

RESPONDING TO CONCERNING POSTS ON SOCIAL MEDIA: INSIGHTS AND SOLUTIONS FROM AMERICAN INDIAN AND ALASKA NATIVE YOUTH

Jesse Gritton, MPH; Stephanie Craig Rushing, PhD, MPH;
David Stephens, RN; Thomas Ghost Dog; Bradley Kerr, MEd;
and Megan A. Moreno, MD, MEd, MPH

Abstract: **Purpose:** This study aimed to understand American Indian and Alaska Native (AI/AN) adolescents' perspectives on concerning social media posts, including those expressing suicidal intent. **Methods:** A purposive sample of AI/AN youth were recruited; trained facilitators conducted focus groups. Participants discussed experiences viewing concerning posts on social media. Qualitative analysis used the constant comparative method. **Results:** A total of 32 AI/AN youth ages 14-22 participated. Three salient themes emerged: 1) youth typically respond alone; 2) barriers to action; 3) recommended training and support – trusted adults, anonymity, and privacy. **Conclusion:** Study findings will guide the development of resources trusted by AI/AN youth.

INTRODUCTION

Suicide is among the top causes of mortality for youth in the U.S. (Frieden, Jaffe, Cono, Richards, & Iademarco, 2014). Risks for suicide include mental illness, such as depression, substance use, and exposure to violence (Hallfors et al., 2004; Howard-Pitney, LaFromboise, Basil, September, & Johnson, 1992). American Indian and Alaska Native (AI/AN) youth are disproportionately impacted by high rates of suicide and depression with suicide being the second leading cause of death for AI/AN teens (CDC, 2010). Among AI/ANs in high school, 21.8% seriously considered attempting suicide and 14.7% attempted suicide at least once in the last year; these numbers are well above national averages at 15.8% and 7.8%, respectively (Cwik et al., 2016; Frieden, Jaffe, Stephens, Thacker, & Zaza, 2012). Suicide has a devastating, reverberating impact on tribal communities, families, and youth. Cost effective, culturally appropriate interventions are critically needed (Bartgis & Albright, 2016).

Suicide prevention efforts targeted at youth are challenging, as many youth do not disclose suicidal ideation to others (White, MacInnes, Hingson, & Pan, 2013). Emerging research suggests that youth may disclose depression symptoms and suicidal ideation via social media, such as Facebook and Twitter. Previous work found that between 25% and 33% of older adolescents displayed references to depression symptoms on their Facebook profiles (Moreno et al., 2012; Moreno et al., 2011). In a one-week period, over 200,000 publicly available tweets included hashtags of #depression and approximately 3% of the tweets referenced suicidality (Pumper, Kelleher, Whitehill, & Moreno, 2014). Not only are such references common, they can be linked to real life experiences. In one study, participants who displayed references to depression on Facebook also self-reported depression symptoms (Moreno et al., 2012). Lay media reports and scholarly papers have described tragic cases in which youths' online posts have indicated suicidality before attempting or completing suicide (Baume, Cantor, & Rolfe, 1997). These public social media disclosures may provide new opportunities to identify youth at risk and connect them to appropriate resources and support.

Social media is used by the vast majority of youth as well as a high proportion of adults (Lenhart, 2015). Given that almost all AI/AN youth maintain social media accounts, social media using-peers may intervene when they view concerning social media disclosures (Craig-Rushing & Stephens, 2011). However, little is known about youths' experiences in responding to such posts and what challenges intervening may pose for them. Thus, the goals of this study were to better understand AI/AN youths' perspectives on concerning social media posts as a means to develop tools to help youth appropriately intervene.

METHODS

Given the purpose of our study was to understand youth perspectives, a qualitative study design was deemed most appropriate. Qualitative research approaches are designed to answer exploratory questions such as "why" and "how" and generate data that can lead to hypotheses (Glesne, 2010). In order to fully explore the concepts we sought to understand in this study, interaction between youth was critical to integrate into the study design. Focus groups are a study design in which a group of participants are asked questions, and communication between research participants is used to generate ideas (Kitzinger, 1995). Focus groups were designed to

better understand how AI/AN teens and young adults view, interpret, and act on their peers' social media posts referencing mental health concerns, including harm to self or others.

Setting

This focus group study was conducted at community events in Washington and Oregon between April and June 2015. The Seattle Children's Research Institute IRB and the Portland Area (PA) Indian Health Service (IHS) IRB approved this project.

Participants and Recruitment

We recruited participants between the ages of 14 and 22 years. Focus groups were structured such that same-age peers were placed together. Adolescents aged 14-18 were grouped separately from young adults aged 18-22. Participants were recruited from two intertribal youth camps hosted by tribes in the Pacific Northwest. Both gatherings were attended by multiple tribes and focused on culture, health promotion, and youth leadership skill-building.

Participants under the age of 18 received consent forms and study materials with registration paperwork in the mail prior to the event. The recruitment materials made it clear that participation was optional, and parental consent was required for this age group. For participants 18-22 years old, a trained facilitator reviewed the consent form and provided time for questions and clarification.

Instrument Development

Facilitator Guide

The facilitator guide was developed in an iterative process by research team members from Seattle Children's Research Institute/SMAHRT and the Northwest Portland Area Indian Health Board (NPAIHB)/WeRNative. The prompts and activities designed for the focus group were tailored to be developmentally and culturally appropriate. For example, younger adolescent groups included a worksheet activity (described below) in order to provide participation options for younger adolescents who may feel less comfortable speaking out in groups. The facilitator guide begins with a warm-up activity intended to garner understanding of participants' social media use. The guide then instructs the facilitator to transition the conversation to clarify what participant's considered to be a "concerning" display on social media, explore whether

participants had ever seen “concerning” displays on their own social media, and how they typically responded to such displays. Focus groups were semi-structured with open-ended primary questions and probing questions.

