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Empowering Indigenous Learners through the Creation of Graphic Novels

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ABSTRACT

In this paper, we examine how Indigenous and non-Indigenous adolescents identify media influences as health/wellness related. We conducted research over a six-week period in two alternative high school settings: a culture-based Indigenous education program at one school and an arts-based program at another school, both in the same small, Western Canadian city. We taught students from both programs the principles of *critical media health literacy*. Small groups of students from the Indigenous program wrote narratives. Then small groups of Indigenous and non-Indigenous students in an arts-based education program converted these stories into graphic novel/comic book format. Findings indicated a broad range of health/wellness topics discussed, media stereotypes challenged, and varying levels of comprehension about media's impact on health. These levels ranged from misunderstanding or confusion through developing general understanding and, at the highest level, specific understanding.

Keywords: *critical media literacy, multiliteracies, graphic novel, indigenous*

We are engaged in a program of research to understand the processes through which adolescents develop *critical media health literacy*, or CMHL (Wharf-Higgins and Begoray, 2012). We define CMHL as "a right of citizenship that empowers individuals and groups, in a risky consumer society, to critically interpret and use media as a means to engage in decision-making processes and dialogues, exert control over their health and everyday events, and make health changes for themselves and their communities" (p. 142). CMHL involves developing critical thinking skills, which is an important component of the curriculum in both the United States and Canada. For example, the British Columbia (BC) Canada curriculum (British Columbia Ministry of Education, 2016) states that critical thinking is a competency in every subject and that it "encompasses a set of abilities that students use to examine their own thinking, and that of others, about information that they receive through observation, experience, and

various forms of communication." Further, BC's English Language Arts New Media Grade 10 (British Columbia Ministry of Education, 2016) course specifies understanding of bias, manipulation and persuasive techniques in media texts and stresses the need for teachers to respond to individual student's interests in media across the curriculum. Similarly, Alvermann and Hinchman (2012) comment that we need to consider what it might take to "bridge adolescents' everyday literacies with literacies common to subject areas" (p. 270). Grounded in these scholarly resources, we maintain that critical thinking in health education is one such subject area of importance to students' everyday lives and literacies.

A major goal of health education is to develop health literacy. Rootman and Gordon El- Bihbety (2008) define health literacy as the ability "to access, understand, evaluate, and communicate information as a way to promote, maintain, and improve health in a variety of settings across the life-course" (p. 3). One important, yet frequently overlooked, part of the life course is adolescence, and within that age group, Indigenous teens in particular would benefit from increasing their health literacy and developing healthy behaviours. We use the term *Indigenous*, meaning "first peoples," in this paper as it is the word preferred in Canada. Other terms used in Canadian contexts include: First Nations, Native, Aboriginal, and names of specific bands/tribes (Coast Salish in our city).

Within our Indigenous communities, general adolescent populations are already at risk for poor health. According to the Youth Risk Behavior Surveillance report (United States Centre for Disease Control and Prevention, 2016), many young people (aged thirteen- to twenty-four-years old) engage in a variety of health-compromising behaviours, such as substance abuse. The Indigenous adolescent population is at even greater risk (Miller et al., 2011; Price and Dalgleish, 2013) due in large part to a legacy of colonialism, exemplified by structures such as residential schools. Risky behaviours (e.g. high-speed driving or use of violence to resolve issues) are often celebrated in the popular media world of advertisements, television programs, and computer games that target young adolescents. One promising approach to reverse the heightened risk of poor health in Indigenous adolescent populations is to build awareness and study these processes through media literacy education.

Our research is important as current Canadian high school Indigenous graduation rates are low. For those "living on reserve [it] is only about 50 per cent, far below the non-Indigenous national average of 90 per cent. The graduation rate for Indigenous people living off reserve is a bit higher, at 67 per cent" (Conference Board of Canada, 2010, para. 7). In the United States, which has an average high school graduation rate of 82%, American Indian/Alaska Native rates are only 70% (National Centre for Education Statistics, 2013/14). Indigenous knowledge needs to be emphasized, especially in Indigenous classrooms, whereby students experience their cultural knowledge and traditions and have the opportunity for "finding themselves" (Hare, 2005, p. 261). Our study has implications for augmenting the educational experiences of Indigenous students, in addition to cultivating their critical media health literacy.

