Extracting and analyzing the data

An extraction grid was used to identify the characteristics of the publications: study location, type of source, study setting, objective, methodological design, participants, reported uses, and the main health-related themes addressed by the authors, whether in terms of research angle or results. In accordance with the Johanna Brigs Institute guidelines, no quality assessment was conducted. A narrative review of the existing literature was carried out to identify the health themes addressed by the authors and to highlight gaps in knowledge. As for the themes, in an iterative process, groupings were developed a posteriori by two professionals. These groupings are presented in the Results section, supported by examples from the selected publications.

2.5 Peer review

In keeping with the INSPQ's quality assurance mechanisms, this synthesis has been peer reviewed. The three reviewers' comments addressed the document's content, methodology, conclusions, completeness, and ethical issues. To ensure proper follow-up, the author has incorporated these comments into a table that includes a summary of how they were addressed in the final version. In addition, at each stage, the synthesis benefited from the input, review, and comments of the project team members.

3 **RESULTS**

The results are divided into five sections describing:

- The corpus in general;
- Social media collection methods and uses studied in relation to time, platform, device, and activity;
- The research angles of the various publications;
- Health themes that emerge from the corpus;
- The strengths and limitations of the selected publications.

3.1 Corpus description

Appendix 2 provides details of the publications selected. The tables in this section are summaries.

As shown in Table 2, a total of sixteen peer-reviewed articles, five research reports, and five university theses or dissertations were identified, for a total of twenty-six publications. The majority of publications—eleven in all—are from Canada. Six studies were carried out in Australia, six in the United States, and three in New Zealand. In terms of methodological design, there are fifteen qualitative studies, five studies with a mixed design, five cross-sectional quantitative studies, and one health survey.

For target populations, seven studies focused on native peoples (including "Aboriginals" and "Indigenous"), four looked at Aboriginals and Torres Strait Islanders, five targeted American Indian/Alaska Natives (AI/AN), four addressed the Inuit, three targeted Canadian First Nations, and three examined the Māori and Pasifika peoples. Please note that the terminologies used are those of the authors.

Because of the definition of young people used for this scoping review, the samples in the selected publications are made up of either adolescents (mostly under 18), young adults (mostly over 18), or a combination of both. In the corpus, thirteen publications have a sample of young adults, seven of a combination of both, and six have a sample of adolescents only.

Lastly, the majority of publications were published from 2015 onwards (twenty of the twenty-six documents selected).

Reference	Type of publication	Origin	Methodological design	Target population	Composition of the sample	
Anastario <i>et al</i> . (2018)	Peer-reviewed article	The United States	Quantitative cross-sectional study	American Indians/Alaska Natives	Adolescents	
Bélanger <i>et al</i> . (2020)	Research report	Canada	Health survey	Inuit	Young adults	
Carlson <i>et al</i> . (2015)ª	Peer-reviewed article	Australia	Mixed design	Aboriginals	Young adults	
Carlson and Frazer (2018) ^a	Research report	Australia	Mixed design	Aboriginals and Torres Strait Islanders	Young adults	
Castleton (2014) ^b	Thesis	Canada	Qualitative study	Inuit	Young adults	
Castleton (2018) ^b	Peer-reviewed article	Canada	Qualitative study	Inuit	Young adults	
Edmonds et al. (2012)	Research report	Australia	Qualitative study	Aboriginals	Adolescents and young adults	
Gould et al. (2020)	Peer-reviewed article	Australia	Quantitative cross-sectional study	Aboriginals and Torres Strait Islanders	Young adults	
Gritton et al. (2017)	Peer-reviewed article	The United States	Qualitative study	American Indians/Alaska Natives	Adolescents and young adults	
Hefler <i>et al</i> . (2019)	Peer-reviewed article	Australia	Qualitative study	Aboriginals and Torres Strait Islanders	Young adults	
Hill (2016)	Thesis	Canada	Qualitative study	Indigenous	Young adults	
Intahchomphoo (2019) ^c	Thesis	Canada	Mixed design	Indigenous	Adolescents and young adults	
Intahchomphoo (2021) ^c	Peer-reviewed article	Canada	Mixed design	Indigenous	Adolescents and young adults	
Louie (2017) Peer-reviewed Canada C		Qualitative study	Indigenous	Adolescents		
Lyonnais (2017)	Dissertation	Canada	Qualitative study	Inuit	Young adults	
Lyons <i>et al.</i> (2015)	Peer-reviewed article	New Zealand	Qualitative study	Māori and Pasifika	Young adults	
OʻCarrol (2013a) ^d			Māori	Young adults		
O'Carrol (2013b) ^d	Peer-reviewed article	New Zealand	Qualitative study	Māori	Young adults	

Table 2Description of the selected publications

Reference	Type of publication	Origin	Methodological design Target population		Composition of the sample
Peddle (2008)	Research report	Canada	Qualitative study	First Nations of Canada	Adolescents
et al (2022) article		The United States	Quantitative cross-sectional study	American Indians/Alaska Natives	Adolescents and young adults
Rempel <i>et al</i> . (2016)	Peer-reviewed article	Canada	Qualitative study	First Nations of Canada	Young adults
Rencontre (2016)	Thesis	The United States	Qualitative study	American Indians/Alaska Natives	Adolescents
RJPNQL (2021)	Research report	Canada	Mixed design	First Nations of Canada	Adolescents and young adults
Rushing and Stephens (2011)	Peer-reviewed article	The United States	Quantitative cross-sectional study	American Indians/Alaska Natives	Adolescents and young adults
Tao and Fisher (2022)	Peer-reviewed article	The United States	Quantitative cross-sectional study	Indigenous	Adolescents
Walker, Malenaar, and Palermo (2020)	Peer-reviewed article	Australia	Qualitative study	Aboriginals and Torres Strait Islanders	Adolescents

Table 2	Description of selected publications (continued)
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^{a, b, c, d} Publications followed by the same superscript report the results of the same study. Publications from the same study are included since they are either different types of documents or different angles of analysis.

3.2 The different uses of social media

Collection methods

Different collection methods are used to characterize social media use. In fact, a single publication can include several methods. In the corpus, **semi-structured interviews** are the most widely used method (n=15) for measuring activities and the social media platform. Next, still for activities and the platform, are focus groups, whether between strangers or friends (n=10). Computer-assisted, in-person, online, or paper questionnaires (n=10) are used just as frequently, but more frequently for time, device, and platform. Finally, the analysis of digital content, whether by consulting participants' Facebook profiles or by browsing and analyzing organizations' pages, also emerges from the selected publications (n=7). Also of note are participant observation (n=1) and the creation of a Facebook group (n=1).

Time

Only seven publications present data on time spent on social media, either in terms of frequency or duration, ranging from **a few times a week to seven hours a day.** As discussed in the introduction, in a health survey conducted in Nunavik, one third of young Inuit Internet users surf social media three to six hours a day (Bélanger *et al.*, 2020). The Inuit interviewed by Lyonnais (2017) spend anywhere from a few minutes to several hours a day on social media. In the early days of social media, a study of James Bay Cree youth found that participants used these media on a daily or weekly basis (Peddle, 2008). In the United States, all participants in the study by Gritton *et al.* (2017) go on social media at least once a day, and the majority several times a day. In the Native Youth Tech Survey, an American online questionnaire conducted from October to November 2020, 65.3% of participants reported using social media from three to seven hours a day (Reed *et al.*, 2022). Moreover, for around six out of ten participants, they were spending more time online than before the COVID-19 pandemic. In a study conducted in Australia, young people also revealed using social media every day (Gritton *et al.*, 2017). Tao and Fisher (2022) describe how Indigenous youth, and other visible minority youth in the United States, spend an average of about eight hours a day on various social media platforms.

Devices

The device used to access social media is mentioned in only eight publications. In five of these, the **smartphone** stands out as the most widely used device (Edmonds *et al.*, 2012; Gritton *et al.*, 2017; Lyonnais, 2017; Reed *et al.*, 2022; Rushing and Stephens, 2011). In addition, for three publications, an alternation between smartphone and laptop, mainly for students who own a laptop for their studies, is reported (Castleton, 2014, Intahchompoo, 2019; 2021).