In order to tailor our approaches to be developmentally appropriate by age group, the study team tailored the focus groups with younger adolescents (14-18) to provide an opportunity for both verbal and written participation. The research team designed a written worksheet (See Appendix A: Ideal Program Worksheet) to address potential reluctance to share in a group setting based on the subject matter and age of participants. Among the younger groups, the study team asked participants to: 1) write down examples of what they would consider concerning displays on social media, and 2) help design an ideal program to help youth who post concerning content on social media. In addition, this approach allowed for participation from youth who were less comfortable speaking in small groups.

Ideal Program Worksheet

The Ideal Program Worksheet honored a solutions-focused approach. The study team sought to understand youth recommendations for future translation of findings to a relevant intervention. The worksheet was tailored for younger adolescents. The participants completed the worksheets individually, and the worksheet sections guided a group discussion after completion. The worksheet contained five sections, designed to better understand: 1) their preferred social media platform for an intervention, 2) people who should be involved in efforts to address concerning displays on social media, 3) needed resources to feel prepared to help if viewing a concerning post by a peer, 4) recommended messages created by youth to help someone who is posting concerning content, and 5) recommended or preferred websites or videos to offer someone who is sharing concerning content. The participants returned the worksheets to facilitators anonymously.

Facilitator Training

There were four total focus group facilitators, two from each of the collaborating teams in this study. All four facilitators reviewed relevant focus group methodology literature and/or were previously trained in focus group facilitation. Facilitators practiced questions with each other to ensure clarity and comfort with questions and supplemental probes. The four facilitators

facilitated the first focus group together to ensure consistency and standardization in future group facilitation. Subsequent focus groups involved paired facilitators.

Focus Group Procedures

At the beginning of each session, trained facilitators reviewed focus group ground rules with participants, including being respectful and treating the focus group as a “closed talking circle” (what is said within the group, stays in the group). Participants were also reminded that participation was optional, and if there were any questions they did not feel comfortable with, they were not required to answer them. Focus groups lasted between 45 and 60 minutes. All focus group discussions were audio recorded with written activities collected to augment the recorded responses. All data were transcribed within 7 days of collection.

Analysis

Focus Group Discussion

The investigators utilized a constant comparative approach, and every author reviewed all transcripts. The transcripts were imported to a qualitative analysis program (Dedoose). During an initial review of all transcripts, one primary coder identified initial overarching categories to begin the first cycle of data classification. Inductive reasoning based in grounded theory guided codebook development and theme identification.

All authors then met to discuss the initial list of parent and child codes to clarify confusion or add missing concepts. The parent codes consisted of root codes or overarching categories, while the child codes included sub-categories within the parent codes. Once authors reached consensus on the coding criteria, the first cycle of coding began by having two teams of two coders each code the same transcript blinded to one another. The purpose of this stage of analysis was to ensure reliability and validity of data. Each team of two coders also had a third member available to help reach consensus on appropriate coding of excerpts. Following blind coding of the same document, the transcript was reviewed to identify discrepancies in coding. The research team met to discuss discrepancies and standardize and align coding moving forward. This stage verified coder reliability and allowed progression to the second cycle of coding.

The second cycle of coding was intended to synthesize and integrate parent and child codes to move towards development of themes and broader concepts. Each team coded the remaining two transcripts and reviewed all transcripts once completed. After completion of all coding and review of all coded transcripts by all authors, each coding team developed an initial list of 3-5 themes based on a systematic review of coded excerpts. The authors met to discuss overlap and discrepancies within both documents. After reaching consensus among authors, the theme documents were merged. Once theoretical data saturation were reached, three themes were identified that consistently emerged from all three groups.

Ideal Program Worksheet

The investigators conducted content analysis of the qualitative responses shared by the participants. Two trained coders utilized a categorical development approach to identify 8-10 categories in order to organize participant responses and identify shared or overlapping ideas. Two more trained coders reviewed the categories to assess for consistency and accuracy. Responses were then analyzed for frequency across all focus group participants.

RESULTS

Participants

A total of 32 AI/AN adolescents participated in three focus groups, with group size varying from 8-16 participants. There were more female participants (65.6%) than male (34.4%). Over half of the participants were between the ages of 14 to 17 years (53.1%); the median age was 16 (See Table 1). In order to ensure confidentiality, tribal affiliation was not collected.

Table 1
Demographic Characteristics

	Focus Group Participants		Ideal Program Worksheet Responders	
	Characteristic	N = 32	Characteristic	N = 24
Gender	Female	21 (65.6)	Female	16 (66.7)
	Male	11 (34.4)	Male	8 (33.3)
Age	14-17	19 (59.4)	14-17	19 (79.2)
	18+	13 (40.6)	18+	5 (20.8)

Technology Use

All of the participants reported going online once a day; the majority of participants reported going online several times a day. The social media sites most commonly used among the participants were Facebook, Instagram, and Snapchat. Most of the participants accessed social media with their phones. During the focus group of 18-22 year olds, participants discussed the evolution of their social media use.

When I was younger, like in high school, I went on Facebook a lot more and posted things all the time, but now that I'm in college and have a job, I never go on there. And then all of the people on my Facebook are all old too so they don't really post either. (Female participant)

Participants also described using social media to celebrate positive or humorous information, such as to share inspirational videos and connect with AI/AN news, events, and celebrities. One participant described her preference for funny content on Facebook as follows: "I like to see funny things on Facebook. I just post funny things. People make me laugh, and I want to make other people laugh when they scroll down my timeline" (Female participant).