THEORETICAL FRAMEWORKS

Adolescents base their understanding of health-related issues through literacy processes used to interpret the information available in the multiple contexts in which they live. We call this model a socioecological framework (Wharf Higgins, Begoray & MacDonald, 2009) that postulates impact on an individual from more proximal (family and friends) to more distal (curriculum documents and commercial media) influences. The media, however, often masquerades as a "super peer" (Brown et al., 2005), telling teens directly and indirectly how they should look and behave in much the same way as their friends and classmates do, but with an augmented intensity and persuasive power. A multiliteracies (New London Group, 1996) approaches acknowledges the importance of multiple modes of learning through linguistic modes, in addition to through visual, audio, spatial and tactile texts. Since adolescent attitudes, beliefs, and actions may be heavily influenced by social interactions (Bergsma & Ferris, 2011), a social constructivist framework (Vygotsky, 1978) has also guided the development of this literacy study. In addition, we applied sociocultural frameworks such as Indigenous ways of knowing and learning (Brayboy and Maughan, 2009). Indigenous ways of knowing and learning are rooted in location and experience, embedded in language and stories, and tied to community (Barnhardt and Kawagley, 2005; Battiste, 2002; Brayboy and Maughan, 2009).

Media Literacy

The importance of educating students to employ critical media literacies is well documented (National Council of Teachers of English, 2008; Tate, 2011; Torres and Mercado, 2006; Scull, Malik and Kupersmidt, 2014). Popular media, a dominant force in the lives of adolescents (American Society of Pediatrics, 2013), provide key channels through which health information is either explicitly or implicitly conveyed to this age group. Researchers have documented that media can have positive or detrimental influences on health issues, such as body image (Smolak and Stein, 2006; Tiggemann and Miller, 2010) and self-esteem (Frisen and Holmqvist, 2012). All adolescents are exposed to a multitude of opinions and values, many of which are age and gender targeted via the Internet and other media sources. Media literacy education has the potential to prepare students to become discriminating readers, listeners, and viewers of health messages, and develop competencies for engaging in informed and purposeful civic action (Sears, 2009) for more equitable political and social relations (Veugelers, 2011). We looked for five main principles of understanding about media (Wharf Higgins & Begoray, 2012), all of which were presented to students in lessons preceding graphic novel development:

1. Media are everywhere and has a significant impact on our behaviour
2. Media target adolescents
3. Media use 'hooks' to attract adolescents
4. Media creates false reflections of reality
5. CMHL allows adolescents to critique, accept or reject media related health messages

Contextualizing how the media impacts understandings of health or health information creates a greater probability that Indigenous students especially will recognize the relevance of health issues to their own lives (Lee and Kotler, 2011) at both a cognitive and affective level. In order to address issues related to health and literacy, we studied how participant-created graphic novels illuminated understandings. We see this approach as a unique knowledge mobilization strategy as it combines media literacy and multiliteracies, which capitalize on both expert knowledge from adults and adolescent peer-to-peer communication. Further, this project builds on Indigenous values of "collectivity, commonalities, cooperation, interdependence, collective responsibility, survival of the group, and harmony with all life" (Schwarz, 2009, p. 1050).

Multiliteracies

The New London Group (1996) first discussed the importance of students becoming multiliterate, which they defined as being able to understand and design texts in multiple modes— including linguistic, spatial, gestural, visual and audio— in order to become more successful citizens. Multiliteracies are particularly important in Indigenous communities (Pirbhai-Illich, 2010) as cultural resources, such as symbols and narratives, (Bartlett, 2007; Hare, 2005) are related to literacy practices and are embodied in Indigenous knowledge. As cultural resources, symbols and narratives play a central role in helping Indigenous adolescents to develop a sense of their own identity (Hare, 2005) and engage more actively in classrooms. Indigenous adolescents have "responsibilities for acquiring and sharing of knowledge" (Battiste, 2000, p. 14) and are expected to take their place in contributing to the welfare of their community as soon as they are able. Developing literacies in health/wellness and media are important to the welfare of Indigenous families.

Scholars have shown that graphic novels/comics literacies (Jacobs, 2007; Pantaleo, 2011) are one way to engage youth in multiliteracies learning. The use of a graphic novel format can engage youth in the use of multiliteracies to learn academic content. Jacobs (2007) points out that "reading comics involves a complex, multimodal literacy and help(s) students develop as critical and engaged readers of multimodal texts" (p. 19). Engagement is an important facet of media literacy pedagogy as well. As Schwarz (2007) notes:

> Graphic novels may promote discussion in more lively and immediate ways than most textbooks...Moreover, as a new medium, the graphic novel invites media literacy education which includes information and visual literacy. The unique combination of print and pictures opens up possibilities for looking at new content and for examining how diverse kinds of texts make meaning to readers. (p. 2)

Further, we maintain that designing graphic novels expands the literacies of adolescents. We have previously worked with Indigenous students in the creation of a graphic novel entitled *No Sale, Skèlèp!* (Asham et al., 2014) which was illustrated by a professional artist (in a process described in Wilmot, Begoray & Banister, 2013). In this project, we wanted to add the creation of visual text by students to our approach.

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METHODS

We conducted a six-week qualitative case study project with twenty-seven Grade 10-12 students from two different schools in an urban, mid-sized city in British Columbia (BC) Canada. The first group of students comprised seven boys and four girls who were enrolled in an Indigenous-cultural program through an alternative public school and all self-identify as Indigenous. The second group of students comprised five boys and eleven girls who were enrolled in an arts magnet school (all students spend half a day on either art, music, or drama) and included eight self-identifying Indigenous students and eight non-Indigenous students.