Platforms

All of the publications present platform-related data. The most discussed platform in the corpus is **Facebook** (n=19), followed by social media in general (n=5) (i.e., when platforms are grouped together without distinction between them), and Instagram (n=5).

Activities

When the results were extracted, six activities carried out by Indigenous young people stood out. **Communicating** with others in one's entourage (e.g., sending or receiving messages from family and friends), **discovering and promoting one's culture** (e.g., consulting pages or groups specific to Indigenous peoples), and **getting informed** (e.g., seeking advice on anxiety) are the three most frequent. Also of note are activities such as sharing and expressing oneself (e.g., posting a photo of an activity with friends), entertainment (e.g., watching funny videos), and asking for or offering help (e.g., asking if someone knows about a job opportunity). The results are presented in Table 3.

	Communicating with others	Asking for or offering help	Discovering and promoting one's culture	Sharing and expressing oneself	Entertainment	Getting informed
Anastario <i>et al</i> . (2018)						Х
Bélanger <i>et al</i> . (2020)	х					
Carlson et al. (2015)		Х				
Carlson and Frazer (2018)	х	Х	х			
Castleton (2014)	Х		Х			Х
Castleton (2018)	X		Х			Х
Edmonds <i>et al</i> . (2012)	x		х		х	
Gould <i>et al</i> . (2020)						Х
Gritton <i>et al</i> . (2017)			Х		Х	Х
Hefler <i>et al</i> . (2019)	X				Х	Х
Hill (2016)			Х	Х		
Intahchomphoo (2019)	x		х			Х
Intahchomphoo (2021)	х		х			Х
Louie (2017)	Х					
Lyonnais (2017)	Х	Х			Х	Х
Lyons <i>et al</i> . (2015)				Х		
O'Carrol (2013a)	Х		Х			Х
O'Carrol (2013b)			Х			
Peddle (2008)	X			Х	Х	
Reed <i>et al</i> . (2022)	X			Х	Х	Х
Rempel <i>et al</i> . (2016)						Х
Rencontre (2016)						Х
RJPNQL (2021)			Х	Х		
Rushing and Stephens (2011)				х		
Tao and Fisher (2022)				х		
Walker, Malenaar, and Palermo (2020)	x			х		Х
Total	14	3	11	8	6	14

Table 3 Activities carried out by Indigenous youth on social media, by study

3.3 Corpus research angles

In their findings, all the studies reviewed addressed at least one facet of health in relation to social media use by Indigenous youth. However, their research angle could initially be more general, or more specific, as shown in Table 3. The research angle was determined according to the study objective; groupings were made where possible. The corpus focused primarily on understanding social media use specifically in relation to health, as well as use in general. In addition, five publications explored the sources of health information used by Indigenous youth, including social media.

Understanding the use of social media (n=18)			
a. In general	(Carlson <i>et al</i> ., 2015; Carlson and Frazer, 2018; O'Carroll, 2013a; Reed <i>et al</i> ., 2022)		
b. And health	(Hefler <i>et al.</i> , 2019; Lyonnais, 2017; Walker <i>et al.</i> , 2020)		
c. And identity and culture	(Castleton, 2014, 2018; O'Carroll, 2013b)		
d. Among at-risk youth ⁵	(Intahchomphoo, 2019; Intahchomphoo <i>et al.</i> , 2021)		
e. And education and social relations	(Edmonds <i>et al.</i> , 2012)		
f. And the creation of online communities	(Hill, 2016)		
g. In connection with alcohol use	(Lyons <i>et al.</i> , 2015)		
h. In connection with communication and social relations	(Rencontre, 2016)		
i. In connection with racial discrimination	(Tao and Fisher, 2022)		
j. And concerning posts	(Gritton <i>et al.</i> , 2017)		
Exploring the sources of health information used by young people (n=5)	(Anastario <i>et al.</i> , 2020; Gould <i>et al.</i> , 2020; Peddle, 2008; Rempel <i>et al.</i> , 2016; Rushing and Stephens, 2011)		
Exploring the influence of social media in situations of sexual exploitation (n=1)	(Louie, 2017)		
Understanding how young people express themselves, including on social media (n=1)	(Réseau jeunesse des Premières Nations Québec- Labrador and Chaire-Réseau jeunesse de recherche, 2021)		
Collecting data on health as well as gambling and Internet and social media use (n=1)	(Bélanger <i>et al</i> ., 2020)		

Table 4Preferred research angles in the corpus

⁵ In this research, the term "at risk" is used to define young people who have an increased likelihood of suffering physically and/or psychologically in their daily lives, and who have unmet needs.

3.4 Health themes that emerge from the corpus

An Indigenous perspective on health has guided our reading of the corpus. Thus, six health themes emerge according to the research angles presented in the previous section and the results of the studies: identity and culture (n=14), social relations (n=11), health information (n=11), cyberbullying, racism, and other forms of violence (n=11), mental health (n=7), and lifestyle habits (n=3). In Figure 1, these themes are represented in a word cloud: the most frequently appearing words are shown in a larger font.

Examples are given for each theme to illustrate how it is addressed in the corpus. Although some study results are presented, they are only indicative, as the aim is not to extend these results to all Indigenous youth. What's more, a publication can address more than one theme, and the themes are not mutually exclusive.

While offering a simple way of presenting results, the six health themes presented produce an artificial separation between the different spheres of daily life. Themes are just one way of presenting and articulating information.

Figure 1 Word cloud of health themes that emerge from the corpus



Identity and culture

A theme of interest in the corpus is identity and culture (n=14). Personal identity, the way we perceive ourselves, and cultural identity, the sense of belonging to the practices and norms of a specific group, were difficult to separate in the publications, hence this grouping. In the corpus, cultural identity was intertwined with personal identity. For Indigenous peoples, pride of identity is closely linked to health, as culture is a determinant of health.

Thus, several examples of the use of social media to **promote pride of identity** and to **share cultural practices** emerge from the selected publications (Li and Brar, 2022, Rushing and Stephens, 2011).

- Young Inuit post photos and videos of their activities on the land, share cultural knowledge, or are active on Inuit-specific groups (Castleton, 2014, 2018; Lyonnais, 2017).
- First Nations youth in an urban setting use Facebook to promote their culture by sharing photos of beadwork, for example, which is the art of decorating objects or fabric with strung beads (Intahchompoo, 2019, 2021).
- Social media provides a platform on which Māori identity is expressed and shaped, and young people put effort into their online presentation (O'Carroll, 2013a; 2013b).
- Aboriginal and Torres Strait Islander youth participate on Aboriginal-specific pages and follow Aboriginal role models (Walker, Maleenar, and Palermo, 2020).
- Online cultural sharing does, however, raise concerns among young adults in Australia about the appropriation of knowledge and practices (Carlson and Frazer, 2018).

This pride in identity is also reflected in examples of the use of social media to **confront stereotypes** and discriminatory conceptions of Indigenous people.

- Social media allows Indigenous youth to represent themselves and to challenge the prevailing media representations (Edmonds *et al.*, 2012; Hill, 2016).
- For young Indigenous leaders, social media is an open and inclusive social space where Indigenous peoples express their identities (Hill, 2016).
- Young people have described a process of collective support, pride, and combatting misrepresentation in the media (Hefler *et al.*, 2019; Rencontre, 2016).
- Virtual platforms are spaces where First Nations youth in Quebec feel comfortable expressing themselves on issues that affect them (RJPNQL, 2021).

Social relations

Eleven publications—over one third—explore the influence of social media on the social relations of Indigenous youth. By adopting an Indigenous perspective on health, this influence includes a collective dimension that goes beyond the individual to include the family, community, and Nation.

