

The Prevalence and Correlates of Residential School Denialism in Canada*

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Abstract

For over 150 years, politicians, the federal government, and missionary churches misled Canadians about deaths, abuse, and the genocidal intent in residential schools for Indigenous children. More recently, the identification of suspected unmarked graves at former school sites has triggered a renewed spread of misinformation denying the harmful legacy of residential schools. To what extent does the Canadian public endorse residential school denialism? Can education counter this misinformation? In this study, we develop and test a scale for measuring residential school denialism. We find that nearly one in five non-Indigenous Canadians agree with denialist claims, while an equal share feel they do not know enough to offer an opinion. Denialist beliefs are more common among men, conservatives, those with anti-Indigenous attitudes, and White Canadians who strongly identify with their racial in-group. In an experiment, we also show that educational information reduces non-opinions and increases the likelihood of rejecting denialist arguments.

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Introduction

For a period of more than 150 years, nearly 140 government-funded and church-operated Indian Residential Schools (hereafter, “residential schools”) operated across Canada (Miller, 2024; Truth and Reconciliation Commission of Canada, 2015a). During this time, approximately 150,000 Indigenous children attended residential schools. Conditions at the schools were poor and many children died from disease, neglect, or abuse (MacDonald, 2019; Woolford, 2015). Canada’s National Centre for Truth and Reconciliation (NCTR) and the Truth and Reconciliation Commission (TRC) have officially documented over 4,100 deaths of Indigenous children at residential schools (Deer, 2021), but the true figure is likely higher (Puxley, 2015).

Since its inception, the government and churches framed the residential school system in benevolent terms, concealing the genocidal and assimilative goals of the policy in the language of “saving” Indigenous children (Mosby, 2013; Titley, 1986; Woolford, 2015). Information about death and abuse was deliberately withheld from the public and generations of Canadian students were either never taught about this history or were taught a sanitized account (Bennett, 2021; Betke, 2023; Hay, Blackstock and Kirlew, 2020; Research Co., 2020). On occasions when the harms of residential schools were made abundantly clear to Canadian officials and citizens, they were often dismissed (Jewell and Mosby, 2023; McKenzie and Carleton, 2021; Milloy, 1999; Peace, 2020). More recently, in 2021, hundreds of suspected unmarked graves were identified on the grounds of former residential schools using ground-penetrating radar technology (Deer, 2021). While these events initially led to an outpouring of grief, they also triggered a renewed rhetoric of denial and misinformation regarding the schools’ history in online circles, the media, and among political and academic elites (Cyca, 2023; Justice and Carleton, 2021b).

This “residential school denialism” directly contradicts the findings of the TRC and statements from experts by casting doubt on the number of deaths at the schools, questioning the existence of unmarked graves at former school sites, and denying that the schools were

designed to forcibly assimilate Indigenous children into Euro-Canadian, Christian society. Denialism is a distinctive case of political misinformation. Denialists are not merely uninformed about the residential school history, but actively endorse claims that are at odds with the historical record (Kuklinski et al., 2000). Like other conspiracy theories, denialism has in recent years spread via online channels and employed the rhetoric of “fake news.” But compared to other cases in the literature, it is also more deeply rooted in longstanding national mythologies that deny the country’s past wrongdoing.

Concerns about denialism have sparked recent policy debates. For instance, New Democratic Party (NDP) Member of Parliament Leah Gazan has called on the federal government to criminalize residential school denialism as hate speech (Stefanovich, 2023). Kimberly Murray, the Special Interlocutor appointed to investigate unmarked graves at former residential schools, has similarly advocated for legal mechanisms to counter residential school denialism (Murray, 2023). However, others question the effectiveness of criminalizing speech that promotes residential school denialism. Sean Carleton, for example, has argued that criminalization could backfire (Stefanovich, 2023), advocating instead for countering misinformation and ignorance about residential schools through effective information dissemination and education (see also Dufour, 2023). Unfortunately, this debate is hindered by a lack of data on the determinants and extent of residential school denialism among the Canadian public, and by limited evidence of the effectiveness of interventions to address this misinformation.

Building on prior research into the causes, consequences, and features of denialism (Carleton, 2021; Gerbrandt and Carleton, 2023; Justice and Carleton, 2021*b*; MacDonald, 2019; Regan, 2010; Starblanket, 2020; Warry, 2008), we offer the first investigation into denialist beliefs using the tools of public opinion research. Using an original survey of nearly 2,000 non-Indigenous Canadians, we develop a nine-item scale of residential school denialism, which measures attitudes toward the searches for unmarked graves, deaths at the schools, and the purpose of the residential school system.¹ We find that a sizeable proportion of respondents

¹We define the non-Indigenous Canadian population broadly, including citizens and permanent residents who do not self-identify as Indigenous.

fail to reject denialism: on average, just under one in five Canadians are willing to endorse denialist claims outright, while another one in five indicate that they do not know enough to express an opinion on these issues. Endorsement of denialist claims is far higher than other forms of denialism (only 3 percent of our respondents were willing to deny the Holocaust), and ignorance on the topic of residential schools is widespread.

In line with prior research on misinformation and intergroup attitudes, we find that denialist beliefs are more common among men, conservatives, those with negative attitudes toward Indigenous peoples, those with a tendency toward believing in conspiracy theories, and White Canadians who identify strongly with their racial in-group (Beauvais, 2022; Douglas et al., 2019; Mills, 2007; Smith, Kreitzer and Suo, 2020; Starzyk et al., 2019; Uscinski and Parent, 2014). Prior knowledge about the residential school history is also a significant predictor of whether respondents are willing to express an opinion about denialist claims.

We also conducted a pre-registered experiment to test whether an educational intervention can counter denialism. We randomly assigned half of our survey respondents to read a short text describing the history and harms of the residential school system, as well as details about the searches for unmarked graves, before asking them about their attitudes toward denialist claims. Respondents who read the text reported nearly 15 percent of a standard deviation greater disagreement with denialist claims and were also over six percentage points less likely to indicate that they don't know enough to express an opinion. Subgroup analyses reveal no evidence of a backlash after exposure to the educational intervention among those who might be expected to be more resistant to anti-denialist information; in fact, our treatment was slightly more effective among those who reported worse attitudes towards Indigenous peoples before the intervention. These results suggest that denialism is not driven solely by animus toward Indigenous peoples, but also by a widespread lack of awareness, and that efforts to educate the public can potentially counter both ignorance and denialist attitudes.

Political science as a field has generally paid little attention to colonialism and issues

involving Indigenous peoples (Ferguson, 2016; Ladner, 2017), and the scholarship that does engage with these topics often positions Indigenous peoples and their politics as undifferentiated from other nondominant groups (Bruyneel, 2014). At the same time, there is a considerable literature, largely by Indigenous authors, that highlights how denial, obfuscation, and justification of past and ongoing injustices against Indigenous peoples function to legitimate and sustain settler colonialism (Allard-Tremblay and Coburn, 2023; Corntassel and Bird, 2017; Furniss, 1999; James, 2018; Logan, 2014; MacDonald, 2017; Mackey, 2016; Maracle, 2017; Nagy, 2012; Regan, 2010; Starblanket and Hunt, 2020; Starblanket, 2020; Tuck and Yang, 2012). This study is informed by these insights and applies them to the problem of residential school denialism through survey research. Our results speak to ongoing debates about “reconciliation” between Indigenous and non-Indigenous peoples in Canada and recent efforts to measure Canadians’ attitudes toward this idea (Alcantara et al., 2025; Asch, Borrows and Tully, 2018; Coulthard, 2014; Craft and Regan, 2020; George, 2017; Green, 2025; Ladner, 2018; Manuel and Derrickson, 2017; Starzyk et al., 2024). In doing so, we also contribute to recent policy deliberations over how to address the spread of denialism, adding to a large applied literature on misinformation that has not tended to investigate cases related to historical events or racial, ethnic, and Indigenous issues (Chan et al., 2017; Guess et al., 2020; Lewandowsky and Van Der Linden, 2021; Pennycook and Rand, 2022; Sanderson et al., 2021).

Background and Theory

Canada’s Residential Schools

The residential school system in Canada involved the removal of Indigenous children from their families to live in boarding schools, where they were subject to abuse, poor living conditions and a forced assimilation program (Truth and Reconciliation Commission of Canada, 2015a). Approximately 150,000 Indigenous children attended one of the more than 130

residential schools that operated between the 1800s and 1990s (Miller, 2024). While the objectives of the schools were framed in terms of helping language, the goal was explicitly to assimilate Indigenous children, which is internationally recognized as a violation of basic rights (see United Nations, 2007). Indigenous children who were forced to attend residential schools were forbidden from speaking their Indigenous languages, given European names, and proselytized into Christian beliefs (Miller, 1996; Milloy, 1999; Truth and Reconciliation Commission of Canada, 2015a).

For most of this history, the institutions were funded by the federal government and run by missionary churches. The schools were perpetually under-funded and under-supervised and, as a result, death, disease and abuse by staff were commonplace (MacDonald, 2019). The NCTR has confirmed the deaths of 4,117 children at residential schools based on existing records, although poor recordkeeping meant that many deaths went unreported and these numbers do not include many severely ill children who were sent home or to sanatoriums where they subsequently died (NCTR 2021). Experts therefore suspect the true number is likely higher (Puxley, 2015).

Knowledge about the abuse and high mortality rates at the schools, and efforts to conceal or deny the violence occurring at the schools are as old as the residential school system itself (Peace, 2020; Milloy, 1999; Truth and Reconciliation Commission of Canada, 2015a). For instance, Dr. Peter Bryce, the Department of the Interior and Department of Indian Affairs' Chief Medical Officer, published a 1907 report outlining the shocking number of deaths among pupils at the schools and recommended that the schools be closed immediately (Bryce, 1907). However, Bryce's report was shelved by policy-makers and his recommendations were ignored. Refusing to be silenced, Dr. Bryce published a whistle-blowing pamphlet entitled "The Story of a National Crime" (Bryce, 1922), which garnered some attention in the media and popular discourse. However, policy-makers did not take action to close the schools or address the inordinately high mortality rates. Dr. Bryce's report is not the only example of efforts to deny the system's harms: there is ample evidence that church officials regularly

rejected or concealed evidence of abuse by staff members and government officials rejected recommendations to properly care for cemeteries on school grounds (e.g. Betke, 2023; Truth and Reconciliation Commission of Canada, 2015*b*).

In the early 2000s, thousands of survivors launched civil litigation cases against the Canadian government for abuse they suffered at the schools (Miller, 2017). After these cases were eventually combined into a class action lawsuit, the federal government agreed to a settlement in 2006, which required it to pay compensation to survivors, formally apologize for the schools, and establish a Truth and Reconciliation Commission (TRC) to gather testimony from survivors and document the relevant history. The TRC began its work in 2008 and released a final report in 2016 along with 94 “calls to action” for governments, churches and other institutions.

While the TRC (2015) and Royal Commission on Aboriginal Peoples (1996), as well as public comments from survivors like Phil Fontaine, raised the profile of the residential school history, most non-Indigenous Canadians remain unaware of the depth of this issue (e.g. Boese, Neufeld and Starzyk, 2017). Partly this is because non-Indigenous educational curricula did not acknowledge it until only recently (Bennett, 2021): a 2020 survey found that nearly half of all non-Indigenous Canadians who attended school in Canada were never taught about residential schools, and a third of those that did learn about residential schools described their teachers’ descriptions of the program as positive (Research Co., 2020).

Over the course of six weeks in the summer of 2021, several First Nations across the country separately announced what are suspected to be hundreds of unmarked graves at former residential school sites (Deer, 2021). The TRC’s final report from years early noted that, in most cases, the bodies of children who died at residential schools were not returned to their families (TRC, 2015*b*). Instead, pupils’ remains were typically buried at the schools, sometimes without the knowledge of their parents (Independent Special Interlocutor, 2024). The burial grounds at the schools were often neglected once the schools were closed (Hamilton, 2021); in 2001, for example, water erosion near the High River Residential School – which

closed in 1922 – exposed the remains of students who had been buried at the school. The announcements in 2021 were based on results from ground-penetrating radar (GPR) surveys of the land where the schools were situated, which revealed disturbances in the soil consistent with unmarked burials. This technology, in combination with archival research of former residential schools' official records, has corroborated testimony from survivors whose oral history first drew attention to the possibility of graves at the former school sites (Canadian Archaeological Association, 2021; Dawson, 2021; Fraser, 2025; Independent Special Interlocutor, 2024). In the years since the initial announcements, suspected unmarked graves have been identified at more than 15 other former school sites ((Williamson, 2024)).

Denialist arguments and recent developments

Residential school denialism is a type of political misinformation that, as Justice and Carleton (2021*b*) note, does not involve the outright denial of the residential school system's existence, but "rather the rejection or misrepresentation of basic facts about residential schooling to undermine truth and reconciliation efforts." The authors highlight a number of rhetorical techniques used by residential school denialists to cast doubt on the harms of residential schools and the need for redress. One of the most common counter-arguments is that the schools provided a rewarding education for Indigenous children. For instance, Frances Widdowson, a former political science professor at Mount Royal University, has repeatedly claimed that the residential schools had educational benefits (CBC News, 2022). This claim flies in the face of the schools' explicit assimilationist goals as well as the extensive evidence that there was little real academic or vocational training (Milloy, 1999; Truth and Reconciliation Commission of Canada, 2015*a*).

Denialism also surfaces in arguments that church officials and staff at the schools had good intentions and that any harms were incidental. For example, just minutes after he was sworn in as Manitoba's new minister of Indigenous reconciliation in 2021, Progressive Conservative Member of the Legislative Assembly Alan Lagimodiere argued that "in retrospect, it's easy

to judge in the past, [b]ut at the time, they really thought that they were doing the right thing ... the residential school system was designed to take Indigenous children and give them the skills and abilities they would need to fit into society as it moved forward” (Petz, 2021). Comments to a university conservative club in 2020 by then federal Conservative leader Erin O’Toole made a similar argument (Zimonjic and Cullen, 2020).

In another high profile case, Senator Lynn Beyak was removed from the Conservative caucus in 2018 after giving a speech in the Senate defending the “abundance of good” that had come out of residential schools (Brake, 2018). Her comments emboldened anti-Indigenous sentiment, as her office received numerous letters of support that were published to her website and posters appeared on university campuses calling on Canadians to “reject the anti-white narrative being pushed in media and academia” (Carleton, 2021).

Residential school denialist arguments also routinely seek to “balance” the few positive experiences reported by some survivors against the more extensive evidence of trauma suffered at the schools. For example, residential school denialists often point to how Cree writer Tomson Highway has credited his time at residential school for his career success, while ignoring the passages in his memoir describing the sexual abuse he and hundreds of other boys experienced while they were pupils at Guy Hill Residential School (Cyca, 2023; Highway, 2021). This selective choice of evidence also ignores many other survivors’ first hand accounts of negative experiences at the schools and the intergenerational trauma they endured as a result (e.g. Fontaine, 2010; Knockwood and Thomas, 1992; Sellars, 2013).

Since the announcements of suspected unmarked graves, denialist rhetoric has increasingly focused on questioning the credibility of the searches and the existence or extent of the unmarked graves. In 2022, on the one year anniversary of the first announcement of suspected unmarked graves near Kamloops, British Columbia, *The New York Post* ran a headline quoting political scientist Tom Flanagan, who called the unmarked graves “the biggest fake news story in Canadian history” (Kennedy, 2022). In the same year, a group of academics and journalists created the Indian Residential Schools Research Group to os-

tensibly address “misconceptions” about residential schools; in reality the group’s aims are to cast doubt on the residential schools’ harmful legacy. Maxime Bernier, the leader of the right-wing, populist People’s Party of Canada, tweeted his support for the endeavour, arguing it was “time to stop vilifying Canadian history and society” (Bernier, 2023). Soon after, Danielle Smith, Alberta Premier and leader of the United Conservative Party, decried the “fake news” of the unmarked graves on her social media (Carleton, 2023).

These arguments are based in part on the claim that radar technology is unreliable in identifying human burial sites and, even if there are in fact remains at these sites, we cannot be sure they are Indigenous children, because the grave markers are missing. Statements from professional archaeology associations have pointed out the flawed logic in these claims (CAA, SAA, CABA-ACAB & CPA, 2022). However, denialists continue to demand excavations of burial sites as proof the graveyards at former school sites contain the bodies of Indigenous children, often against the wishes of Indigenous communities. At the former Kamloops Indian Residential School, denialists trespassed on the grounds of the school site at night and attempted to dig up suspected unmarked graves (Murray, 2023, p. 98).

Denialism has existed alongside residential schools since their inception, but in recent years, as Canada began taking official steps to address the harmful legacy of residential schools, this rhetoric has come especially among right-wing academics, media and political actors. In 2013, a former speechwriter for Prime Minister Stephen Harper and Alberta Premier Jason Kenney wrote an article rejecting the “unchallenged narrative” and “bogus genocide story” of residential schools (von Scheel, 2020). In 2018, the Frontier Centre for Public Policy, a right-wing think tank, aired a two-minute advertisement on private radio stations in Saskatchewan claiming to debunk the “myths” of residential schools (Meloney, 2018). Of course, this rhetoric is not exclusive to conservative actors; in 2021, former Liberal Prime Minister Jean Chrétien denied being aware of abuse at residential schools during his time as Minister of Indian Affairs, despite archival evidence to the contrary (Barrera, 2021).

Members of Canada’s political and academic elite are not the only actors engaging in

denialism. Debates over the existence and legacy of residential schools are, like many other cases of misinformation, increasingly taking place among members of the public in online fora. To illustrate the rise in online denialism-related conversations, we collected nearly 40,000 comments posted to over 600 residential schools-related threads on several major Canadian Reddit communities between 2021 and 2024. We then identified comments that included words commonly appearing in denialist rhetoric, such as “cover up” and “hoax,” and calculated the proportion of all comments that included these words in each month (see the Supplementary Materials (SM) Section SM1 for details). As Figure 1 shows, the prevalence of denialism-related terms has increased more than threefold during this time, from just over three percent in the period immediately after suspected unmarked graves first became a national news story in May 2021, to more than ten percent at the end of 2023. While not all of these comments are endorsing denialism – in fact, many are accusing other users of denialism – these data demonstrate that online debates about the veracity of the unmarked graves and the history of residential schools have become increasingly common in the last three years.

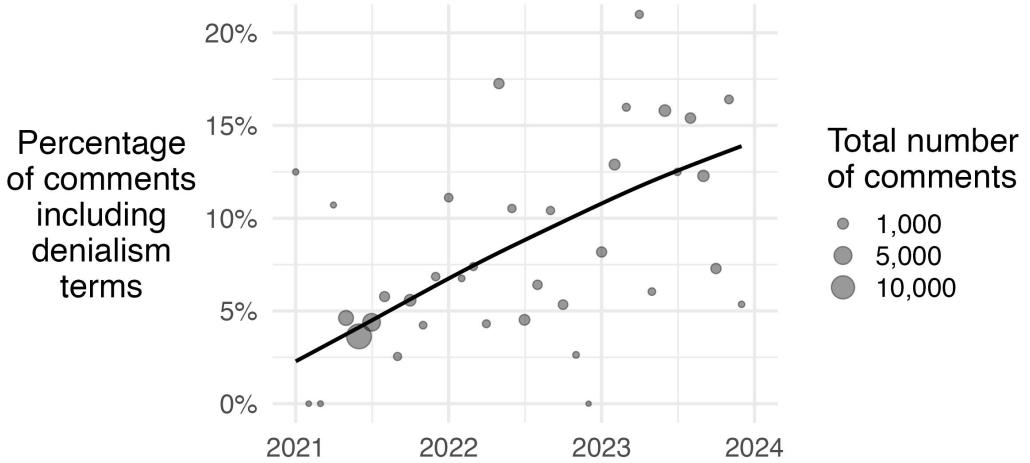


Figure 1: Prevalence of denialism-related terms in Reddit comments, 2021 to 2024

This figure reports the percentage of comments including denialism-related words on Reddit posts related to residential schools that appeared on eight Canadian general and political subreddits for each month between 2021 and 2023 (see SM1 for details). Points are scaled by the total number of comments appearing each month. Note that the first suspected unmarked graves were announced in May 2021. The line of best fit is estimated from a generalized additive model weighted by the number of comments in each month.

The former chair of the TRC, Murray Sinclair, argues that misinformation represents one of the greatest obstacles to confronting the residential school history (Forester, 2021). Accordingly, concerns about residential school denialism have triggered discussions about possible policy reforms. In response to the TRC's Calls to Action related to updating educational curricula across Canada, most provinces have begun integrating the residential school history into elementary and high school education, which may serve as a bulwark against misinformation later in life. There have also been calls to criminalize residential school denialism as hate speech (Dufour, 2023; Stefanovich, 2023). Missing from the debates over these proposals is empirical evidence regarding the nature and extent of residential school denialism among the Canadian public, as well as evidence assessing the effectiveness of interventions to counter denialist claims.

Theoretical Expectations

In this study, we conceptualize residential school denialism as a type of belief in political misinformation (Jerit and Zhao, 2020).² The existing literature on this topic has generally not studied cases of misinformation linked to history, intergroup relations, and racism.³ However, as discussed above, denialism shares commonalities with other forms of misinformation, namely in the language it uses to question evidence and its spread via online channels.

Kuklinski et al. (2000) argue that believers of misinformation do not simply *lack* information, but rather “firmly hold the wrong information” (p. 792).⁴ In our analysis, we consider not only whether people are misinformed, but also the very likely possibility that many Canadians lack information on the topic of residential schools. In Canada, public school curricula has historically either failed to teach students about residential schools or else has taught a sanitized account of this history (Bennett, 2021). While today 90 percent of non-Indigenous Canadians say they have heard of residential schools and 63 believe they are very or somewhat familiar with this history (Canadian Reconciliation Barometer, 2023; Environics, 2023), other research has shown that these self-reported indicators tend to overstate what respondents actually know (Boese, Neufeld and Starzyk, 2017). We anticipate that many Canadians are uninformed about the issues underlying denialist claims and many others have been exposed to inaccurate information, which increases their propensity to endorse denialist misinformation. By extension, we expect that educating people about the true, factual history can reduce both ignorance and denialism. This expectation is in line with recent evidence showing that informational interventions can positively change attitudes towards Indigenous peoples in Canada (e.g. Efimoff and Starzyk, 2023; Neufeld et al.,

²Some may argue that denialism is in fact *disinformation*, in that it involves the deliberate dissemination of false information (see Freelon and Wells, 2020; Tucker et al., 2018). However, this classification requires assumptions about the intentions of those who spread denialist claims.

³The “birtherism” conspiracy about Barack Obama’s birthplace is one prominent counterexample (Pasek et al., 2015).

⁴In our empirical analysis we distinguish between the wrongly informed and the uninformed in two ways: first, by including and encouraging the use of a “don’t know” option; and, second, by evaluating the prevalence of denialist beliefs *after* an experimental intervention providing information that contradicts those beliefs, thus distinguishing those who hold firmly to misinformation in the face of contrary evidence.

2022; Siemens and Neufeld, 2022).

Besides a lack of exposure to education about the relevant history, there are other reasons why individuals may adopt and retain denialist beliefs. A large literature in political science demonstrates that voters tend to adopt the policy positions espoused by politicians from their preferred party (e.g. Broockman and Butler, 2017; Zaller, 1992), with some evidence that a similar dynamic may apply to belief in misinformation (Berinsky, 2023; Van Duyn and Collier, 2019). Because denialist claims have been articulated more frequently by right-wing groups and opinion leaders in recent years in Canada, we expect that denialist beliefs will correlate with right-wing ideology and Conservative partisanship.