The curriculum in BC emphasizes the importance of incorporating students' personal identity and real life experiences through authentic learning opportunities (British Columbia Ministry of Education, 2016). The Indigenous students enrolled at the alternative school were in a program that emphasized Indigenous cultural philosophy. The teacher and students at the arts-magnet school were focused on bringing authentic learning experiences to their classroom by connecting within the larger community. Epistemologically, we adopted the stance that data is most reflective of reality when drawn from authentic learning activities that are congruent with cultural classroom contexts. The research questions guiding our study were:

1. What media stereotypes and inequities do high school aged Indigenous and non-Indigenous adolescents identify as health related?
2. How do they critically challenge those stereotypes through writing and representing?
3. How do they express their understanding verbally?
4. What do teachers see as important in this exploration?

We began instruction and research with the first group from the Indigenous cultural program. The students from the Indigenous cultural program were chosen to be the writers of the storylines for the graphic novels as defined within the learning goals of the classroom teacher, who was looking for a new way to engage her students in writing. The students from the first group participated in CMHL lessons delivered by the classroom teacher and the second author of this paper, which are shown in Table 1. These lessons occurred during their English Language Arts (ELA) class time and followed regular classroom work on media depictions of missing Indigenous women as well as stereotyping in the media (not included in this study). The classroom teacher in the Indigenous cultural program then asked students to choose a health/wellness issue and develop a storyline with characters and dialogue.

The second group of students, who were attending the arts magnet school, received the same CMHL lessons as outlined in Table 1. However, their lessons were delivered by their classroom teacher and the second author. The students in the second group were enrolled in a Media Arts class in which they created the visuals for the graphic novels based on the first group's stories. Creating images for the graphic novels

Table 1
Lesson plans to teach about CMHL and graphic novel creations

Lesson	Materials	Activities
CMHL Principles and Health/Wellness Topics	- PowerPoint with CMHL principles, critical literacy questions, and media examples for discussion - Projector, screen, speakers, computer/laptop with internet access - Poster with CMHL principles for students to reference - Poster with critical literacy questions for students to reference - Large Chart paper and felts for brainstorming (at the top of the chart write Health/Wellness Topics)	1. Start the class by asking them "What is media?" and "What are media sources you use?" 2. Have someone record down student responses (3-5 minutes) 3. Show first PowerPoint slide of media images and explain to students the power of media and the influence it has on us, both positive and negative, and if we view media with critical thought then we can have the power to decide how media will affect us. 4. Show PPT slide #2 – after each bullet point have students come up with some examples (5-7 minutes); Any health/wellness topics brought up can be recorded on the chart 5. Go through slides #3-6 – 4 principles; With each slide read the principle and go through the example; Discuss each concept with the students, have them generate an understanding of the concept; Any health/wellness topic should be recorded 6. Go through Critical Literacy questions with students; use Coca-Cola advert to go through as a class 7. In small groups have students go through another media example using critical questions as a guide
Identity and Values as Reflected by the Media	- PowerPoint with Identity and Values - Poster with CMHL principles for students to reference - Poster with critical literacy questions for students to reference - Large Chart paper and felts for brainstorming (at the top of the chart write Health/Wellness Topics)	1. Start with introducing Indigenous worldview and values that are reflected 2. Brainstorm on chart paper: group values and personal values (discuss how this is part of identity formation) 3. Brainstorm on chart paper: media values 4. Recall 4 CMHL principles (reference poster) and critical literacy questions (reference poster) 5. The tools of CMHL and critical questions allow each of us to decide whether the media is reflecting and representing my values – and then I can decide if I would like to accept or reject what media is saying 6. Show students *Chasing Adland* and *No Sale, Skèlèp*! examples on the PowerPoint 7. Have students get into groups – using the list of health/wellness topics generated through discussion, have the groups choose one topic and start brainstorming a story line that would incorporate CMHL principles and teach 12-13

		year-olds how to be more critical of the media. 8. Groups share story lines 9. Those students who agreed to be part of the research, and will have their work published, will need to work together on a single story line
Parts of a Graphic Novel	- PowerPoint outlining different GN components with examples - Healthy Aboriginal GN example - Paper to start storyboarding	1. Go through the PowerPoint with examples of "what is a graphic novel?" and important components for design 2. Use Healthy Aboriginal as discussion examples with the students 3. Have students work in their groups to start to rough out ideas for paneling 4. If time, introduce the storyboard panel concept
Storyboarding and Designing a Graphic Novel using CMHL Principles (continued over a few weeks)	- Blank paper for storyboarding (Indigenous program) - Computers and tablets for visual design (Arts program)	1. Students continue to work on the storyline and design of the graphic novel 2. Teacher to do regular whole-group check-ins so that students can determine what works, what doesn't work, what they may need to change, add, or delete

was aligned with the teacher's curriculum goals for providing students with authentic collaborative design opportunities. The students within group two contributed to the imagining and drawing of characters, creating panels with dialogue, revising and visually editing stories. They corresponded with the writers by use of sketches and 'sticky note' queries delivered back to the first group by the second author. These exchanges often resulted in changes to artist's work. The art teacher stressed to her students that the writers were to be treated as 'clients' and that the artists would have to satisfy their requests (rather than, for example, imposing ideas of their own).