The use of social media to keep in touch with family and friends, regardless of where they live, is apparent in seven studies (Bélanger *et al.*, 2020; Castleton, 2014, 2018; Lyonnais, 2017; O'Carroll, 2013a; Peddle, 2008; Walker, Malenaar, and Palermo, 2020). In this respect, the possible benefits of this communication tool are emerging. For example:

- For some youth, social media is a way to meet new people, including family members they perhaps wouldn't have known because of the great distances separating them (Carlson and Frazer, 2018; O'Carroll, 2013a);
- Social media makes it possible to form online communities with people who wouldn't otherwise meet (Carlson and Frazer, 2018);
- Young people are also using social media to mobilize and engage in activities beyond the digital realm (Walker, Malenaar, and Palermo, 2020).

Besides the communication aspect, four publications describe social media as a **tool for social support.**

- For young Inuit, social media would be a way to offer social support to friends or family members or acquaintances in need (Castleton, 2014; 2018).
- In the villages of Nunavik, social support on Facebook takes many forms, whether informative, instrumental, material, affective, normative, or social (Lyonnais, 2017).
- Social media is seen as a supportive space for young people, where they can share their problems and seek advice (Edmonds *et al.*, 2012).

Three publications describe the **drawbacks** and **challenges** of social media in relation to Indigenous youth's social relations, such as the fear that social media will reduce physical engagement, essential to maintaining a sense of community (Carlson and Frazer, 2018), or the priority given to family cohesion, rather than questioning behaviours that can affect the health of friends or family, such as smoking (Hefler *et al.*, 2019).

Health information

Eleven publications address social media as a **source of health information** for Indigenous youth, particularly with regard to diet or physical activity (Rushing and Stephens, 2011). For example, it can be seen that:

- Health information is transmitted in a two-way exchange with one's entourage (Walker, Malenaar, and Palermo, 2020);
- Facebook was used by the young women in the study by Rempel *et al.* (2016) to access information about their health and that of their children, but primarily from other women in the family and circle of friends;
- In the study by Hefler *et al.* (2019), skepticism and questioning of the "white man's" Western medicine, and the influence of big business on health and the environment are recurring themes in screenshots taken by participants on their social media accounts;
- The search for information about sexual and reproductive health on social media is discussed in the study by Anastario *et al.* (2020);
- Nearly half the participants in the study by Reed *et al.* (2022) use social media weekly to access health information on topics such as identity, mental health (including anxiety), and social justice and equality.

The use of social media as a **tool for health promotion** is also addressed only marginally in the corpus.

- As early as 2008, the study by Peddle *et al.* highlighted the interest of young James Bay Cree in interactive and innovative public health communication via social media.
- In the study by Bélanger *et al.* (2020), social media is an interesting prospect for community organizations and service providers.

Moreover, three studies highlight that, for some young people, **decoding the credibility** and reliability of health information available on social media is an issue (Gould *et al.*, 2020; Peddle *et al.*, 2008; Rempel *et al.*, 2016).

Cyberbullying, racism, and other forms of violence

Eleven publications examined different forms of violence and the use of social media by Indigenous youth. Cyberbullying and racism are two of the most frequently described consequences of social media use. For example:

- For some, being an Indigenous person on social media is a source of anxiety, due to the negative experiences they may have. Almost all participants in the study by Carlson and Fraser (2018) have witnessed racism on Facebook and Twitter, and a majority have personally experienced it;
- The study by Edmonds *et al.* (2012) reports that all of the participants encountered negative experiences and racism online;
- In a survey of Indigenous in the United States, the majority of participants had at least one experience of individual and indirect **racial discrimination** on social media. This racial discrimination was significantly associated with depressive symptoms, anxiety, and problematic alcohol use (Tao and Fisher, 2022);
- In another study, according to the young people interviewed, Facebook is a channel for cyberbullying, online harassment, and harmful memes⁶ (Intahchompoo, 2019; 2021).

Lateral violence, mutual attacks between members of the same minority, was also a concern raised in two publications. As an example, authors mention conflicts that originate on social media (Reed *et al.*, 2022) or bullying and gossip that spread rapidly throughout the community, causing conflicts that previously remained more local to escalate (Lyonnais, 2019).

In addition, certain groups, including Indigenous girls and women, can be victims of sexual violence, and the role of social media in this context was the subject of a study in British Columbia. Social media was used to anonymously recruit Indigenous girls and keep them in a state of sexual exploitation (Louie, 2017).

Finally, still in connection with online victimization, **online safety**, confidentiality, and privacy stand out in five publications, whether by understanding their importance (Edmonds *et al.*, 2012; Castleton, 2014) or by the fact that some participants didn't feel concerned by them (Intahchompoo, 2019; 2021; O'Carroll, 2013a).

⁶ An image, a video, a piece of text, etc. that is passed very quickly from one internet user to another, often with slight changes that make it humorous (Oxford English Dictionary, 2023).

Mental health

Seven publications highlight issues related to social media use and the mental health of Indigenous youth. Three of these describe a role of social media in **offering and asking for help.**

- In the Australian study by Carlson *et al.* (2015), social media is used to offer and ask for help in many situations, such as employment, relationships, education, or parenting, beyond the usual channels. The main theme addressed by participants, however, is mental health and wellness.
- Carlson and Frazer (2018) argue that certain barriers in accessing mental health services, for example bureaucracy or cultural inadequacy, could be avoided by going through social media.
- Almost all of the participants in the study by Hefler *et al.* (2019) collected screenshots on topics such as stress, anxiety and depression, suicide prevention, and links to mental health services.

The issues surrounding the **sharing of moods** on social media are addressed in six publications. The following examples illustrate this point.

- Indigenous youth interviewed by Intahchompoo (2019, 2021) create and share content on Facebook (text, photos, and videos) to express their frustration. At the time, they were seeking help from their peers. The author reports that Facebook is even being used by some young people to broadcast suicide attempts and self-harm.
- In the study by Gritton *et al.* (2017), the majority of American Indian youth in the U.S. Pacific Northwest had already seen **concerning social media posts** from their peers about suicide or self-harm.
- Elders in the communities mentioned the contagion effect. They fear that information about a young person's suicide shared on social media will encourage imitation (Carlson *et al.*, 2015).
- The study by Reed *et al.* (2022) reports that nearly half the participants had seen concerning posts.
- Faced with concerning posts, all of the participants in the study by Gritton *et al.* (2017) expressed a desire to do something, but most were unsure of their approach. These same participants were more likely to think it was attention-seeking behaviour when the user frequently shared negative content.

Lifestyle habits

The theme of lifestyle habits—in this case, **physical activity** and **alcohol use**—was addressed in three publications. Two angles emerge: time spent on social media would encroach on other lifestyle habits, but would also become a channel for sharing these habits. For example:

- Inuit people interviewed during a master's research project admitted to going outside less since they have Facebook, and to practising fewer athletic activities, as they prefer to watch videos or chat online (Lyonnais, 2017);
- Australian data demonstrate the positive influence that certain Aboriginal role models or their entourage can have on lifestyle habits, particularly on the practice of physical activity, through their sharing on social media (Walker, Malenaar, and Palermo, 2020);
- Participants in a New Zealand study mentioned that Facebook can reinforce the pleasures associated with drinking, sometimes excessively, in a social context. Because they can share photos of these events, which are commented on and shared widely by their social circle (Lyons *et al.*, 2015).

3.5 Strengths and limitations of the corpus

Although the selected publications were not subjected to a systematic quality assessment, certain strengths emerge. First of all, studies have put forward methods that closely involve participants in data collection. These data collections helped refine our understanding of the phenomenon by providing an insider's perspective of digital culture (Caron, 2019). For example, the study by Hefler et al. (2018) recruited participants who had themselves carried out data collection in their personal social media, and then discussed it in semi-structured interviews. Furthermore, a New Zealand study included focus groups with friends, and these same participants were then invited to individual interviews where they supported their response with content from their social media accounts (Lyons et al., 2015). A majority of publications describe collaboration with Indigenous peoples at various stages of the study. In particular, the study by Edmonds et al. points to the formation of an advisory committee made up of members of the Indigenous community. The 2017 *Qanuilirpitaa?* survey interviews were conducted by Inuit interviewers (Bélanger et al., 2021). Finally, the corpus presents a diversity of angles. Publications address the sources of health information used by Indigenous youth (Anastario et al., 2020; Gould et al., 2020; Peddle, 2008; Rempel et al., 2016; Rushing and Stephens, 2011), others focus on the identity and cultural aspects of social media use (Castleton, 2014, 2018; O'Carroll, 2013b), while the study by Lyons et al. (2015) focuses on social media and alcohol use.