Ideal Program Worksheet

The Ideal Program Worksheet was distributed at two focus groups among participants between the ages of 14-18. A total of 24 AI/AN youth completed the Ideal Program Worksheet. The median age was 16 years, and 66% were female. The majority of youth had viewed concerning displays by peers on social media previously. Facebook, selected by 68% of participants, was identified as the preferred platform to deliver an intervention. Participants generated a diverse list of people to involve in efforts to intervene on behalf of those posting concerning content. The four most commonly suggested groups for involvement included family, friends, mental health professionals, and health and safety programs. Notably, "everyone" and "myself" were also suggested.

The youth generated their own messages to be offered in response to a concerning post (See Table 2). All messages consisted of words of encouragement and support, most commonly

addressing isolation, inquiring about well-being, emphasizing self-worth, and offering to listen. For example, “I would make a Facebook page called, ‘If you need someone to talk to, we’re here’” (Male participant).

Table 2
Youth Generated Message Types

Categories	Example Messages
Reduce Isolation	“Are you doing ok? Where are you @, do you need me to come and get you out of the environment?”
Inquire About Well-being	“You ok? I’m here if you need anything. I’m going to dinner and I’m wondering if you want to go too, my treat.”
Offer To Listen	“If you need anyone to talk to...I’m here ☺”
Provide Encouragement	“There’s a rainbow after this storm I promise ☺ ALWAYS HERE FOR YOU <3”
Express Compassion	“I care for you, and I am here. I always will be, I won’t leave you. I will stay by your side...”
Prompt Reflection	“You are important. Your life matters. You have a purpose on this earth.”
Message To Stranger	“Hey, we don’t talk, but I saw your post. Are you doing alright? I’m here if you ever need me.”
Show Empathy	“You’re not done in this world. I’ve been through the same or maybe even tougher, but in this world you would change it if you left. You do matter.”

Three themes emerged within the teens’ suggestions for intervention resources: inspirational videos, tips or guides on how to respond, and AI/AN-specific resources (See Table 3).

Table 3
Categories of Requested Resources

Categories	Representative Quotes
Inspirational Material	“Positive videos or posts that send good vibes and hopefully give them ideas on some help to have the bad vibes flush away.”
Native-specific Resources	“Tribal Social Worker”; “Native Voices”; “Ask Auntie”; “We R Native”
Training & Guides to Respond	“Talking about it so I would know what to do in a real situation.”; “Knowing what to say to them, don’t want to say the wrong thing.”

Focus Group

The researchers identified three salient themes that were present across each focus group, as participants described experiences viewing and responding to concerning displays on social media. The themes included: 1) responding alone (I saw it. I alone ought to do something about it); 2) complicated barriers to action (knowing what to do is much harder than it sounds); and 3) trusted adults and third party responders (tools and training are needed).

Respond Alone – *I saw it. I alone ought to do something about it!*

Participants expressed a genuine concern for those who posted concerning content online. There were no participants who indicated that their initial response would be inaction. In most cases participants' responses indicated a sense of personal responsibility or "duty" to respond. "You want to be that kind of person that says, 'I've tried my best to be there for them.' Not saying it will happen, but if it did" (Male participant).

Participants also shared personal experiences viewing concerning displays and their responses to those displays. The majority of participants reported having done something in response to a concerning disclosure on social media. The most common modalities were in-person, via private message (text or direct message), or by calling them.

One of my craziest ones was – one of my friends was putting on Facebook I think...no it was on Facebook and Snapchat – how he was feeling suicidal or whatever, so it made [me] a little concerned. So I drove all the way to [location].
(Male participant)

Though participants were responding alone, they described a variety of communication techniques, including tough love, humor, and honesty. Humor was validated by multiple participants as a good way to break the ice and diffuse a stressful situation. "Yeah, well I wasn't doing nothing, so I was like, 'Well, we're going to have some fun, slap you with some truth too, while we're at it'" (Male participant). Participants easily developed supportive messages to say to their peer and strategies to distract them.

The concept of not responding to a concerning display weighed heavily for some participants. Participants described feeling conflicted, not knowing how to respond if they didn't

know whether the disclosure was true or not. The participant excerpt below verbalizes the pressure they put on themselves to respond.

I was like, well, I don't want to feel like I am going to sit here watch you lying about everything. And then if you do something and I don't say anything. I'm going to feel very bad if I just sat here and didn't do anything. (Female participant)

Even when participants couldn't decipher whether the display was a true cry for help, many described responding. None of the participants described consulting anyone (e.g., parent, counselor, teacher, etc.) before or after responding.

Yeah, it's kind of like, one of my buddies... he posted something that said, "I'm going to end my life tonight" or something weird like that. I messaged him to make sure everything is ok. He said, 'Oh, I was just quoting a song.' (Male participant)

Participants also shared their personal experience with the consequences of misinterpreting the display or not taking it seriously. "Cuz I've seen that happen before where people just brush it off like it's nothing really important because they constantly do it, but that person just ends up taking their own life" (Male participant). Male and female participants both had experience with the ramifications of not responding.

That's nothing to joke about though. I know this, well I don't know them, but we are part of a group. This guy, he was asking for help and people were making fun of him and dissing on him. And he actually got mad and posted a picture of what he did to his arm... the whole thing was cut up and all that and bleeding. (Female participant)

The lack of reference to consulting or involving supportive adults conveyed a repeated sense of personal responsibility and was often coupled with feelings of stress, guilt, and

frustration. Youth described concerns about anonymity and confidentiality in reporting their peer. Youth also expressed fears that they may not do enough. This pressure was exacerbated by the assumption that it was their responsibility *alone* to address the concerning disclosure. “I didn’t want to feel like I was his only support. I felt like I was his only support” (Male participant). Multiple participants expressed feelings of frustration, particularly when the attempts to reach out and help their peer were ignored, or there was no change in the posting behavior.