All students, both writers and artists, were encouraged to imagine an audience of middle school readers of these graphic novels to help engender a sense of authenticity. We designed literacy tasks to have full degree of choice. For example, the writers decided on storylines, characters, and dialogue. The artists decided on illustration approach (e.g., free hand drawings or use of software) and visual depictions, although these were in collaboration with writers. Alvermann (2008), a scholar of adolescent literacy development, identifies the ability of adolescents to adopt a "degree of agency within a larger collective of social practices" as an important aspect of their literacy work (p. 9). Creating graphic novels provided this agency and is essential to the structure of our study.

Data Collection

We collected two specific types of data in order to gather evidence related to student participants' development and understanding of critical media health literacy:

1. Individual interviews (on story and illustration creation process, see Appendix A); and
2. Graphic novels (in process and final copies).

All students participated in the lessons and students who consented to involvement in the research were interviewed and their work products collected. All names used in this piece are pseudonyms. Individual student interviews were conducted by both the authors and took place after the novels were complete. Each student interview was recorded and took approximately 15-20 minutes. In addition, the two classroom teachers were interviewed. Both teachers were experienced specialists in their own disciplines. Mrs. Jones has been the program coordinator of the Indigenous cultural program for three years and a teacher within the program for six years. She is non-Indigenous. Mrs. Williams, also non-Indigenous, has been the media art educator in the arts magnet school for four years. The teacher interviews were recorded and lasted approximately 45 minutes.

Data Analysis

The interview data were transcribed, and then coded by both researchers. Data were then analyzed utilizing a constant comparison method (Boeije, 2002), read to note general patterns (Creswell, 2014), followed by the noting of similarities and differences, consistencies and inconsistencies in patterns (Boeije, 2002). Finally, emergent themes were compared across the interviews and resulting themes were determined. Moreover, graphic novels were examined for the presence of CMHL principles in the development and final product of the story lines and visuals.

FINDINGS

The results from the analysis of interviews with students and the examination of the graphic novels indicate that students had varying levels of sophistication in their understanding and use of CMHL principles. Specifically, they varied in their ability to comprehend and create narratives using print and visuals that challenged media stereotypes on health/wellness issues. The majority of the students in both groups displayed an overall understanding of the five CMHL principles at the *developing level* (n=14), while fewer students displayed either a *beginning level* (n=5) or *mastering level* (n=8) of understanding. Each level—beginning, developing, and mastering—is described and illustrated below using data drawn from the study.

Level 1 Beginning

We labeled 'beginning' level when a student seemed unsure of a CMHL principle and was unable to express their understanding orally in the interview context. While we have assigned the 'beginning' code in this way, it is important to note that some students reported feeling nervous about the interview situation, despite knowing the interviewer well from classroom presence, and this may have impacted their ability to articulate understanding. Of the five principles, two in particular were difficult for students to explain: (1) media is everywhere and influences our behavior; and (2) CMHL can be used to critique, accept, or reject media. Examples of level 1 understanding show students who were confused about media principles as discussed in class. One student artist, when asked what they had learned about media, said: "Like you would probably use it to sell your business but if you're like on media and, I don't

know, it's like entertainment and such." When asked for an example about how to be critical about media's influence, another student replied "[i]t's kind of hard to recall so we thought about it and stuff like that." Another student artist when asked the same question replied "[w]ell there's nothing really we can do that they're on, they just have to act better or think better on their own." These responses suggest that the students were either confused by the CMHL principle or unsure of how to apply the CMHL principle. As well, a few students from both groups struggled to verbally express which parts of their novel were the most impactful as it related to health/wellness topics and included responses of "I'm not sure,""I don't know," and "nothing."

Level 2 Developing

We used the term 'developing' when students could articulate some general understanding of principles despite not being able to provide specific examples. The majority of students in both groups demonstrated a developing understanding for each of the five principles. For example, when asked to give an example about being critical towards media, one student artist said "[j]ust to review what you are going through when you are on media and making sure it's not persuading you in anyway or trying to lead you in through something that may not be as efficient and kind of not badly advertised in a bad way and trying to just hook you on and yeah." This student knows about hooks, and media control but is unable to give a coherent example. A similar level of understanding, this time from a student writer, when asked for a way to protect ourselves from media influence, said "I don't know, read, know more about it and pay attention to what you would be buying or eating or drinking." While this statement suggests that the student knows the principle of critiquing/challenging the media, once again there is no clear example forthcoming. Within the developing level, responses from students' when asked what was the most important part of the novel as it related to health/wellness issues were able to identify an idea but not explicitly state examples. One student artist responded "I think it was really great when she [main character in the novel] decided that was enough and she was going to make a change because some people don't and they just let it tear them apart [...] and made changes so that she could better herself after that."