As far as limitations are concerned, social media use among Indigenous youth remains relatively under-researched, and most of the research to date has been exploratory. As a result, the designs identified are mainly qualitative or cross-sectional in the case of quantitative research. In fact, some publications use the same sample: the same participants with the same characteristics. While the previous paragraph noted the great diversity of angles, this strength also proves to be a major limitation of the corpus. This field of research is still in development, and the studies present descriptive results; none of the topics are explored in depth. It seems that the authors are still exploring different data collection methods. This limitation is due to the fact that technologies evolve rapidly and research is a slow process. Although inferences are made about perceived or self-reported effects on factors that influence health, there were no objective measurements in the studies in the corpus. Finally, it should be noted that the health themes identified in the corpus are predominantly psychosocial in nature; the implications of this angle of study are detailed in the next section.

4 DISCUSSION

4.1 The social aspect and the promotion of Indigenous culture and identity dominate the corpus

Studies on Indigenous youth, health, wellness, and social media focus mainly on two aspects: cultural and personal identities, and social relations. These research interests are not specific to Indigenous youth. They extend to Indigenous people of all ages and to non-Indigenous youth.

As early as 2016, a systematic review of health and the use of digital technologies, including social media, among Aboriginal youth in Australia concluded that they were using social media to transmit cultural knowledge (Rice *et al.*, 2016). Researchers' interest in the question of how culture, traditions, and languages are transmitted via social media among young people, but also among adults, is growing (Intahchomphoo, 2018). Social media could be a culturally appropriate form of digital archive, in keeping with the traditions of Indigenous peoples. Sharing cultural practices and traditions can serve to maintain and strengthen Indigenous cultural identity, a factor that positively influences mental health (Li and Brar, 2022). Moreover, social media is a space where Indigenous users can make their voices heard without being edited or filtered; Indigenous perspectives and voices that are usually marginalized are instead front and centre (Fredericks *et al.*, 2021). However, the digital world is also a new place where Indigenous peoples of all ages and their realities can be on display, and thus be subjected to mockery and vilification (Al-Natour, 2021).

In the corpus, social media was also studied in terms of its influence on social relations. An Indigenous perspective on health includes a collective dimension, hence the importance given to social cohesion, a sense of community, and support between individuals. Some reviews of studies on teenagers in the general population point out that social media may reduce loneliness while increasing communication, support, and social capital (Orben, 2020). Even among Aboriginal adults in Australia, social media is said to help build and maintain close ties with the community (family, friends, community places, and activities) (Carlson and Frazer, 2021). Conversely, social media can also pose a threat to the strength and cohesion of communities (Carlson and Fraser, 2021).

Moreover, in the scientific literature, the health of Indigenous peoples is generally presented from a deficit perspective; the gaps to be filled are brought upfront. However, most of the studies focus on the strengths of Indigenous youth, such as pride of identity or community support. In contrast, a scoping review on the link between mental health and social media use among teenagers indicates that the studies reviewed focused mainly on the harmful effects (Schønning *et al.*, 2020).

Finally, a key strength of the corpus is the use of qualitative methods that explore the how and why of social media use in relation to questions of identity, culture, and social relations. However, the available studies are still exploratory, descriptive, and cross-sectional. Inferences are made about perceived or self-reported effects on health-related factors, but there is little head-on discussion of the latter. The use of indicators of social support or pride in identity linked to measures of use would enable us to refine our knowledge of the health effects of social media.

4.2 Social media: a source of health information with littleunderstood implications

For some Indigenous youth, social media may be used as a source of health information, such as about stress management or nutrition (Reed *et al.*, 2022; Walker, Malenaar, and Palermo, 2020). Decoding the credibility and reliability of information available on social media was an issue, however (Gould *et al.*, 2020; Peddle, 2008; Rempel *et al.* 2016).

In this respect, social media was used by Indigenous organizations during the COVID-19 pandemic, particularly in the United States, to communicate critical health information. These organizations played a major role in disseminating reliable, culturally appropriate information about risks (Kuhn *et al.*, 2020). Furthermore, as social media can be used to increase the reach of health messages, it can also be used to amplify stigma and racism, hence the relevance of using positive, strengths-based health messages (Walker *et al.*, 2019).

Thus, considering the interest of organizations in conveying health messages, the use of social media as a source of health information by some Indigenous youth, and the issues raised in relation to the ability to recognize reliable information, this line of research merits further exploration. Indeed, the implications of informational practices on health choices, whether benefits or consequences, are not developed in the corpus, with the exception of the study by Anastario *et al.* (2020).

4.3 Little-studied consequences

In this glimpse into the state of knowledge about social media, Indigenous youth, and health, little is said about the impact on health and wellness. The description of the corpus puts forward the possible benefits of social media that may conceal its impacts—and, in turn, the impacts of screens—on health. We should note, however, that the issues of cyberbullying, racism, lateral violence, disturbing publications about suicide, and self-harm are all addressed by the authors. Moreover, one study highlights an association between the experience of racial discrimination on social media and symptoms of depression, anxiety, and problematic alcohol use (Tao and Fisher, 2022).

In contrast, the possible effects on physical health are not addressed, excluding mentions that time spent on social media can encroach on time dedicated to physical activities (Lyonnais, 2017). This is a point to bear in mind: just because effects have not been studied doesn't mean they don't exist. In particular, no publication mentions the influence of social media on sleep time. Sleep deprivation was the most frequently reported consequence of social media use among 15- to 19-year-olds in the 2018 Canadian Internet Use Survey (Schimmele *et al.*, 2021). In fact, no study measures intensive or problematic use of social media. The characteristics of the environment, the individual, and the product—in this case social media—influence exposure and use (Lemétayer *et al.*, 2022). Social media platforms are created by companies that want people to use them and to come back to them; the product is attractive and easily accessible (Zuboff, 2020).

Finally, it should be noted that when examining the same health outcome—social cohesion, for example—positive and negative effects can coexist. The effects of social media vary from user to user and from period to period. Some users may experience positive effects, while others experience negative ones, perhaps even the same users at different times (Orben, 2020). A more detailed understanding would be essential in order to achieve a balance in the use of social media, i.e., maximizing the positive aspects while limiting the negative ones.

4.4 Further information: longitudinal studies and guidelines

Research on the use of social media by Indigenous youth, health, and wellness is an emerging field, and is keeping pace with the growth of the phenomenon. The use of social media by Indigenous youth raises many questions about their possible effects on health and wellness, which is why it's important to pursue research into these areas, particularly those that remain under-explored. As mentioned earlier, the effects on mental health, sleep time, high-intensity use, information practices, social support, and pride in identity (as a determinant of health), are examples of research themes to be explored in greater depth. As a result, incorporating questions measuring changes in social media use by young people into health surveys conducted for and by Indigenous people is therefore relevant and essential to better assess their effects and to reduce risks where appropriate. Longitudinal studies, which adapt to the rapid evolution of new technologies, would also be an asset in understanding the evolution of uses and risks. Finally, the general public, including Indigenous youth, has few guidelines for adjusting its use to maximize the benefits for health and wellness, while minimizing the potential drawbacks. Evidence-based guidelines are needed (Pagoto *et al.*, 2019).

4.5 Limitations of the scoping review

The main strength of this scoping review is its use of an Indigenous perspective on health. It brought to the fore health themes that might not otherwise have emerged, including identity and culture.