But, I just felt like, I can’t do it anymore. Like, someone else is going to have to be here for you. I can’t keep revolving my life around you, making sure everything is fine with you. (Female participant)

Participants responded to concerning posts by themselves. Repeatedly, participants demonstrated the ability to recognize warning signs and an innate sense of how to support the person posting concerning content. However, participants also frequently questioned their responses and rarely identified places to turn for support. “Where I’m just like sorry man, do you want to hang out and trying to get his mind off of it” (Male participant).

Complicated Barriers to Action – Knowing what to do is harder than it sounds.

Participants shared challenges they had encountered responding to concerning displays on social media. Across all focus groups the participants expressed a desire to do something, but most weren’t confident their approach was the right one. Several factors contributed to this doubt, including difficulty deciphering the true meaning of concerning posts, different levels of friendship with the person posting concerning content (i.e., acquaintance, classmate, friend, family member), and frustration when attempts to intervene proved ineffective. The most common barriers to action were “deciphering post meaning” and “responder fatigue.” Youth felt responder fatigue when they reached out to those displaying concerning posts, often more than once, and the displayer made no change. “I’m not gonna help. I’m not gonna feel sorry for you guys. I offered my help to you, but you’re not going to accept it” (Female participant).

Among the youth who had experience attempting to intervene, many expressed dissatisfaction because the approach they used did not work. At least one youth deleted a friend

on Facebook, feeling overwhelmed by the repeated concerning displays. Other youth echoed having used this approach when they felt their actions were not working.

Because I thought what if I assume he is quoting lyrics to a song, but he actually does kill himself, I'll feel bad because I wasn't able to say anything to him. That would feel so horrible. So, I just ended up deleting him from Facebook. (Male participant)

The comfort in responding and the type of response selected by youth depended on the nature of the relationship between the viewer and displayer or how well the viewer knew the youth sharing the concerning content. Youth were more likely to reach out to a close friend in-person or through direct message. Participants expressed more uncertainty about how to respond and were more apt to "comment" on concerning posts if they were shared by an acquaintance. A minority of participants shared that they would still encourage meeting in-person regardless of the level of their friendship.

Um, well I didn't know how to like say, "Hey," you know? I didn't know how to bring it up because we weren't that close, so I wasn't like...I didn't have like the right to just step in and be like, "Hey, why did you post that picture?" You know? (Male participant)

Participants described feeling uncertain when trying to determine the level of risk, or whether there was risk at all, for those who were posting concerning content. In some cases, messages were described as "drama" or attention-seeking, while others were identified as a true cry for help. The context and frequency of the concerning displays were repeatedly mentioned by youth as ways to differentiate and inform the response.

Facilitator: So, if someone says, "Sometimes you have to fly with the eagles"?

Female participant 1: I think it would depend on what the picture was

Male participant 1: Yeah

Female participant 2: Yeah

Female participant 1: If they were like, you know, outside, you might be like, oh yeah, they really want to fly with them eagles, you know?

Male participant 2: Their dreams

Facilitator: Like that could be a positive statement?

Female participant 1: Yeah

Participants were more likely to think it was “drama” when the displayer frequently shared negative or distressing content. Multiple participants agreed a displayer was more high risk when it came from someone who doesn’t usually share concerning content, or there was a clear change in the nature of the online disclosures. Participants were more likely to ignore (“keep scrolling”) concerning displays, based on the frequency of concerning displays.

Participants also offered a counter-perspective that regardless of frequency or attention-seeking, there should still be a response. Youth shared several examples demonstrating how complicated it is to decipher the meaning of an online disclosure.

If I’d seen a gun emoji and then like the x eyes or whatever, I still think that’s something you should be concerned about. Even if they did have a bad day or something, you should probably still be concerned about them, because that’s still like a red flag. Basically, you don’t treat it any different, because who would ever know? (Female participant)

Trusted Adults and Third Party Responders – Tools and training are needed.

Participants’ descriptions of experiences with concerning disclosures revealed a lack of confidence in responding. Despite a desire to intervene or respond, multiple participants felt like what they could offer wasn’t quite enough. The more distant the relationship to the displayer, the more concerns for privacy and confidentiality contributed to more hesitancy in responding. Participants suggested trusted third party responders could help with this issue. “I think sometimes if talking to the person directly doesn’t make you feel comfortable, talking to someone else that could neutralize it. I think that could be helpful” (Female participant).

Yeah, and that's the thing, one of my auntie's, she is one of the ladies out there. And I gave her his contact information. I think she is one of the suicide prevention counselors out there. I gave him the information for that, so if he did feel that, he could go to her. (Male participant)

Participants shared desired intervention ideas across different social media platforms through the Ideal Program Worksheet and in discussion during the focus groups. Online resources and tools included We R Native website (www.weRnative.org), phone apps, 24-hour counseling chat, and hotlines.

I think something that could help is We R Native. You probably have someone ask, "I'm having an issue and trying to figure out how to talk to my friend about an issue she is having." Maybe give me some advice or some tips about how I can approach the situation, how I can help them out better, better ways that I can do it, or maybe give me the number of someone who can help them. (Female participant)

While most participants described reaching out to those posting concerning messages in-person, they also discussed the benefits of offering technology-based interventions for adolescents.

