EXPLORING STRATEGIES FOR FOSTERING OPTIMAL SEXUAL HEALTH WITH ABORIGINAL GIRLS LIVING IN RURAL CANADIAN COMMUNITIES: PERSPECTIVES FROM A RAPID EVIDENCE ASSESSMENT

by

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Abstract

Exploring Strategies for Fostering Optimal Sexual and Reproductive Health with Rural Aboriginal Girls: Perspectives from a Rapid Evidence Assessment

This Rapid Evidence Assessment (REA) investigated strategies for fostering positive sexual health promotion among Aboriginal girls living in rural Canadian communities. Twenty four research papers oriented to informing and examining sexual and reproductive health of Aboriginal girls' were analysed using established criteria. After comprehensive categorizing, coding and appraisal, seven themes were identified, which outline domains for sexual health promotion with Aboriginal youth. Collectively these themes reflect the complex, intersecting forces shaping reproductive health among Aboriginal youth. Doane and Varcoe's (2005) approach to relational inquiry, and the concept of cultural safety, provided the theoretical lenses through which to explore and synthesize the literature. The REA analysis resulted in the identification of the following themes: 1) Positive youth development (PYD) which includes peer and mentoring interventions; 2) Health-promotion that reflects diverse approaches to Aboriginal culturally-specific curriculum; 3) Relationship patterns and contextual understanding of risk behaviours; 4) Historic, contextual and structural factors; 5) Protective factors and connectedness; 6) Health practitioner responsibility; and 7) Effective youth skill building.

The literature reviewed for this REA demonstrates how Aboriginal youth require effective reproductive health services and interventions grounded in an integrated understanding of specialized sexual health practices, local cultural knowledge, and a meaningful exchange of cultural knowledge. Public health nurses are responsible for providing culturally competent care that moves beyond sensitivity that and is informed by local cultural safety knowledge when planning and implementing care. From this analysis, and drawing on my experiences in practice,

I argue that sexual health decisions are strengthened most significantly by the knowledge, self-esteem and confidence gained from authentic positive relationships between girls and the nurses who support them. A relational practice approach of genuinely connecting and responding to Aboriginal girls needs is significant for nurses to support in ways that ultimately affect better decision-making. Given the findings of this analysis, further research that is grounded in local Aboriginal contextual knowledge will provide insights that can support sexual health promotion.

Preface

This project is motivated by several years of nursing within rural isolated First Nations communities. Working as a public and community health nurse (CHN) in this setting, there is an expectation that nurses practice within a generalist role offering a range of services spanning from wound care, immunizations and communicable disease follow-up, to family health and sexual health promotion. Throughout daily appointments and meetings it is critical for public health nurses to provide effective, responsive and timely sexual and reproductive health care. In my practice I provide services to all ages and genders, however, I have greatest contact with women and youth who come seeking birth control, sexually transmitted infection (STI) and Papanicaou smear (PAP) screening, relationship and reproductive health counselling. As a nurse I face an array of questions and beliefs such as: Was that rape? Can't you just use two condoms to be extra careful? You can just reuse a condom if you need too, right? You can't get pregnant on your first time? And I'm pretty sure something happened last night but I can't remember. In my practice, young women disclose experiences of sexual abuse, describe risky sexual behaviours, and present as young as 12 speaking of 'consensual' sexual experiences. It is these daily interactions with young women and the importance of understanding the social, peer and family contexts that shape young women’s lives within their communities that have generated the questions for this REA.

In my experience, nurses and other practitioners often assume that youth just lack education in relation to sexual health; however, after working closely with elementary and high schools in several communities, it is evident that a sexual health education curriculum is being implemented. What is not clear is how youth actually engage in decision-making about intimate relationships and what factors influence their sexual health practices. These questions extend

beyond the realm of education to the broader contexts and relationships influencing their practices and experiences. In my own work I have learned that while youth may access health care providers with specific requests, such as birth control, they are often seeking spaces and places to ask questions about sexual health and relationships more broadly. It is these conversations that have provided the impetus for investigating the evidence that can inform focused on promoting sexual health among girls living in rural First Nations communities.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANAC	Aboriginal Nurses Association of Canada
CASP	Critical Appraisal Skills Programme
CHN	Community Health Nurse
ECP	Emergency Contraceptive Pill
EPPI	Evidence for Policy and Practice Information
FASD	Fetal Alcohol Spectrum Disorder
FN	First Nations
FNIB	First Nations and Inuit Branch
FNMI	First Nations, Inuit, Métis
GSRS	Government Social Research Service
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
IDP	Infant Development Program
KT	Knowledge Translation
LTAT	Let's Talk About Touching