However, social media, devices, and uses evolve rapidly; a new platform may emerge, while others are lefted out by users. Some of the studies surveyed may present results that are no longer relevant. For example, the majority of studies focused on Facebook, a platform now largely deserted by young people. Indeed, the study by Reed *et al.* (2022) reports that in the fall of 2020, the platform most used by Indigenous youth in the United States was Instagram, followed by Snapchat and TikTok.

Moreover, the selection criteria meant that certain areas of the literature were not covered. For example, public health interventions on social media could be the subject of another review like the one by Toombs *et al.* (2021) on mental health interventions. In addition, searches in the grey literature are limited by the geographical location of the computer on which the Google search is performed, which may explain the higher proportion of Canadian publications. Note that the sites of various CANZUS organizations have been searched in an attempt to circumvent this limitation.

It's important to remember that Indigenous peoples are not a homogeneous group. In addition to the influence of gender, certain peculiarities of peoples, nations, or geography deserve to be explored in greater depth. For example, urban Indigenous youth may use social media to stay connected to their homelands. Also, access to high-speed Internet and technology may vary according to geographic location, which may affect usage. The costs of these services also come into play.

Finally, the analysis was carried out by a non-Indigenous author with her own culture, worldview, and way of organizing information. The extraction, analysis, and reporting of data reflect her cultural context. The collaboration of professionals with different areas of expertise and backgrounds reduces this limitation.

5 CONCLUSION

As part of an exploratory approach, this scoping review describes the state of knowledge on the use of social media by Indigenous youth aged 15 to 29 and their health. The corpus attests to an emerging field of research, following the evolution of the phenomenon, and consists mainly of qualitative studies.

Identity and culture, as well as social relations, are two health themes that emerge from the corpus. Sharing cultural practices and traditions can serve to maintain and strengthen cultural identity, a factor that positively influences health and wellness. Social media is a space where Indigenous people can make their voices heard without being edited or filtered, so their perspectives and voices are front and centre. What's more, social media helps create and maintain close ties with family, friends, places, and activities in the community. For many Indigenous people, health includes a collective dimension that goes beyond the individual, hence the importance given to social relations and a sense of community. However, the consequences of using social media are also discussed in the corpus—cyberbullying, racism, lateral violence, concerning posts about suicide, and self-harm—experiences that can affect the health and wellness of individuals.

Despite this, certain aspects of health remain relatively unexplored in relation to the use of social media. These include possible effects on sleep time, physical health, and problematic use. Although the corpus shows the potential benefits offered by social media, a word of caution is in order. Highlighting these benefits can conceal the consequences of social media—and, by extension, screens—on health.

Finally, social media and its uses are evolving rapidly; they are a part of young people's daily lives, whether Indigenous or not. The use of social media by Indigenous youth raises many questions about its possible effects on health and wellness, which is why it's important to pursue research into these areas, particularly those that remain little or unexplored.

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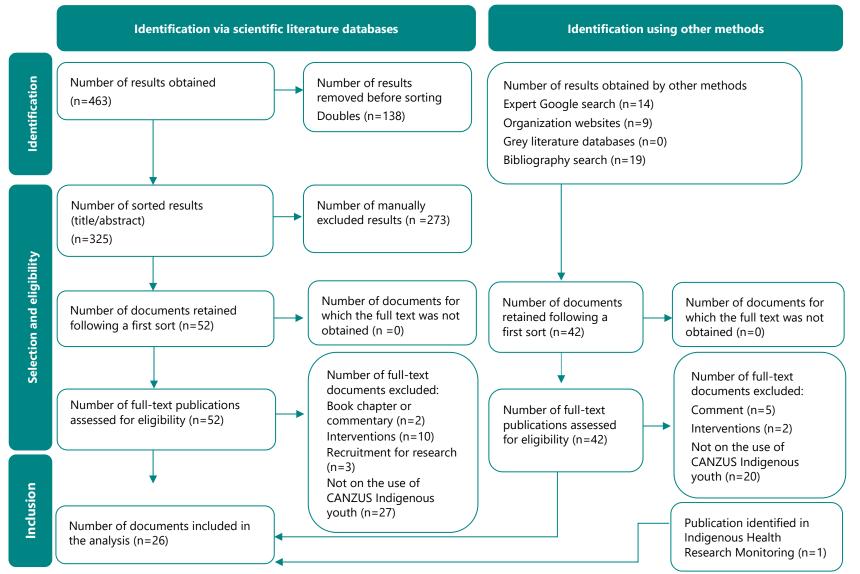
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APPENDIX 1

Literature search flowchart



Search strategy: scientific literature

Search strategy for Medline (Ovid), accessed on 2023-05-30

#	Query	Results
1	Indigenous Peoples/ or exp american native continental ancestry group/ or oceanic ancestry group/ or (Aborigin* or Aleut* or Amerind* or autocht* or Eskimo* or "American indian*" or "Alaska* native*" or indigenous or Inuit* or Innuit* or Inuk or Inuktitut* or Inupiat* or "First Nation\$1" or "First Peoples" or Kalaallit* or Metis or Native or Natives or tribe or tribes or tribal or Koori or Dene or Algonqui* or Iroquoi* or Maori or "Kanata Maoli" or Micmac or Mi'kmaq or Wendat* or Huron* or Mohawk* or "Al/AN " or Navajo or Apache or Cree or "Torres Strait Islanders" or CANZUS).ti,ab,kf.	336,341
2	(blog* or ((communication or social) adj (media* or networking)) or facebook or facetime or flickr or hashgtag* or instagram or linkedin or myspace or pinterest or tumblr or tweet* or twitter or vimeo or ((virtual or online) adj (communit* or network*)) or "web 2.0" or whatsapp* or wiki* or youtube or "Instant Messag*" or TikTok or Tik-Tok or Snapchat or reddit).ti,ab,kf. or Blogging/ or communications media/ or social media/ or online social networking/	43,038
3	(student* or teen* or youth* or adolescen* or juvenile* or (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom#n)) or youngster* or first-grader* or second-grader* or third-grader* or fourth-grader* or fifth-grader* or sixth-grader* or seventh-grader* or highschool* or college* or undergrad* or ((secondary or high*) adj2 (school* or education))).ti,ab,kf. or adolescent/ or young adult/ or students/	3,247,061
4	and/1-3	153
5	4 not ("digital* nativ*" or (non-native adj (speake* or language*))).ti,ab. not india.ti.	125
6	l/ 5 yr=2000-3000	125

Search strategy for PyscInfo (Ovid), accessed on 2022-05-30

#	Query	Results
1	exp indigenous populations/ or (Aborigin* or Aleut* or Amerind* or autocht* or Eskimo* or "American indian*" or "Alaska* native*" or indigenous or Inuit* or Innuit* or Inuk or Inuktitut* or Inupiat* or "First Nation\$1" or "First Peoples" or Kalaallit* or Metis or Native or Natives or tribe or tribes or tribal or Koori or Dene or Algonqui* or Iroquoi* or Maori or "Kanata Maoli" or Micmac or Mi'kmaq or Wendat* or Huron* or Mohawk* or "Al/AN " or Navajo or Apache or Cree or "Torres Strait Islanders" or CANZUS).ti,ab,id.	56,655
2	(blog* or ((communication or social) adj (media* or networking)) or facebook or facetime or flickr or hashgtag* or instagram or linkedin or myspace or pinterest or tumblr or tweet* or twitter or vimeo or ((virtual or online) adj (communit* or network*)) or "web 2.0" or whatsapp* or wiki* or youtube or "Instant Messag*" or TikTok or Tik-Tok or Snapchat or reddit).ti,ab,id. or blog/ or exp social media/ or communications media/	40,852
3	(student* or teen* or youth* or adolescen* or juvenile* or (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom#n)) or youngster* or first-grader* or second-grader* or third-grader* or fourth-grader* or fifth-grader* or sixth-grader* or seventh-grader* or highschool* or college* or undergrad* or ((secondary or high*) adj2 (school* or education))).ti,ab,id. or exp adolescent development/ or emerging adulthood/ or Students/	1,101,805
4	and/1-3	228
5	4 not ("digital* nativ*" or (non-native adj (speake* or language*))).ti,ab. not india.ti.	113
6	l/ 5 yr=2000-3000	112