Yeah, I don't know because I had a friend who was suicidal, and he didn't like talking on the phone. When I would try to talk to him it was more of a, we'll go on here and talk because I'm not going to call. With him I asked him, I called him. And he said, "I can't talk right now." So I just said, "Alright I'll just message you, so we'll go on your time, so as long as you message me back, I know you're fine. We'll go at your pace where I'm not going to go off and ask you hard questions and you have to think of an answer right away." (Male participant)

DISCUSSION

This study generated insights from AI/AN youth regarding how they interpret and act upon social media posts they consider “concerning.” Most AI/AN youth who participated had seen a concerning post online. Many described feeling personally responsible for engaging with the person who posted the concerning content, but ill-equipped to offer help effectively. Youth recognized that they needed tools and training to help with these situations and referenced the importance of trusted adults.

It was evident in both the suggested messages and requested resources that AI/AN youth conceptualized themselves as having a primary role and responsibility to respond to their peer’s concerning displays. As a result, many youth experienced a “cycle of viewer distress” (See Appendix C), characterized by viewing concerning posts on social media and experiencing stress and worry; responding the best way they know how, but typically alone; observing no change in the behavior of the person posting concerning messages; and experiencing frustration, fatigue, continued stress, and guilt. To support future interventions, over two-thirds of the participants recommended technology-based, AI/AN-specific resources.

Suggested Messages

The responders generated a list of messages to help peers who post concerning content. The messages were thematically categorized to understand the most common types of messages (See Table 2).

Requested Resources

Youth wanted resources to direct their peers to but also wanted training to feel better prepared to respond. The research team organized the requested resources into three categories: inspirational material, AI/AN resources, and training and guides to respond (See Table 3).

Limitations

There are several limitations to our study which merit attention. Our study utilized a purposeful sample, which is common in focus group studies. These findings represent data from the Pacific Northwest and cannot be generalized to AI/AN youth living in other regions of the

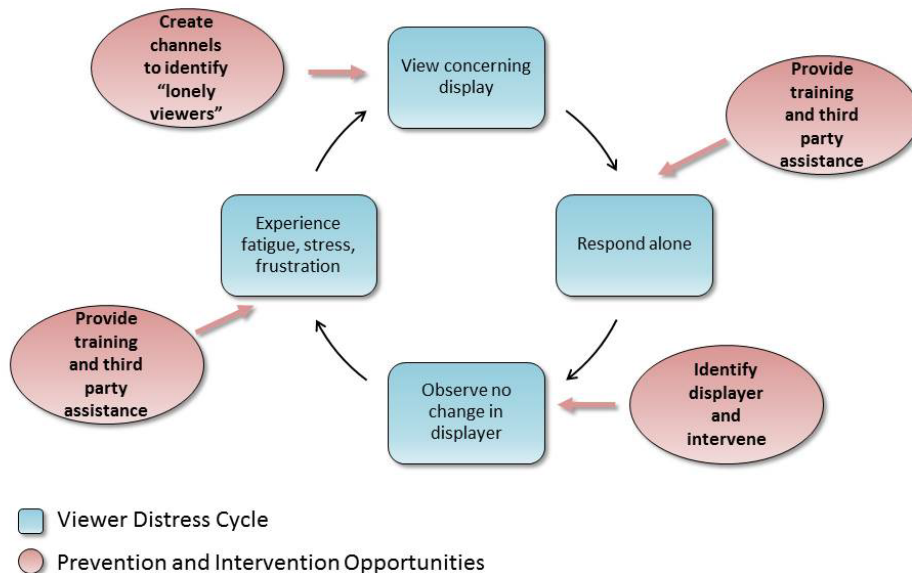
U.S. All youth participants were involved in tribe-sponsored health and wellness activities and may report higher levels of health awareness and behavioral intention than typical Native youth.

While generalization to the larger AI/AN youth population should be done with caution, this study was designed to generate ideas and information through participant interaction that can be tested in larger samples that are more representative. Social desirability may have influenced responses of our participants, particularly given the intimate nature of this topic. Our study design included facilitators from the AI/AN population as group leaders to enhance the comfort and cultural appropriateness of our discussion and provided non-verbal participation options for younger adolescents through the Ideal Program Worksheet. Our study design was limited in that we did not collect data via the Ideal Program Worksheet for older adolescents, as our previous experience supported that older adolescents are more comfortable speaking in groups. However, as the data yielded from the Ideal Program Worksheet was interesting and valuable in this study, future study designs may consider using such a worksheet with all ages to complement focus group discussions.

CONCLUSION

Despite these limitations, our study has important implications. The research team identified prevention and intervention strategies that could interrupt the viewer distress cycle at various stages (See Figure 1).

Figure 1. Prevention & Intervention Opportunities: Interrupting the Cycle of Viewer Distress



As an important first step, we suggest creating opportunities to increase youth awareness about concerning posts and the importance of taking action. Teachers, parents, coaches, and health educators can broach and normalize conversations about concerning social media posts during school assemblies and community gatherings, can teach youth how to respond to concerning displays, and can educate youth on what resources are available to support their intervention. Social marketing campaigns designed to promote youth awareness and intervention skills, delivered via social media, could reach youth already actively engaged with these channels. Routine screening during health care visits may also be effective by simply asking youth whether they'd ever seen or posted concerning content online. If robustly applied, high-risk youth will be identified by their peers, while connecting them to trusted adults who can help determine if additional mental health services are warranted.

Youth who *view* concerning messages also experience stress and frustration and should be supported as well. Repeatedly viewing posts depicting suicidality and self harm could reinforce unhealthy social norms or act as a trigger for at-risk youth. Trusted adults should emphasize support by acknowledging the youth's bravery for coming forward and thanking them for their concern. Providing adequate support to those who view and report concerning posts acknowledges their mental health needs and builds their confidence to intervene again in the future. These findings offer new strategies to identify at-risk AI/AN youth early, before concerning behaviors escalate, and may be relevant to wider audiences of youth who post and view concerning messages on social media.