NAHO	National Aboriginal Health Organization
NWAC	Natives Women Association of Canada
OPT	Options for Sexual Health
PAP	Papanicaou Smear
PHN	Public Health Nurse
PYD	Positive Youth Development
REA	Rapid Evidence Assessment
RCAP	Royal Commission on Aboriginal Peoples
SMS	Scientific Methods Scale
STI	Sexually Transmitted Infections
UBC	University of British Columbia
WOE	Weight of Evidence

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Dedication

This thesis is dedicated in memory to my youngest brother Howard Lucas. Howard was born Southern Tutchone in the Kwanlin Dun First Nation in the Yukon Territory. It is my brother who has inspired me to respond to the undeniable inequities faced by so many Aboriginal youth, not because he ever complained, but because he didn't. I miss you Howie.

CHAPTER 1: Background and Research Questions

1.1 Introduction: Rural Aboriginal girls

Despite the advancements in Canadian health service delivery specific to Aboriginal people, health inequities persist in a wide range of health related domains (Tang & Browne, 2008 & Hunting & Browne, 2012). The lack of attention to Aboriginal women's sexual health impedes presentation of an accurate understanding of the conditions wherein inequities arise (Devries, Free, Morison & Saewyc, 2009a) while limiting potential for effective support.

The National Aboriginal Health Organization (NAHO, 2010) insists sexual health promotion with Aboriginal youth must take into account the intersectionality of historic and current colonialism, social inequities that influence mental health, access to health care, healthy sexuality, and the influence of gender and power relations in their lives. Research has established that youth's physical and emotional responses to sexual experiences are influenced by a number of factors that carry long-term effects into adult sexuality (Steenbeek, 2004; Tolman, 2000). For example, earlier age sexual intercourse initiation is associated with increased risks of sexually transmitted infections (STI's). These include Human Immunodeficiency Virus (HIV), Human Papillomavirus (HPV), and cervical cancer. Other risks faced by youth who engage in intercourse at an early age include unprotected sexual activity, unplanned or terminated pregnancies, depression and suicide, increased rates of dating violence, substance misuse and reports of physical and psychological abuse in relationships (Banister & Begoray, 2011; Steenbeek, 2004 & Ismail, Berman & Ward-Griffin, 2007). Because a number of Aboriginal girls engage in sexual intercourse at an earlier age (Banister & Begoray, 2006b; NAHO; de

Leeuw et al.), the consequences for their long-term sexual health warrant immediate attention[1]. It must be acknowledged that Aboriginal girls have often been framed as unhealthy or unwittingly perpetuating representation of negative sexual health statistics and outcomes within health literature and policies (Hunting & Browne, 2013; Browne & Fiske, 2006; Shoveller & Johnson, 2006). This dominant discourse of individualism and stigmatism has obscured the genuine social, structural and economic factors influencing many Aboriginal peoples' health today (Hunting & Browne).

In response to these racialized representations the purpose of this inquiry is to contribute to nurses' social and ethical commitment to advocate for, and provide best possible services in partnership with youth. As a result of these systemic factors impacting Aboriginal peoples' health often being ignored or minimized within the literature, it is necessary then to seek health solutions for youth that reflect a broader awareness of the constraining social processes that have manifested in widespread sexual health disparities. While researching for youth support over the past two decades, evidence indicates benefit from potential protective factors of family, peer and school relationships for youth who may experience marginalization (Tsuruda et al., 2012). There is a need to generate evidence-based strategies associated with positive influences to guide reproductive and sexual health promotion in response to the complexity of Aboriginal girls' health. Utilizing a Rapid Evidence Assessment (REA) approach (see Appendix A), I undertook this study to analyze existing evidence to inform sexual health promotion with Aboriginal girls

[1] The author seeks to acknowledge the potentially essentializing presentation of Aboriginal girls within this review. While receiving critical guidance from Dr. Annette Browne the author explicitly attempted to reduce any pathologizing or essentializing tone; however recognizing that to reduce a particular tone might inadvertently minimize or falsely express an accurate presentation of the serious realities facing some Aboriginal women and youth. Within rural practice the author has engaged closely with Aboriginal women and youth who have faced overwhelming challenges, and it is with genuine intention that this review may offer some positive responses for the girls who deserve and require improved health promotion.

living in rural communities. This topic of inquiry stems from numerous discussions with youth, leaders and colleagues who share interest in the undertaking of this focused analysis.