There are also reasons to suspect that denialism correlates with individuals' pre-dispositions toward beliefs in conspiracy theories. Much of the language appearing in denialist claims is suggestive of secretive and malevolent motives for presenting the public with allegedly fraudulent information about the searches for unmarked graves at former residential schools (e.g. "hoax", "scam"). Denialists also regularly accuse the mainstream media of intentionally misrepresenting the truth behind residential schools and the unmarked graves (Gerbrandt and Carleton, 2023). Social scientists have shown that some people are more prone to believe in conspiracy theories. "Conspiracy thinking" refers to the predisposition toward seeing events and circumstances in terms of conspiracies (Uscinski and Parent, 2014; Uscinski et al., 2022). Those who have a tendency toward conspiracy thinking are more likely to endorse specific conspiracies, such as those related to 9/11, the moon landing, or U.S. President Barack Obama's place of birth (Berinsky, 2023; Brotherton, French and Pickering, 2013; Bruder et al., 2013; Uscinski and Parent, 2014; Enders et al., 2021). While not all residential school denialists are conspiracy theorists (and vice versa), we expect that a predisposition toward conspiracy thinking will correlate positively with beliefs in denialist misinformation.

Denialism may also be distinct from beliefs in other forms of misinformation because of its close association with individuals' intergroup attitudes and identity attachments within the settler colonial system. In particular, one's prior views toward Indigenous peoples may shape

how non-Indigenous Canadians interpret the facts around Canada's residential school history. Those who express greater Indigenous resentment may be more willing to endorse denialist claims, because Indigenous resentment is a strong predictor of opposition to policies that benefit Indigenous peoples (Beauvais, 2022; Beauvais and Stolle, 2022a). Residential school denialism, by minimizing the harms of residential schools, is tied to efforts to undermine reconciliation and weaken support for policies that would redress this history (Green, 2025; Justice and Carleton, 2021a; Logan, 2014; Regan, 2010).⁵

Previous research has shown that one's attachment to their racial/ethnic in-group is distinct from their attitudes toward a racial/ethnic out-group, with in-group identification exerting its own independent influence on political views (Beauvais and Stolle, 2022a; Jardina, 2019). Among members of perpetrator or dominant groups, the invocation of historical injustices can create a significant threat to the esteem of one's identity group (Branscombe et al., 1999; Doosje et al., 1998; Tajfel and Turner, 1986). Due to their historical connection to Canadian identity and the settler colonial project, White Canadians offer a relevant subgroup which might experience a heightened sense of threat in response to evidence of past wrongdoing.⁶ For this group, denying historical injustices can assuage uncomfortable emotions like guilt or shame or fear that the settler status quo is insecure (Iyer, Leach and Pedersen, 2004; Knowles et al., 2014; Maracle, 2017; Rotella and Richeson, 2013; Tuck and Yang, 2012; Wohl, Branscombe and Klar, 2006). This psychological motivation to minimize harms against Indigenous peoples may help explain the persistence of "White ignorance" about past wrongdoing (Mills, 2007). To the extent that residential school denialism allows White Canadians to dismiss uncomfortable truths about their group's historical treatment of Indigenous peoples, we should expect to see a greater endorsement of denialist claims among those that hold strong attachments to their White identity.

⁵In line with this account, our dataset of Reddit comments from Figure 1 shows that denialism is often linked to concerns over intergroup resource distribution. Terms like "money" and "spend" appear with significantly greater frequency in comments containing denialism terms than those that do not.

⁶By "White" Canadians we are referring to members of European ancestry population groups (for a longer discussion of terminology, see SM2).

People of colour (POC) also differ in the strength of their identity attachments. In our present work, we define POC as non-Indigenous members of non-European ancestry population groups (for a longer discussion of terminology, see SM2). Research shows that, among POC, attachment to a racial/ethnic identity (such as Asian or Black) is a strong predictor for whether an individual also identifies in solidarity with other non-White populations (Sanchez, 2008; Pérez, 2021). A sense of commonality or “linked fate” among POC is in turn associated with political attitudes and behaviours in support of other marginalized groups (Chan and Jasso, 2023; Gershon et al., 2019; Merseth, 2020; Pérez, 2021). Many POC communities have themselves been displaced or otherwise negatively affected by European colonialism, which may inform opposition to colonial injustices in Canada (see Byrd, 2011; Lawrence and Dua, 2005; Snelgrove, Dhamoon and Corntassel, 2014). Recent evidence shows that, compared to White Canadians, POC perceive a higher degree of commonality with Indigenous people, which is in turn associated with their greater support for redressing historical injustices (Starzyk et al., 2019). We therefore expect that a strong attachment to one’s own racial/ethnic identity among POC can motivate solidarity with other marginalized communities, leading to lower endorsement of denialist claims.

Methods

Recent research on residential school denialism in the Canadian context has focused on identifying common denialist arguments and articulating the consequences of this misinformation (e.g. Carleton, 2021; Green, 2025; George, 2017; Gerbrandt and Carleton, 2023; MacDonald, 2019; Wadsworth, Halmhofer and Supernant, 2023; Warry, 2008). Building on this scholarship, our methodology introduces two innovations: (i) the measurement of denialist beliefs using a survey instrument and (ii) the testing of an intervention to counter denialism. This approach offers quantifiable evidence on the nature and extent of denialism as well as the effectiveness of educational information for countering it. Our methodology also draws on

an empirical literature on misinformation, which has similarly relied on surveys and survey experiments to measure and manipulate factual beliefs (e.g. Chan et al., 2017; Lewandowsky and Van Der Linden, 2021; Pennycook and Rand, 2022).

Measuring Residential School Denialism

To develop our measures of residential school denialism, we drew on arguments appearing in online communities and media articles, and consulted secondary material describing common denialist claims (e.g Carleton, 2021). We also consulted with two representatives from the National Centre for Truth and Reconciliation (NCTR). Based on the NCTR staff's recommendations, Dr. Beauvais met with an Indigenous Elder and survivor of the residential school system, to listen to his experiences at residential school and with denialists (see SM3.6).

We sought to tap into two common types of denialism: (1) claims that the deaths or number of unmarked graves at former residential schools are false or exaggerated; and (2) claims that the schools were well-intentioned and had broadly positive impacts on Indigenous peoples' lives. While claims in the former category are more amenable to empirical verification, the latter set of items related to the program's intentions and legacies are also based on extensive evidence. Experts have not only assembled documentation on the deaths and unmarked burials of children at the schools, but also on statements outlining the forced assimilation objectives of the program and on the government and churches' efforts to conceal their failings (Carleton, 2021; McKenzie and Carleton, 2021; Milloy, 1999; Truth and Reconciliation Commission of Canada, 2015a; Turnbull, 2021).

We aimed to present a single denialist claim per item and to make the statements as simple as possible. Our nine items contain an average of 12.5 words per statement and, according to Flesch-Kincaid metrics, are readable at an 8th to 10th grade level. All items are measured using a five-point Likert scale (Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree) and are (reverse) coded so that higher

values indicate greater residential school denialism. We include positively- and negatively-worded items to guard against acquiescence bias (see SM5.1 for a discussion and tests for such bias).

For each item, respondents were able to respond with “don’t know” or “I haven’t thought too much about this.” Including this option increases the risk of satisficing, in which respondents offer a non-opinion to avoid expending the cognitive effort needed to form an opinion (Krosnick, 1991). However, it is necessary in a survey on this topic because we ask about specific details related to the searches for unmarked graves and the residential school history, of which many non-Indigenous people have only a superficial knowledge. In this context, “don’t know” is an accurate reflection of many people’s position. In a pilot study, we did not include this option and found that it impacted the distribution of attitudes: for two out of the three items that appeared in both the pilot and full surveys, the proportion of respondents agreeing with denialist claims is notably higher when “don’t know” was not an option (see SM3.5). We recommend future users of this scale include a non-response option to ensure their estimates of denialism are not inflated.

The nine items in the residential school denialism scale are as follows:

1. “The residential schools did more harm than good.” (reversed)
2. “The people running Canada’s residential schools had good intentions.”
3. “Indigenous children attending residential schools died at higher rates than other children because the conditions at residential schools were worse.” (reversed)
4. “The purpose of residential schools was to help Indigenous people.”
5. “Indigenous children died as a result of attending residential schools.” (reversed)
6. “The suspected graves at former residential schools are probably tree roots or other debris, not graves.”
7. “Radar technology can reliably locate Indigenous children’s graves at former residential schools.” (reversed)
8. “The unmarked graves at former residential schools may not even contain Indigenous people.”
9. “People saying that there are hundreds of unmarked graves at former residential schools are exaggerating.”

We construct a summated rating scale of residential school denialism by taking the average non-missing score for each respondent across our nine items tapping into this concept (Spector, 1992). The items comprise a highly reliable scale (Cronbach's $\alpha = 0.89$) and a reliability analysis reveals that dropping any of the items would lower the overall reliability of the scale (see Table S5 for full results).

Plotting a scree plot using the reduced matrix eigenvalues (as recommended by Fabrigar and Wegener (2012)[p. 57]) suggests that a single factor should be retained (Figure 2), and thus the scale items can be summarized using a single latent construct. For a longer discussion of dimensionality, see SM4.3.

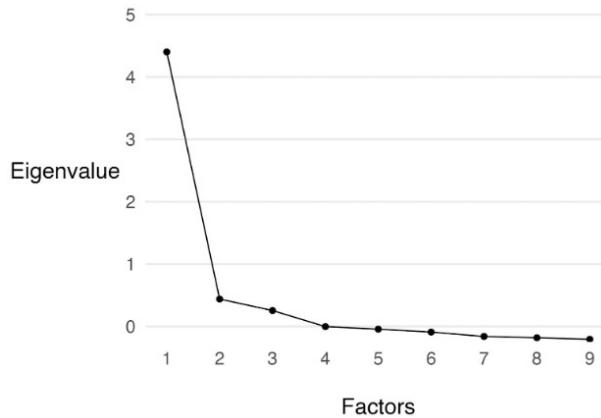


Figure 2: Scree plot of residential school denialism items using reduced matrix eigenvalues.

A scree plot plotting the reduced matrix eigenvalues from largest to smallest to visually identify the number of eigenvalues to the left of the point where the eigenvalues level off (the “scree” of the graph). There is one point to the left of the scree for the observed data, suggesting a single factor best captures variation in the items.

Finally, we recognize that in larger surveys, future researchers may not always be able to include all nine items presented above. While a larger number of items generally helps to reduce measurement error, we recommend, in cases where the full scale is not feasible, using a four-item scale based on the first four statements in the list above. These items tap into the main aspects of denialism, but do not directly reference the unmarked graves. In SM4.5, we demonstrate that this shorter scale is also statistically reliable and shares many of the same measurement properties as the full scale.

Sample, Experimental Design, and Estimation

We contracted with Leger Opinion to recruit a sample of non-Indigenous adult Canadian citizens and permanent residents to complete an online survey in November 2023. The survey was available in both English and French. Leger uses quota-based sampling to generate samples that are reflective of the population in terms of gender, age, educational attainment, language, and racial and ethnic population groups. Our final sample ($n = 1,915$) is broadly representative of the adult Canadian population, although our respondents skew slightly older on average (see SM3.1). We report results weighted by age, gender and region in SM3.2, finding that these estimates are nearly identical to those presented in the main text below. In addition to Leger's internal efforts to ensure data quality, we excluded duplicate survey takers and likely bots. We also conducted data quality checks on less attentive respondents and find that our descriptive results are not sensitive to their inclusion in the sample and our experimental findings would in fact be stronger if we were to exclude these respondents (see SM3.3).

To assess the effect of an educational intervention on residential school denialism, we randomly assigned equal proportions of respondents to either receive factual information about the residential school history (the treatment group), or not (the control group), before subsequently asking about their attitudes toward denialist arguments (see AsPredicted study [#148781](#) for the pre-analysis plan for this experiment). Randomization allows us to establish the causal effect of the educational treatment on attitudes by making sure that information exposure is unrelated to prior determinants of denialist beliefs.

In our study, respondents assigned to the treatment condition were tasked with reading a 250-word text describing the goals of the residential school system, conditions at the schools, facts about pupils' deaths, and details about the ongoing searches for unmarked graves (see SM6.2 for the full text). This information was accompanied by photos of a residential school and Indigenous children in a classroom, as well as a link to the Canadian Encyclopedia page on residential schools, from which much of the language for the intervention was borrowed.

The median respondent spent 42 seconds engaging with the content. We hypothesize that the educational treatment will reduce both “don’t know” responses and expressions of residential school denialism. Balance tests reveal that the treatment and control groups resemble one another on average across all pre-treatment covariates (see SM6.3).

The first portion of our analysis, which considers the prevalence and correlates of residential school denialism, is conducted strictly on the portion of the sample in the control group ($n = 960$). Responses in this condition capture the baseline attitudes of the Canadian public. At the end of the survey, we debriefed all respondents on the purpose of the study. To address ethical concerns, participants in the control group were given the same factual information as the treatment group as part of their debrief (i.e. after they had responded to the denialism items).

The second portion of the analysis, which identifies the effect of education about residential schools on denialist attitudes, uses the full sample. We estimate average treatment effects (ATEs) using OLS regression, which allows us to increase the precision of our estimates by controlling for covariates and to conduct subgroup analyses.

Our analyses rely on a number of pre-treatment sociodemographic and attitudinal variables, including age, gender, region, income, religion, partisanship, language, education, political knowledge, trust in media, racial/ethnic in-group identification (Jardina, 2019), Indigenous resentment (Beauvais, 2021), conspiracy thinking (Uscinski and Parent, 2014; Enders and Smallpage, 2019), and factual knowledge about the residential school system (Boese, Neufeld and Starzyk, 2017). Full coding rules for these variables can be found in SM3.4. To improve statistical efficiency in the estimation of treatment effects, we impute missing covariate values, first using the sample mode for categorical variables and then using multiple imputation by chained equations for continuous variables (King et al., 2001).⁷ Approximately 31 percent of our respondents had one covariate value imputed; covariate

⁷This decision was not specified in our pre-analysis plan, but our results are nearly identical when calculating a simple difference-in-means with the full sample and when using covariate adjustment only with the sample of non-imputed observations.

missingness is most significant for the religion variable, which appeared towards the end of the survey.⁸ Imputed values are not used in the analysis of correlates.

Results

The Prevalence of Residential School Denialism

Figure 3 reports the proportion of respondents agreeing and disagreeing with each of the nine denialism items. A large proportion of respondents stated that they do not know enough to provide a judgment on the denialism claims, indicating either “don’t know / I haven’t thought too much about this.” Across all items, 19 percent of the sample provided this response. By comparison, survey questions asking about denial of the Holocaust typically find that the proportion that is unsure about this issue is around five percent (e.g. Smith, 1995). As we show in our analysis below, this pattern is driven in part by the Canadian public’s lack of prior knowledge about the residential school history (see also Boese, Neufeld and Starzyk, 2017; Schaeafi et al., 2018).

Despite the large number of non-opinions, a sizeable percentage of Canadians are willing to endorse claims that deny the residential school system’s legacy. On average, across the nine items, 17 percent of respondents either somewhat or strongly agree with residential school denialist arguments. By comparison, only three percent of our survey respondents endorsed Holocaust denialism. Similarly, at the height of its popularity, just five to ten percent of Americans expressed a belief in the QAnon conspiracy (Rogers, 2021). Levels of residential school denialism are thus more comparable to beliefs in misinformation related to climate change and vaccine hesitancy (Gravelle et al., 2022; Monopoli, 2022; Pew Research Center, 2016; Schwartzberg, Stevens and Acton, 2022).⁹

⁸While this variable was asked post-treatment in a “sensitive questions” block, treated respondents were no more likely to opt out of this question than control respondents (χ^2 test p -value=0.87).

⁹Nyhan and Zeitzoff (2018a; 2018b) report high levels of historical denialism in the Middle East, but their measures do not include a “don’t know” option, so it is difficult to directly compare the estimates.

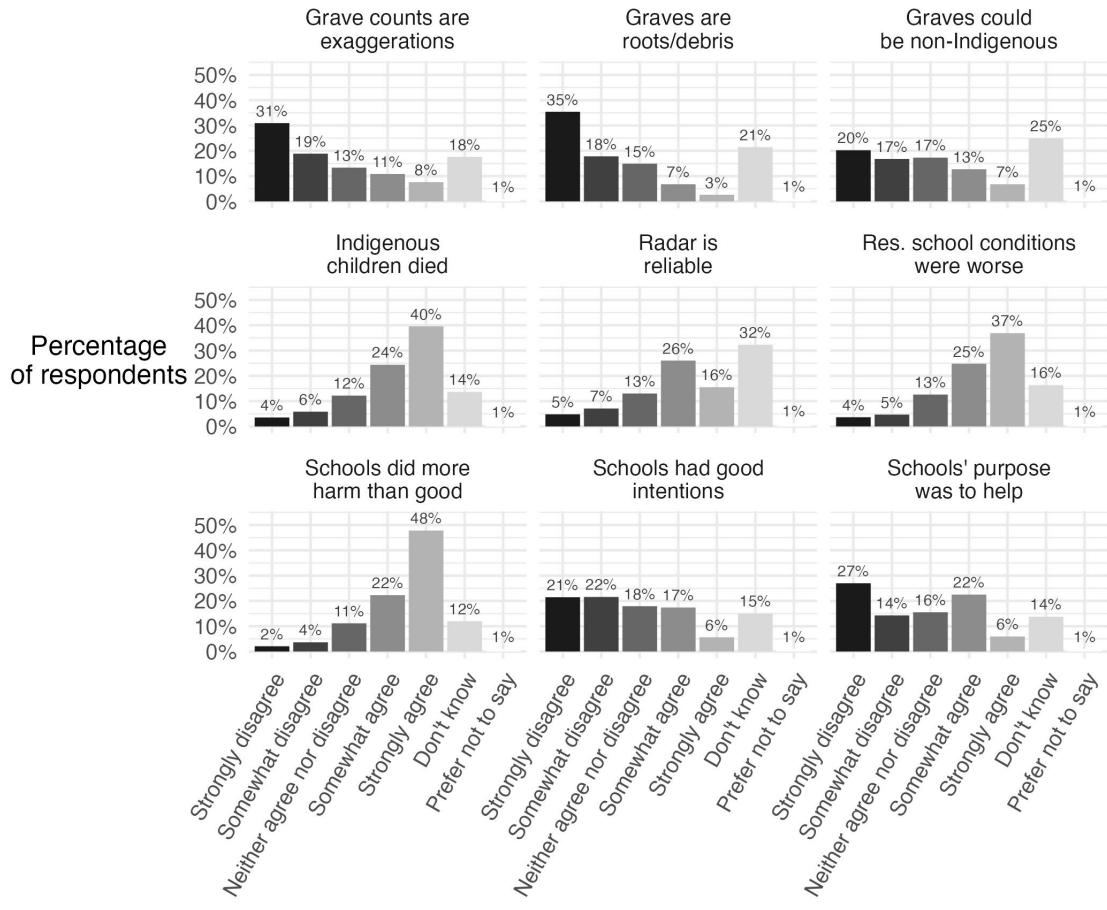


Figure 3: Prevalence of residential school denialism in Canada

This figure reports the proportion of respondents in the control group providing each response level for the nine denialism items. ($n = 960$)

Beliefs in certain types of denialist claims are more common than others. Only six and ten percent of our sample deny that residential schools “did more harm than good” and that “Indigenous children died as a result of attending residential schools,” respectively. By contrast, items related to the goals of the residential school system were more likely to be endorsed: 28 percent of Canadians believe that the purpose of the schools was to help Indigenous people, while 23 percent agreed that those running the schools had good intentions. Statements questioning the accuracy of identifying unmarked graves at former school sites or the number of graves were endorsed by between 10 to 19 percent of respondents; these items also saw notably higher rates of non-opinions.

The Correlates of Residential School Denialism

To investigate which Canadians are more likely to endorse denialism, the left panel of Figure 4 plots average scores on our denialism scale across a range of pre-treatment covariates. The right panel reports the percentage of “don’t know” responses to each of the denialism items for different covariate values.

The plots reveal that men are significantly more likely to agree with denialist claims, and less likely to indicate that they “don’t know.” This finding is consistent with research in other domains on a gender gap in both racial attitudes and propensity to select “don’t know” on political knowledge questions (e.g Miller, 2019; Pratto, Stallworth and Sidanius, 1997).

Second, partisanship is an important correlate of denialist beliefs. Supporters of conservative parties are significantly more willing to endorse denialist claims compared to partisans of all other parties, especially those on the left. The average difference in scores on the denialism scale between Conservative Party and NDP supporters, for example, is around 0.9 standard deviations (or, equivalently, 0.8 points on the five-point scale in Figure 4). Independents and those who did not provide a specific party report denialist beliefs similar to Liberal partisans, but are significantly less likely to provide an opinion on these issues.

Denialism is linked to racial identity and prior attitudes toward Indigenous peoples. We find that those with the highest levels of Indigenous resentment express 1.3 standard deviations more denialism on average than those that score the lowest on this variable. Identification with one’s racial/ethnic in-group is also a significant predictor of denialism, but in a nuanced way. On average, White Canadians are no more receptive to denialist arguments than POC, but White Canadians who strongly identify with their racial in-group score much higher on the denialism scale (0.7 standard deviations) than those without a strong attachment to their White identity. For POC, the relationship is reversed: those that identify strongly with their racial/ethnic in-group are much less willing to endorse denialism.