REFERENCES

- Bartgis, J., & Albright, G. (2016). Online role-play simulations with emotionally responsive avatars for the early detection of Native youth psychological distress, including depression and suicidal ideation. *American Indian Alaska Native Mental Health Research*, 23(2), 1-27. <http://dx.doi.org/10.5820/aian.2302.2016.1>
- Baume, P., Cantor, C. H., & Rolfe, A. (1997). Cybersuicide: The role of interactive suicide notes on the Internet. *Crisis*, 18(2), 73-79. <http://dx.doi.org/10.1027/0227-5910.18.2.73>
- Centers for Disease Control and Prevention. (2010). *Web-based Injury Statistics Query and Reporting System (WISQARS)*. Retrieved from <http://www.cdc.gov/injury/wisqars/fatal.html>

- Craig-Rushing, S., & Stephens, D. (2011). Use of media technologies by Native American teens and young adults in the Pacific Northwest: Exploring their utility for designing culturally appropriate technology-based health interventions. *Journal of Primary Prevention, 31*, 135-145. <http://dx.doi.org/10.1007/s10935-011-0242-z>
- Cwik, M., Tingey, L., Lee, A., Suttle, R., Lake, K., ... & Barlow, A. (2016). Development and piloting of a brief intervention for suicidal American Indian adolescents. *American Indian Alaska Native Mental Health Research, 23*(1), 105-124. <http://dx.doi.org/10.5820/aian.2301.2016.105>
- Frieden, T. R., Jaffe, H. W., Cono, J., Richards, C. L., & Iademarco, M. F. (2014). Youth Risk Behavior Surveillance—United States, 2013. *Morbidity and Mortality Weekly Report, 63*(4), 1-172. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6304.pdf>
- Frieden, T. R., Jaffe, H. W., Stephens, J. W., Thacker, S. B., & Zaza, S. (2012). High School Youth Risk Behavioral Survey—United States, 2011. *Morbidity and Mortality Weekly Report, 61*(4), 1-168. Retrieved from <https://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>
- Glesne, C. (2010). *Becoming qualitative researchers* (5th ed.). London: Pearson Publishers.
- Hallfors, D. D., Waller, M. W., Ford, C. A., Halpern, C. T., Brodish, P. H., & Iritani, B. (2004). Adolescent depression and suicide risk: Association with sex and drug behavior. *American Journal of Preventive Medicine, 27*(3), 224-231. <http://dx.doi.org/10.1016/j.amepre.2004.06.001>
- Howard-Pitney, B., LaFromboise, T. D., Basil, M., September, B., & Johnson, M. (1992). Psychological and social indicators of suicide ideation and suicide attempts in Zuni adolescents. *Journal of Consulting and Clinical Psychology, 60*(3), 473-476. <http://dx.doi.org/10.1037/0022-006X.60.3.473>
- Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *BMJ, 311*, 299-300. Retrieved from <http://journals.bmj.com/content/journals>
- Lenhart, A. (2015). *Teens, Social Media & Technology Overview 2015*. Washington, DC: Pew Research Center. Retrieved from <http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/>
- Moreno, M. A., Christakis, D. A., Egan, K. G., Jelenchick, L. A., Cox, E., Young, H., . . . Becker, T. (2012). A pilot evaluation of associations between displayed depression references on Facebook and self-reported depression using a clinical scale. *Journal of Behavioral Health Services & Research, 39*(3), 295-304. <http://dx.doi.org/10.1007/s11414-011-9258-7>

- Moreno, M. A., Jelenchick, L. A., Egan, K. G., Cox, E., Young, H., ... & Becker, T. (2011). Feeling bad on Facebook: Depression disclosures by college students on a social networking site. *Depression & Anxiety*, 28(6), 447-455. <http://dx.doi.org/10.1002/da.20805>
- Pumper, M. A., Kelleher, E., Whitehill, J. M., & Moreno, M. A. (2014). Identifying depression and suicide displays on Twitter: Key search terms and characteristics. *Journal of Psychiatry and Behavioral Science*, 1, 1-7. Retrieved from http://www.jacobspublishers.com/images/Psychiatry/J_J_Psych_Behav_Sci1_1_003.pdf
- White, A. M., MacInnes, E., Hingson, R. W., & Pan, I. J. (2013). Hospitalizations for suicide-related drug poisonings and co-occurring alcohol overdoses in adolescents (ages 12-17) and young adults (ages 18-24) in the United States, 1999-2008: Results from the Nationwide Inpatient Sample. *Suicide & Life-Threatening Behavior*, 43(2), 198-212. <http://dx.doi.org/10.1111/sltb.12008>

ACKNOWLEDGEMENTS

We give thanks to the NW Tribes for their ongoing commitment to adolescent health and their support for this work, and to the delegates of the Northwest Portland Area Indian Health Board, who contributed to the planning process.

AUTHOR INFORMATION

Jesse Gritton and Bradley Kerr are Clinical Research Associates on the Social Media and Adolescent Health Research Team (SMAHRT) at Seattle Children's Research Institute.

Dr. Stephanie Craig Rushing is a Project Director at the Northwest Portland Area Indian Health Board (NPAIHB). David Stephens is the Multimedia Project Specialist at the NPAIHB, and Thomas Ghost Dog is a Project Assistant at the NPAIHB.

Dr. Megan Moreno is the Principal Investigator of the SMAHRT at Seattle Children's Research Institute and an Associate Professor in the School of Medicine at the University of Washington.