#	Query	Results
1	(Aborigin* or Aleut* or Amerind* or autocht* or Eskimo* or "American indian*" or "Alaska* native*" or indigenous or Inuit* or Innuit* or Inuk or Inuktitut* or Inupiat* or "First Nation\$1" or "First Peoples" or Kalaallit* or Metis or Native or Natives or tribe or tribes or tribal or Koori or Dene or Algonqui* or Iroquoi* or Maori or "Kanata Maoli" or Micmac or Mi'kmaq or Wendat* or Huron* or Mohawk* or "Al/AN " or Navajo or Apache or Cree or "Torres Strait Islanders" or CANZUS).ti,ab.	73,898
2	(blog* or ((communication or social) adj (media* or networking)) or facebook or facetime or flickr or hashgtag* or instagram or linkedin or myspace or pinterest or tumblr or tweet* or twitter or vimeo or ((virtual or online) adj (communit* or network*)) or "web 2.0" or whatsapp* or wiki* or youtube or "Instant Messag*" or TikTok or Tik-Tok or Snapchat or reddit).ti,ab.	6,906
3	(student* or teen* or youth* or adolescen* or juvenile* or (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom#n)) or youngster* or first-grader* or second-grader* or third-grader* or fourth-grader* or fifth-grader* or sixth-grader* or seventh-grader* or highschool* or college* or undergrad* or ((secondary or high*) adj2 (school* or education))).ti,ab.	218,226
4	and/1-3	27
5	4 not ("digital* nativ*" or (non-native adj (speake* or language*))).ti,ab. not india.ti.	25
6	l/ 5 yr=2000-3000	25

Research strategy for Global Health (Ovid), accessed on 2022-05-30

Research strategy for (EBSCO), accessed on 2022-05-30

#	Query	Results
S1	TI (Aborigin* or Aleut* or Amerind* or autocht* or Eskimo* or "American indian*" or "Alaska* native*" or indigenous or Inuit* or Innuit* or Inuk or Inuktitut* or Inupiat* or "First Nation?" or "First Peoples" or Kalaallit* or Metis or Native or Natives or tribe or tribes or tribal or Koori or Dene or Algonqui* or Iroquoi* or Maori or "Kanata Maoli" or Micmac or Mi'kmaq or Wendat* or Huron* or Mohawk* or "Al/AN " or Navajo or Apache or Cree or "Torres Strait Islanders" or CANZUS) OR AB (Aborigin* or Aleut* or Amerind* or autocht* or Eskimo* or "American indian*" or "Alaska* native*" or indigenous or Inuit* or Innuit* or Inuk or Inuktitut* or Inupiat* or "First Nation?" or "First Peoples" or Kalaallit* or Metis or Native or Natives or tribe or tribes or tribes or tribal or Koori or Dene or Algonqui* or Iroquoi* or Maori or "Maori or "Kanata Maoli" or Natives or Tribes or tribes or tribes or tribal or Koori or Dene or Algonqui* or Inout* or Innuit* or Innuit* or Inuktitut* or Inupiat* or "First Nation?" or "First Peoples" or Kalaallit* or Metis or Native or Natives or tribe or tribes or tribal or Koori or Dene or Algonqui* or Iroquoi* or Maori or "Kanata Maoli" or Micmac or Mi'kmaq or Wendat* or Huron* or Mohawk* or "Al/AN " or Navajo or Apache or Cree or "Torres Strait Islanders" or CANZUS) OR SU (Aborigin* or Aleut* or Amerind* or autocht* or Eskimo* or "American indian*" or "Alaska* native*" or indigenous or Inuit* or Innuit* or Innuit* or Inuk or Inuktitut* or Inupiat* or "First Nation?" or "First Peoples" or Kalaallit* or Metis or Mative or Native or Native or Inuktitut* or Inupiat* or "First Nation?" or "First Peoples" or Kalaallit* or Metis or Native or Native or Native or Inuktitut* or Inupiat* or "First Nation?" or "First Peoples" or Kalaallit* or Metis or Native or Native or Native or Tribes or tribal or Koori or Dene or Algonqui* or Iroquoi* or Maori or "Kanata Maoli" or Micmac or Mi'kmaq or Wendat* or Huron* or Mohawk* or "Al/AN " or Navajo or Apache or Cree or "Torres Strait Islanders" or CANZUS	145,608
S2	TI (blog* OR ((communication OR social) W1 (media* OR networking)) OR facebook OR facetime OR flickr OR hashgtag* OR instagram OR linkedin OR myspace OR pinterest OR tumblr OR tweet* OR twitter OR vimeo OR ((virtual OR online) W1 (communit* OR network*)) OR "web 2.0" OR whatsapp* OR wiki* OR youtube OR "Instant Messag*" OR TikTok OR Tik-Tok OR Snapchat OR reddit) OR AB (blog* OR ((communication OR social) W1 (media* OR networking)) OR facebook OR facetime OR flickr OR hashgtag* OR instagram OR linkedin OR myspace OR pinterest OR tumblr OR tweet* OR twitter OR vimeo OR ((virtual OR online) W1 (media* OR networking)) OR facebook OR facetime OR flickr OR hashgtag* OR instagram OR linkedin OR myspace OR pinterest OR tumblr OR tweet* OR twitter OR vimeo OR ((virtual OR online) W1 (communit* OR network*)) OR "web 2.0" OR whatsapp* OR wiki* OR youtube OR "Instant Messag*" OR TikTok OR Tik-Tok OR Snapchat OR reddit) OR SU (blog* OR ((communication OR social) W1 (media* OR networking)) OR facebook OR facetime OR flickr OR hashgtag* OR instagram OR linkedin OR myspace OR pinterest OR tumblr OR tweet* OR twitter OR vimeo OR ((virtual OR online) W1 (communication OR social) W1 (media* OR networking)) OR facebook OR facetime OR flickr OR hashgtag* OR instagram OR linkedin OR myspace OR pinterest OR tumblr OR tweet* OR twitter OR vimeo OR ((virtual OR online) W1 (communit* OR network*)) OR "web 2.0" OR whatsapp* OR wiki* OR youtube OR "Instant Messag*" OR TikTok OR Tik-Tok OR Tik-Tok OR Snapchat OR reddit)	85,457
\$3	TI (student* OR teen* OR youth* OR adolescen* OR juvenile* OR (young N2 (adult* OR person* OR individual* OR people* OR population* OR man OR men OR wom?n)) OR youngster* OR first-grader* OR second-grader* OR third-grader* OR fourth-grader* OR fifth-grader* OR sixth-grader* OR seventh-grader* OR highschool* OR college* OR undergrad* OR ((secondary OR high*) N2 (school* OR education))) OR AB (student* OR teen* OR youth* OR adolescen* OR juvenile* OR (young N2 (adult* OR person* OR individual* OR people* OR population* OR man OR men OR wom?n)) OR youngster* OR first-grader* OR second-grader* OR fifth-grader* OR second-grader* OR highschool* OR college* OR undergrad* OR (secondary OR high*) N2 (school* OR education))) OR AB (student* OR second-grader* OR third-grader* OR fourth-grader* OR fifth-grader* OR first-grader* OR second-grader* OR third-grader* OR fourth-grader* OR fifth-grader* OR first-grader* OR second-grader* OR third-grader* OR fourth-grader* OR fifth-grader* OR sixth-grader* OR second-grader* OR third-grader* OR college* OR undergrad* OR ((secondary OR high*) N2 (school* OR education))) OR SU (student* OR teen* OR youth* OR adolescen* OR juvenile* OR (young N2 (adult* OR people* OR population* OR man OR men OR wom?n)) OR youngster* OR first-grader* OR second-grader* OR fourth-grader* OR first-grader* OR for the people* OR population* OR man OR men OR wom?n)) OR youngster* OR first-grader* OR second-grader* OR first-grader* OR fourth-grader* OR first-grader* OR fourth-grader* OR first-grader* OR first-grader* OR second-grader* OR highschool* OR college* OR undergrad* OR second-grader* OR third-grader* OR fourth-grader* OR first-grader* OR second-grader* OR highschool* OR college* OR undergrad* OR ((secondary OR high*) N2 (school* OR education)))	1,860,624
S4	S1 AND S2 AND S3	251
S5	S4 NOT TI ("digital* nativ*" OR (non-native W0 (speake* OR language*))) NOT AB ("digital* nativ*" OR (non-native W0 (speake* OR language*))) NOT TI (INDIA)	210
S6	S5 AND (DT 2000-3000)	206
S7	S6 AND LA (french OR english)	201