A REA is an appropriate and expeditious review of current literature that can inform nursing and health care practice within the area of reproductive health. The aim of this review sought relative and contemporary sexual and reproductive health research to determine the state of knowledge in relation to promoting positive sexual health experiences and outcomes, while identifying gaps and recommendations that hold potential for change. To date, no nursing-generated evidence-based guidelines for sexual health promotion with Aboriginal youth exists. Consequently, this REA can contribute to evidence-informed health promotion strategies that will propose best practices guidelines for sexual health promotion with Aboriginal youth.

1.2 Terminology Note

The terms adolescent, youth, young people and teens will be used interchangeably as the literature does not present a common designation for individuals between childhood and adulthood. The terms Aboriginal, First Nations and Indigenous peoples, status and non-status maintain distinct meanings and context identified under the World Health Organization (WHO, 2011), Health Canada, and the National Aboriginal Health Organization (NAHO, 2009). The term Aboriginal will predominantly be used as in keeping with accepted practice as outlined by the Report of the Royal Commission on Aboriginal Peoples (RCAP, 1996a). The term Indian will continue to be used only where such terms are used in quotations and titles, such the Indian Act. The term nurse refers to a Registered Nurse. The term client refers to persons receiving care by health care providers.

I acknowledge that the challenges experienced by many Aboriginal women and girls such as sexual intercourse at a younger age, higher incidence of STI's and sexual abuse are not

exclusive to this population; such rates mirror those within the lives of youth who experience similar barriers to accessing the social determinants of health[2] (Banister & Begoray, 2006a). However, for the purpose of this review I examined research focused primarily on Aboriginal women and youth, given my clinical work with this population and the need for evidence informed practice to update public health policy and practice.

1.3 Background

Many Aboriginal women and girls in Canada are burdened with significant health inequities in comparison to the total Canadian population (de Leeuw, Maurice, Holyk, Greenwood & Adam, 2012; Halseth, 2013; Hunting & Browne, 2012). In Canada, Aboriginal youth are recognized to bear a disproportionate burden of adverse sexual health experiences (Hershenberg, & Davila, 2010; Kelly & Luxford, 2007 & Steenbeek, 2004), while simultaneously, little is known to effectively address these needs (Banister & Begoray, 2006a).

1.3.1 The context of sexual health

Many Canadian Aboriginal youth continue to experience STI and HIV infections, almost 7 times the rate of than the rest of Canada (Devries & Free, 2011a; Native Women's Association of Canada, 2010). This is dramatically compounded by the psychological distress many Aboriginal youth bear when diagnosed with HIV at a younger age compared to non-Aboriginal youth (Bannister & Begoray, 2006b). The Natives Women's Association of Canada (NWAC) (2004) confirmed that Aboriginal women are burdened with 50% of all new HIV cases in Canada. Dolan and Thien (2008) also identified that many Aboriginal women living in rural

[2] The social determinants of health present conditions that have direct impact on physical, emotional, cognitive, and spiritual health, they can include and are not limited to: housing, rural residency, living conditions, family violence, employment, income, education, health care systems, community infrastructure, resources, and social, political and economic contexts; experiences with colonialism, social exclusion, racism and self-determination (Halseth, 2013).

environments are dying younger, suffering higher rates of sexual violence, substance abuse, and suicide compared to non-Aboriginal women.

Predominantly, the literature frames the topic of many youth sexual health experiences through a lens of 'risky' behaviour, chronically focusing on condom use, pregnancy rates, STI's, HIV and co-infection statistics. Benoit and Shumka (2009) describe this as 'risky sexual behaviour' and is one of the six health behaviours associated with "mortality, morbidity, and social problems among youth" (p.23). A proliferation of literature describes many Aboriginal girls disproportionate experiences of sexual exploitation, abuse, dating violence, unprotected sex, STI's, and unwanted pregnancies compared to same aged males [3] (Devries & Free, 2011; Banister & Begoray, 2006; NWAC, 2009). On average 25% of all Aboriginal women and youth endure violence at an alarming rate, sexually and physically (NWAC; Tsuruda et al., 2012). Depending on how these statistics are taken up in health programming, Shoveller & Johnson (2006) suggest research can unwittingly contribute to the dominant discourse that construct Aboriginal youth who contract an STI are 'risky', and often labelled as 'promiscuous', rather than focusing on what resources and capacities are needed for young women to engage in healthy relationships and sexual practices. Repeatedly labels of risk and promiscuity are associated with depressive symptoms and early engagement in sexual activities (Hershenberg & Davila's 2010), diverting attention from local and systemic factors (Hunting & Browne, 2012)