We find that prior knowledge – measured using a series of factual questions – is also

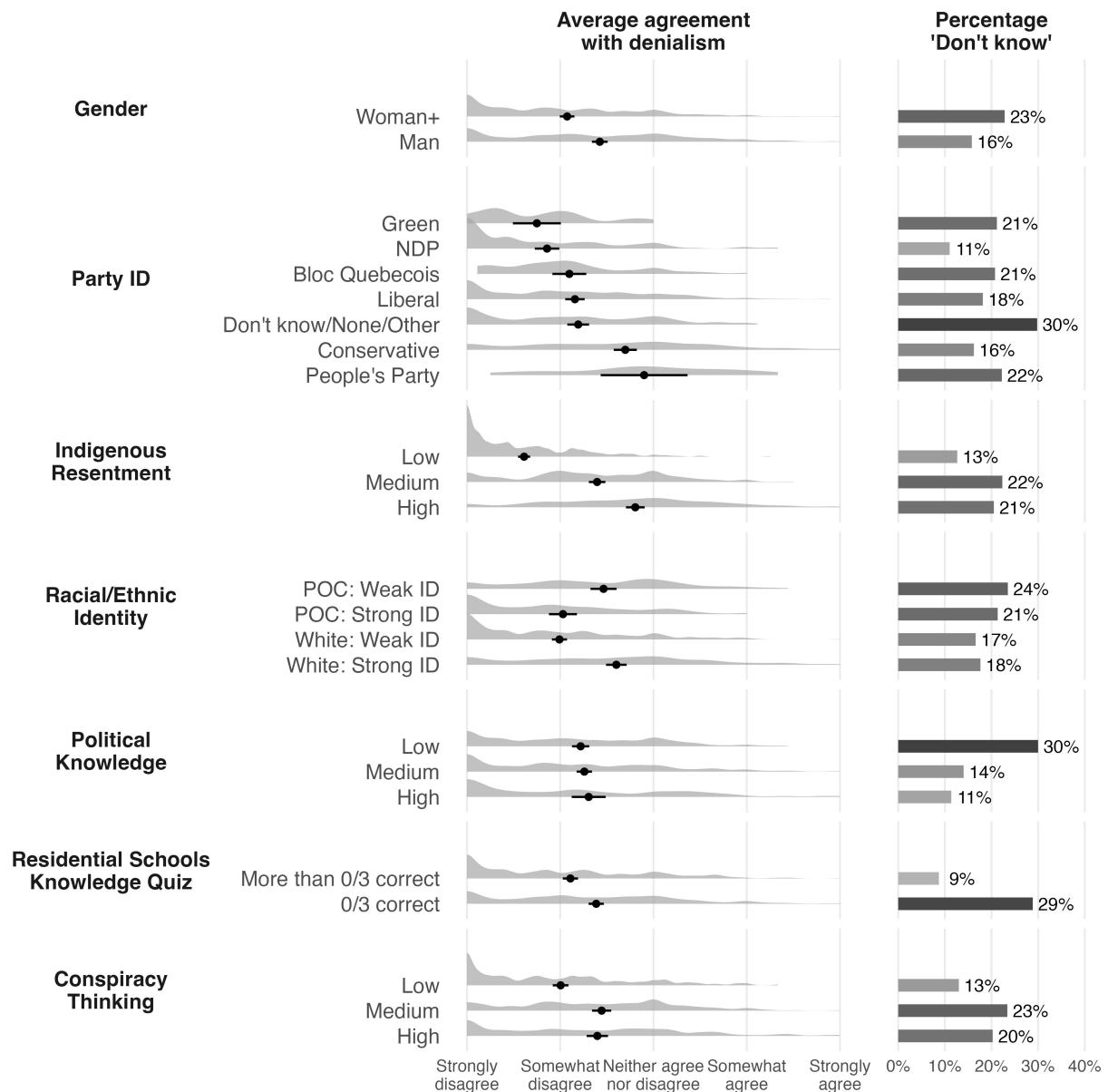


Figure 4: Correlates of residential school denialism

This figure shows the distribution of denialism and “don’t know” responses among respondents in the control group ($n = 960$). In the left panel, the shading shows the distribution of denialism and the points indicate the mean denialism score (with 95 percent confidence intervals) among non-missing responses for each covariate. The right panel reports the percentage of “don’t know” responses. For continuous variables, respondents are grouped into “low,” “medium” and “high” categories based on tercile. For the racial/ethnic identity variable, strong and weak identification with one’s racial/ethnic group is measured based on whether a respondent’s racial/ethnic attachment score is above or below the median in their respective racial/ethnic category (i.e. White or POC). See SM3.4 for additional details on covariate measurement.

related to expressions of denialism. While general political knowledge does not covary with respondents' opinions on the denialism items, scores on a three-item quiz about residential schools weakly predict denialist attitudes. Respondents who did not answer a single question correctly on this quiz (54 percent of the sample) reported roughly 0.3 standard deviations more denialism on average than those who scored better on the quiz.¹⁰ At the same time, both of these measures have a strong negative relationship with whether respondents answered with "don't know": non-opinions were about 20 percentage points more likely among those who failed to provide a single correct answer on the residential schools quiz.¹¹

Finally, denialist beliefs are weakly associated with conspiracy thinking. Those who express medium and high levels of agreement with statements in this scale, such as "much of our lives are being controlled by plots hatched in secret places," tend to agree around 0.45 standard deviations more with the denialism items. Similarly, in supplementary analyses, we find that those who least trust the mainstream media and those who deny that The Holocaust occurred are both more likely to endorse denialism. In this sense, residential school denialism is similar to other types of misinformation in its positive relationship with individuals' predisposition to believe in conspiracy theories, but these associations are smaller in magnitude than those related to partisanship or racial attitudes.

We also conduct a multivariate regression analysis of denialist beliefs (see SM5.2). Many of the bivariate correlations summarized in Figure 4 remain statistically significant after controlling for other demographic and attitudinal covariates, with the exception of the residential schools knowledge quiz scores and the conspiracy thinking scale. We also find that the ostensibly strong relationship between Indigenous resentment and non-response rates is attenuated after controlling for these other variables, suggesting that the expressive use of

¹⁰There is little variation in average denialism scores among those who score 1, 2, or 3/3 on the quiz. Scores on the residential school quiz are themselves predicted by other relevant covariates not shown in Figure 4, including race/ethnicity, education, personally knowing an Indigenous person, and whether respondents reported learning about residential schools during their education (see SM5.2.2). Those without a university education, those who have no contact with Indigenous people, and those who never learned about residential schools as a student are all less knowledgeable about the residential school history.

¹¹These patterns hold if we focus our analysis on respondents' own self-reported familiarity with the residential school history.

the “don’t know” option among those with greater anti-Indigenous attitudes is minimal. The “don’t know” response category thus appears to be primarily related to a genuine lack of exposure to the relevant information and, to a much lesser extent, negative views of Indigenous peoples. Finally, our supplementary models do not reveal any notable associations between denialism and age, region or language, although religious adherents of all denominations do agree more with denialist claims than atheists and agnostics.

Educational Intervention

In Table 1, we present OLS estimates of the average treatment effect (ATE) of the educational intervention on residential school denialism and the proportion of responses indicating a non-opinion. For the expressed denialism outcome, we take the average of all responses to the denialism items (excluding “don’t know” responses), focusing only on respondents who offered an opinion on at least one of the items. We present estimates both with and without controlling for pre-treatment variables.

Table 1: Average treatment effects of educational intervention

	Expressed denialism		“Don’t know”	
	No controls (1)	With controls (2)	No controls (3)	With controls (4)
Educational intervention	−0.131* (0.046)	−0.144* (0.036)	−0.068* (0.012)	−0.067* (0.011)
Observations	1,822	1,822	1,915	1,915
R ²	0.004	0.414	0.015	0.187

Table reports estimates from OLS models with HC2 standard errors. The outcome in the first two models is the average expressed denialism score (scaled in terms of control group standard deviations) among respondents who expressed an opinion on at least one of the denialism items. The outcome for the third and fourth models is the proportion of a respondent’s denialism items that were responded to with a “don’t know” response. In models two and four, the following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor’s degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. *p<0.05

Our estimates suggest that the intervention reduces agreement with residential school denialism by just over 13 percent of a standard deviation. The treatment also reduces the probability of non-opinions by nearly 7 percentage points, a large effect given the baseline rate of non-opinion is almost 20 percent. These effects are statistically significant at conventional confidence levels, regardless of whether we control for pre-treatment covariates. The estimates are also substantively meaningful: studies that focus on the persuasive effects of historical information on intergroup attitudes typically report effects of a similar magnitude (e.g. Efimoff and Starzyk, 2023; Fang and White, 2022; Nyhan and Zeitzoff, 2018b; Williamson, 2024).¹²¹³

The results in Table 1 are encouraging, but given the interdependence between non-

¹²The effects of the treatment are slightly larger for those who spent more time reading the text, although these differences are confounded by respondents’ self-selection into engagement with the informational intervention (see SM6.5).

¹³In SM6.6, we re-run our analyses separately for each item in the scale. In general, the reductions in expressed denialism were slightly larger for items related to the unmarked graves than for those related to the intentions and legacies of residential schools, but these differences are minimal.

opinions and endorsements of residential school denialism, it is also informative to examine these two outcomes simultaneously. In Figure 5, we plot the average prevalence of each response category across all nine denialism items separately for treated and control respondents (all items have been reversed as necessary so that greater agreement indicates greater endorsement of denialism). Figure 5 clarifies the relationship between the two sets of effects in Table 1: the intervention reduced the proportion of non-opinions and increased the number of respondents who strongly rejected residential school denialist statements. The increase in the percentage of respondents strongly disagreeing with residential school denialism (6-7 percentage points) was matched by an almost equal decline in non-opinions.¹⁴ Of course, because respondents cannot be observed under both treatment and control conditions, we cannot say with certainty that the intervention caused those who otherwise would have said “don’t know” to shift directly to “strongly disagree.” The treatment may have, for example, also induced movement from those in the middle of the scale toward strong disagreement. Nonetheless, among those who are willing to offer an opinion on these issues, the proportion disagreeing with denialist claims is significantly greater in treatment condition.

That being said, in the aggregate, roughly equal proportions of respondents in the treated and control conditions agreed with residential school denialist claims. Our experimental results therefore offer suggestive evidence that the beneficial effects of information largely function by reducing non-opinions, rather than persuading those who have already formed an opinion. The fact that the treatment does not reduce the overall percentage of respondents agreeing with denialism also suggests that our baseline estimates of the prevalence of denialism in the control group are fairly accurate. As discussed earlier, Kuklinski et al. (2000) note that misinformation believers “firmly hold the wrong information.” In our study, 18 percent of treated respondents read the factually correct information and *still* endorsed denialism, indicating that they are indeed willing to stand firm in their commitment to this misinformation.

¹⁴In SM5.3, we conduct a more formal analysis of these patterns using multinomial logistic regression and reach a similar conclusion.

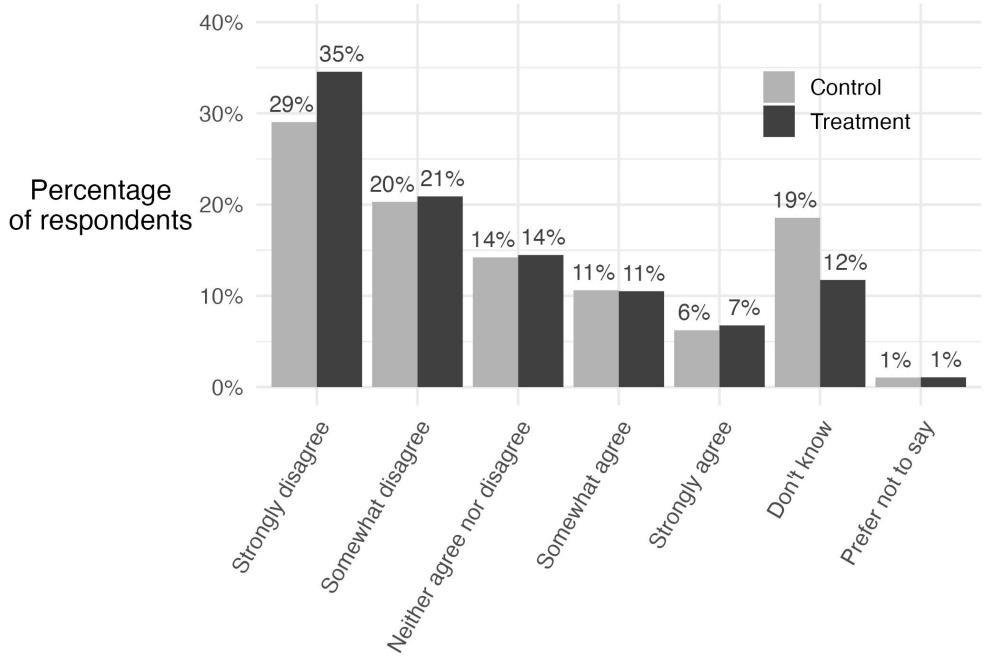


Figure 5: Responses to denialist claims by treatment condition

Plot presents the average proportion of respondents, by treatment condition, providing each response type across all nine denialism items. ($n = 1,915$)

To further investigate the patterns driving our main effects, we also consider conditional average treatment effects (CATEs). We focus on those who were more likely to endorse residential school denialism at baseline, including those who report greater Indigenous resentment and who identify as Conservatives and People's Party (PPC) supporters. We re-estimate our models with an interaction between the treatment indicator and each of these moderators.¹⁵ The CATEs are summarized in Figure 6 for both residential school denialism and the likelihood of offering a non-opinion.

¹⁵Results are substantively similar if we also include interactions between the treatment indicator and all other covariates in the same model.

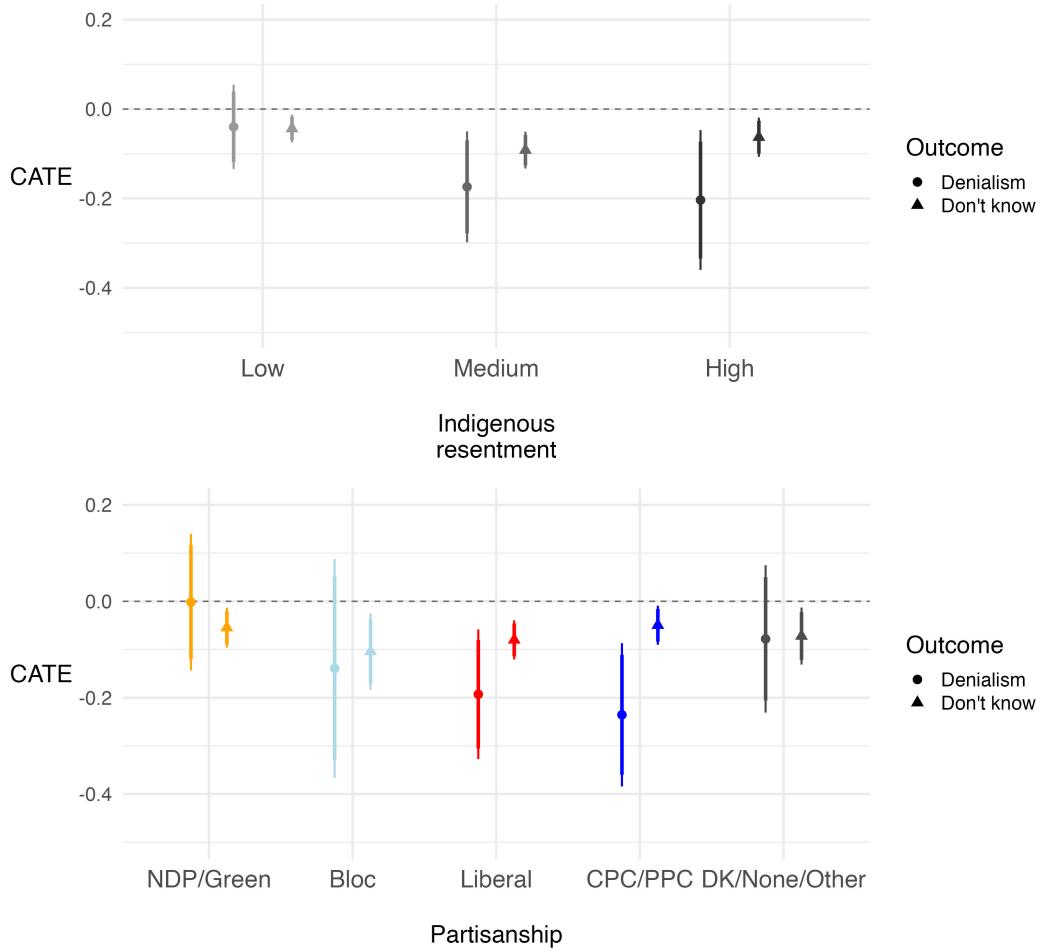


Figure 6: Conditional average treatment effects by Indigenous resentment and partisanship

These plots summarize four OLS models (two for each moderator) in which the treatment indicator is interacted with the Indigenous resentment indicator (binned by tercile) and the Party ID variable. Effect estimates for the denialism outcome ($n = 1,822$) are scaled in terms of control group standard deviations. The “don’t know” outcome ($n = 1,915$) is measured as the probability of giving that response type to a given denialist item. The models control for all covariates listed in the notes to Table 1.

We find that the CATEs on denialism scores are larger for those who expressed medium and high levels of Indigenous resentment (a difference of roughly 0.15 standard deviations versus those with low resentment). Effects are also substantively larger among Conservative and PPC identifiers than among non-partisans and supporters of more left-leaning parties. Most importantly, these plots demonstrate that the treatment does not induce backlash: even among those who might be most likely to redouble their endorsement of denialism after reading the treatment text, there is no evidence of effects in a counter-informational

direction. However, the treatment had no conditional effect on non-opinions: information reduced the probability of offering a non-opinion by around seven percentage points across all levels of Indigenous resentment and for all partisan types (for additional tests see SM6.7).

Discussion & Conclusion

Denialism has been a persistent feature in Canadian society since the inception of the residential school system, which represents a significant barrier to truth-telling and improved relations between Indigenous and non-Indigenous peoples (Betke, 2023; Bruyneel, 2024; Fraser, 2025; McKenzie and Carleton, 2021; Peace, 2020; Regan, 2010; Truth and Reconciliation Commission of Canada, 2015a). This study complements prior scholarship on the nature and consequences of denialism (Carleton, 2021; Gerbrandt and Carleton, 2023; Justice and Carleton, 2021b; MacDonald, 2019; Regan, 2010; Starblanket, 2020; Warry, 2008) by developing a new survey instrument for measuring residential school denialism that future scholars and practitioners can use to monitor this phenomenon over time.¹⁶ Using this scale, we estimated the prevalence of denialism in Canada, identified who is most susceptible to believing this misinformation, and demonstrated that providing relevant, educational information can reduce the appeal of these claims.

A significant percentage of non-Indigenous Canadians are willing to endorse denialist arguments: on average, 17 percent either somewhat or strongly agree with the statements in our scale. By contrast, we found that only 3 percent of our respondents were willing to deny the Holocaust, a number that is congruent with previous research and far lower than the percentage endorsing residential school denialism (Smith, 1995; Schoen Consulting, 2019). Denialism in Canada is also equally or more prevalent than beliefs in many other conspiracy theories, including QAnon, climate change denialism, and Covid-19 vaccine-related conspiracies (Gravelle et al., 2022; Monopoli, 2022; Pew Research Center, 2016; Rogers, 2021;

¹⁶In cases where including the full nine-item scale is not feasible, we have created a shorter battery that can be used instead (see SM4.5).

Schwartzberg, Stevens and Acton, 2022).

While residential school denialism and these other conspiracy theories are increasingly spreading via social media, there are also important differences. In particular, our analysis reveals that residential school denialism is only weakly correlated with conspiracy thinking, a psychological predisposition that explains variation in beliefs about a range of other types of misinformation and conspiracy theories (Uscinski and Parent, 2014). Partisanship and racial attitudes are much more important predictors of denialist beliefs.

We also tested an experimental intervention designed to combat residential school denialism. We found that a short educational treatment containing factual information about the history and legacy of residential schools reduces residential school denialism by nearly 15 percent of a standard deviation and lowers the probability of expressing a non-opinion (“don’t know/haven’t thought too much about this”) by just under 7 percentage points. The intervention appears to work by simultaneously decreasing non-opinions and increasing the number of respondents who strongly reject residential school denialist statements.

Unfortunately, there appears to be a core group of residential school denialists with firmly held beliefs who are not swayed by our intervention. Nonetheless, we view our study as a minimum viable demonstration of the principle that education can counter residential school denialism, at least among those who have not formed strong opinions. The results, of course, come from a carefully controlled online experiment. It is imperative that future research build on our findings by testing other interventions in real world settings, where treatments involving more than a 250-word text could produce stronger effects or competing information may dampen the positive effects of education (Chong and Druckman, 2010; Williamson, 2024).

That being said, to identify the potential for backlash, we also analyzed the conditional effect of the treatment among political partisans and across a range of anti-Indigenous attitudes. The informational treatment does not have a significant effect on residential school denialist attitudes among those who express the lowest levels of Indigenous resentment, but

it does meaningfully reduce residential school denialism among those expressing medium or high levels of resentment. Similarly, the informational treatment does not have a significant effect in terms of shifting residential school denialist attitudes among NDP and Green Party-identifiers, but it reduces residential school denialism among Liberal, Conservative and PPC-identifiers. These results are notable because they indicate that the intervention was effective among exactly those respondents who were most likely to endorse denialist claims at baseline. The treatment did not trigger a backlash among those harbouring anti-Indigenous attitudes or those who support centrist and right-of-centre parties.

There are two potential sources of bias worth noting in our research design: acquiescence and social desirability. We address the potential problem of acquiescence bias by explicitly encouraging respondents to use the “don’t know/ haven’t thought too much about this” response options and by using alternate wording for the items measuring residential school denialism. Our analysis of response patterns shows that respondents do tend to express marginally higher levels of denialism when the items are worded such that greater agreement indicates stronger endorsement of residential school denialism (SM5.1). This pattern may be because the arguments behind these items were inherently more plausible, or it may suggest that these estimates are upwardly biased due to acquiescence. The only technique that could fully dispel any concerns about acquiescence bias involves having positively- and negatively-worded versions of each item and randomly assigning respondents to receive one item or the other (Hill and Roberts, 2023). While holding some appeal, this approach requires assumptions about the logic underlying each statement and would require larger sample sizes, making it more difficult for future researchers to use the scale in subsequent research.

The second potential source of bias, social desirability, could arise if respondents feel uncomfortable revealing socially undesirable beliefs, leading to under-estimates of prevalence. We find this type of bias less plausible in our case. The survey was administered online and anonymously, which, as we reminded respondents, gave them the freedom to express

controversial opinions. In fact, up to 40 percent of respondents were comfortable expressing anti-Indigenous attitudes on the Indigenous resentment scale items. If respondents felt a need to conceal their true opinions about Indigenous peoples, we likely would not observe such a high proportion offering socially undesirable opinions on these measures. There is also little evidence that respondents with stronger anti-Indigenous attitudes were more likely to indicate “neither agree nor disagree” or “don’t know” to the questions gauging residential school denialism.¹⁷ Given that these are the responses that would mostly likely be used to hide one’s true positions, it seems improbable that social desirability bias is undermining our estimates. In SM5.1 we provide additional checks for this type of bias, showing that it also unlikely to be an explanation for the positive treatment effects we identify in the experiment.

With respect to limitations of the present study, there is a more insidious type of denial that we do not address. In Canada, popular discourses around reconciliation can tend to focus almost exclusively on residential schools, ignoring that this policy was just one part of a broader—and ongoing—colonial project aimed at dispossessing and destroying Indigenous nations (George, 2017; Green, 2025; Henderson, 2015). Future work could investigate how attention to the residential school history allows settlers to ignore other colonial injustices and deny more transformative visions of decolonization (Alfred, 2005; Simpson, 2017, 2014).

Another limitation of the present work stems from the fact that the nature of residential school denialism changes over time. New misinformation about this history is likely to emerge in the coming years and future researchers may need to adapt our scale to account for these changing dynamics. In SM4.5 we highlight the four items that we believe may be best able to capture the more persistent feature of denialist arguments. Additionally, we

¹⁷We code an alternative categorical outcome variable that scores respondents as “don’t know” if they declined an opinion on over half of the items measuring residential school denialism. Otherwise, responses are classified as agreeing, disagreeing or neither agreeing nor disagreeing based on their average score across the items. We then analyze responses in a multinomial logistic regression model with the same covariates as our main analysis. This modelling framework reveals that individuals who report 1 standard deviation higher levels of Indigenous resentment are around 2.3 times more likely to state their agreement with denialist claims rather than express “don’t know.” These results suggest that individuals who a priori are most likely to endorse residential denialism are not using the “don’t know” option to conceal their true opinions. See SM5.3 for details.

consulted with three individuals who have had experience with the residential school system while developing our proposed scale (two NCTR employees and one Indigenous Elder and residential school survivor; see SM3.6). Future research could benefit from engaging with a greater number of Indigenous peoples who have been directly impacted by residential schools and residential school denialism, thereby strengthening the research findings and ensuring that survivor voices are more fully represented.