Search strategy: grey literature

Expert Google search

Date	Research strategy	# of results viewed	# new items retained
2022-05-06	indigenous OR aboriginal OR inuit OR "first nations" OR "native Americans" OR "american indian" OR "alaska natives" OR "Al/AN" OR Maori AND "social networking" OR "social media" filetype:pdf	100	7
2022-05-06	autochtone OR inuit OR "premières nations" OR Métis OR amérindien OR "indiens d'Amérique" OR "Autochtones d'Alaska" OR Maori AND "réseaux sociaux" OR "médias sociaux" filetype:pdf	100	2
2022-06-02	autochtone OR inuit OR "premières nations" OR Métis OR amérindien OR "indiens d'Amérique" OR "Autochtones d'Alaska" OR Maori AND "réseaux sociaux" OR "médias sociaux" filetype:pdf	100	0
2022-06-02	(indigenous OR aboriginal OR inuit OR "first nations" OR "native Americans" OR "american indian" OR "alaska natives" OR "Al/AN" OR Maori) ("social networking" OR "social media") AND (Adolescent OR adolescence OR youth OR teen OR teenager OR student OR "young adults") filetype:pdf	100	5
2022-06-02	autochtone OR inuit OR "premières nations" OR Métis OR amérindien OR "indiens d'Amérique" OR "Autochtones d'Alaska" OR Maori AND "médias sociaux" AND adolescent OR adolescence OR jeune OR étudiant OR élève OR "jeunes adultes" filetype:pdf	50	0

List of targeted organizations

Organization name (site URL)
Aboriginal Healing Foundation (ahf.ca)
Aboriginal Medical Services Alliance Northern Territory (amsant.org.au)
Alaska Native Tribal Health Consortium (anthc.org)
American Indian Public Health Resource Center (ndsu.edu)
American Public Health Association (apha.org)
ArticNet (arcticnet.ulaval.ca)
Assembly of First Nations Québec–Labrador (apnql.com)
Assembly of First Nations (afn.ca)
Canadian Institutes of Health Research (cihr-irsc.gc.ca)
Canadian Public Health Association (cpha.ca)
Centers for Disease Control and Prevention (cdc.gov)
Cree Board of Health and Social Services of James Bay (creehealth.org)
First Nations Child & Family Caring Society (fncaringsociety.com)
First Nations Health Authority (fnha.ca)

List of targeted organizations (cont.)

Organization name (site URL)
First Nations Information Governance Centre (fnigc.ca)
First Nations of Quebec and Labrador Health and Social Services Commission (cssspnql.com)
Graduate School of Public Policy (schoolofpublicpolicy.sk.ca)
Grand Council of the Crees (cngov.ca)
Health Canada (hc.sc.gc.ca)
Indigenous Services Canada (sac-isc.gc.ca)
Institut national de la recherche scientifique (inrs.ca/en/)
International Work Group for Indigenous Affairs (iwgia.org)
Inuit Circumpolar Council (inuitcircumpolar.com)
Inuit Tapiriit Kanatami (itk.ca)
Lowitja Institute (lowitja.org.au)
Macquarie University (mq.edu.au)
McMaster Health Forum (mcmasterforum.org)
Ministry of Health Manatū Hauora, New Zealand Government (health.govt.nz)
National Aboriginal History Organization (naho.ca)
National Association of Friendship Centres (nafc.ca)
National Collaborating Centre for Indigenous Health (ccnsa.ca)
National Collaborating Centre for Indigenous Health (nccih.ca)
Native Research Network (nativeresearchnetwork.org)
Network for Aboriginal Mental Health Research (namhr.ca)
North Dakota State University (ndsu.edu)
Nunavik Regional Board of Health and Social Services (nrbhss.ca)
Pan-American Health Organization (paho.org)
Pauktuutit Inuit Women of Canada (pauktuutit.ca)
Public Health Agency of Canada (phac-aspc.gc.ca)
Public Health Association Australia (phaa.net.au)
Regroupement des centres d'amitié autochtones du Québec (rcaaq.info)
Réseau de recherche et de connaissances relatives aux peuples autochtones (reseaudialog.ca)
Sentinelle Nord (sentinellenord.ulaval.ca)
Statistics Canada (www150.statcan.gc.ca)
University of Calgary (prism.ucalgary.ca)
Yellowhead Institute (yellowheadinstitute.org)

Grey literature database search

Date	Database name	Search strategy or search terms	# of results viewed	# new items retained
06-06-2022	Santécom	Médias sociaux et autochtones	2	0
06-06-2022	Santécom	Réseaux sociaux et autochtones	15	0

APPENDIX 2

Table 5Reading grids

References	Location	Type of source Design	Participants	Objective ⁷	Measures of use	Use (frequency, platform, device, use)	Health topics
Anastario <i>et al.</i> (2020)	The United States Montana	Peer-reviewed article Quantitative cross-sectional study	Al/AN n=296 Average age: 15.7 years 141 boys 154 girls	Explore the sources of information used by young people.	Computer- assisted questionnaire	Never or rarely, Twitter, Snapchat, and Facebook, getting informed	Health information
Bélanger <i>et al.</i> (2020)	Nunavik	Research report Health survey	Inuit n=574 16 to 30 years old	Collect health data.	In-person questionnaire	One third of users: 3 to 6 hours a day, social media in general, communicating	Health informationSocial relations
Carlson <i>et al</i> . (2015)	Australia New South Wales, Queensland, South Australia, and Western Australia	Peer-reviewed article Mixed design	Aboriginals Qualitative aspect: 55 interviews 18 to 60 years old, including young people Quantative aspect: no details	Understand the use of social media.	Semi- structured interviews Online questionnaire	Facebook, asking for or offering help	• Mental health

⁷ Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ⁸	Measures of use	Use (frequency, platform, device, use)	Health topics
Carlson and Frazer (2018)	Australia	Research report Mixed design	Aboriginals Qualitative aspect: n=60 18 to 60 years old, including young people Quantative aspect: n=75	Understand the use of social media.	Semi- structured interviews Focus groups Online questionnaire	Twitter, Facebook, communicating, discovering and promoting one's culture, asking for or offering help	 Cyberbullying, racism, and other forms of violence Identity and culture Social relations Mental health
Castleton (2014)	Canada Nunavut, Iqaluit	Thesis Qualitative study Ethnography	Inuit n=13 Students from 18 to 28 years old	Understand the use of social media in relation to culture.	Participant observation Semi- structured interviews Analysis of digital content	Facebook, smartphone, laptop, communicating, getting informed, discovering and promoting one's culture	 Cyberbullying, racism, and other forms of violence Identity and culture Social relations
Castleton (2018)	Canada Nunavut, Iqaluit	Peer-reviewed article Qualitative study Ethnography	Inuit n=13 Students from 18 to 28 years old	Understand the use of social media in relation to culture.	Semi- structured interviews	Facebook, communicating, getting informed, discovering and promoting one's culture	Identity and cultureSocial relations