[3] Browne (2007) maintains the importance of linking healthcare encounters to the wider social contexts that exist particularly for individuals who have experienced marginalization or systemic discrimination such as Aboriginal women and youth. Discourses often present stereotypes of Aboriginal peoples which have been embedded within historic Canadian relations, requiring practitioners to obtain a critical awareness of how these labels continue to further oppress. The author acknowledges this unintentional negative illustration within health discourses can further "social-cultural stereotypes" of Aboriginal women (Browne, p.2174), yet recognizes the many challenges that Aboriginal girls continue to experience.

that are contributing to youth's sexual behaviour[4]. This diversion only perpetuates negative stereotypes of Aboriginal health and the social issues that are driving these outcomes. Halseth (2013) insists these negative concepts and images stand in stark contrast to the tremendous strength and resiliency that are also characteristic of Aboriginal youth, and offset gendered forms of racialization[5]. It is necessary to acknowledge this overlooked capacity and strength many Aboriginal girls must sustain when considering sexual health promotion.

This rapid evidence assessment (REA) has been conducted based on the assumption that without a broader awareness of historic, social and political marginalization facing many Aboriginal youth, there exists the risk of further marginalization when health promotion approaches are based on individual conceptualization of risky behaviour, pregnancy rates, condom use, STI rates, etc. Browne and Varcoe (2006) suggest dominant negative images and stereotypes of Indigenous people is yet another form of 'othering'[6] that does not establish any true understanding of culture, only a narrow judgment that prevents people from meaningful progress. With a focus on sexual health challenges facing some Aboriginal girls, the intent of this REA is to question and confront any out of context analysis of "reified lifestyle or behavioural syndromes" commonly imposed on Aboriginal people (Tang & Browne, 2008, p.33) while offering meaningful responses for real change.

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[4] The author acknowledges how public health practice has followed the common discourse of focusing primarily on modifying risk behaviour, lifestyle choices, individual characteristics, and assuming youth have the freedom to make healthy choices (Shoveller & Johnson, 2006). This commonly used discourse recognizes the labelling of ' risky sexual behaviour ' which disadvantages the youth public health often purport to care for (Shoveller & Johnson).

[5] The term racialization does not imply racism, rather, it refers to the social processes or discourses that label, interpret or categorize people on the basis of their race, appearance or beliefs (Browne et al., 2009). Racialization pertains to those who are seen as different from the dominant ethnocultural group

[6] This notion of 'othering' of Aboriginal people is taken from Browne and Varcoe (2006) where cultural characteristics are labelled and racially divided as the dominant ‘ours', and 'other' being different or marginal.

The reproductive health of many youth is shaped by a range of intersecting historic and contemporary factors. Not unlike the range of factors implicated in persisting health inequities faced by so many Aboriginal people, the promotion of reproductive health poses additional challenges when considering how interpersonal relationships, family, community and peer relationships have continued to be eroded through deliberate colonial marginalization. For example, Benoit and Shumka (2009) assert that structural inequalities associated with race, ethnicity, and age place Aboriginal women and girls at risk for poorer overall health with unequal access to quality health resources, due primarily to lack of culturally and gender sensitive health services. Awareness of Aboriginal cultural values in relation to the importance of relationship patterns, childbearing, and fertility are important to account for in public health practice with youth (Devries et al., 2009a). Specifically, public health interventions that reduce numerous social inequities of lower socioeconomic status, inadequate housing, sanitation and access to healthcare services are not offered within the literature. Without these interventions, comprehensive research that shifts focus beyond risk behaviours of youth to transformative action that fosters positive sexual health outcomes in rural Canadian communities is essential. The numerous complexities shaping the health of Aboriginal girls living in rural Canadian communities are also influenced by the interwoven aspects of geography, colonization and divergent worldviews.