Finally, we recognize a unique ethical concern inherent in our research. We exposed respondents to statements related to residential school denialism that they may not have otherwise encountered in their everyday lives. To address this concern, we debriefed all respondents at the end of the survey on the purposes of the study and presented respondents in the control group with the same text that the respondents in the treatment group received. Because we know that the intervention successfully reduced residential school denialism, we feel confident that sharing this information should have had the same effect among respondents in the control group. We recommend future researchers using our scale adopt a similar practice of providing respondents with corrective information about the denialist items after measuring these beliefs; research published after our data collection offers guidance on how best to approach this (Clayton et al., 2024). We have made the language of our educational intervention available in SM6.2 for this purpose.

If left unchecked, residential school denialism undermines efforts to improve relations between Indigenous and non-Indigenous people in Canada (George, 2017; Green, 2025; Justice and Carleton, 2021*b*). The former chair of the TRC, Murray Sinclair, argues that counter-narratives and misinformation represent one of the greatest obstacles to confronting the residential school history (quoted in Forester, 2021). Overcoming these barriers begins with an honest appraisal of the attitudes of Canadians toward historical injustices in their country. In her 2023 report, Kimberly Murray, the Special Interlocutor assigned to investigate unmarked graves at former residential schools, wrote that “denialism is a uniquely non-Indigenous problem; it therefore requires non-Indigenous people to actively work to counter

denialism and to create and implement strategies to do so” (Murray, 2023, p. 106). Our work provides a tool for addressing the threat of residential school denialism, which we hope future research will build upon to advance reconciliation.

Competing interests: The author(s) declare none.

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Supplementary Materials

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SM1 Social media analysis

In the main text, we describe the prevalence of terms associated with denialism in comments on popular Canadian Reddit pages. The eight subreddits we focus on are: r/Canada (2.4 million members as of March 2024 and 267 posts related to residential schools), r/CanadaPolitics (217,000 members, 98 posts), r/CanadianPolitics (8,000 members, 4 posts), r/Canada_sub (49,100 members, 14 posts), r/onguardforthee (278,000 members, 150 posts), r/CanadianConservative (7,700 members, 45 posts), r/NDP (32,700 members, 13 posts), r/LPC (1,700 members, 1 post).

We identify threads related to residential schools by searching for “residential schools” within each subreddit and then collecting comments on each post identified by the search; we then manually verified the relevance of each threat to residential schools by reading their title. In total, the data includes 33,918 comments from 592 threads. Comments were downloaded as-is in March 2024; comments that had been deleted or removed by moderators before then were not included in the analysis. For the analysis in the main text, we then flag comments as denialism-related if they contain at least one of the following terms or their permutations: “lie”, “fake”, “hoax”, “fraud”, “fraudulent”, “mislead”, “trick”, “scam”, “phony”, “prove”, “proof”, “debunk”, “fakenews”, “false”, “deceive”, “exaggerate”, “exaggeration”, “hysteria”, “falsehood”, “sham”, “fear mongering”, “zero bodies”, “no bodies”, “one body”, “mainstream media”, “mass media”, “liberal media”, “legacy media”, “dig”, “excavate”, “exhume”, “shovel”, “tree roots”, “debris”, “no evidence”, “denialism”, “denialist”, “conspiracy”, “provide education”, “misrepresent”, “misinformation”, “disinformation”, “whitewash”, “good intentions”, “intentioned”, “downplay”. These terms were selected based on careful reading of a sample of comments and are intended to capture comments that both espouse denialist arguments and that speak indirectly about denialism. The following are several examples of both kinds of comments that are flagged as denialism-related:

- “You cited a fake news source that’s implying the whole thing is a hoax. It’s clear you are engaging in genocide denialism.”
- “Perhaps its a long process, but until multiple excavations are completed and analyzed, the whole mass grave thing is belief or conspiracy theory.”
- “Have they recovered one body from these so called mass graves?”
- “...no one has dug down to see if what’s underneath the surface is bones or is brick and old foundation. No one is willing to go dig. It would be very damaging to the cause to go dig and find buildings instead of bones.”

In Figure S1, we use a stricter definition of denialism-related terms, and only flag comments if they contain one of the following terms: “fake”, “hoax”, “fraud”, “scam”, “phony”, “fakenews”, “sham”, “cover up”, “no evidence”. As expected, these terms are virtually non-existent in the discourse before the unmarked graves announcement in May 2021. And while the overall proportion of comments using these terms is lower than that of the longer list used for the plot in the main text, this proportion is similarly increasing over the time period under study. In fact, there is a doubling of these terms’ prevalence between May 2021 and the end of 2023.

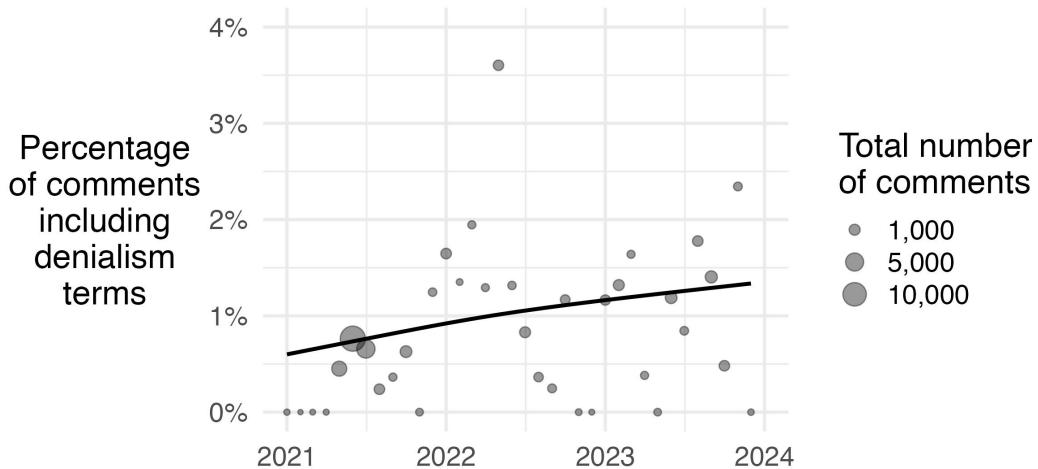


Figure S1: Prevalence of strictly denialism-related terms in Reddit comments, 2021 to 2023

Plot presents the proportion of comments including words that are strictly related to denialism on posts related to residential schools that appeared on eight Canadian subreddits between May 2021 (when unmarked graves were first announced in Kamloops) and December 2023. Line is estimated from a generalized additive model weighted by the number of comments in each month.

The prevalence of denialism-related terms varies across Reddit communities. In Figure S2, we plot the proportion of comments on the largest subreddits containing denialism-related words. The plot shows that, while all three subreddits saw similar usage of these terms before the announcement in May 2021, r/Canada and r/CanadaPolitics both saw significant increases in these terms over the following 2.5 years, while r/onguardforthee did not. While ostensibly non-partisan, r/Canada and r/CanadaPolitics are generally seen as conservative-leaning communities, while r/onguardforthee is explicitly left-leaning, with its description specifically identifying it as “the only general Canadian subreddit that doesn’t allow bigotry or hate.” These results suggest that much of the increase in denialism-related comments is driven by conservative-leaning communities. We do not observe differences in the proportion of comments removed by moderators over time or across subreddits (not shown here), so these differences are more likely driven by user behaviour within these communities rather than differential content moderation practices.

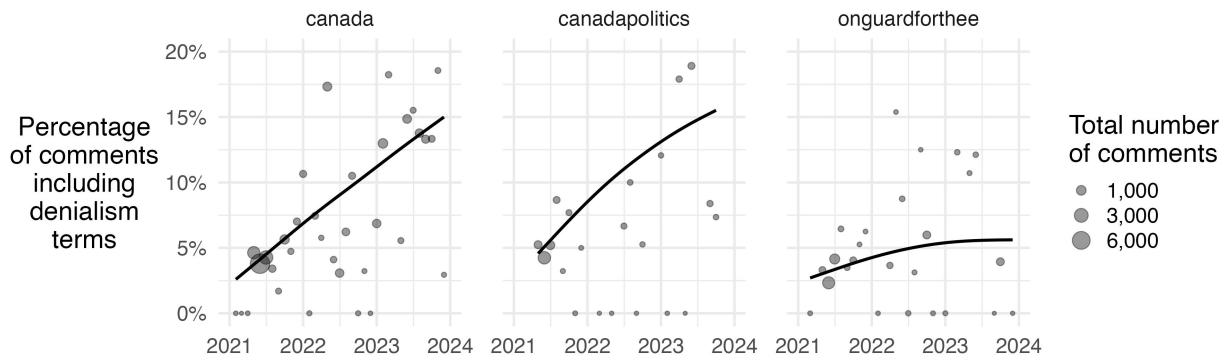


Figure S2: Prevalence of denialism-related terms in Reddit comments by subreddit

Plot presents the proportion of comments including denialism-related words on posts related to residential schools that appeared on eight Canadian subreddits between May 2021 (when unmarked graves were first announced in Kamloops) and December 2023. Line is estimated from a generalized additive model weighted by the number of comments in each month.

SM2 Terminology and Definitions

Language around social categories is always evolving and always fraught. There is a debate as to whether “people of colour” (POC) is the best term to use when referring to a group of people that includes those who are racialized as “non-White” and excludes those who are racialized as “White” in societies marred by hierarchies assigning greater status to those racialized as White. Some argue that the term “racialized” should be preferred to describe those who are not racialized as being White. This is increasingly the trend in Canada. For example, Statistics Canada is moving toward using the term “racialized” in place of “visible minority” (Statistics Canada, 2022). However, others argue that this is a misuse of the term “racialized” because all people are racialized, including Whites (see Tewelde (2020)).

We tend to agree that using the term racialized to only refer to all people who are not White can be confusing, since Whiteness is also a racialized category (Baum, 2006). The terms “racially minoritized” or “racialized minorities” represent attempts to address this confusion. However, these terms are still difficult in the Canadian context. At the national level, population groups that include individuals of non-European ancestry (those who are typically racialized as members of non-White population groups) are indeed a minority. However, at more local levels—for instance, people of Chinese ancestry (who are racialized as Asian) living in Richmond, Vancouver—may constitute a majority of the population in their respective municipalities. Their majority status in turn affects the way their population group is racialized. Thus, we elect to use the term POC to refer to population groups that include individuals of non-European ancestry (those who are typically racialized as members of non-White population groups). This approach is by no means ideal, but we think it is still the clearest shorthand for distinguishing this group.

A further distinction—between POC and Indigenous—is also necessary. While Indigenous peoples are also population groups that include individuals of non-European ancestry (those who are typically racialized as members of non-White population groups), they are

distinct from non-Indigenous POC. Indigeneity is defined by a distinct relation to land (Coulthard, 2014; Wildcat et al., 2014; Simpson, 2011; Singh, 2019; Green and Green, 2007), which non-Indigenous (or settler) POC do not share.

We designed a survey question to capture broad, racialized population groups rather than particular ethnicities. We asked respondents:

What racial or ethnic group best describes you? Some of these categories overlap, so pick the group that best describes you.

For more information about who might belong in each group, see below.

- White
- Black
- Latin/Hispanic
- Indigenous (e.g., First Nations, Métis, Inuit, Native American/Canadian)
- Middle Eastern/Arab
- Asian
- South Asian
- Mixed race
- Another race or ethnicity:
- Prefer not to answer

Below the question we included the following explanation:

- “White” includes anyone whose ancestors originated from a European country, even if their ancestors migrated multiple generations ago (e.g. British/ British-Canadians and French/ French-Canadians and French-Quebecois).
- “Latin/Hispanic” includes the broader Spanish-speaking diaspora from outside of Europe (e.g. Latin America, the Caribbean, or the US), even if their ancestors migrated multiple generations ago.
- “Black” includes the broader African diaspora, including Black people from countries outside of Africa (e.g. Latin America, the Caribbean, or the US), even if their ancestors migrated multiple generations ago.
- “Asian” includes anyone whose ancestors originated from an East or South East Asian Country (e.g. China, Japan, Korea, Vietnam, the Philippines), even if their ancestors migrated multiple generations ago.
- “Middle Eastern or Arab” includes anyone whose ancestors originated from countries in the Middle East, North Africa and parts of Asia (e.g. Lebanon, Turkey, Egypt, Morocco, Kazakhstan, Afghanistan), even if their ancestors migrated multiple generations ago.
- “South Asian” includes anyone whose ancestors originated from a South Asian Country (e.g. India, Pakistan, Bangladesh), even if their ancestors migrated multiple generations ago.

The question asking respondents to locate themselves in racialized population groups was the third item (screener question) of our survey after the consent form. The first two items asked about age (participation was restricted to 18 years of age and older) and citizenship status (participation was restricted to Canadian citizens and permanent residents). Respondents who identified as Indigenous completed the survey at this stage while all other respondents proceeded to take the rest of the survey. As respondents completed the study, questions that asked about in-group identification referred to the population group that the respondent had selected. For example, consider the question that asks “Being [population group] is important to my identity.” For respondents who identified as White at the start of the survey, this question showed as “Being White is important to my identity.” For respondents who identified as Asian at the start of the survey, this question showed as “Being Asian is important to my identity.”

For the purpose of our statistical analysis, non-Indigenous respondents who identified with any group besides White were recategorized as POC. Recategorizing these separate groups into the broader group of POC is a theoretically-informed decision: recent scholarship shows that among POC, attachment to a racial identity (such as Asian or Black) is a strong predictor for whether an individual also identifies in solidarity with POC in general (Sanchez, 2008; Pérez, 2021). Furthermore, although this recategorization loses nuance, reducing the dimensionality of the analysis is necessary for the present work. An analysis of distinctions between the many racialized population groups in Canada is a fascinating topic that merits a separate study with oversamples for each population group. Our present sample cannot address this research topic, given that the small number of respondents in each separate, racialized population group prevents us from including each group separately in our analysis. Although our goal was to tap into racialized population groups, we acknowledge that members of some groups may consider these ethnic rather than racial groups. As such, in the body of our paper we refer to race/ethnicity.

SM3 Data and sample

SM3.1 Sample representativeness

Table S1: Sample versus general population characteristics

	Averages	
	Sample	General pop.
Man	0.49	0.49
Age	50.5	41.7
White	0.75	0.72
Bachelor's degree	0.32	0.33
Religion: Catholic	0.33	0.30
Religion: Other Christian	0.20	0.23
Religion: Other	0.10	0.12
Religion: None	0.38	0.35
Region: Ontario	0.37	0.38
Region: Quebec	0.26	0.23
Region: Prairies	0.14	0.18
Region: B.C.	0.16	0.14
Region: Atlantic	0.06	0.07
Language: English	0.60	0.56
Language: French	0.28	0.21
Language: Other	0.12	0.23

Canadian general population data from 2021 Census. Percentage White in the general population is based on census respondents not identifying as Indigenous.

SM3.2 Results with survey weights

Table S1 indicates that our sample is generally representative of the Canadian population, with some minor discrepancies. As a robustness check, we re-run our main results using post-stratification survey weights based on age, gender and region population-level percentages from the most recent census data.

Figure S3 shows the prevalence of responses to the denialist items in the unweighted and weighted samples. The results are nearly identical using each sample. In Table S2, we present estimates of the average treatment effects from the experimental intervention, separately for the weighted and unweighted samples. Again, the estimates are very similar, with differences of less than 3% of a standard deviation and less than 0.02 p.p. for the two outcomes.

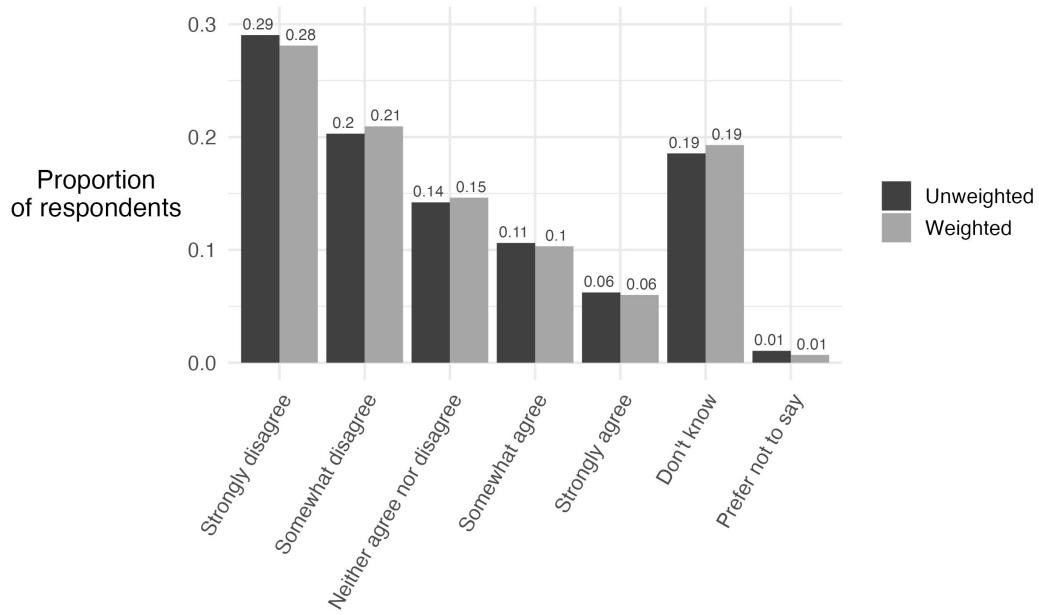


Figure S3: Proportion of responses to denialist claims by sample weighting

Plot presents the average proportion of respondents, in the weighted and unweighted samples, providing each response type across all nine denialism items. Sample weights based on age, gender and region.
($n = 1,915$)

Table S2: Average treatment effects of informational intervention by sample weighting

		Unweighted sample			
		Denialism		“Don’t know”	
		No controls	With controls	No controls	With controls
Informational treatment		−0.131* (0.046)	−0.140* (0.036)	−0.068* (0.012)	−0.067* (0.011)
Observations		1,822	1,822	1,915	1,915
R ²		0.004	0.414	0.015	0.187
Sample weights		No	No	No	No
		Weighted sample			
		Denialism		“Don’t know”	
		No controls	With controls	No controls	With controls
Informational treatment		−0.105* (0.051)	−0.132* (0.040)	−0.070* (0.014)	−0.072* (0.013)
Observations		1,817	1,817	1,907	1,907
R ²		0.003	0.417	0.016	0.187
Sample weights		Yes	Yes	Yes	Yes

Table reports estimates from OLS models with HC2 standard errors. The outcome in the first two columns is the expressed denialism score (scaled in terms of control group standard deviations) among respondents who expressed an opinion on at least one of the denialism items. The outcome for the third and fourth models is the proportion of a respondent’s denialism items were responded to with a “don’t know” response. In models two and four, the following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor’s degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. In the bottom panel, sample weights based on age, gender and region are applied. *p<0.05

SM3.3 Data quality checks

In total, 2,060 respondents completed our survey. After removing duplicate responses from the same IP address and suspected bots, as flagged by Qualtrics’ detection software, we arrived at our final sample of 1,915 respondents, 955 of which were treated and 960 of which were in the control condition.

We investigated three indicators of respondent quality. First, we included two pre-treatment attention checks that instructed respondents to select a specific response; 7 respondents failed to select the correct response on either check. Second, we identified “speeders” as respondents who completed the survey in less than one-third of the median response time

in their respective treatment condition; 46 respondents met this condition. Third, we identified 132 “straight-liners,” or those who gave the exact same response on at least two out of five pre-treatment blocks of Likert-scaled questions.

In total, because of overlap in these three criteria, 170 respondents were flagged as low quality. Treated respondents are marginally more likely to be low quality than control group respondents (10.5 vs. 7.1%), which is statistically significant using a χ^2 -test ($p=0.01$). Given that one of our indicators of quality – speed – is potentially endogenous to treatment status, we opt to include low-quality responses in our main analysis. We find that excluding low quality respondents has virtually no impact on the estimated prevalence of denialism (not shown here). In Table S3, we show that the estimated average treatment effects in our experiment are marginally larger when low-quality respondents are excluded from the sample.

SM3.4 Description of covariates

In our correlational and experimental analyses, we rely on a number of covariates measured before treatment administration. The coding rules for those variables are as follows:

- Gender: Man (1); Woman or “Trans, non-binary, or another gender identity” (0)
- Region: Ontario; Quebec; British Columbia; Prairies (Alberta, Saskatchewan, Manitoba); Atlantic (Prince Edward Island; Nova Scotia; New Brunswick; Newfoundland and Labrador)
- Party ID: Bloc Quebecois; Conservative; Green; Liberal; NDP; People’s Party; “Another party”, “Don’t know/Prefer not to answer”, or “None of these, I think of myself as an independent”
- Language (asked as first language learned as a child): English only; French or “Both French and English”; Neither French nor English (another language)
- Race (asked as single identity): White (1); Asian, Black, Latin/Hispanic, Middle Eastern/Arab, mixed race, South Asian or “another race or ethnicity” (0)
- Bachelor’s degree: Completed graduate or professional degree (e.g., MA, PhD, JD, MD) or Completed Bachelor’s degree (e.g., BA, BS) (1); Completed technical, community college, CEGEP, College Classique, Some college but no degree, Secondary school (high school) diploma or equivalent, Did not graduate secondary school (high school) (0)
- Religion: Catholic (Roman Catholic); Atheist, agnostic, none; Evangelical Protestant, Mainline Protestant, Non-traditional Orthodox; Muslim, Sikh, Buddhist, Jewish
- Household income: measured categorically and converted to continuous values as follows: \$29,999 or less – \$15,000; \$30,000 to \$59,999 – \$30,000; \$60,000 to \$89,999” – \$75,000; \$90,000 to \$119,999 – \$105,000; \$120,000 to \$149,999 – \$135,000; \$150,000 or more – \$150,000

Table S3: Average treatment effects with and without low-quality responses

	Full sample			
	Denialism		“Don’t know”	
	No controls	With controls	No controls	With controls
Informational treatment	−0.131* (0.046)	−0.144* (0.036)	−0.068* (0.012)	−0.067* (0.011)
	(0.046)	(0.036)	(0.012)	(0.011)
Observations	1,822	1,822	1,915	1,915
R ²	0.004	0.414	0.015	0.187

	High-quality sample			
	Denialism		“Don’t know”	
	No controls	With controls	No controls	With controls
Informational treatment	−0.162* (0.048)	−0.174* (0.037)	−0.074* (0.012)	−0.070* (0.011)
	(0.048)	(0.037)	(0.012)	(0.011)
Observations	1,691	1,691	1,745	1,745
R ²	0.007	0.426	0.022	0.189

Table reports estimates from OLS models with HC2 standard errors. The outcome in the first two columns is the expressed denialism score (scaled in terms of control group standard deviations) among respondents who expressed an opinion on at least one of the denialism items. The outcome for the third and fourth models is the proportion of a respondent’s denialism items were responded to with a “don’t know” response. In columns two and four, the following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial identity attachment), Bachelor’s degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. In the bottom panel, the sample excludes low-quality respondents. *p<0.05

- Racial/ethnic identity attachment: measured as the average score among non-missing observations on a five-point “Strongly Agree” to “Strongly Disagree” scale with the following items:
 - Being [blank] is important to my identity.
 - - [blank] people in this country have a lot to be proud of.
 - - [blank] people in this country have a lot in common with one another.
 - It is important that [blank] people work together to change laws that are unfair to people of [blank] ancestry.
 - Many [blank] people are unable to find jobs because employers are hiring minorities instead. OR Many [blank] people are unable to find jobs because employers are hiring whites instead.
- Indigenous resentment: measured as the average score among non-missing observations on a five-point “Strongly Agree” to “Strongly Disagree” scale with the following items:
 - Irish, Italians, Chinese and many other minorities overcame prejudice and worked their way up. Indigenous people should do the same without any special favours.
 - Indigenous people are getting too demanding in their push for land rights.
 - The government does not show enough respect toward Indigenous people.
 - More must be done to protect Indigenous languages.
 - Indigenous activists are making reasonable demands.
 - Indigenous people get unfair tax breaks.
 - Indigenous people get more favours from the education system than they should have.
- conspiracy thinking: measured as the average score among non-missing observations on a five-point “Strongly Agree” to “Strongly Disagree” scale with the following items:
 - Much of our lives are being controlled by plots hatched in secret places.
 - Even though we live in a democracy, a few people will always run things anyway.
 - The people who really “run” the country are not known to the voters.
 - Big events like wars, the current economic troubles, and the outcomes of elections are controlled by small groups of people who are working in secret against the rest of us.
- Trust in media: How much trust do you have in the mass media - such as newspapers, TV and radio - when it comes to reporting the news? The following responses converted to a 5-point scale: “Almost not at all”, “A little”, “A moderate amount”, “A lot”, “A great deal”
- Residential school factual knowledge: Measured as the proportion of the following questions for which the respondent selected the correct answer (no response, “Prefer not to answer” and “Unsure/ Don’t know” were all treated as incorrect):

1. In total, how many residential schools were established in Canada?
 - 25
 - 130 (Correct)
 - 640
 - 1180

2. In all, approximately how many Indigenous children attended residential schools?
 - 10,000
 - 80,000
 - 150,000 (Correct)
 - Over 400,000

3. When did the last residential school close?
 - 1850
 - 1923
 - 1972
 - 1996 (Correct)

- Political knowledge: Measured as the proportion of the following multiple choice questions for which the respondent selected the correct answer (no response, “Prefer not to answer” and “Unsure/ Don’t know” were all treated as incorrect):
 1. Who is the current Minister of Finance? (Chrystia Freeland)
 2. Who is the Chief Justice of the Canadian Supreme Court? (Richard Wagner)
 3. When did the Canadian Charter of Rights and Freedoms become law? (1982)
 4. How many official languages does Canada have? (2)

SM3.5 Pilot data

In September 2022, we fielded a pilot survey with 612 English-speaking White Canadian citizens aged 18 or older. Respondents were recruited through Leger Opinion as part of another survey already being run by one of the authors. In that survey, we included three items to measure denialism:

1. “The graves found near former residential schools are probably old cemeteries whose markers have been lost over time. It’s not clear whether Indigenous people are buried in these old cemeteries, never mind residential school students.”