⁸ Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ⁹	Measures of use	Use (frequency, platform, device, use)	Health topics
Edmonds <i>et al.</i> (2012)	Australia Victoria	Research report Qualitative study enhanced by a narrative review	Aboriginals n=11 12 to 24 years old	Understand the use of social media in relation to education and social relations.	Focus groups	Every day, communicating, Facebook, YouTube, smartphone, entertainment, discovering and promoting one's culture	 Cyberbullying, racism, and other forms of violence Identity and culture Social relations
Gould <i>et al</i> . (2020)	Australia New South Wales	Peer-reviewed article Quantitative cross-sectional study	Aboriginals and Torres Strait Islanders: n=132 women 16 to 79 years old	Explore the sources of information used by young people.	In-person questionnaire	Facebook, getting informed	Health information
Gritton <i>et al</i> . (2017)	The United States Washington and Oregon	Peer-reviewed article Qualitative study	Al/AN n=32 14 to 22 years old 21 girls, 11 boys	Explore what young people think about concerning posts on social media.	Focus groups	Once or several times a day, Facebook, Instagram, Snapchat, smartphone, entertainment, getting informed, discovering and promoting one's culture	Mental health

⁹ Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ¹⁰	Measures of use	Use (frequency, platform, device, use)	Health topics
Hefler <i>et al.</i> (2019)	Australia Northern Territory	Peer-reviewed article Qualitative study	Aboriginals and Torres Strait Islanders n=20 18 to 60 years old 20 women, 3 men	Understand the use of social media in relation to culture.	Semi- structured interviews Analysis of digital content (self- collection by participants)	Facebook, Instagram, getting informed, communicating, entertainment	Identity and cultureHealth informationSocial relationsMental health
Hill (2016)	Canada Yukon	Thesis Qualitative study	Indigenous n=9 women 25 to 35 years old	Understand how to use social media in connection with the creation of online communities.	Semi- structured interviews Analysis of digital content	Facebook, Twitter, sharing and expressing oneself, discovering and promoting one's culture	 Identity and culture

¹⁰ Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ¹¹	Measures of use	Use (frequency, platform, device, use)	Health topics
Intahchompho o (2019)	Canada Ontario, Ottawa	Thesis Mixed design	Aboriginals n=20 More than half of 14 to 20 years old 9 girls, 11 boys	Understanding social media use among at-risk youth.	Focus groups Semi- structured interviews Analysis of digital content Paper questionnaire	Facebook, YouTube, Instagram, laptop, smartphone, communicating, getting informed, discovering and promoting one's culture	 Cyberbullying, racism, and other forms of violence Identity and culture Health information Mental health
Intahchompho o (2021)	Canada Ontario, Ottawa	Peer-reviewed article Mixed design	Aboriginals n=20 9 girls, 11 boys More than half of 14 to 20 years old	Understanding social media use among at-risk youth.	Focus groups Paper questionnaire	Facebook, YouTube, Instagram, laptop, smartphone, communicating, getting informed, discovering and promoting one's culture	 Cyberbullying, racism, and other forms of violence Identity and culture Health information Mental health
Louie (2017)	Canada British Columbia	Peer-reviewed article Qualitative study	Aboriginals n=24 19 workers 5 survivors	Exploring the influence of social media in situations of sexual exploitation	Semi- structured interviews	Facebook, communicating	 Cyberbullying, racism, and other forms of violence

¹¹ Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ¹²	Measures of use	Use (frequency, platform, device, use)	Health topics
Lyonnais (2017)	Canada Nunavik	Thesis Qualitative study	lnuit n=30 Majority under 35 years old	Understand the use of social media in relation to culture.	Semi- structured interviews Analysis of digital content	A few minutes to several hours a day, Facebook, YouTube, Instagram, Snapchat, communicating, entertainment, getting informed, asking for or offering help, small electronic devices	 Cyberbullying, racism, and other forms of violence Lifestyle habits Identity and culture Social relations
Lyons <i>et al.</i> (2015)	New Zealand	Peer-reviewed article Qualitative study	Māori and Pasifika Step 1 n=141 (34 groups including 12 Māori and 10 Pasifika) Average age: 20.24 years 80 women, 57 men, and 4 Fa'afafine Step 2 n=23 Average age: 20.96 years 15 women, 7 men, and 1 Fa'afafine	Understand the use of social media in relation to alcohol use.	Focus groups among friends Semi- structured interviews Analysis of digital content	Facebook, sharing and expressing oneself	• Lifestyle habits

¹² Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ¹³	Measures of use	Use (frequency, platform, device, use)	Health topics
O'Carroll (2013a)	New Zealand North Island	Peer-reviewed article Qualitative study	Māori n=54 18 to 25 years old 19 men, 35 women	Understand the use of social media.	Focus groups among friends	Facebook, communicating, geting informed, discovering and promoting one's culture	 Cyberbullying, racism, and other forms of violence Identity and culture Social relations
OʻCarrol (2013b)	New Zealand	Peer-reviewed article Qualitative study	Māori Participants in O'Carroll (2013a) And two additional participants (London and South Taranaki)	Understand the use of social media in relation to identity.	Focus groups among friends Semi- structured interviews	Facebook, discovering and promoting one's culture	Identity and culture
Peddle (2008)	Canada James Bay	Research report Qualitative study	First Nations (Cris) n=58 13 to 21 years old 50% girls, 50% boys	Explore the sources of information used by young people.	Focus groups Semi- structured interviews	Daily or weekly, Bebo, YouTube, sharing and expressing oneself, entertainment, communicating	Health informationSocial relations
Reed et al. (2022)	The United States 37 states	Peer-reviewed article Quantitative cross-sectional study	Al/AN n=349 15 to 24 years old Average age: 19.9 years	Understand the use of social media.	Online questionnaire	65.3% = 3 to 7 hours a day, Instagram, Snapchat, TikTok, smartphone, entertainment, communicating, sharing, getting informed	 Cyberbullying, racism, and other forms of violence Health information Mental health

¹³ Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ¹⁴	Measures of use	Use (frequency, platform, device, use)	Health topics
Rempel <i>et al.</i> (2016)	Canada Southern Ontario	Peer-reviewed article Qualitative study	First Nations n=8 Average age: 23 years	Explore the sources of information used by young people.	Semi- structured interviews	Facebook, getting informed	Health information
Rencontre (2016)	The United States Wisconsin, Lac du Flambeau	Thesis Qualitative study	First Nations n=15 14 to 19 years old 8 girls, 7 boys	Understand the use of social media in relation to communication and social relations.	Semi- structured interviews Analysis of digital content	Facebook, communicating, discovering, and promoting one's culture	 Cyberbullying, racism, and other forms of violence Identity and culture Social relations
Réseau jeunesse des Premières Nations Québec- Labrador (2021)	Canada Quebec	Research report Mixed design	First Nations From 15 to 35 years old Quantitative aspect n=227 Average age: 26 years 72% women, 20% 2S-LGBTQ+ Qualitative aspect n=25	Understand the ways in which young people express themselves.	Focus groups Online questionnaire	Social media in general, sharing and expressing oneself, discovering and promoting one's culture	• Identity and culture
Rushing and Stephens (2011)	The United States Oregon, Washington, and Idaho	Peer-reviewed article Quantitative cross-sectional study	Al/AN n=405 13 to 21 years old 57% girls, 43% boys	Explore the sources of information used by young people.	Questionnaire	Social media in general, smartphone, sharing and expressing oneself	Identity and cultureHealth information

¹⁴ Summarized and reformulated into a research angle by the author of this document.

References	Location	Type of source Design	Participants	Objective ¹⁵	Measures of use	Use (frequency, platform, device, use)	Health topics
Tao and Fisher (2022)	The United States	Peer-reviewed article Quantitative cross-sectional study	Indigenous n=407 (79 Indigenous adolescents) Average age: 16.47 years Majority of girls	Understand the use of social media in relation to racial discrimination.	Online questionnaire	57.93 hours a week, social media in general, sharing and expressing oneself	 Cyberbullying, racism, and other forms of violence
Walker, Malenaar, and Palermo (2020)	Australia	Peer-reviewed article Qualitative study	Aboriginals n=18 Average age: 21.4 years 9 men, 9 women	Understand the use of social media in relation to culture.	Semi- structured interviews Creation of a Facebook group	Social media in general, getting informed, communicating, sharing and expressing oneself	 Identity and culture Health information Lifestyle habits Social relations

¹⁵ Summarized and reformulated into a research angle by the author of this document.



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