Appendix A
Ideal Program Worksheet

If you could design an ideal program to help youth who post about mental health concerns on social media, what would it look like? We know this is a big question, but we just want to do some brainstorming to hear your ideas...

1. *First choose your platform. (circle one or write in other social media)*



2. *If you were to create something to help youth who share concerning posts on social media, who would you involve? List as many types of people you think would be able help take action.*

- | | |
|----------|----------|
| 1. _____ | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

3. *Sometimes you need help to give help. What other information or resources would be helpful to YOU, so you can help others in distress. List 5 pieces of information or resources that would help YOU help others.*

1. _____
2. _____
3. _____
4. _____
5. _____

4. *What kinds of messages would you create to help someone who's posting concerning content? List 2 messages that you think would help.*

1. _____

2. _____

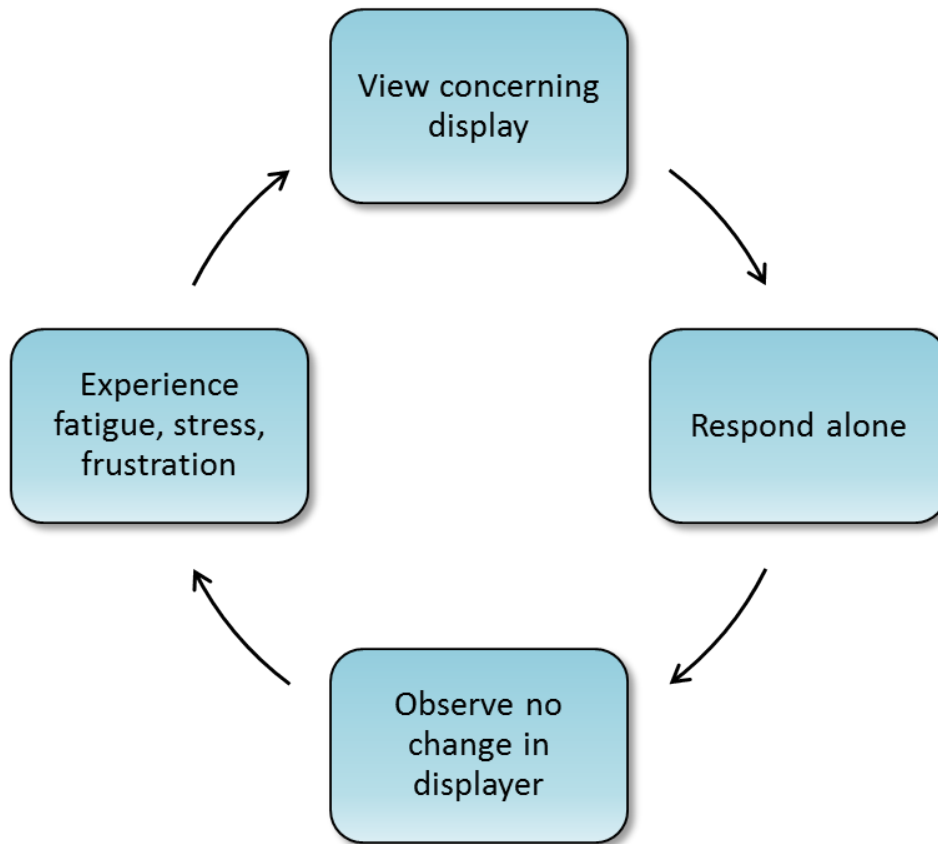
5. *What kinds of websites, videos or other things would you recommend to someone who's sharing concerning content?*

Done! Time to share with the group

Appendix B
Additional Theme Quotes

Theme	Example Quotes
<p>Theme 1: I saw it. I alone ought to do something about it!</p>	<p>“Because you know, just imagine if I felt that way and I posted like that. I would want somebody there for me, you know? ...to do something with me or something.”</p>
	<p>“It kind of blew me away. You are going to go ahead and post that, when someone could come to your house to make sure you’re fine. Someone is going to be concerned about you and put you in a psych ward...You’re making people concerned for you and all of this will be for nothing.... It got to the point where I just didn’t know what to do. I was just very worried about the whole situation. It got to the point where I just didn’t know what was going to happen....”</p>
	<p>“It depends on who it is. I approach all of my friends differently, like, “hey bud, what’s up?” or just like, “you ok?” you know? Just simple questions, but talk to them because... I’m really worried about them you know, because people are dying, because of drugs and alcohol, and I’m just over here like, “why you doing this? What got you into this? Were you peer pressured? Were you feeling depressed? Do you feel like there is no other way out? Talk to me.”</p>
<p>Theme 2: Knowing what to do is much harder than it sounds</p>	<p>“And sometimes I think it just might be them creating drama, but then I also think it they’re trying to reach out.”</p>
	<p>“If it’s a constant thing...if it changes though. You can tell it’s a serious problem if someone goes from posting like what they’re doing throughout the day and then something is really serious. You can tell something is wrong. But, if it’s constant every day, it’s hard to tell if something is really wrong and they need some help or they just want someone to notice them and are just saying a lot of stuff.”</p>
	<p>“You can try, but you get tired at some point.”</p>
<p>Theme 3: Tools and training are needed</p>	<p>“M1: Maybe get a hold of someone that you really look up to or they really look up to give some helpful advice. F2: Like a mentor? M1: Yeah F1: Someone close to them that they really trust and can open up to and talk to. Just let them know, this person is having a really hard time, they will talk to you so maybe you can go help them out.”</p>
	<p>“Something with texting would work a lot better. Kids now-a-days are a lot more comfortable since we are the generation of technology and texting. People don’t know how to take out the words that they’re feeling. So, it would just be a lot easier to be able to text someone, write it down, and have someone write back to you and you can talk to them that way. That way there is not the pressure of having them sit there on the phone or face to face and just all the pressure you have on it”</p>

**Appendix C
Viewer Distress Cycle**



**Appendix D
Facilitator Guide**

Script: (5 minutes)

Hello and welcome! Thank you for attending today's discussion about social media.