1.3.2 Geography

Geographical isolation of living in rural communities, lack of access to education and childcare combined with reduced economic opportunities are well known barriers for many Canadian Aboriginal people to maintain their health (Varcoe & Dick, 2008; de Leeuw et al., 2012). For many people, living in rural northern communities, their geographic isolation can

create risk for depression, social distancing, and racialization (de Leeuw et al., 2012; Hershenberg & Davila's, 2009; Leipert & Reutter, 2005). Youth living in rural Aboriginal communities require access to services and resources that are not limited to large centres, and care providers. Isolated living can often mean restricted government funding, inadequate education, and limited essential social services necessary to support improvements to many Aboriginal girls' health (Girls Action Foundation, 2009; Varcoe & Dick, 2008; Hanlon & Halseth, 2005). It should also be understood that rural community experiences of Aboriginal and non-Aboriginal girls differ drastically from each other, though shared experiences of marginalization, isolation, colonization and racism often present similar reflections by many Aboriginal girls (Girls Action Foundation). Hunting and Browne (2012) describe how the challenges of rurality are often perpetuated as the "interests of individuals, systems and institutions in locations of power are often reflected in policy", amplifying why many rural challenges are often overlooked in resource allocation and policy development (p.40). In particular, rural programming is often inaccessible to First Nations women and youth due to legislative barriers which are consistently ignored in policy discourses (Hunting & Browne). Shoveller et al. (2007) add that a high proportion of Aboriginal women living in rural contexts are frequently faced with limited options for necessary services such as contraception and pregnancy options.

The outcomes of limited resources due to remote geography has be observed in unplanned pregnancies, co-infections, lack of resourced parenting, infertility, sterility, surgical risks, long term emotional and psychological distress, medical challenges such as cancer, and even death (Larkins et al., 2007). This geographical context also sets many girls living in rural communities to hypervisability in reproductive behaviour discourses, while fostering gendered

and racial associations between high risk behaviours and Aboriginal girls. This hypervisability[7] discourse accounts to a 'fish bowl effect' where often youth living in small communities with limited resources cannot remain anonymous as those living in larger centres with increased options for support. With this awareness, this review distinguishes the complex interaction of remote geography and social distancing, and seeks to shift the dominant tendency to essentialize and collectively stigmatize Aboriginal populations, which often blame women for their health risks (Hunting & Browne, 2012) and establish valuable health promotion strategies required for rural communities. The Girls Action Foundation (2009) explain how often northern and Aboriginal women living in rural communities suffer the most, though ironically "are the best primary agents for bringing positive change" (p.14).

1.3.3 Colonization

Exploring sexual and reproductive health needs of Aboriginal girls requires understanding and analysis of how oppression, welfare colonialism, poverty, and individual and institutional discrimination shape everyday lives and relationships (Smye & Browne, 2002; Halseth, 2013). History has revealed that colonizing policies of controlled sedenterization, creation of reserves, relocation to remote areas, and establishment of residential schools and bureaucratic control has contributed to ill health and significant social and cultural consequences within some Aboriginal communities (William & Mumtaz, 2007). Western capitalist expansion into North America has created decimation of many Indigenous peoples through warfare, infectious disease and active suppression of culture and identity (Halseth, 2013; William and

[7] Hypervisability is described within the literature as an informal social structure where high public visibility is commonly experienced in small rural communities, often presenting challenges of anonymity, confidentiality, and stress (Bushy, 2002), commonly conveyed in adverse discourse presentation of youth such as Aboriginal girls.

Mumtaz). Colonization and residential school systems have further contributed to structural inequities that have contributed to social and economic marginalization for many women today. For some women, disenfranchisement has equated to limited access to safe housing, exposure to violence, and forced high risk behaviours involving sex and substance use[8] (Halseth). Attempts at colonial destruction of Aboriginal traditional ways of life and social reorganization compounded by discrimination, abuse and trauma have profound influence on many communities not only historically but also currently (Devries, et al., 2009a; Halseth; Hunting & Browne, 2012; Tang and Browne, 2008). The colonial subjugation endured by many Aboriginal people influences the current context within which Aboriginal girls live and learn healthy sexual relationships and practice.

The colonial path of devastation results from cultural genocide, labelled as imperialist expansion throughout Canada with two notable tools, the Indian Act (1876) and the residential school system. The Indian Act which defined Aboriginal people as Crown wards prohibited participation of cultural activities, while creating social categories of identity such as 'Status' and 'Non-status' Indians (Kirmayer et al., 2003). The Act has systematically deconstructed many Canadian Aboriginal peoples' social, economic and cultural identity fostering inferiority throughout Aboriginal experiences. The removal of many children from their families into residential schools or forced adoptions into non Aboriginal families has inflicted generations of trauma to many families (Halseth, 2013; Kirmayer et al.). Often individuals returned to their communities, experiencing struggles with self-esteem and a sense of displaced identity and

[8] In this context, my conceptualization of substance use as a concept is guided by Devries, Free and Saewyc (2012) as more than an individual risk factor for Aboriginal people. It is explained as an interaction within community and family structures that impacts relationships and influences youth's sexual behaviours and encounters.

family. Kirmayer et al. tell of common experiences of physical, sexual, and emotional abuse, with internalized racism, language loss, substance abuse, and for some, suicide.