Level 3 Mastering

We used the term 'mastering' to indicate that a student had developed insight into the principle and was able to articulate an example, offering related principles or knowledge of 'how' the abstract principle looks in concrete circumstances. One student artist explained "media can affect us in almost any shape or form. It is really interesting how effective it is...it can change us and alter our true being. They are targeting us and it works. And they keep doing it." This student not only understands general principles of media targeting of adolescents using hooks, media control and prevalence, but also the student can comment on how the art in their graphic novel provides a concrete example of the human dimension of media's influence. Another student artist extends understanding about media from an example to an activist stance of applied CMHL:

> Buster [a graphic novel character] goes to make a Facebook page. He was putting stuff into his own hands and using media against the media to like go and do something positive against this negative thing... you really need to take your media health into your own hands. Like, if something needs to be changed, you need to change it. You are the one in control.

At the mastering level, student respond to the most meaningful or impactful aspects of the novel with regards to health/wellness issues and were able to identify specific parts of their novel and link it back to their own life or others. A further example of this is when a student writer said:

> I think it's all important, but there's things that stick out more than others [...] like with depression it could be a family issue, could be a school issue, bullying or something, and with the eating disorder and the drugs and alcohol like those are things that come with all these mental and physical problems, and if you don't get help they just worsen. With depression people could just be adding onto it like from social media [...] and you don't know really how to take it so you just do something that kind of numbs the pain and numbs what you're feeling. But I guess that's not really right because when you're numb you don't really feel anything at all.

Student Narratives and Graphic Products

The student writers, all Indigenous, identified a broad range of health/wellness related topics. While some were less able to orally articulate their understanding of CMHL, they were largely all able to demonstrate their understandings in the narratives they constructed. The writers challenged Indigenous and adolescent stereotypes promulgated by media by composing a counter narrative for the graphic novel. Six novels were completed and the topics ranged from specifically Indigenous topics— such as residential schools (Title: *Sole Survivor*), missing Indigenous women (*Nothing To See Here*), and police/Indigenous teen relations (*Tweswis*)— to more general adolescent topics— such as cyber bullying (*One Mistake*), online predators (*When Night Falls*), and depression/runaways (*Just an Illusion*). All narratives were broadly related to health and wellness, including the topics of: murder, abuse, bullying and mental health issues, such as self-confidence.