2. “Ground-penetrating radar has revealed disturbances in the soil near some former residential schools in Canada. But this does not offer convincing evidence that children died at residential schools. Until bodies are excavated from the sites, we cannot be sure that these soil disturbances are even graves.”

3. “While some Indigenous people benefited from getting an education at residential schools, these individuals’ positive experiences are outweighed by the larger harms caused by the residential school system.”

Response options ranged from “strongly disagree” to “strongly agree.” In the course of presenting results from this pilot in academic workshops, we received feedback that (a) the item wording was too complicated and the statements were too long; and (b) the statements required a “don’t know” option to account for respondents’ low levels of knowledge on this issue.

In revising our scale along these lines, we added additional items, but also included statements that contain similar claims to those in the pilot:

1. “The unmarked graves at former residential schools may not even contain Indigenous people.”
2. “Radar technology can reliably locate Indigenous children’s graves at former residential schools.” (reversed)
3. “The residential schools did more harm than good.”

In Figure S4, we compare the prevalence of different response levels across the two surveys. Not including a “don’t know” option in the pilot survey had important implications for how we initially estimated prevalence. Agreement with denialist arguments is much greater when respondents are forced to provide an opinion on the “radar is not reliable” and “schools did more harm than good” items. (This radar comparison is not perfect because the item was reversed in the full survey, so acquiescence bias may be affecting how respondents interpreted the pilot item). This pattern is less true for the “graves could be non-Indigenous” item, but that comparison also shows that without a “don’t know” option, many more respondents opt for the “neither agree nor disagree” category. These results suggest that future users of the denialism scale – and probably many other attitudinal measures related to history and Indigenous peoples in Canada – should incorporate the “don’t know” option.

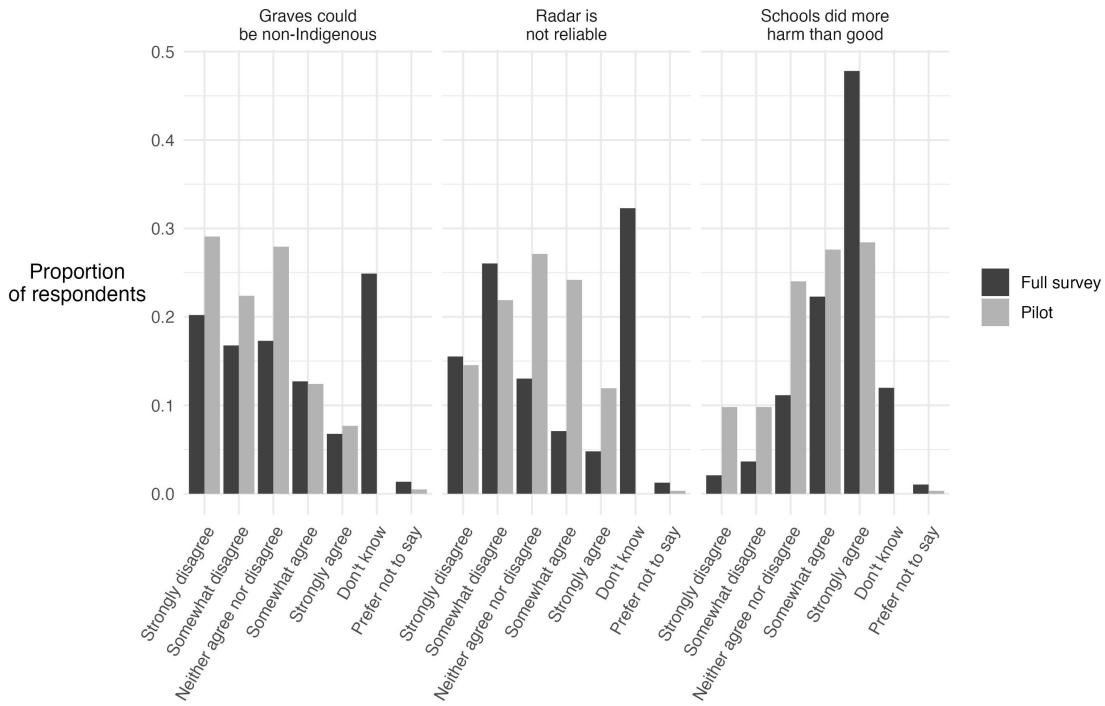


Figure S4: Full and pilot survey comparison

Plot reports the proportion of respondents providing each response type for the three items appearing in both the full and pilot surveys. ($n = 612$ and 960 in the pilot and full surveys, respectively).

SM3.6 Consultation & survey development

Our initial pilot allowed us to identify that residential school denialism was an observable feature of public opinion (see SM3.5), although it suggested a need to further hone the concept and survey questions. The first step to improving our measures was to engage with those most impacted by denialism. We contacted the National Centre for Truth and Reconciliation by email in July 2023. NCTR Employee 1 replied, c/c'ing NCTR Employee 2, to coordinate a time for a Zoom call.

Dr. Beauvais and NCTR Employee 1 and Employee 2 met via Zoom for approximately 45 minutes on August 1, 2023. NCTR Employee 1 and Employee 2 introduced themselves and identified their Indigenous ancestry. NCTR Employee 1 and Employee 2 were supportive of the study, but did not offer concrete feedback on the survey items. Instead, they more generally explained the goals and mandate of the NCTR. They explained that the mandate of the NCTR is to hold stories and present educational research. The NCTR Research Coordinator and Research Manager also pointed to a series of related projects, including The Canadian Reconciliation Barometer.

NCTR Employee 1 and Employee 2 expressed a concern that quantitative methods can be dehumanizing. They suggested that we meet with a survivor to discuss the project. Dr. Beauvais asked whether it would be acceptable to meet with a survivor and Elder who she knows personally, or if she should try to find a more “objective” source. The NCTR

Employee 1 and Employee 2 clarified that a personal relationship would be best.

Dr. Beauvais reached out to RK on August 29, 2023, an Indigenous Elder and survivor of the residential school system, who is the neighbour of Dr. Beauvais' childhood friend. Dr. Beauvais and RK met for coffee on September 4, 2023. Dr. Beauvais explained the project and background, and asked for RK's insights. RK first graciously explained the norms around meeting with and greeting Indigenous Elders, which do not involve launching into an explanation of one's scholarly pursuits. RK then shared many stories, including stories from his childhood and experiences with the residential school system. RK also discussed his role as an Elder, and the kind of work he does in his community.

Based on these consultations, the authors revisited their survey questions, fielded the subsequent survey, drafted their results, received feedback at a number of conferences and workshops, including the CPSA (2023, 2024), APSA (2024), and MapleMeth (2024) meetings, and received initial comments from reviewers at CJPS. The authors then shared their revised draft with NCTR Employee 1, NCTR Employee 2, and RK, the Indigenous Elder and residential school survivor in April 2025. The authors explained that they would be grateful for feedback or suggestions, and also asked whether anyone wanted their contributions to be credited (such as in the body of the paper, and/or as an acknowledgement). The (now former) NCTR Employee 2 replied to say that now-former NCTR Employee 2 no longer works at NCTR and neither does (now former) NCTR Employee 1, whose email had bounced back. Recognizing the importance of consent, AUTHOR sent the following email to NCTR Employee 2 asking for clarification:

Hi [ANONYMIZED], thank you so much for letting us know. Could you please forward to the NCTR to see if we can mention that we met with people who were working at the NCTR when we started our project? And would you also be able to inquire if they have a contact for [ANONYMIZED]?

And would you like us to thank you by name in our acknowledgments?

I recognize that there's a long history of settlers (1) taking things, including knowledge from Indigenous peoples without giving credit, and (2) a history of doing things to Indigenous peoples without their consent. I want to do my best to make sure we don't fall into either pattern—I don't want to name you without your consent, but also don't want to not give you credit if you'd appreciate being recognized in the research process :)

The (now former) NCTR Employee 2 replied to say:

I appreciate you for taking this approach! I would prefer not being named, I do not take this as not giving me credit for the knowledge shared. I believe acknowledging that you got it from folks at the NCTR demonstrates that you were gifted knowledge from elsewhere and that is good in my books.

The (now former) NCTR Employee 2 was able to find a forwarding address from the (now former) NCTR Employee 1, who did not reply to our follow-up email. We take this to

mean that we can mention that the people we spoke with were affiliated with the NCTR, but because neither former employee asked to be named in our project, we have not named them.

Elder RK also did not initially reply to the April 2025 email asking whether he would like to provide feedback or whether he wanted to be acknowledged. When Dr. Beauvais next saw RK in person (Dr. Beauvais was visiting her friend in May 2025 and RK came by to say hello), Dr. Beauvais followed up about the acknowledgment and feedback. RK said he didn't need to be acknowledged by name and said he would try and read the paper, but has not yet offered comments to date (July 2025). Although feedback on the revised survey items and on earlier drafts of the paper would have been welcomed by the authors, the authors also recognize other people's time constraints and did not want to push.

SM4 Scale properties

SM4.1 Missingness

There are two types of responses that would count as a missing value on the denialism items: “I haven’t thought too much about this/ Don’t know” or “Prefer not to answer.” We summarize the prevalence of each response type for each item in Figure 3, with on average 18.6% of respondents saying “don’t know” and 1% preferring not to respond. In the analysis of the scale’s dimensionality and reliability below, we use list wise deletion to remove respondents with missing values. The experimental analysis takes each respondent’s score on the denialism scale as the average among non-missing items for the 95 percent of respondents who offered an opinion on at least one of the items. Figure S5 summarizes the distribution of non-response prevalence by treatment status. The distribution is right-skewed, with the majority of respondents offering opinions on all or nearly all items in both treatment conditions.

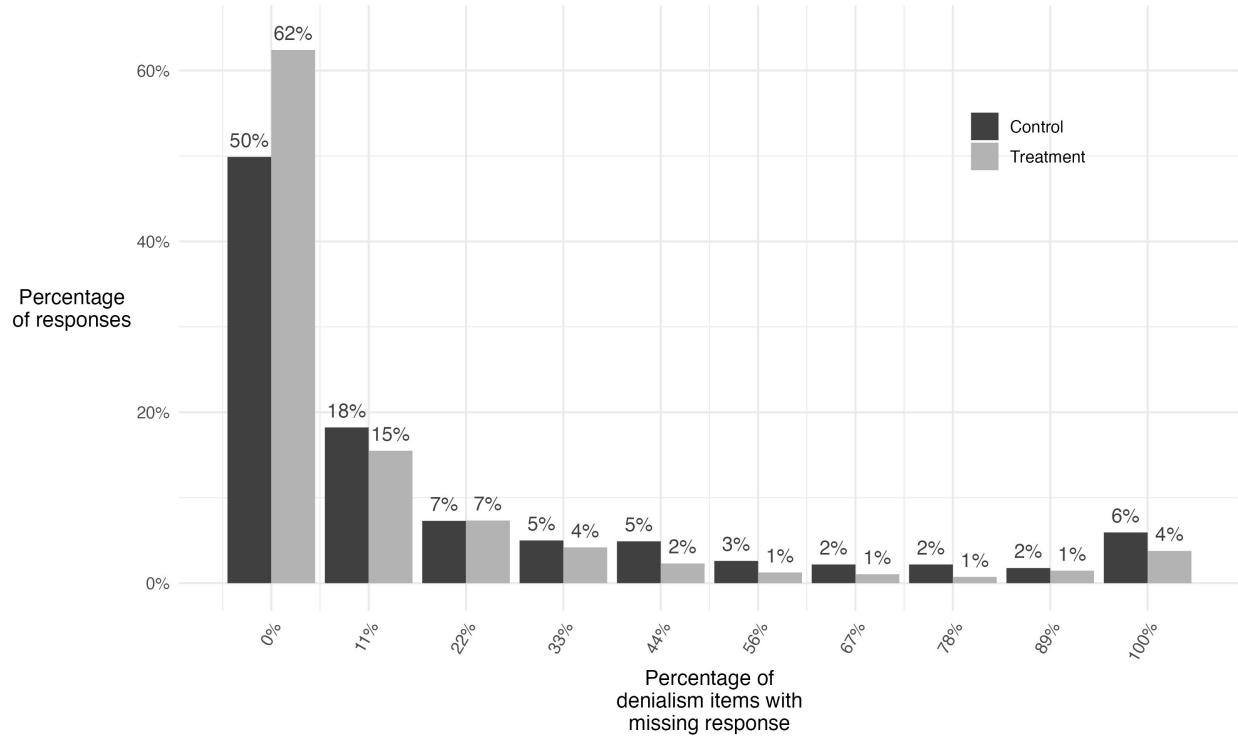


Figure S5: Distribution of non-opinions by treatment status

Plot presents the distribution of respondents offering non-opinions to the denialism items ($n=1,915$).

SM4.2 Reliability

Here we examine the scale's reliability, or the extent to which the items are consistent with one another and are all tapping in to the same concept. Figure S6 presents the correlations between items. As expected, all of the items are positively correlated with one another, with the strength of the relationships generally ranging from 0.4 to 0.7.

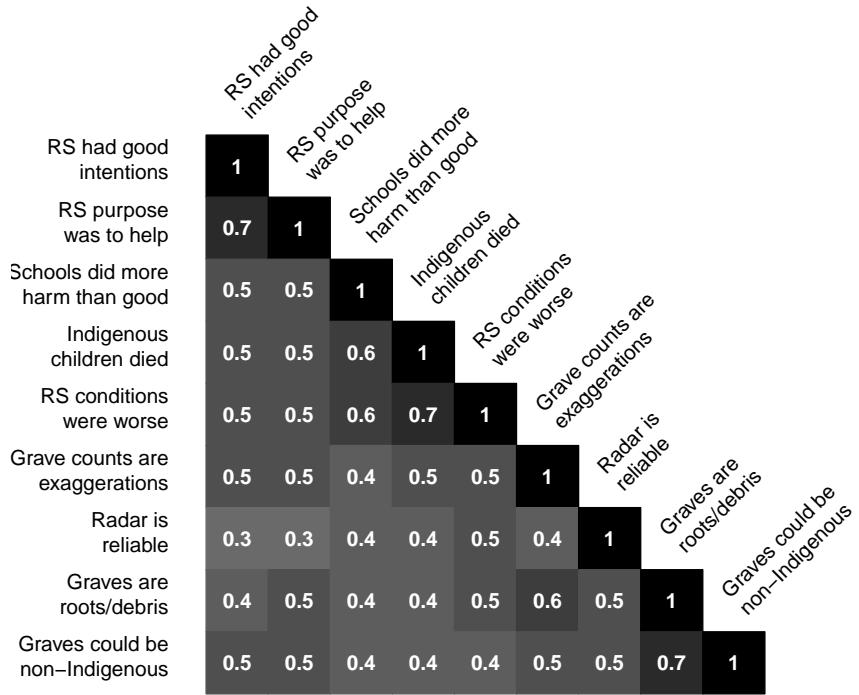


Figure S6: Denialism scale correlation matrix

Plot presents correlation between denialism items among respondents who do not respond “don’t know.”

The Cronbach’s α for the scale is 0.89 and the ω is 0.90, indicating that the scale is highly statistically reliable. To probe the sensitivity of this result, we also present the α -if-deleted values for each item in Table S4. The results show that in no case does the α improve by removing an item, suggesting that all of the items should be included in the scale. The drop scores show the correlation between a given item and the rest of the items (after excluding the given item). All of these correlations are large and positive, ranging from 0.54 to 0.68. In Figure S9, we plot these relationships for each item. The rest scores are all monotonically non-decreasing for each item, offering further evidence that together the items constitute a reliable scale. Finally, in Table S4, we report the squared multiple correlations (SMCs) for each item. The SMCs represent the proportion of variance in each item explained by the latent factor. All items show moderate to strong alignment, with values exceeding 0.3, and several items are well-explained, with SMCs greater than 0.5.

Table S4: Reliability Analysis Results

	α -if-deleted	Drop Scores	SMC
“Radar technology can reliably locate Indigenous children’s graves at former residential schools.”	0.89	0.55	0.34
“Indigenous children died as a result of attending residential schools.”	0.88	0.68	0.53
“The residential schools did more harm than good.”	0.88	0.64	0.50
“The suspected graves at former residential schools are probably tree roots or other debris, not graves.”	0.88	0.68	0.51
“The unmarked graves at former residential schools may not even contain Indigenous people.”	0.88	0.71	0.50
“Indigenous children attending residential schools died at higher rates than other children because the conditions at residential schools were worse.”	0.88	0.64	0.53
“People saying that there are hundreds of unmarked graves at former residential schools are exaggerating.”	0.88	0.68	0.50
“The people running Canada’s residential schools had good intentions.”	0.88	0.66	0.48
“The purpose of residential schools was to help Indigenous people.”	0.88	0.64	0.51

SM4.3 Dimensionality

To explore the dimensionality of our scale, we begin by examining a scree plot in Figure S7, which orders eigenvalues for each principal component derived from Principal Component Analysis (PCA) from largest to smallest. This approach involves visually identifying how many factors should be retained in an exploratory factor analysis by locating the point where

the eigenvalues level off (i.e. the “scree,” or “elbow” of the graph). Standard guidance is that all factors to the left of this point should be retained. In this case, there is one point to the left of the scree for the observed data, which suggests a single factor best captures variation in the items. Our visual test is confirmed by parallel analysis, which involves comparing the eigenvalues from the observed data to eigenvalues generated from a Monte-Carlo simulated data matrix. This simulated method is based on the idea that observed eigenvalues higher than their corresponding randomly-generated eigenvalues are more likely to represent meaningful factors. In our case, just one eigenvalue exceeds its simulated counterpart.

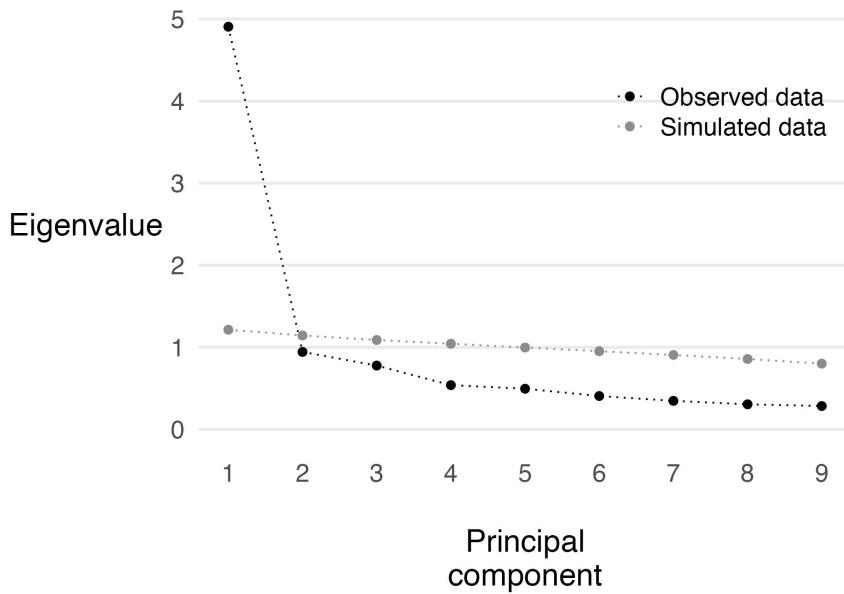


Figure S7: Denialism scale scree plot

Plot presents eigenvalues for each principal component from the observed nine-item denialism scale data and a set of simulated eigenvalues.

The results of PCA (to plot eigenvalues from the sample correlation matrix) is commonly used to clarify how many factors from an Exploratory Factor Analysis (EFA) should be retained. However, Fabrigar and Wegener (2012)[p. 57] argue that “it is more sensible to plot the reduced matrix eigenvalues because these are the eigenvalues that more directly correspond to the extracted common factors.” As such, we have additionally plotted the reduced matrix eigenvalues (Figure S8). The results are substantively identical. Based on the results of this additional scree analysis, a single factor was retained.

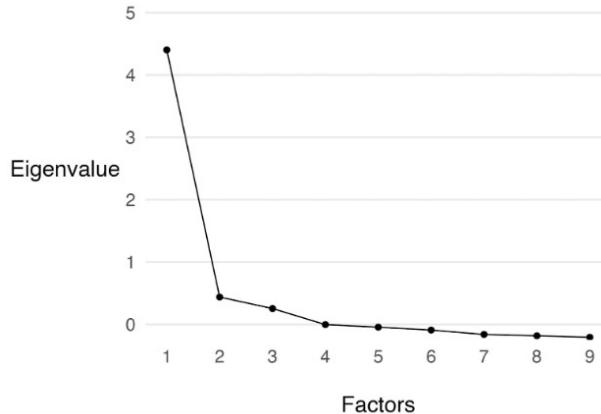


Figure S8: Scree plot of residential school denialism items using reduced matrix eigenvalues.

A scree plot plotting the reduced matrix eigenvalues from largest to smallest to visually identify the number of eigenvalues to the left of the point where the eigenvalues level off (the “scree” of the graph). There is one point to the left of the scree for the observed data, suggesting a single factor best captures variation in the items.