In 1985 Fiske (2006) describes how Canada amended sections of the Indian Act in order to bring the Act into compliance with the Canadian Constitution and the Charter of Rights and Freedoms. The plan was to update sexist provisions and restore Status of Aboriginal women who had married non-aboriginal men and lost their Status. However amendments known as Bill C-31 did not resolve the evident discrimination only provided fewer rights and created new barriers to women seeking registration. 112,000 women were reinstated by 2002 to find themselves viewed as an anomaly where they often were not welcome in their home communities, and in conflict with Aboriginal governments (Fiske). The Indian Act and residential schools are considered historic acts; however the Canadian government continues to compartmentalize services for many Aboriginal people through housing, education, healthcare, welfare and resources.

Colonization has enduring effects such as widespread poverty and unemployment, loss of parenting and family connection, inadequate housing, and barriers to accessing education and health services. This neocolonial landscape provides a backdrop against which to understand why, in some communities and populations of Aboriginal youth, there may be increased possibility of activities that put some girls and teens at risk in relation to their sexual health.

1.3.4 Worldviews

How health is understood by women and youth allows for another perspective to unravel the complexities of sexual health outcomes. This involves examining health disparities[9] between

[9] Adelson (2005) explains health disparities as the social economic, cultural and political inequities associated with "relative disproportionate burden of ill health and social suffering on the Aboriginal population of Canada"(p.s45). Health inequities then, constitute the root "cause of these disparities, many if not most of which sit largely outside the typically constituted domain of health"(Adelson, p.s45).

Aboriginal and non-Aboriginal peoples, who must take into account Indigenous and Euro-centric, often western, worldviews (Martin, 2012). The term worldview is used to clarify the ways in which diverse groups create knowledge about the world around them and the principles for engaging in them. In general, western and Aboriginal worldviews can represent very distinct ways of being and realities of the world, though maintaining huge diversity in both western and Indigenous worldviews throughout Canada. Martin describes western scientific understandings of health as rooted in 'truth' and is often called 'positivist science' or 'positivism' which assumes there is only one reality, with value placed solely on defined positivist standards of knowledge. Often, Martin explains, western worldviews ignore and undermine alternative knowledge, preferring focus on truth of a particular objective. Williams and Mumtaz (2007) add western worldviews often value the individual, external illness solutions, empirical research, thereby locating responsibility for Aboriginal peoples' health inequities as a failure to take ownership or responsibility for one's health. This dominant Euro-centric perspectives is demonstrated in forms of imperialism, domination, and colonization through contexts of "sexuality, age, dis/ability, religion, and or race" (Martin, p.28). Conversely, Aboriginal or Indigenous worldviews, though widely diverse, tend to endorse respect cultural diversity, health and wellbeing of Mother Earth (Martin). According to Swan and Raphael "…health, from an Indigenous perspective, does not mean the physical wellbeing of the individual but refers to the social, emotional and cultural wellbeing of the whole community. This is a whole of life view and includes the cyclical concept of life-death-life" (1995, p.7). Indigenous worldviews, Battiste adds are "…derived from the immediate ecology; from people's experiences shared with others; from memory, including experiences shared with others; and from the spiritual world discovered in dreams, visions, inspirations and signs interpreted with the guidance of healers or elders" (2008, p.499).

This awareness is central to understanding the unique contexts of many youth living in rural First Nations communities. Often, Aboriginal girls living in rural communities must navigate resources, education, and a health system which may have limited meaning, connection or context in relation to their community, personal circumstances, and in some cases, worldview orientation. For example Steenbeek (2004) found healthcare providers working with Aboriginal communities often impose western agendas that were developed without consultation of the community regarding what will work. Aboriginal people are not objects or mere recipients of politic and educational projects but "…actors in history who can recognize their needs and solutions to transform themselves while challenging oppressive conditions" (Steenbeek, p.15). The inadequate health promoting responses which often disregard Aboriginal worldviews are reported as additional barriers to redressing these sexual health challenges (Kirmayer, Simpson, & Cargo, 2003; Shoveller & Johnson, 2006).