The highest level of understanding about media (Level 3, Mastering) was portrayed in *Nothing to See Here* (*NTSH*) and *One Mistake* (*OM*). With its evocative cover of an Indigenous woman's face partly covered by yellow 'crime scene' tape (Fig. 1. *Nothing to See Here*) *NTSH* captures the media's stereotype of Indigenous peoples as portrayed only when a crime is committed. At the same time, the print message 'nothing to see here' is belied by the haunting face of an Indigenous woman who looks through the crime scene tape at the viewer, suggesting there *is* something to see here. Inside the novel, we see a story about the portrayal of media influence on public perception of missing and murdered Indigenous women, and Indigenous characters critiquing and actively opposing these media portrayals.
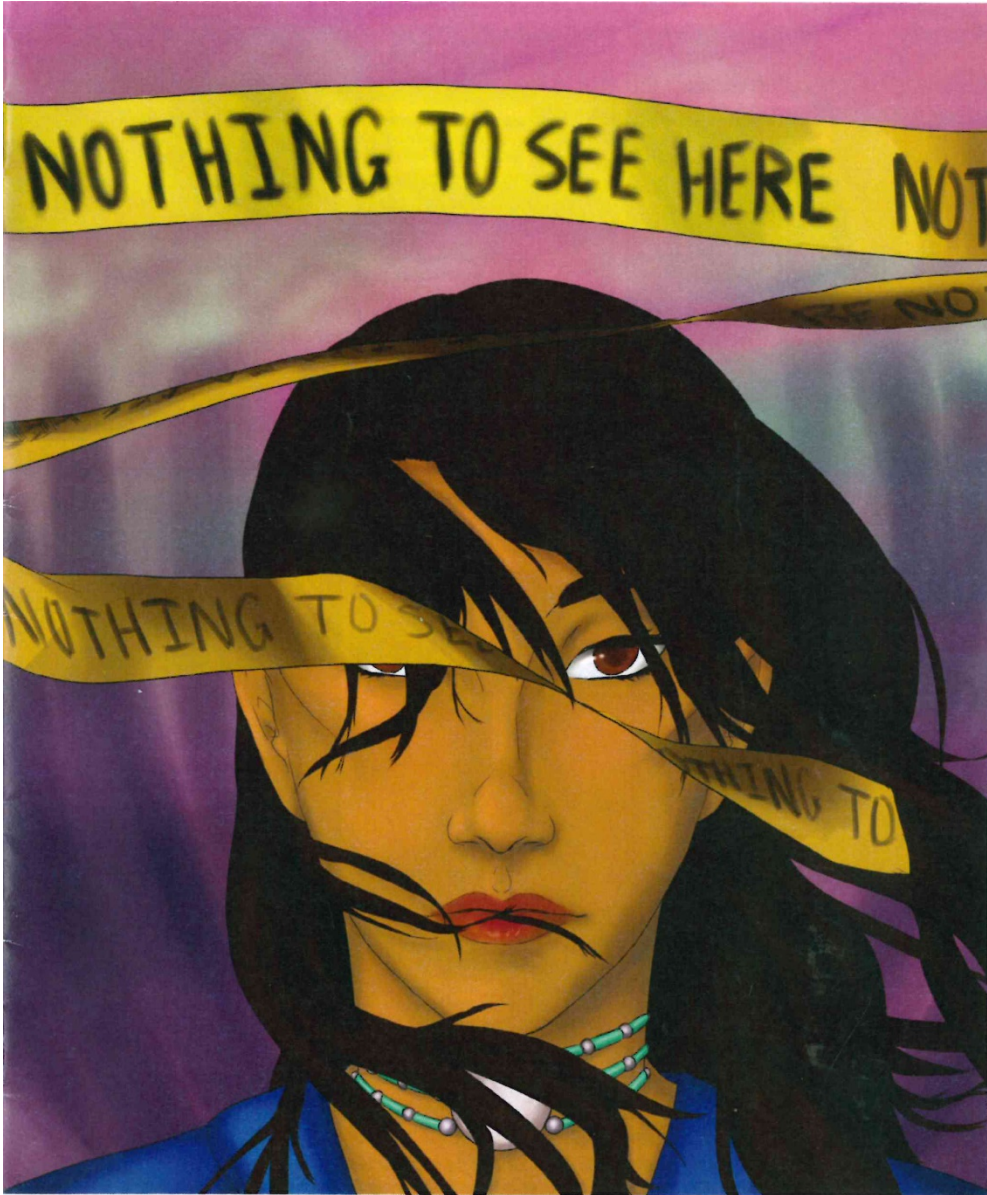
Figure 1
Nothing To See Here

A second example, *OM* captures the emotional trauma of bullying in adolescence when it is further heightened by use of social media into cyber bullying. This graphic novel shows how media can be used by peers to harass an individual. Artists and writers use media principles including targeting of adolescents, false depictions of reality and importance of critiquing media portrayals. Use of details in drawings offer depth of visual examples to support the written narrative.

Figure 2
One Mistake

For example, when asked for an example of what she learned as she created the visuals, one student artist said "The main character wakes up and looks in the mirror and finds that her face has been drawn on with multiple different colours of sharpie...she just feels really heartbroken and then later she finds out it was posted on Facebook" (see Fig. 2 *One Mistake*).

Teacher Interviews

The two teachers involved in this research project were enthusiastic participants, although they did not know each other well and their schools were across town from one another. Mrs. Jones collaborated in the Indigenous program, while Mrs. Williams contributed within the Art program. The results of our interviews with teachers revealed a number of important themes, including: student development of voice and self-

confidence, collaborative learning, authentic real-world contexts, and the importance of visuals.

Voice and self-confidence. Mrs. Jones has witnessed the difficulties of Indigenous adolescents coping with stereotypical and racist reactions of non-Indigenous peers and adults towards them. She observed that such reactions caused them to "feel separate, it's just kind of 'less than' impression of their status." Mrs. Jones added "they have had many negative experiences...of not only being teenagers but then being First Nations teenagers". However, Mrs. Jones noted as soon as they realized the creation of the graphic novels were on a topic that was their choice "all of the groups almost immediately kind of jumped on something that was a fit for them". Their group discussions usually focused on discovering and presenting the 'value of what they say'. While the students had been involved in media literacy education to critique the commercial media, this project helped them to "find ways for them to do [their message] in a public way through media", the multimedia of the graphic novel format. Once they began to work Mrs. Jones reported, they would comment: "oh we're having fun. We like this."

Collaborative learning. In contrast to Indigenous adolescents' often negative experiences, Mrs. Jones commented that this project helped her students in "focusing on their voice and their ability to create some change or to impart their knowledge" since we invited them to keep in mind an audience of younger adolescents. Caring messages were conveyed through stories concerning the impact of media "on the mental health of the people around them". They experienced "motivation and excitement about wanting to be able to teach somebody else ... through their experience" and especially enjoyed "the idea of collaborating" which was in contrast with their usual individual school activities.