Table S5 presents the factor loadings from our single-factor EFA (with oblimin rotation and delta equal to 0). Most of the items have an “excellent” factor loading (defined as higher than 0.7), with none of the items scoring below a “good” factor loading (0.55 or higher) (Comrey and Lee, 2013). This indicates that all the items contribute well to a single latent factor.

While the root mean squared error of approximation (RMSEA) is slightly higher than the desirable 0.10 for the single-factor model and the Tucker-Lewis index (TLI) is slightly lower than the desirable 0.90, the root mean square of the residuals (RMSR) for the single-factor model is 0.04, which indicates the fit of the scale is adequate (Table S5). As an additional check, we plotted the item-response functions to show that the relationship between each item and the underlying scale is monotonically non-decreasing (Figure S9).

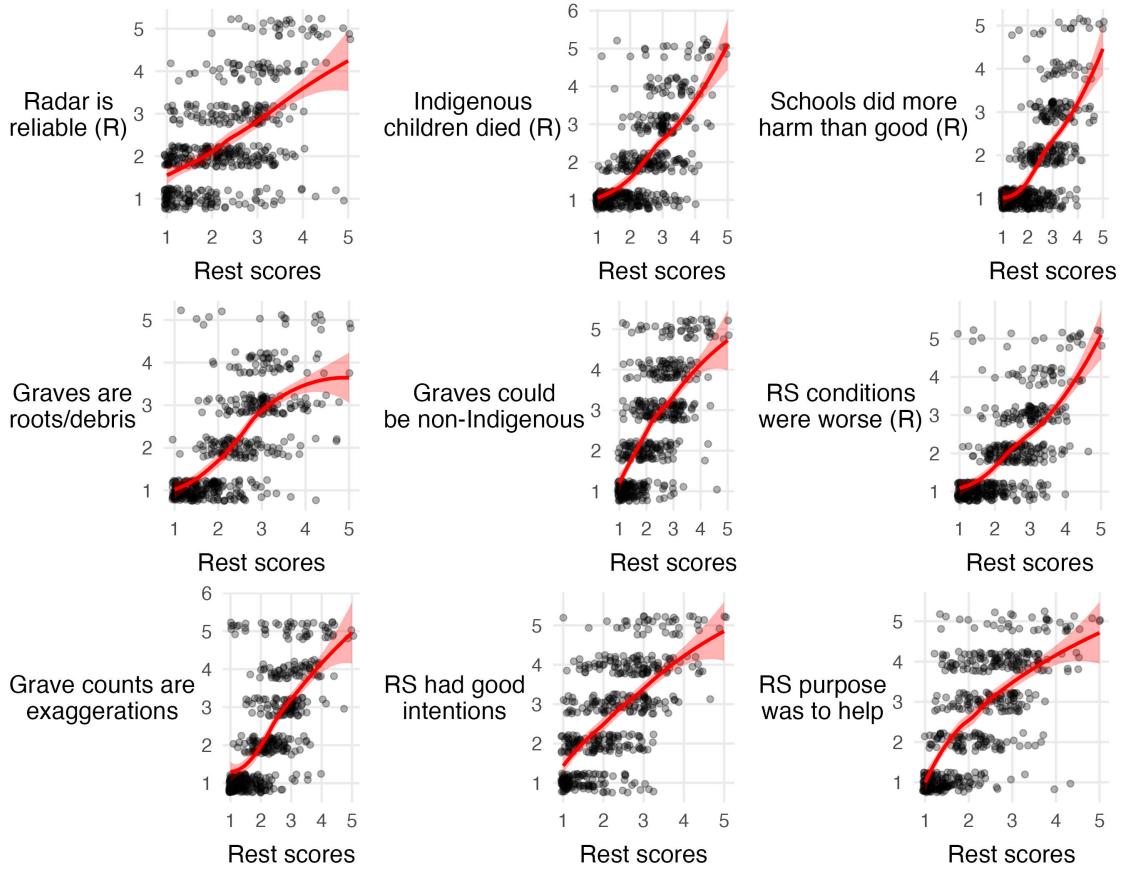


Figure S9: Item-Rest Scores

Plots present responses to each item on the y -axis plotted against scores on the other eight items in the denialism scale on the x -axis. Line of best fit and 95% confidence intervals based on LOESS regression ($n = 479$).

We also conducted a two-factor EFA and present the factor loadings in Table S5. The fit statistics on the single- and two-factor solution are similar, although show a very marginal improvement with the two-factor solution (e.g. the RMSEA is 0.036 points lower for the two-factor solution as compared to the EFA with a single-factor solution). This could be interpreted as suggesting that two scales might be justified. However, the marginally better fit statistics for the two-factor model do not outweigh the evidence in favour of a single-factor solution. First, the scree plot clearly points to a single-factor solution. Second, examining the correlation between the two factors of a the two-factor solution reveals that the resulting two subscales are strongly correlated at 0.71. Thus, producing two scales instead of one adds unnecessary complexity without any clear benefit. To test this intuition—that creating two subscales would not provide additional empirical leverage—we created two scales from the two-factor solution and re-ran our analysis, using OLS to estimate the correlates of each sub-scale, alongside the full 9-item scale, and report the coefficients in Figure S10. Note that to facilitate comparability with the full scale, we use the same summated rating measure to construct the sub-scales, assigning each item to a scale based on its largest factor loading score and then taking the average score across all items within each sub-scale. The subscales do not produce substantively different results, suggesting that no additional empirical leverage

is gained by adding this complexity.

Beyond these empirical indicators, there is also no strong theoretical justification for dividing the items in this particular way. There is some indication that the items load separately onto each of the two factors based on whether they are positively and negatively worded, but this pattern does not hold for the final two items in Table S5). Future research could test whether these sub-scales indeed represent distinct concepts or merely reflect the typical solution when some items are reverse-coded by examining whether the sub-scales differentially predict other attitudes or beliefs about the residential school system.

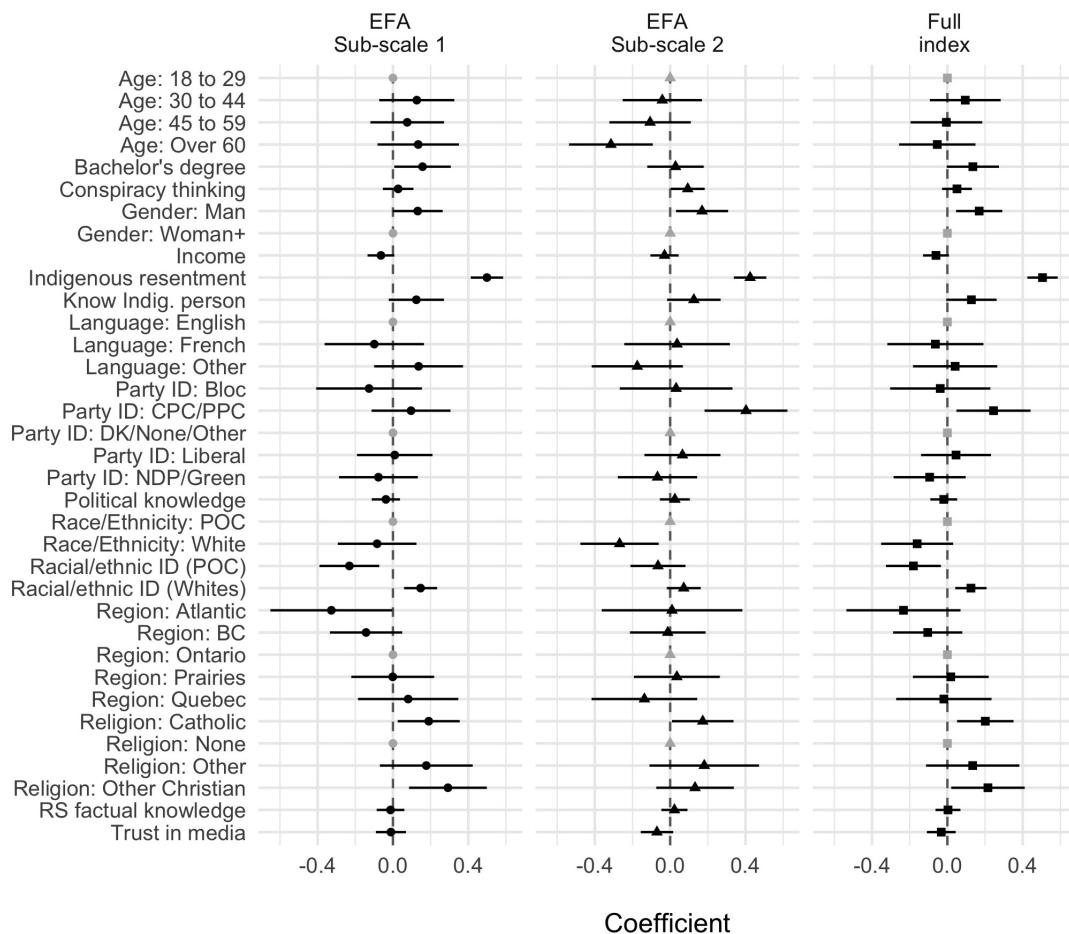


Figure S10: Correlates of EFA sub-scales

Plots reports coefficient estimates and 95% robust confidence intervals from an OLS regression of each denialism scale on the covariates listed on the *y*-axis. All continuous variables are scaled in terms of standard deviation changes. The outcome index is standardized by the control group mean and standard deviation. ($n = 636, 610$, and 639 , respectively).

Nonetheless, as we discussed in SM4.2, the reliability of the full scale is very high and the Cronbach's α for the full scale is larger than for either of the two potential sub-scales identified by the EFA. For completeness, we also estimate a Confirmatory Factor Analysis (CFA) and report the associated factor loadings in Table S5. Reassuringly, the results here are broadly in line with those from the single-factor EFA. Since the data are not normally distributed (see

Figure 3), we also re-estimated this model using maximum likelihood with robust standard errors, but this does not meaningfully improve model fit or change the estimated factor loadings. In summary, there is ample evidence that a single factor adequately describes the data. As we illustrated in the previous section, the unidimensional scale is reliable, and proceeding with a simple summated rating scale (as we do in the body of our paper) is appropriate.

Table S5: Principal Component Analysis (PCA) and Factor Analysis (FA) Results

	PCA Loadings		EFA Loadings		EFA Loadings		CFA Loadings	
	(1st Comp.)	(1 Factor)	(2 Factor)	(2 Factor)	(1 Factor)	(1 Factor)	(1 Factor)	(1 Factor)
“Radar technology can reliably locate Indigenous children’s graves at former residential schools.”	-0.28	0.59	0.20	0.44	0.59			
“Indigenous children died as a result of attending residential schools.”	-0.34	0.73	0.81	-0.04	0.73			
“The residential schools did more harm than good.”	-0.34	0.70	0.79	-0.04	0.71			
“The suspected graves at former residential schools are probably tree roots or other debris, not graves.”	-0.34	0.72	-0.07	0.92	0.72			
“The unmarked graves at former residential schools may not even contain Indigenous people.”	-0.34	0.71	0.09	0.70	0.71			
“Indigenous children attending residential schools died at higher rates than other children because the conditions at residential schools were worse.”	-0.34	0.73	0.77	0.01	0.73			
“People saying that there are hundreds of unmarked graves at former residential schools are exaggerating.”	-0.33	0.71	0.20	0.58	0.71			
“The people running Canada’s residential schools had good intentions.”	-0.33	0.69	0.59	0.14	0.69			
“The purpose of residential schools was to help Indigenous people.”	-0.34	0.71	0.61	0.14	0.71			
RMSEA	—	0.147	0.111	0.148				
RMSEA 90% CI	—	[0.133, 0.162]	[0.094, 0.130]	[0.133, 0.163]				
RMSR	—	0.070	0.040	—				
TLI	—	0.820	0.896	0.820				
χ^2	—	306.7 ($df = 27$)	132.1 ($df = 19$)	310.2 ($df = 27$)				

SM4.4 Validity

As a final check on the properties of our denialism scale, we examine its construct validity. The greatest potential threat to our scale's validity is the possibility that denialism is merely a manifestation of other types of anti-Indigenous attitudes, such as prejudice or Indigenous resentment.

It's worth noting, first, that the denialism scale does not correlate overly strongly with these other concepts ($r = 0.31$ and 0.59 , respectively). Moreover, the average correlation *within* the denialism scale ($r = 0.49$) and within the Indigenous resentment scale ($r = 0.54$) are considerably higher than the average correlation *between* items from each scale ($r = 0.37$). This suggests that while denialist beliefs are closely related to one another, and Indigenous resentment attitudes are similarly closely interrelated, these associations are much stronger than the relationship between individual indicators of denialist and resentful attitudes.

Beyond these statistical checks, there are also good theoretical reasons to differentiate between the concepts. Denialism involves a belief in misinformation (or lack of information) about residential schools, without necessarily entailing an affective dislike of Indigenous peoples or an opposition to all government policies that benefit Indigenous peoples (which tends to represent the bulk of the Indigenous resentment concept, see Beauvais (2021)).

To help make these distinctions concrete, we examine the predictive qualities of the denialism scale in Table S6. For each outcome, we treat denialism as a predictor and include a host of relevant control variables, including Indigenous resentment. The first model, focusing on a feeling thermometer towards Indigenous peoples, is instructive about denialism's relationship with affective dislike of the outgroup. While Indigenous resentment is strongly and negatively associated with this measure (a 1 standard deviation increase in resentment is correlated with an 0.5 standard deviation lower feeling thermometer score), denialism has virtually no relationship with this variable after controlling for resentment. Denialism, then, appears to represent something more than mere anti-Indigenous prejudice.

The remaining models investigate spending preferences on issues relevant to Indigenous peoples. First, we see that even after controlling for Indigenous resentment, denialism negatively predicts support for reconciliation. This makes intuitive sense: regardless of one's interpersonal attitudes toward Indigenous peoples, a belief in misinformation that denies the harms of residential schools should predict opposition to reconciliation, which is strongly associated with redress for the residential school history. Yet denialism has a weaker relationship with preferences for spending on the police, while Indigenous resentment strongly and positively predicts support for this spending area. This finding is in line with the idea that resentment taps into support for punitive policies toward Indigenous peoples, but that police spending has less contemporary relevance to the residential schools legacy. Finally, both denialism and Indigenous resentment negatively predict support for welfare spending, which previous work has shown has a racialized connotation in Canada (Beauvais (2022); Harell, Soroka and Ladner (2014)). Welfare is not explicitly tied to the residential schools, but many denialist arguments are motivated by the belief that the unmarked graves announcements were a strategy to divert more government funding to Indigenous communities. This conspiratorial line of thinking helps explain why denialism independently, but less strongly predicts welfare preferences alongside a more general Indigenous resentment. Taken together, these results suggest that our denialism items capture an empirically distinct concept with

relevance to several associated political attitudes.

Table S6: Denialism, Indigenous resentment and theoretical validity

	Indigenous thermometer	Spending preferences		
		Reconciliation	Police	Welfare
Denialism	-0.04 (0.05)	-0.09* (0.04)	-0.05 (0.05)	-0.12* (0.05)
Indigenous resentment	-0.46* (0.05)	-0.62* (0.04)	0.22* (0.06)	-0.22* (0.06)
Observations	635	614	628	618
R ²	0.35	0.57	0.18	0.23
Controls	Yes	Yes	Yes	Yes

Table reports estimates from OLS models with HC2 standard errors. All outcomes are scaled in terms of standard deviations. Sample includes only control group respondents who expressed an opinion on at least one of the denialism items. The following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor's degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. *p<0.05

SM4.5 Properties of shorter scale

Future researchers may wish to include a shorter version of the denialism scale in their surveys. We have constructed a 4-item scale that taps into two main aspects of contemporary denialism (i.e. deaths at the schools and the intentions of the program). This scale also steps away from specific claims about the unmarked grave searches, in the event that these types of denialist arguments become less common in future years. We use the following items to construct the shorter scale:

1. “The residential schools did more harm than good.” (reversed)
2. “Indigenous children attending residential schools died at higher rates than other children because the conditions at residential schools were worse.” (reversed)
3. “The people running Canada’s residential schools had good intentions.”
4. “The purpose of residential schools was to help Indigenous people.”

This shorter scale is also statistically reliable. The Cronbach’s α is 0.81 ($\omega = 0.82$), only slightly lower than for the full scale. In Table S7, we confirm that the shorter scale’s reliability also does not improve by dropping any of the reduced set of items. All of the items correlate

with the rest of the scale at around the same level as for the full scale (compare with Table S7); Figure S11 presents these correlations graphically, revealing that all associations are monotonically non-decreasing. Finally, as Table S8 shows, the short scale correlates similarly with other related covariates of interest (compare with Table S6).

Table S7: Short Scale Reliability Analysis Results

	α-if-deleted	Drop Scores	SMCs
“The residential schools did more harm than good.”	0.76	0.64	0.49
“Indigenous children attending residential schools died at higher rates than other children because the conditions at residential schools were worse.”	0.80	0.54	0.37
“The people running Canada’s residential schools had good intentions.”	0.73	0.68	0.62
“The purpose of residential schools was to help Indigenous people.”	0.74	0.66	0.62

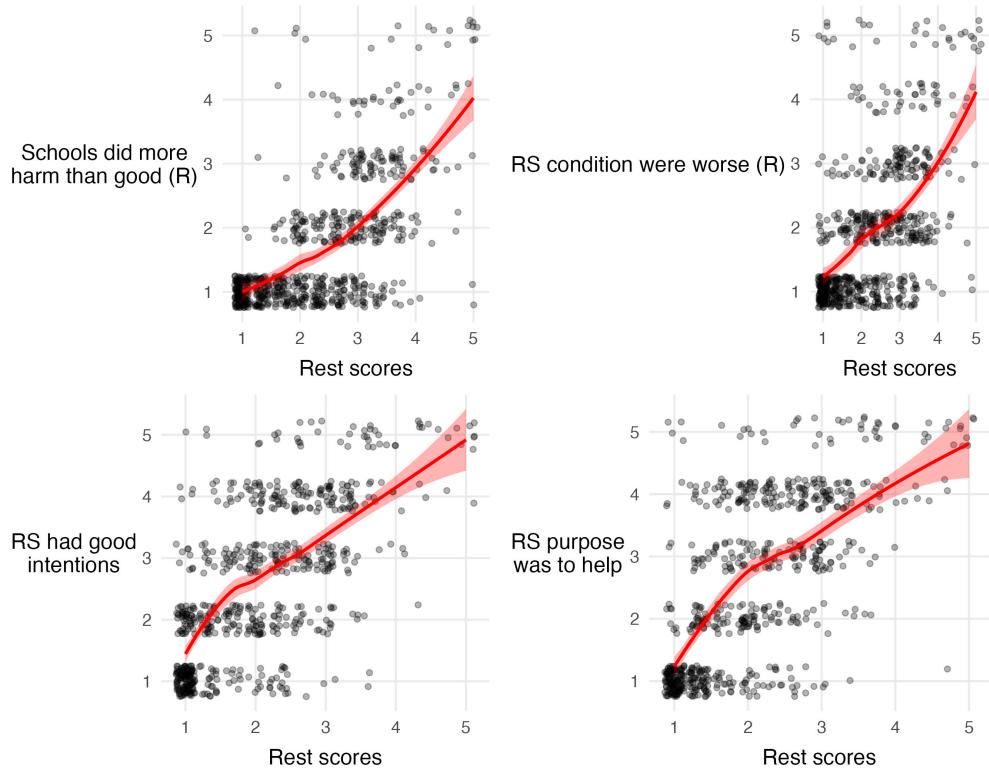


Figure S11: Item-rest correlations in 4-item denialism scale

Plots present responses to each item on the y -axis plotted against scores on the other eight items in the denialism scale on the x -axis. Line of best fit and 95% confidence intervals based on LOESS regression ($n = 714$).

Table S8: Short scale and theoretical validity

	Indigenous thermometer	Spending preferences		
		Reconciliation	Police	Welfare
Denialism (4-item Scale)	−0.02 (0.04)	−0.10* (0.04)	−0.10* (0.05)	−0.08 (0.05)
Indigenous resentment	−0.46* (0.05)	−0.62* (0.04)	0.25* (0.06)	−0.24* (0.06)
Observations	631	610	624	614
R ²	0.35	0.57	0.19	0.23
Controls	Yes	Yes	Yes	Yes

Table reports estimates from OLS models with HC2 standard errors. All outcomes are scaled in terms of standard deviations. Sample includes only control group respondents who expressed an opinion on at least one of the denialism items. The following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor's degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. *p<0.05

SM5 Prevalence and correlates of denialism

SM5.1 Social Desirability & Acquiescence Bias

Two potential sources of bias in any survey research are social desirability bias and acquiescence bias. As we discussed in the body of our paper risk of social desirability bias is quite low because the survey was conducted confidentially, online, with identities of the participants unknown to the researchers, and the subsequent data anonymized. Individuals tend to be more comfortable expressing unpopular opinions in anonymous, online spaces.

Looking at the correlates of denialism provides further evidence that the issue of social desirability is low (see Sections SM5.2 and SM5.3). Specifically, respondents who report higher levels of Indigenous resentment are more likely to agree with denialist claims rather than express “don’t know,” and are less likely to disagree with a denialism argument rather than respond with “don’t know.” Higher resentment does not correlate with a greater likelihood of responding “neither agree nor disagree” relative to the “don’t know” option. Taken together, these results suggest that individuals who a priori are most likely to endorse denialism—those with higher levels of Indigenous resentment—are not using the “don’t know” option to conceal their true opinions. Indeed, they are significantly more likely to offer a position when presented with a denialist claim.

We also considered social desirability as a potential explanation for the positive average

treatment effects that we observe in our experimental design. While we cannot fully rule out the possibility that the treatment encouraged respondents to provide responses that they believed would satisfy us as researchers, there are several reasons to think that this is not a major concern. First, we preemptively sought to minimize this response pattern by reminding respondents that their “answers are anonymous so you can be completely honest.” Second, the results in Figure 5 show that an equal proportion of respondents in the treated and control groups agreed with denialist arguments, suggesting that if social desirability operated at all, it likely did so only among those who would have otherwise responded with “don’t know.” There is little indication from the control group that respondents were using this response type to conceal their socially undesirable opinions. Third, in SM6.6 we show that treatment effect sizes are relatively consistent across sub-items in the scale, indicating that treated respondents were no more or less likely to provide a socially desirable response on more versus less sensitive items. Finally, anecdotally, a number of treatment group responses to an open-ended “feedback to the researchers” question also specifically mentioned that they felt they learned a lot from the information. We also coded these responses for whether the respondent accused the researchers of having a bias and found only 17 cases (approximately 0.9% of the full sample and 5% of the respondents who actually provided written feedback). Overall, those in the treated group were no more likely to make such an accusation than those in the control. Taken together, these facts provide confidence that social desirability bias is not a major driver of our experimental results.

Another potential source of bias in our estimates of the prevalence of denialist beliefs is acquiescence bias. Our items were worded such that some contained denialist claims, while others refuted denialist claims and had their scores subsequently reversed in the analysis stage. A common pattern in survey research is that respondents tend to express positive agreement with items, even if that position does not reflect their true beliefs.

To determine if this type of bias is relevant to our items, we report levels of expressed denialism by the direction of each item in Figure S12. This plot confirms respondents’ tendency to agree with statements of either type: anti-denialist items saw weaker expressions of denialism, whereas pro-denialist items saw stronger evidence of denialist beliefs. Of course, we cannot be certain whether this bias is purely due to acquiescence or to differences in respondents’ perceptions of the plausibility of each claim. Nonetheless, the amount of bias in favour of each type of item is roughly equal and, since we fielded an almost equal number of pro- and anti-denialist items, should cancel out in the aggregate. If we wanted to take a conservative approach and designate true denialism as disagreement with anti-denialist claims, then the prevalence of denialist beliefs in Canada would stand at around 8 percent.