1.4 Research Purpose

Using the rapid evidence assessment (REA) approach I will analyze a selected body of research literature focused on positive sexual health experiences and outcomes for many Aboriginal girls living in rural communities. The purpose of this REA is to contribute to the larger public health nursing efforts to promote sexual health among youth in Canadian Aboriginal communities. I argue that there is an urgent need for nurses to acquire evidence-based strategies which provide quality, and transformative care to promote reproductive health with Aboriginal girls. The overall knowledge generated from this work will advance understanding of strategies that can support many Aboriginal youth in relation to their sexual health needs, while informing public health nursing practice and health care policy recommendations within the rural community context.

1.5 Research Questions

The rapid evidence assessment (REA) will focus on answering:

1. What strategies can foster positive reproductive and sexual health practices, experiences and outcomes for Aboriginal girls living in rural Canadian communities?
2. How can Canadian public health nurses use existing evidence to promote the sexual health of Aboriginal girls living in rural communities?

1.6. Thesis Organization

The focus of this rapid evidence assessment (REA) thesis is promoting sexual and reproductive health with Aboriginal girls in rural communities; it will be presented in four chapters. In the first chapter, I provide an overview and background to the problem, exploring the context and importance for this REA while contributing to the larger public health nursing efforts that require positive strategies to promote reproductive health. In chapter two, I provide an overview of the research design, theoretical lens, REA methodology, description of the selected 24 sexual health research studies, and analysis of the studies and limitations of this REA. In chapter three, I present the findings with seven overarching themes synthesized after analysis of the 24 REA findings. I then discuss each theme and explore what is missing within the evidence. In chapter four, I present a summary of the seven themes synthesized from the REA. I then address specific strategies that can be used by nurses to foster positive sexual health. I conclude with recommendations for how public health nurses in Canada can use the existing evidence to promote sexual health of many Aboriginal girls in rural communities, and highlight areas for further consideration and research.

CHAPTER 2: Theoretical Perspective & Methodology

In this chapter, the theoretical perspectives that inform the analysis are discussed, and the Rapid Evidence Assessment (REA) as a method for reviewing pertinent literature is presented (UK Civil Service, 2011).

2.1 Theoretical Perspective

The theoretical perspective guiding this review is based collectively on Doane and Varcoe's (2005, 2007, 2008) work on relational inquiry for family nursing practice and the New Zealand developed conception of cultural safety.

2.1.1 Relational inquiry

A relational approach to practice is located as a relational view of peoples' experiences; implying that every moment in nursing practice ought to account for the interconnections among self, others and context. Relational practice acknowledges just as all individuals, families and communities are changing so too must nursing practice innovatively respond (Doane & Varcoe, 2005). This approach is compatible with many Aboriginal worldviews to move beyond a "service-provision model to one that is congruent with a socio-environmental approach to health promotion" (2005, p.214). Given what is known about many Aboriginal peoples' experiences of poorer health, a relational approach is fitting as it accounts for the inseparability of people, context, history, and the lived realities that shape health, while providing an expanded comprehension of a youth's health.

A relational view shifts focus from the individualistic nursing perspective to a contextual perspective that locates inequities in social structures, addressing the circumstances created as a result (Browne & Varcoe, 2009), such as youth's relationship challenges and lack of relevant support necessary for reproductive health. Nurses must recognize and validate the adversities

that may be constraining peoples' choices and aspirations, simultaneously addressing adversity and enhancing capacity (Doane & Varcoe, 2005; Stansfield & Browne, 2013). This is enacted in practices as nurses consider how they might best come to know and relate to people as the basis for responding to their needs. The relevance of this theoretical orientation is evident in the background context for this REA, nurses must inquire into the socio-historical context of colonization and social practice of racialized stereotyping that can result in an inappropriate and "decontextualized" understanding of experience (Doane & Varcoe, p.224). That is, from this view a public health nurse is oriented to and focused on being responsive and promoting health within the youth's context, experiences and needs, whether completing a sexual health medical assessment or discussing intimate relationship challenges.