The art students were required by Mrs. Williams to put the Indigenous writers in the role of clients who would therefore make final decisions on the illustrations. There were often notes from writers wanting changes and Mrs. Williams said her art students "had to understand that criticism because they were working for a client". Her students embraced the challenge. Mrs. Williams reported hearing in her class comments such as "these are things we need to be careful about" and "they are cautionary tales but they're real" as they adapted to illustrating stories that were not their own. In the end, however, Mrs. Williams said her students "want their work to be shared and they want there to be a bigger picture for their work" which was one important outcome of the project.

Visuals. Mrs. Jones also commented specifically on the importance of visual text: "a number of them read graphic novels on their own and may, or may not, have even really ever known how intentional that stuff is with the image" which they experienced when art students began to illustrate their written stories. Indeed, composition development proved to be another vital element of this project because they were engaged in "editing and feedback...forcing them to think through not only how the story might unfold on paper for them but how it would unfold visually too". Mrs. Jones concluded that "it was certainly really exciting for them to see how those visuals turned out'' once the collaboration with art students was complete.

Mrs. Williams commented on the critical thinking the project elicited in her students. They read the stories from the Indigenous cultural program and their first

concern was for the depiction of the characters. Group discussion resulted in decisions based on the character's words and actions because "the ideas came from the writing from the other students." Mrs. Smith said the decisions on visual depictions of characters "was almost like casting". The artists were "forced to look at it critically...who would best represent this story?"

Media's impact on confidence/wellness. The project reinforced Mrs. William's ideas about the importance of media literacy education in her classroom. She reported that her students "talked about the way that media affects their mental health and their self-awareness". Her students, she said, may enter her class lacking awareness of media influence but 'they leave going "oh, so there's some company that's going 'oh teenagers what can I sell them this year'" and "walk away knowing that they need to look at these critically". Mrs. William commented further that "now I have a word for [this learning]: critical media health literacy."

DISCUSSION

A number of conclusions from an analysis of interviews with students and teachers and of graphic novels can cautiously be made. While school-based programs can be used to help students learn to disrupt negative media messages, adequately structuring multiliteracies learning activities to develop CMHL requires insight into how students, both Indigenous and non Indigenous, might display their understanding and, in so doing, challenge media messages. As the findings suggest, students were able to identify a broad range of health/wellness topics but did so with varying levels of comprehension about media's impact on health. Indigenous scholars remind us that literacy practices are rooted in social contexts in which meaning is located in the social worlds of individuals and communities (Battiste, 2002).

However, Indigenous adolescents must have a variety of literacy skills to succeed in the many contexts (e.g. reserve, school, town, Internet) where they live and learn (George, 2001). Students identified most closely with their own experiences as Indigenous adolescents and in their dealing with the police. They wrote about events in residential schools dealing with teachers and religious orders, and about contemporary problems such as murdered and missing Indigenous women. Other groups talked about adolescent problems such as dealing with cyberbullying and young women fearing men. They challenged these stereotypes and inequities through the development of characters who overcame problems by group action often involving family members. This idea is coherent with Indigenous values discussed by Schwarz (2009), and Brayboy and Maughan (2009). Further, students illustrated their graphic novels by depicting Indigenous people accurately in both modern circumstances. For example, portrayals included at a party in *One Mistake* (shown in Figure 2) and in traditional dress as on the cover of *Nothing To See Here* (shown in Figure 1).

"Literacy is in its nature multimodal" (Cope and Kalantzis, 2000, p. 234). Multiple sign systems are embedded in social activity and reflect students' current understandings of the world (Banister & Begoray, 2006). Knowledge is mobilized most successfully when learners are cognitively and affectively involved (Paakkari and Paakkari, 2012) through means that are holistic and multidimensional, using a variety

of modes through multiliteracies (New London Group, 1996). The graphic novels were multimodal and showed understanding of media's influence on health in story and illustration. As Skerrett (2016) comments, the importance of developing a caring community moves beyond the original New London Group (1996) conception of multiliteracies and is especially important to demonstrate Indigenous values of cooperation and interdependence. In this project, we saw adolescents both Indigenous and non-Indigenous taking pleasure from the development of their graphic novels that seemed to arise in part from being able to collaborate and contribute to the well-being of others.

Engaging teenagers in complex literacy tasks "that involve uncertainty and risk" is essential for critical literacy development (Fine, 2014, p. 11) and encourages high-level problem solving. The adolescents in this project embraced various concerns in meeting their purposes— creating the graphic novel, responding to each other's work, learning to create a multimodal product, considering an audience of younger adolescents, and sharing their work more publicly at a final celebratory event.