My name is _____ and I am from the Northwest Portland Area Indian Health Board and this is my colleague _____ from the Social Media and Adolescent Health Research Team at Seattle Children's. We're part of a group that is looking at how the internet influences the health of teens and young adults. Because you are in this age group, we want to better understand your ideas and thoughts around social media and some common mental health topics.

If you think about it; this talking circle is pretty exciting! Your perspectives and feedback will shape the types of programs that are available to Native youth all across Indian Country.

Before we break out into 2 groups, let's go over a few things that will help our conversation:

- We want this to be pretty informal, so there's no need to raise your hand.

- We will be having a “closed talking circle.” This means that whatever is said in the group, stays in the group. We are doing this to respect each other’s thoughts and opinions by not sharing each other’s names or any comments people make. These things will not leave this room when we are finished. If you have any concerns about this please come talk to any of us after our session is over.
- If there’s anything that’s unclear, please stop me and ask me to clarify.
- If there’s anything you feel uncomfortable talking about, you can always say ‘pass.’
- From time to time, we may interrupt the conversation or change the subject so we have enough time to cover all our questions. If you feel strongly about a certain subject and we have time at the end, we can continue talking about it, or you can talk to us after afterwards.
- It is important that we practice respect with each other, so please try hard to not judge what other people say. You can ask any questions you want, but please don’t make them personal questions or comments towards anyone in the group.

Does anyone have any questions before we begin?

Warm up Questions: (5 minutes)

1. **ACTIVITY:** Show of hands or human Scale (Have participants move to the left of the vertical line if answer is yes, right of the vertical line if no. Behind or in front of the horizontal line for frequency questions. *(If raising hands, state the number of people so that it can be recorded for transcription)*)

a. Do you?...

Go online at least once a day? (Yes = _____)

Go online several times a day? (Yes = _____)

Go online almost constantly? (Yes = _____)

Usually, go online from a mobile phone (n = _____)

or from a desktop computer (n = _____)?

Use Facebook? (n = _____)

Frequency: Now step forward if you use Facebook at least once a day. (n = _____) Alright now back to the line.

Use Snap chat? (n = _____)

Frequency: Now step forward if you use Snap chap at least once a day. (n = _____) Alright now back to the line.

Use Instagram? (n = _____)

Frequency: Now step forward if you use Instagram at least once a day. (n = _____) Alright now back to the line.

PROBE: What do you do on those sites?

PROBE: Out of these sites which do you use the most?

Alright let's break out into two groups.

Transition question: What are some things on social media you enjoy seeing or make you feel happy?

We're really interested in knowing about "concerning" content that is posted on social media sites. (10 minutes)

2. Have you ever seen content posted on social media by a classmate or friend that made you concerned about their safety, or the safety of others? Examples might include references to self-harm such as cutting oneself, posts about intentions to harm someone else, references to a depressed mood or thoughts of suicide.

- a. PROBE: What was it about the post that made you concerned?
- b. PROBE: On which social media sites is this most common?

3. **ACTIVITY: Write down as many examples of posts you would find concerning.**

- a. Pass out index cards, pen and "Like, Share, Comment, Do nothing at all, Talk to them in person handout" to each participant. You can come up with post(s) on your own, or you can work with a neighbor.
- b. Collect examples of concerning posts after 2 minutes.
- c. Randomly select 3-5 concerning posts. *(This activity seems like it may work if modified for older focus groups. After having participants write down as many examples of posts they would find concerning, instead of using these, ask everyone to pick one example post. Ask participants to think of one concerning example post they came up with, then go around the circle asking each individual: 1) Who posted? Friend, acquaintance or someone else? 2) What was the post? 3) What would you do and why?*
- d. *Say:* Refold your handout to select **what you'd do** in response to each post. *tell us if you'd like it, share it, comment on it, or do nothing at all*

Let's say this was posted **by an acquaintance** on Facebook? (Read post)

Let's say this was posted **by a close friend** on Facebook? (Read post)

Let's say this was tweeted **by an acquaintance** on Twitter? (Read post)

Let's say this was tweeted **by a close friend** on Twitter? (Read post)

PROBE: Probe each answer (e.g. why would you "do nothing", explore barriers for inaction "share", "like" or "comment"?)

PROBE: What does it mean when someone **likes** that post?

PROBE: What does it mean **when someone shares or retweets** this kind of post?

Ok. Now let's come up with some solutions. (10 minutes)

4. If you saw something that concerned you, what would cause you to do something? How would you decide to do something? What would cause you to reach out?

PROBE: If you saw a concerning post, would you ever follow-up with that person, to see how they're doing? How? (*online, in person, call them?*)

ACTIVITY 1: Create your own program

5. Let's break into 3-4 groups. If you could design an ideal program to help youth who post about mental health concerns on social media, what would it look like? We know this is a big question, but we just want to do some brainstorming to hear your ideas...Pass out script?

Script

First choose your platform. (list options, circle one)

If you were to create something to help youth who share concerning posts on social media, who would you involve? List as many types of people you think would be able help take action.

Sometimes you need help to give help. What other information or resources would be helpful to YOU, so you can help others in distress. List 5 pieces of information or resources that would help YOU help others.

What kinds of messages would you create to help someone who's posting concerning content? List 2 messages that you think would help.

What kinds of websites, videos or other things would you recommend to someone who's sharing concerning content?

Share with the group

PROBE: Is there anything like this that already exists?