Items worded in opposite directions can also potentially show up as a distinct dimension; this is a problem because this is not the kind of pattern that we are interested in uncovering as social scientists. In our case, all of the (positively- and negatively-worded) items load together. The results of both a factor analysis and PCA reveal no systematic differences between how well the positively- versus negative-worded items load onto an underlying dimension S5. The results of our reliability analysis show no systematic differences between the drop scores of the positively- versus negative-worded items and the reliability of the scale is similarly worse if any of the given positively- or negatively-worded items were dropped S4.

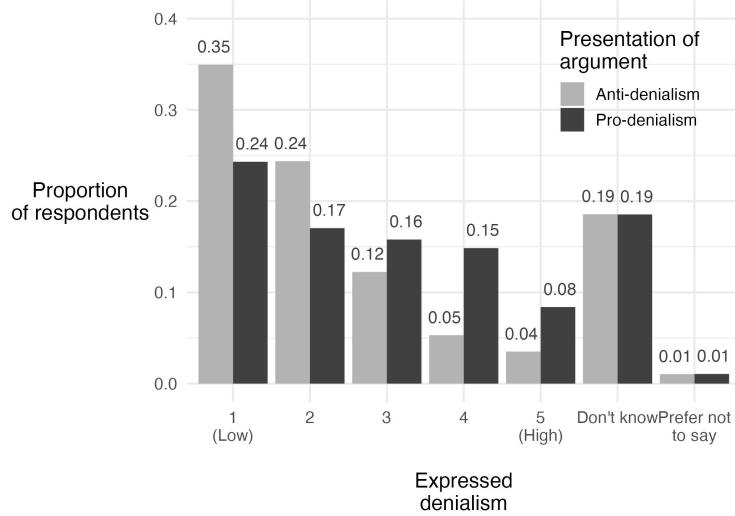


Figure S12: Denialism item response type prevalence by item direction

Plot summarizes the control group's levels of reported denialism for the nine items separately by those items that state a denialist claim (pro-denialist) versus contradict a denialist claim (anti-denialist). For both sets of items, expressed denialism is presented such that higher values indicating greater denialism (i.e. anti-denialist item responses have been reversed). ($n = 960$)

SM5.2 Multivariate analysis of correlates of denialism

In the main text, we examine the prevalence of denialism across relevant subgroups by looking at raw correlations between relevant pre-treatment covariates and the denialism scale. In this section, we use OLS to regress our measure of denialist beliefs on a larger set of demographic and attitudinal covariates.

The coefficient estimates, summarized in Figure S13, show that those with greater animus towards Indigenous peoples are more likely to endorse denialism: a one standard deviation increase in Indigenous resentment is correlated with 0.5 standard deviation greater agreement with residential school denialism, on average. Racial/ethnic identity also matters: in our model specification, a dummy variable indicating whether a respondent is White was interacted with a standard five-item scale measuring the strength of respondents' attachment to their racial/ethnic identity (adapted from Jardina (2019)). The estimates on these interactions are present in Figure S13,¹⁸ but are more easily interpretable in Figure S14. Here, we plot the marginal implied effect of being White (relative to a POC) across observed values of racial/ethnic in-group identity attachments. The results indicate that White respondents who exhibit average levels of attachment to their racial/ethnic identity are no more or less likely to agree with denialist claims than POC with similar levels of identity attachment. However, White Canadians who strongly identify with their racial/ethnic in-group are much more likely to endorse denialism than POC who profess strong identity attachments. At the

¹⁸In this figure, the coefficient labelled "Race: White" reports that White Canadians with an average level of attachment to their racial/ethnic identity score 0.2 standard deviations lower on residential school denialism than POC respondents. However, the "Racial ID scale (Whites)" coefficient shows that as the strength of one's racial/ethnic identity increases, White Canadians become far more willing to express residential school denialism, while POC become less willing to express these beliefs.

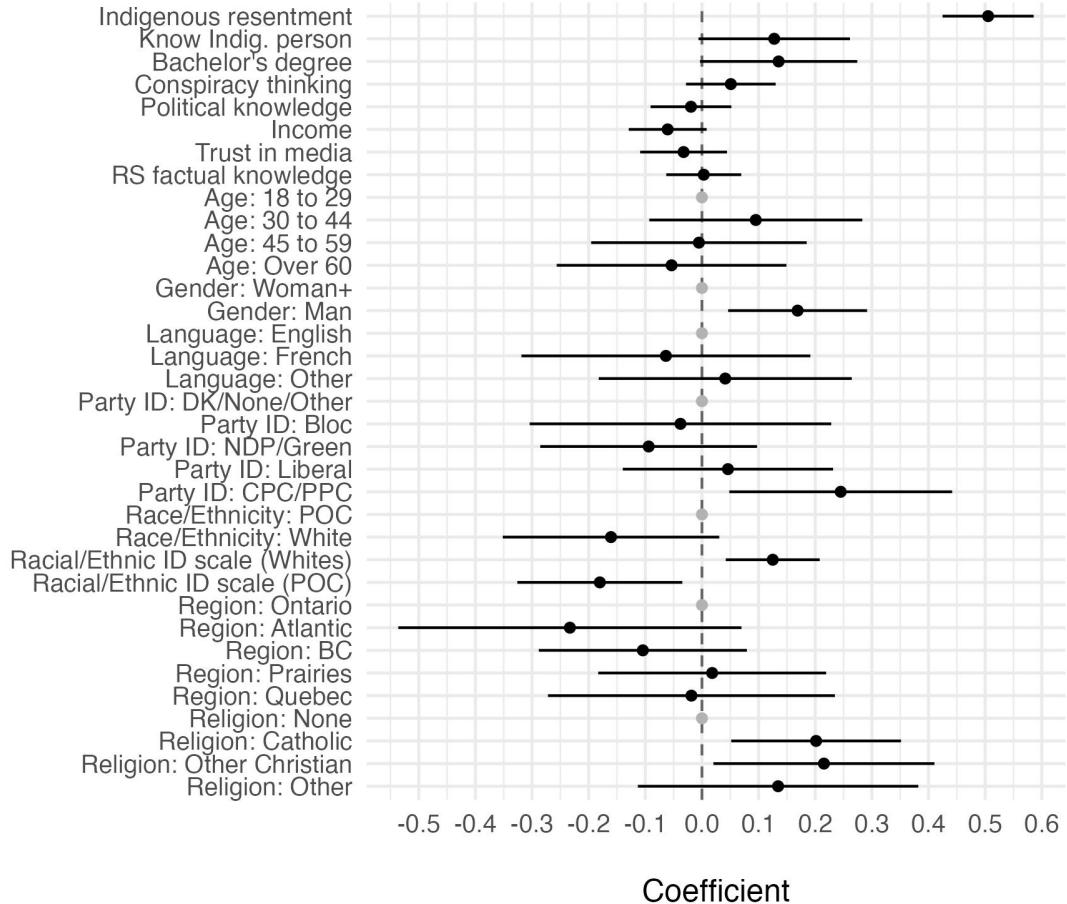


Figure S13: Correlates of residential school denialism

Plot reports coefficient estimates and 95% robust confidence intervals from an OLS regression of the denialist beliefs index on the covariates listed on the *y*-axis. All continuous variables are scaled in terms of standard deviation changes. The outcome index is standardized by the control group mean and standard deviation. ($n = 639$)

same time, whites who do not identify with their in-group at all are significantly less likely to express denialist beliefs. These results are not sensitive to the use of a linear interaction term; binning the moderator into terciles reveals a similar pattern, indicated by the point and errorbar estimates in Figure S14.

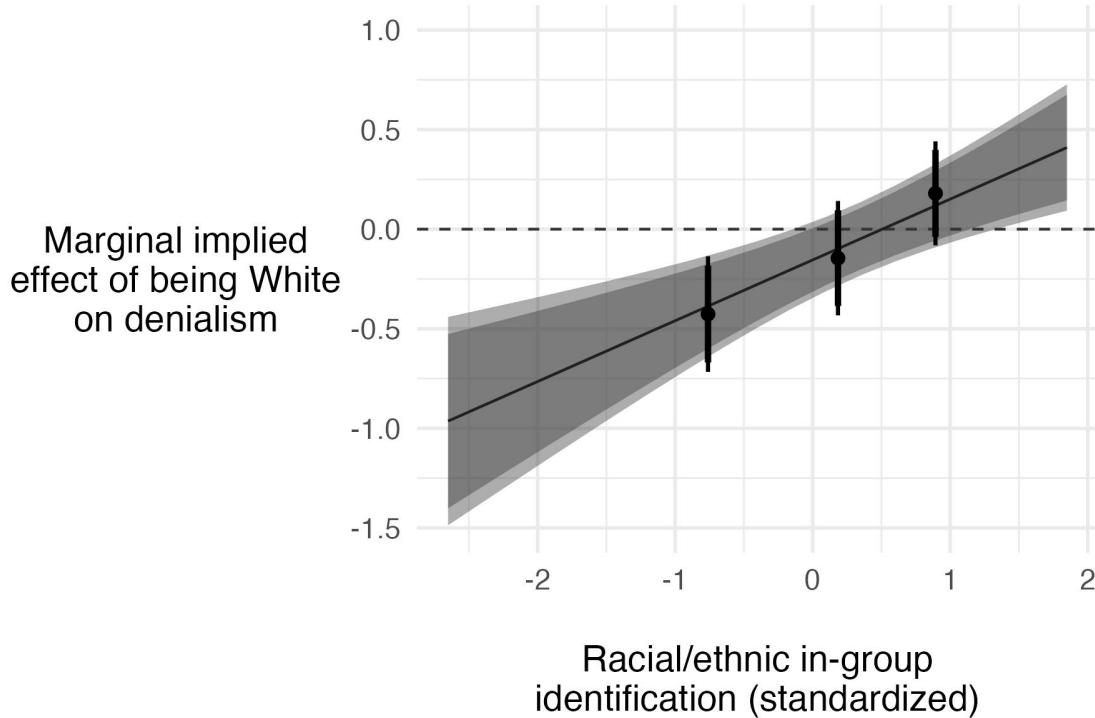


Figure S14: Marginal implied effect of race/ethnicity on denialism by racial/ethnic identity scale

Plot summarizes the conditional association between race/ethnicity and denialism for different levels of racial/ethnic identity attachments. Linear estimates come from the same OLS model in Figure S13 from the main text, in which racial/ethnic identity is interacted with the measure of strength of racial/ethnic attachment. Outcome and moderator are both scaled in terms of standard deviation changes. Binned estimates are from an analogous model in which identity strength is categorized by tercile. ($n = 639$).

Racial/ethnic identity and anti-Indigenous attitudes share a close association with partisanship (Beauvais and Stolle, 2022b), but even after controlling for variables in Figure S13, partisanship is still strongly associated with residential school denialism. Supporters of the Conservative Party (CPC) and People's Party (PPC) report a 0.2 to 0.35 standard deviation stronger agreement with denialist arguments relative to non-partisans and supporters of any other party.

With respect to the association between residential school denialism and prior knowledge and education, we find that respondents' scores on a three-item pre-treatment measure of factual knowledge about residential schools does not have a substantively meaningful relationship with residential school denialism. And other potential potential channels for prior exposure to factual history, including university education or knowing an Indigenous person, are not significantly associated with residential school denialism.

There are no major differences in denialism across age groups. On average, men express 0.17 standard deviation greater residential school denialism. Christians also report just over 0.2 standard deviation greater residential school denialism than agnostics and atheists, although we cannot reject the null hypothesis that Christians do not differ significantly from other religious adherents on this issue. We observe no major differences in residential school

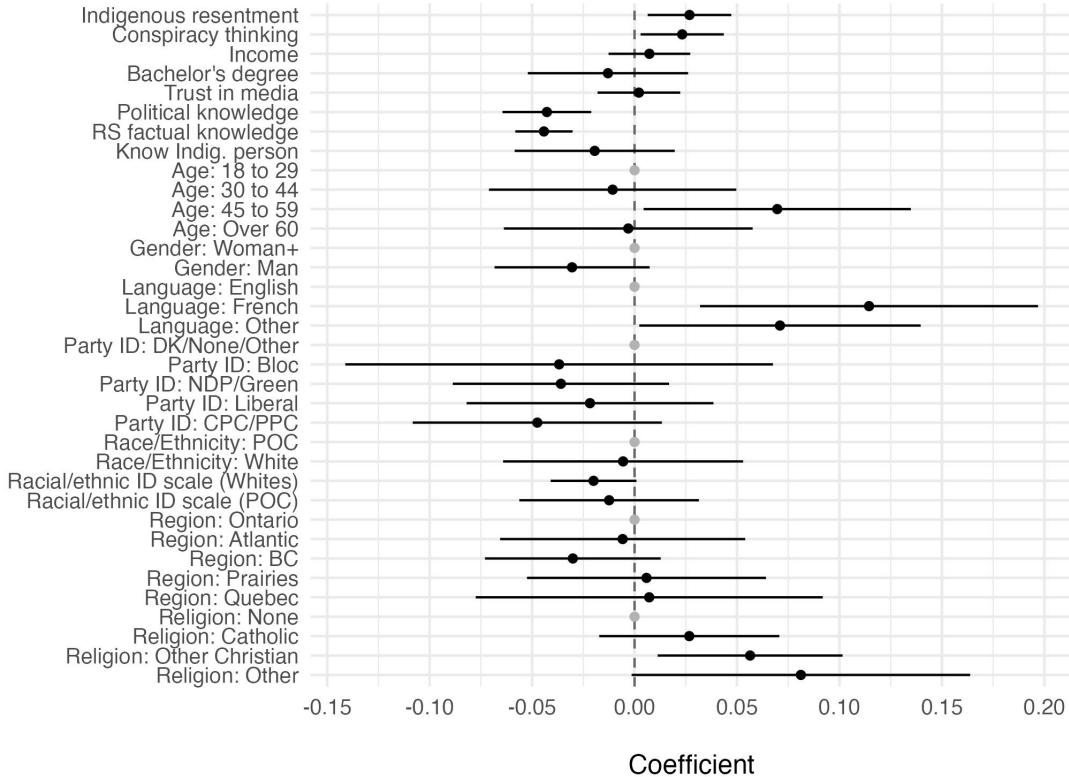


Figure S15: Correlates of “don’t know” responses to denialism items

Plot reports coefficient estimates and 95% robust confidence intervals from an OLS regression of the proportion of denialist items that are responded to with “don’t know” (0 to 1) on the covariates listed on the *y*-axis. All continuous variables are scaled in terms of standard deviation changes. ($n = 659$)

denialism across regions or language groups.

SM5.2.1 Multivariate analysis of correlates of “don’t knows”

A large proportion of respondents indicated that they “don’t know” or “haven’t thought too much about this” in response to the denialism items. Between 12 to 33 percent indicated a non-opinion, depending on the item. To understand what factors are driving these responses, we created a variable measuring the proportion of non-opinions that a respondent gave in response to the nine residential school denialism items. We then regress this variable on the same covariates as in the previous section and report the coefficient estimates in Figure S15.

The results suggest that knowledge is highly relevant to understanding non-opinions. Respondents’ pre-treatment, prior factual knowledge of the residential school history and their general political knowledge were both negatively associated with non-opinions. A one standard deviation increase in each variable correlated with a roughly 4 percentage point greater likelihood of offering an opinion.

Men, who are traditionally more willing to express political opinions, were also 3 percentage points less likely to respond “don’t know.” Those with greater Indigenous resentment and tendencies toward conspiracy theory beliefs were also more inclined to provide an opinion.

SM5.2.2 Multivariate analysis of correlates of RS knowledge quiz

Before treatment administration, we administered a three-item factual knowledge quiz about residential schools adapted from Boese, Neufeld and Starzyk (2017). In Figure S16, we summarize the results from an OLS model regressing respondents scores on this quiz on the covariates listed on the y -axis. We find that exposure to the residential school history is a central determinant of knowledge in this area. Those who personally know an Indigenous person (+10 p.p.), learned about residential schools during their time as a student (+7 p.p.), and completed a university degree (+6 p.p.) all performed better on the quiz. White Canadians also scored better on the quiz, although this estimate is imprecise. We do not find significant differences in quiz scores across age groups, gender, region, religion or immigration status.

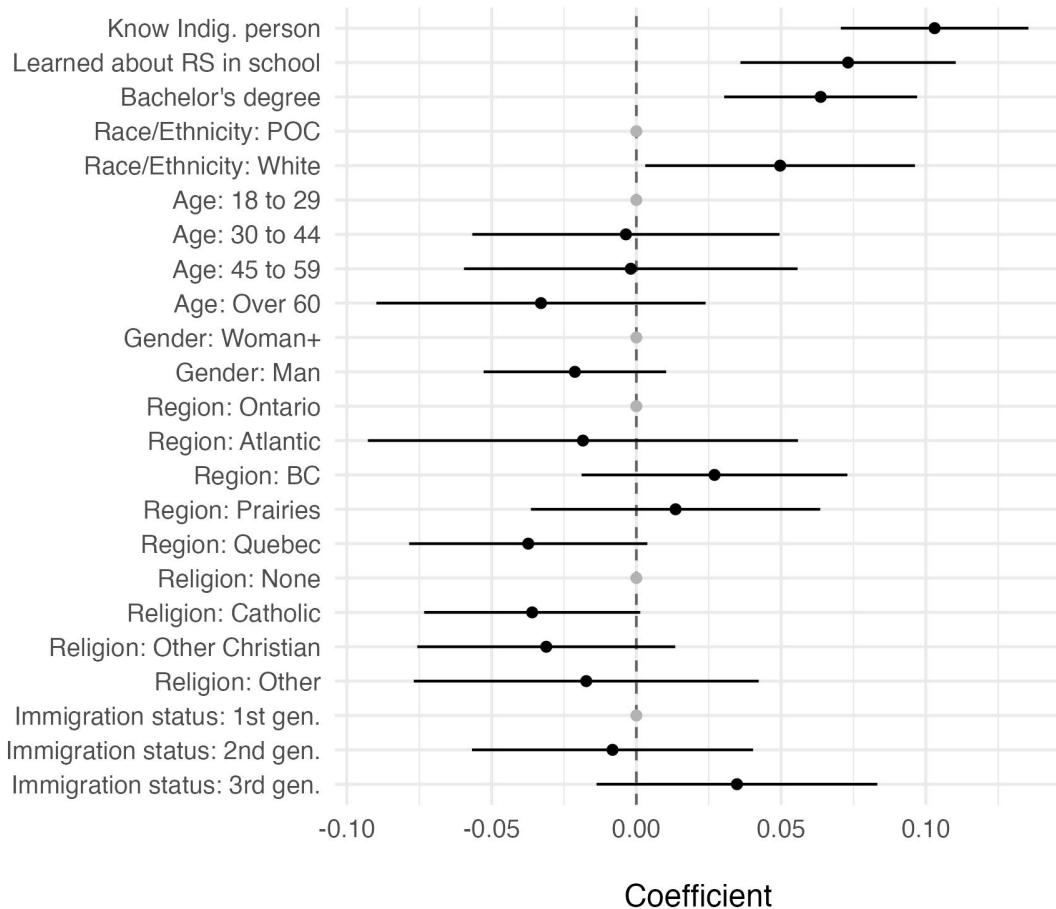


Figure S16: Correlates of residential schools knowledge quiz scores

Plot reports coefficient estimates and 95% robust confidence intervals from an OLS regression of the proportion of residential school quiz question that were answered correctly on the covariates listed on the y -axis. All continuous variables are scaled in terms of standard deviation changes. ($n = 1,277$)

SM5.3 Multinomial logistic regression framework

To further assess the relationship between ignorance and denialism, we code an alternative categorical outcome variable that scores respondents as “don’t know” if more than half of the denialist items received that response. Otherwise, responses are classified as agreeing, disagreeing or neither agreeing nor disagreeing based on their average score across the items. We then analyze responses in a multinomial logistic regression model with the same covariates as in the analysis from Figure S15 in the main text.

The results are presented in Table S9. Several estimates are notable. For one, the informational treatment increased respondents’ likelihood of disagreeing with or expressing an intermediate opinion on a denialist claim relative to responding “don’t know.” General political knowledge and factual knowledge about residential schools are also relevant, but not in exactly the same way: higher scores on these variables increase the likelihood of offering *any* opinion rather than “don’t know,” even pro-denialist positions.

The estimates related to Indigenous resentment help clarify the possibility of social desirability bias. Individuals who report higher levels of Indigenous resentment are more likely to agree with denialist claims rather than express “don’t know,” and are less likely to disagree with a denialism argument rather than respond with “don’t know.” Higher resentment does not correlate with a greater likelihood of responding “neither agree nor disagree” relative to the “don’t know” option. Taken together, these results suggest that individuals who a priori are most likely to endorse denialism – those with higher levels of Indigenous resentment – are not using the “don’t know” option to conceal their true opinions. Indeed, they are significantly more likely to offer a position when presented with a denialist claim.

Table S9: Multinomial logistic regression estimates of denialism responses

	Reference category: Don't know		
	Disagree with denialism	Neither agree nor disagree	Agree with denialism
Informational treatment	0.935* (0.260)	0.638* (0.250)	0.372 (0.472)
Indigenous resentment	-1.247* (0.171)	-0.157 (0.163)	0.740* (0.334)
Conspiracy thinking	-0.257 (0.158)	-0.099 (0.153)	0.265 (0.292)
Race/Ethicity: White	0.783* (0.379)	0.447 (0.353)	0.177 (0.757)
Racial/ethnic identification	0.195 (0.267)	-0.228 (0.244)	-0.697 (0.507)
White × Racial/ethnic ID	-0.388 (0.327)	0.402 (0.305)	1.485* (0.620)
Age: 30 to 44	0.102 (0.449)	0.100 (0.437)	-0.947 (1.060)
Age: 45 to 59	-0.485 (0.434)	-0.675 (0.421)	-1.530 (1.041)
Age: Over 60	0.244 (0.479)	-0.083 (0.465)	-1.233 (1.069)
Party ID: Bloc	0.261 (0.544)	0.107 (0.525)	-0.348* (0.000)
Party ID: CPC/PPC	-0.075 (0.364)	0.449 (0.341)	1.269 (0.729)
Party ID: Liberal	-0.115 (0.358)	0.023 (0.345)	-0.083 (0.951)
Party ID: NDP/Green	0.263 (0.462)	0.195 (0.455)	0.694 (1.078)
Gender: Man	-0.143 (0.261)	0.329 (0.249)	0.079 (0.504)
Region: Atlantic	0.893 (0.712)	0.576 (0.696)	0.747 (1.106)
Region: British Columbia	0.485 (0.449)	0.673 (0.431)	1.649* (0.666)
Region: Prairies	-0.250 (0.434)	-0.023 (0.410)	0.545 (0.647)
Region: Quebec	0.198 (0.477)	0.777 (0.456)	-12.882* (0.000)
Bachelor's degree	-0.243 (0.290)	0.027 (0.276)	0.079 (0.550)
Language: French	-0.661 (0.476)	-0.977* (0.453)	-0.166 (0.854)
Language: Other	-0.669 (0.377)	-0.553 (0.356)	-0.749 (0.803)
Political knowledge	0.515* (0.153)	0.435* (0.147)	0.741* (0.278)
RS factual knowledge	0.994* (0.224)	0.831* (0.221)	0.648* (0.296)
Trust in media	0.077 (0.146)	0.112 (0.140)	-0.542* (0.273)
Know an Indigenous person	0.377 (0.279)	0.654* (0.266)	0.932 (0.581)
Income	-0.039 (0.139)	-0.083 (0.133)	-0.452 (0.261)
Religion: Catholic	-0.670* (0.315)	-0.056 (0.304)	-0.163 (0.657)
Religion: Other	-0.111 (0.453)	0.210 (0.436)	0.156 (1.063)
Religion: Other Christian	-0.292 (0.428)	0.048 (0.415)	0.765 (0.665)
Observations	39	1,314	
Akaike Inf. Crit.		2,125.531	

Note:

*p<0.1; **p<0.05; ***p<0.01

SM6 Education experiment

SM6.1 Pre-Analysis Plan

This study was pre-registered with AsPredicted ([#148781](#)) on October 26, 2023. We reproduce the plan below:

Have any data been collected for this study already?