Our approach emphasized Indigenous approaches such as "learning by observation and doing, learning through authentic experiences ... and learning through enjoyment" (Battiste, 2002, p. 18) in the construction of graphic novels. The Indigenous students found their identities (Hare, 2005) as adolescents and as Indigenous people and developed their self-esteem (Frisen and Homqvist, 2013) as noted especially by the teachers. We discovered that these approaches are important for non-Indigenous adolescents. These findings contribute to future research in this area, specifically to developing CMHL through multiliteracies in caring communities. We encourage future research to specifically examine mental health issues, such as self-confidence, anxiety, and dealing with difficult situations, following the lead of the students in this study.

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Appendix A.
Student Interview Questions

Students (Indigenous)

1. I understand that you have been talking about how to critically read health messages that are delivered through the media in ads. Can you describe what you have been discussing in class?
2. What does it mean to know about media's impact on health?
3. You helped write the storyline for a graphic novel that brings awareness about critically media health literacy. What parts of the book did you find most interesting or meaningful to you? Why? (provide students with copies of their novel to remind them of the story and to stimulate thought)
4. We hope that the visuals and the written story will give future Indigenous students the opportunity to discuss ways that the media affects health attitudes and behaviours and how adolescents can take charge of their own health by viewing media messages critically. What questions or thoughts came to mind as you thought about how to develop a graphic novel around critical media health literacy?
5. How did creating this graphic novel help you learn about what it means to view media health messages critically?
6. Are there parts of the graphic novel that may not be effective as a critical media health literacy teaching tool? Why?
7. Are there any suggestions that you have for us about creating a graphic novel?
8. Do you have any other comments about being a CMH literate adolescent that would help us when talking with other adolescents?

Students (Art)

1. I understand that you have been talking about how to critically read health messages that are delivered through the media in ads. Can you describe what you have been discussing in class?
2. What does it mean to be *critically media health literate* to you?
3. You helped create the visuals for a graphic novel that brings awareness about critically media health literacy. Thinking about health messages that are delivered through the media what parts of the graphic novel do you find most interesting or meaningful to you as an adolescent? Why? (provide students with copies of their novel to remind them of the story and to stimulate thought)
4. What were the most challenging characters/ideas to illustrate?
5. We hope that the visuals and the written story would give future students the opportunity to discuss ways that the media affects health attitudes and behaviours and how adolescents can take charge of their own health by viewing media messages critically. What questions or thoughts came to mind as you thought about how to create the visuals of a graphic novel about critical media health literacy?
6. What did you learn about CMHL from illustrating this graphic novel?
7. Are there parts of the graphic novel that may not be effective as a critical media health literacy teaching tool? Why?
8. Are there any suggestions that you have for us about creating the graphic novel?
9. Do you have any other comments about being a CMH literate adolescent that would help us when talking with other adolescents?

Appendix B.
Teacher Interview Questions

Teacher (Indigenous)

1. Your students wrote the storyline for the graphic novel as a teaching tool for Critical Media Health Literacy (CMHL) for other adolescents. Could you briefly describe who you teach, your understanding of CMHL, and the way you approached this topic with your class?
2. Did you use the novel in conjunction with a larger curriculum that aimed to develop CMHL? If so, describe this process.
3. Describe how you used the development of the graphic novel in your overall CMHL unit? For example:

a.   Was the novel used as an introduction, mid-unit or at the end of the unit? Why? How effective was your placement of the novel?

b.   Given that media-perpetuated messages are delivered largely through visuals, how effective was presenting CMHL concepts through graphic novel visuals?

c.   Describe other ways that you used the development of the novel to increase students' awareness of CMHL.

4.   The graphic novel was designed to provide visual and written prompts to stimulate discussion around CMHL key concepts. What aspects of the novel are

particularly effective as a critical media health literacy teaching tool? Why?

5.   What aspects of the novel's format may not be effective as a critical media health literacy teaching tool? Why?
6.   Do you have any other comments or suggestions for us as to the use of this graphic novel as a CMHL teaching tool?

Teacher (Art)

1. Your students created the visuals for the graphic novel as a teaching tool for Critical Media Health Literacy (CMHL) for other adolescents. Could you briefly describe who you teach, your understanding of CMHL, and the way you approached this topic with your class?
2. Did you use the novel in conjunction with a larger curriculum that aimed to develop CMHL? If so, describe this process.
3. Describe how you used the design of the graphic novel in your overall CMHL unit? For example:
   a. Was the novel used as an introduction, mid-unit or at the end of the unit? Why? How effective was your placement of the novel?
   b. Given that media-perpetuated messages are delivered largely through visuals, how effective was presenting CMHL concepts through graphic novel visuals?
   c. Describe other ways that you used the development of the novel to increase students' awareness of CMHL.
4. The graphic novel was designed to provide visual and written prompts to stimulate discussion around CMHL key concepts. What aspects of the novel are particularly effective as a critical media health literacy teaching tool? Why?
5. What aspects of the novel's format may not be effective as a critical media health literacy teaching tool? Why?
6. Do you have any other comments or suggestions for us as to the use of this graphic novel as a CMHL teaching tool?

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