No, no data have been collected for this study yet.

What's the main question being asked or hypothesis being tested in this study?

We hypothesize that providing factual information about the history of residential schools in Canada will reduce the likelihood of (a) participants affirming statements made by denialists (those who deny the reality or legacy of Canada's Indian Residential School System) and (b) responding "I haven't thought too much about this/ Don't know" when evaluating those statements.

Describe the key dependent variable(s) specifying how they will be measured.

Our outcome measures are based on respondents' expressed agreement with nine items related to denialist claims. We will first conduct reliability and dimensionality analyses to determine whether the items scale together well. We will determine which items to include in our main outcome scale based on this analysis. If we find that the items contain sub-scales, we will treat the sub-scales as distinct outcomes and analyze them separately. (For robustness, we will report analyses using all nine items in a scale as an outcome as well, at least in the Supplementary Materials (SM)).

This first outcome will only be based on respondents' non-missing responses. To determine if treated respondents are less likely to respond "I haven't thought too much about this/ Don't know," we will calculate a second outcome variable as the proportion of scale items indicating "I haven't thought too much about this/ Don't know."

How many and which conditions will participants be assigned to?

Participants are assigned with equal probability to one of two conditions:

- Condition 1: Participants read a short informational text describing the history of residential schools prior to indicating their agreement/disagreement with statements related to denialism.
- Condition 2: Participants do not read any text prior to indicating their agreement/disagreement with statements related to denialism.

Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We will use difference of means/ OLS to examine the effect of treatment on our main outcome measure (and either report our second analysis of “I haven’t thought too much about this/ Don’t know” responses in the body of the paper or the SM). If the experiment is balanced, we will report the Average Treatment Effect (ATE) using a simple difference of means test and present this either in the body of the paper or the SM. We will also use OLS regression with controls to address any imbalance between the treatment and control groups as well as to reduce noise and increase the precision of our estimates. Further, to understand the correlates of Residential School denialism we will include the following socio-demographic variables that are standard in social science research: age, gender, language, region, race/ethnicity, and party identification, and education. We have also included the following variables to conduct exploratory analyses on the relationship between denialism and pre-treatment socio-demographic and political attitudes/characteristics: immigration status, income, vote choice, historical/political knowledge, religion/ religiosity, ideological self-placement, political interest, trust in media, prejudice (based on feeling thermometer scores), anti-Indigenous resentment, in-group identification, and benevolent racial attitudes. We may not necessarily present all the variables in the body of the paper in a single model as this is likely an overspecified, ”kitchen sink” model. We may also conduct exploratory moderation analyses by interacting covariates with the treatment indicator. We will use theory and standard diagnostic tools (VIF test, tests of model fit) to determine which items to present in the body of the paper. All variables will be made available for other scholars seeking to conduct exploratory analyses/replication efforts.

For robustness, we may examine individual items as outcomes and/or use multinomial logistic regression to compare respondents’ likelihood of responding agree vs. disagree vs. “don’t know” to each item.

Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Outliers will not be excluded from the analysis. We may conduct exploratory sub-group analyses.

How many observations will be collected or what will determine sample size?

No need to justify decision, but be precise about exactly how the number will be determined. Our sample size is determined by our budget, which is \$4,800 CAD. The cost per complete depends on how long the survey takes to complete and the quality of the data. We expect to collect between 1,700 to 2,500 completes.

Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

We will flag respondents as low-quality if they (a) complete the survey in less than 1/3 the median time (measured separately in each treatment arm); (b) fail a pre-treatment attention check; or (c) are identified as bots by Qualtrics. We will conduct the analyses described above on both the full sample and the sample of only high-quality responses and report results using each sample either in the body of the paper or in the SM.

Deviations from the pre-analysis plan:

- Instead of excluding low-quality responses as described in the PAP, which mixes inattentiveness with fraudulent respondents, we took an alternative approach. We exclude suspected bots and duplicate responses, and flag remaining respondents as low quality (i.e. inattentive) if they completed the survey in less than 1/3 the median time, failed a pre-treatment attention check, or “straight-lined” through more than one block of questions by offering the exact same response type.

SM6.2 Treatment full text

The following text was provided to respondents assigned to the treatment condition:

We would like you to read some information about residential schools. We will then ask your personal opinions about residential schools.

- The term residential schools refers to a system set up by the Canadian government and run by Christian churches for Indigenous children.
- The main goal of the schools was to assimilate Indigenous children into White, Christian society.
- Many students had negative experiences at the schools. They were forcibly separated from their parents at a young age and not allowed to speak their own languages. Physical, emotional and sexual abuse were common.
- Residential schools provided students with an inadequate education. Only a few hours a day were spent in the classroom. When they left school, most students did not have the skills they needed to find a well-paying job.



The picture above shows a group of female students and a nun in a classroom at Cross Lake Indian Residential School in Manitoba in February 1940.

[new page]

- Poor living conditions meant that many students became sick with preventable diseases like tuberculosis and died at very high rates.
- Archival sources show that thousands of children died at residential schools. To save money, their remains were often buried at the schools rather than sent home to their families.
- In recent years, Indigenous communities have begun locating evidence of unmarked graves of children that died at the schools. This work often involves taking radar scans of the soil at former schools using a technique that archaeologists have found to be accurate elsewhere.



The Kamloops Indian Residential School was already known to have been the site of 51 student deaths, but recent radar surveys have found evidence of 200 unmarked graves.

This information about residential schools comes from the Canadian Encyclopedia ([link](#)).

SM6.3 Balance checks

By virtue of respondents' random assignment to treatment arms, the treated and control groups should resemble each other on average. To evaluate this assumption, Table S10 presents averages of pre-treatment variables across treatment arms and summarizes t - and χ^2 -tests for imbalance. None of the variables indicate statistically significant or substantively large differences across the two groups, suggesting randomization was successful.

Table S10: Sample characteristics by treatment status

	Averages		
	Control	Treatment	<i>p</i>
Man	0.50	0.48	0.42
Age	50.5	50.6	0.90
White	0.74	0.75	0.38
Bachelor's degree	0.30	0.34	0.12
Household income	\$74,405	\$75,574	0.91
Religion: Catholic	0.36	0.30	0.07
Religion: Other Christian	0.19	0.20	0.07
Religion: Other	0.09	0.10	0.07
Religion: None	0.36	0.40	0.07
Region: Ontario	0.38	0.37	0.06
Region: Quebec	0.26	0.27	0.06
Region: Prairies	0.13	0.15	0.06
Region: B.C.	0.17	0.14	0.06
Region: Atlantic	0.05	0.07	0.06
Language: English	0.59	0.60	0.92
Language: French	0.28	0.28	0.92
Language: Other	0.12	0.12	0.92
Party ID: None/Other	0.23	0.24	0.19
Party ID: Conservative	0.26	0.30	0.19
Party ID: Liberal	0.27	0.24	0.19
Party ID: NDP/Green	0.17	0.16	0.19
Party ID: Bloc	0.06	0.06	0.19
Indigenous resentment	2.82	2.85	0.46
Conspiracy thinking	3.05	3.03	0.61
Racial/ethnic identification	3.26	3.23	0.41
Political knowledge	0.51	0.51	0.60
RS knowledge	0.22	0.22	0.66
Trust in media	2.70	2.74	0.49
Know an Indigenous person	0.56	0.58	0.47

Right-most column presents *p*-values from a *t*-test or χ^2 -test, depending on if variable is continuous or categorical.

SM6.4 Covariate imputation

To improve statistical efficiency in the estimation of treatment effects, we impute missing covariate values, first using the sample mode for categorical variables and then using multiple imputation by chained equations for continuous variables (King et al., 2001). This decision was not specified in our pre-analysis plan, but our results are nearly identical when calculating

a simple difference-in-means with the full sample and when using covariate adjustment only with the sample of non-imputed observations. Imputed values are not used in the descriptive analysis of correlates.

Table S11 summarizes missingness across each covariate in our data by treatment status. Approximately 31 percent of our respondents had one covariate value imputed, although rates of missingness on individual variables are low (generally less than 3 percent of the sample) and do not differ meaningfully by experimental condition. Missingness is most significant for the religion variable, which appeared towards the end of the survey. While this variable was asked post-treatment in a “sensitive questions” block, treated respondents were no more likely to opt out of this question than control respondents (χ^2 test p -value=0.87).

Table S11: Covariate missingness by treatment status

	Proportion Missing	
	Control	Treatment
Gender	0.01	0.00
Age	0.00	0.00
Race/Ethnicity	0.00	0.00
Education	0.01	0.00
Household income	0.08	0.08
Religion	0.22	0.22
Province	0.00	0.00
Language	0.01	0.00
Party ID	0.00	0.00
Indigenous resentment	0.02	0.02
conspiracy thinking	0.02	0.02
Racial/ethnic identification	0.02	0.01
Political knowledge	0.00	0.00
RS knowledge	0.00	0.00
Trust in media	0.02	0.02
Know an Indigenous person	0.03	0.03

SM6.5 Treatment engagement

The median respondent spent 42 seconds engaging with the treatment information, but 24% of those in the treated group spent less than 15 seconds reading the text. To understand whether those who actually engaged with the treatment reported less denialism, we estimate our main OLS models with the treatment indicator replaced by a categorical variable indicating whether respondents were assigned to the control condition or, if they were assigned to treatment, their quartile of time spent on the treatment pages. Figure S17 presents the coefficients on the treatment time categories, with all coefficients indicating the standard deviation differences in denialism and percentage point differences in likelihood of a “don’t know” from those in the control group. The estimates suggest that respondents who spent more time with the treatment information reported significantly less denialism and

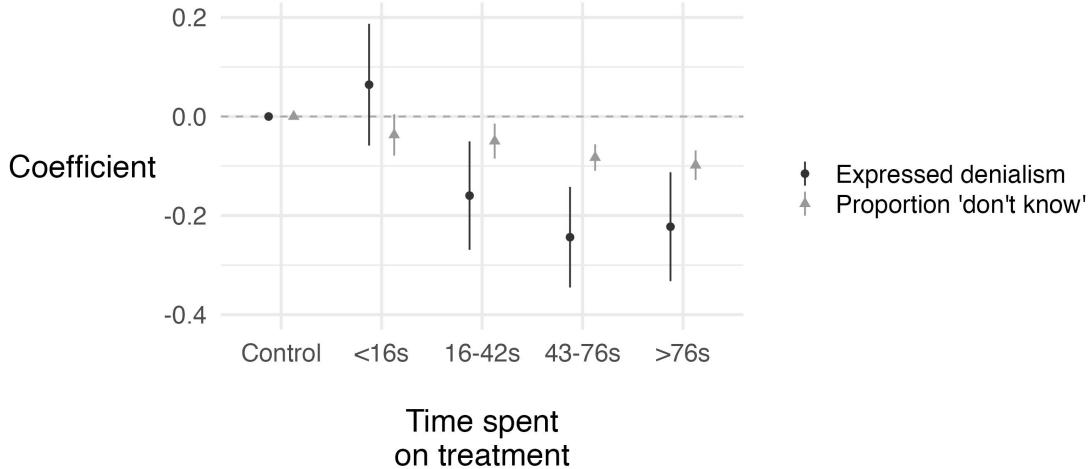


Figure S17: Partial correlations between denialism and time spent with treatment content

Plot reports coefficient estimates and 95% robust confidence intervals from an OLS regression of (a) the denialism index and (b) the proportion of a respondents' responses that were “don’t knows” on a categorical variable indicating the quartile of time spent on the treatment pages (the reference category is the control condition). Outcome is scaled by the control group mean and standard deviation. The following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor’s degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person ($n = 1,822$)

were more likely to offer an opinion on the denialism items than those in the control group. Respondents who skipped through the information in less than 16 seconds do not appear significantly different on either outcome than those in the control.

These results provide suggestive evidence that the treatment worked through a learning mechanism rather than by priming social desirability concerns. While everyone in the treatment condition would have perceived social desirability considerations, only those that carefully read the text would have been persuaded by the information. The fact that only those that engaged with the content thoroughly differ from those that didn’t see the content at all lends support to the latter explanation.

Of course, this analysis is not causally identified: interacting with the content more thoroughly is endogenous to respondents’ prior attitudes and demographics. In Figure S18, we report estimates from an OLS model in which log time spent on the treatment is regressed on a range of pre-treatment covariates. While we control for these same variables in the model behind Figure S17, there is clearly some selection into greater engagement with the treatment content. Men and younger people, for example, spent significantly less time on the treatment pages.

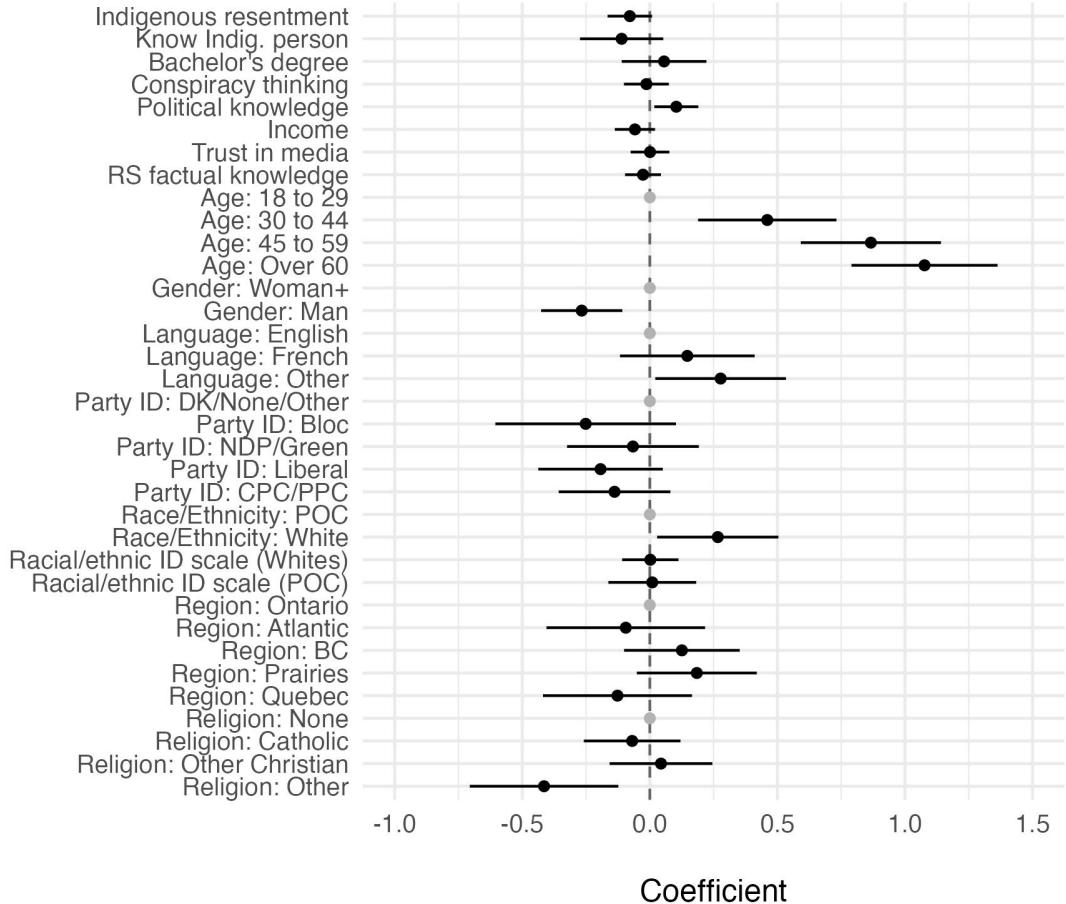


Figure S18: Correlates of log time spent engaging with treatment content

Plot reports coefficient estimates and 95% robust confidence intervals from an OLS regression of the log time spent on the treatment pages on the covariates listed on the *y*-axis. All continuous predictors are scaled in terms of standard deviation changes. ($n = 655$)

SM6.6 ATEs by item

The average treatment effects reported in the main text focus on the full denialism scale and “don’t know” responses across all items in the scale. In Figure S19, we report ATEs for each individual item, alongside the main estimates for the full scale for reference. Across all items, the informational intervention reduced the likelihood of responding with “don’t know” by between 5 and 11 p.p., with the largest decrease for the item relating to ground-penetrating radar searches. There was slightly more variability in effect sizes on the expressed denialism among respondents who did not say “don’t know.” In general, the reductions in denialism were larger for the items related to the unmarked graves and smaller for those related to the intentions and legacies of residential schools. The latter items tended to see greater levels of denialism at baseline (see Figure 3).

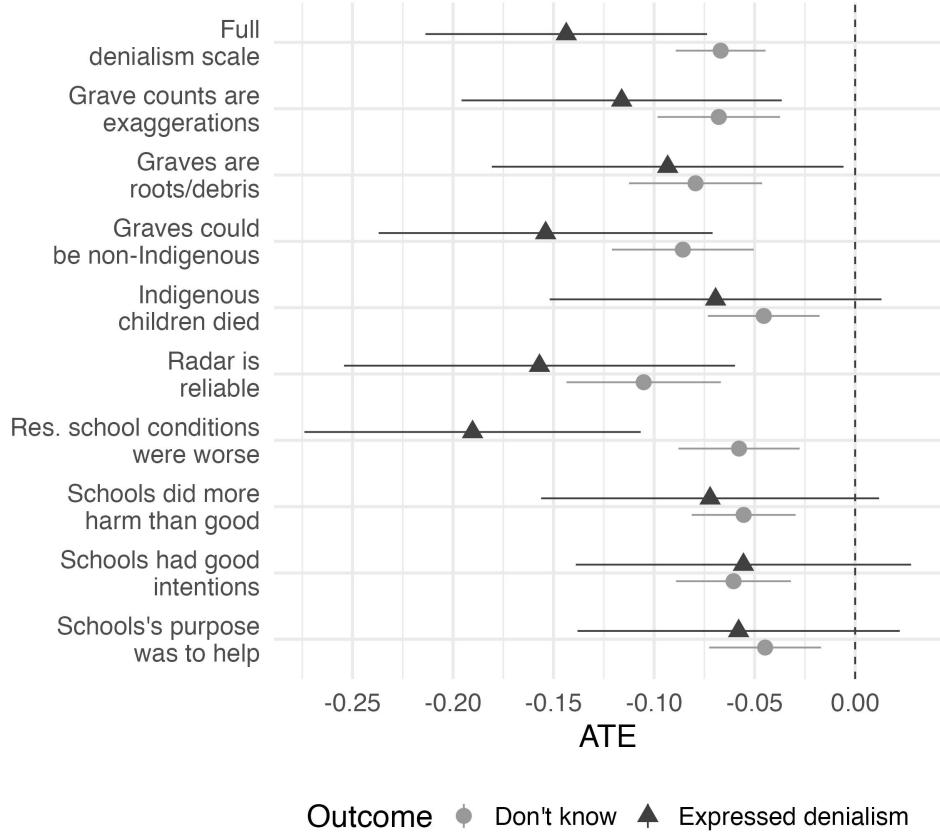


Figure S19: ATEs on individual denialism items

Plot reports coefficient estimates and 95% robust confidence intervals from an OLS regression of (a) the expressed denialism score (scaled in terms of control group standard deviations) among respondents who expressed an opinion on that item and (b) whether the respondent responded with a “don’t know” response. The following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor’s degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. For expressed denialism models, n between 1,400 and 1,700, depending on the number of “don’t know” responses. For “don’t know” models, $n = 1,915$.

SM6.7 CATE estimates

Table S12 presents the tabular estimates behind the CATEs plotted in the main text. The insignificant coefficient estimates on the interaction terms indicate that we cannot reject the null hypothesis that the intervention had larger effects on medium or high resentment respondents relative to those that expressed low resentment. Supplementary tests also indicate that differences in effect sizes on high and medium resentment respondents are also statistically insignificant ($p = 0.7$ and 0.3 , for each outcome, respectively).

Table S13 presents analogous estimates with Party ID as the moderating variable. In this case, Conservative Party and People’s Party supporters are the reference category. The first column indicates that effects sizes were only statistically distinguishable between Con-

servative/PPC and NDP/Green supporters. Supplementary tests indicate that no other statistically significant differences in effect sizes are present, although the difference between NDP/Green and Liberal effects is large and close to statistical significance (-0.19 , $p = 0.05$). None of the difference in effect sizes for the “don’t know” outcome are significant.

All of the findings from these models are qualitatively similar if we re-specify our models including interactions between the treatment indicator and all pre-treatment covariates. This approach helps to partial out correlations between the CATEs among, for example, high-resentment and conservative respondents, but it results in significantly larger confidence intervals around each estimate.

Table S12: CATEs by Indigenous resentment level

	Expressed denialism (1)	“Don’t know” (2)
Educational intervention	-0.040 (0.048)	-0.044^* (0.016)
Educational intervention \times medium Indigenous resentment	-0.134 (0.079)	-0.048 (0.026)
Educational intervention \times high Indigenous resentment	-0.164 (0.093)	-0.019 (0.027)
Observations	1,822	1,915
R ²	0.395	0.187
Controls	Yes	Yes

Table reports estimates from OLS models with HC2 standard errors. The outcome in the first model is the average expressed denialism score (scaled in terms of control group standard deviations) among respondents who expressed an opinion on at least one of the denialism items. The outcome for the second model is the proportion of a respondent’s denialism items that were responded to with a “don’t know” response. In both models, the following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor’s degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. * $p < 0.05$

Table S13: CATEs by Party ID

	Expressed denialism (1)	“Don’t know” (2)
Educational intervention	−0.236* (0.076)	−0.050* (0.021)
Educational intervention × Bloc Québécois	0.096 (0.139)	−0.055 (0.046)
Educational intervention × Don’t know/None/Other	0.158 (0.109)	−0.022 (0.037)
Educational intervention × Liberal	0.043 (0.103)	−0.030 (0.029)
Educational intervention × NDP/Green	0.234* (0.105)	−0.005 (0.029)
Observations	1,822	1,915
R ²	0.416	0.188
Controls	Yes	Yes

Table reports estimates from OLS models with HC2 standard errors. The outcome in the first model is the average expressed denialism score (scaled in terms of control group standard deviations) among respondents who expressed an opinion on at least one of the denialism items. The outcome for the second model is the proportion of a respondent’s denialism items that were responded to with a “don’t know” response. In both models, the following covariates are included in the model specification but not reported here: age, gender, Party ID, region, language, visible minority status (and its interaction with racial/ethnic identity attachment), Bachelor’s degree, religion, household income, Indigenous resentment, conspiracy thinking, political knowledge, residential school factual knowledge, trust in media and whether the respondent knows an Indigenous person. *p<0.05