Within the context of sexual health promotion with Aboriginal girls living in Canadian rural communities, there are explicit assumptions that underpin a relational practice approach which are based on several beliefs about people as relational beings from Varcoe & Doane (2005, p. 7):

1. *"People are contextual beings who live in relation with others and with social, cultural, political and historical processes and communities".* This is recognized when nurses acknowledge youth's contextual influences of social, political, and historical processes when entering into a therapeutic relationship in practice.
2. *"Sociohistorical values, knowledge, practices, attitudes, and structures are passed on through relational interactions. These sociohistorical forces become so taken for granted that people often take them as the only reality, forgetting that they can be remade".* Within this assumption the nurse must be continuously reflective on one's values,

assumptions and practices during every interaction assuring taken for granted or hegemonic misperceptions are not influencing the nurse-client relationship.

3. *"Each person has a unique context that affects and shapes that person's identity, knowing, experience, and way of being in the world".* Within this assumption the nurse seeks to get to know the individual youth rather than assume a common understanding that 'most youth act/think/are a particular way'.
4. *"Because people are relational beings, their experiences of health and healing are complex and multifaceted".* Within this assumption the nurse will seek to build trusting relationships, showing genuine interest in an individualized care plan that may extend beyond the obvious responses. For example, youth seeking emergency contraceptive pill (ECP) would be offered a discussion of her current needs without judgment, building on her strength of the positive decision to come in for treatment. Birth control, healthy relationships and current economic situation are then woven into this complex care response.

Overall these assumptions and beliefs are integral to relational practice with Aboriginal girls and their experience of reproductive and sexual health. This appreciation of the client - nurse relationship acknowledges the sociohistorical location and background cultivated in relational practice. It is within the capacity of the nurse to interpret one's own experiences and make decisions and interpretations shaped by ones relational world (Varcoe & Doane, 2005). This ability to critically reflect enhances the nurse's ability to respond and intentionally connect through ever-changing similarities and differences met in the practice setting.

Doane and Varcoe (2005) outline the following processes as constituting a relational approach to nursing practice (p.228). These processes were used as a lens through which to both evaluate the REA evidence and frame recommendations for public health nursing practice:

1. Entering into relations, or getting 'in sync' with a family process. The research was examined for conscious and intentional participation of Aboriginal youth, and how unconditional positive regard was enacted in the research.
2. Being in constant collaborative relation and staying 'in sync' process. Does the research focus on collaboration relations between youth and health care providers?
3. Inquiring into the family health and healing experience process. Does the evidence maintain a youth-centered focus, considering what is meaningful and significant to youth themselves?
4. Following client's lead. Does the research integrate the lead of youth? Is there uncertainty or a 'learner' perspective, promoting the youth as expert of their experiences?
5. Listening 'to and for' process. Is attention to the youth's experience from multiple perspectives? (i.e. utilizing phenomenological, critical, socioenvironmental and spiritual lenses)
6. Self-observation process. Does the research indicate reflection or self-knowing of the nurses, practitioners, youth, families and communities?
7. Letting be and change process. Is there opportunity for youth, families and community to know more about their own experiences, patterns, capacities, challenges and contextual constraints? This may be articulated through knowledge translation[10], mentoring, group focus groups, Elders, and community lead involvement.

[10] The knowledge translation definition understood by the author is "a dynamic and iterative process that includes the synthesis, dissemination, exchange, and ethically sound application of knowledge to improve the health of Canadians, to provide more effective health services and products [while] strengthening the healthcare system" (Leadbeater, Banister and Marshall, 2011, p.4).

8. Collaborative knowledge development process. Does the research reflect a collaboration of youth's and nursing knowledge in regard to health promotion, programming and outcomes?
9. Pattern recognition process. Are underlying patterns of youth and family responses, capacity and adversity-capacity acknowledged?
10. Naming and supporting capacity process. Is capacity recognized beyond surface, where individuals, families or communities are honoured, and practice seeks to enhance capacity while addressing adversity?
11. Emancipatory action process[11]: Within the Aboriginal youth sexual health review, are inequities and structural conditions named? Is contextual knowledge and alternative discourses shared? Are coalitions created while remedying structural inequalities?

2.1.2 Cultural safety

A cultural safety lens was also integrated into the analysis of this REA. In response to the colonial aftermath of persistent racial oppression, disparities, health, and social inequities experienced by New Zealand's Māori peoples, Māori nurse leaders, Papps and Ramsden, first conceptualized cultural safety to expand health professionals' knowledge of colonial structures impacting Māori people (Ramsden 2005). Postcolonial theorizing is at the very root of the development of cultural safety as a concept; while originating within the New Zealand context, the concept of cultural safety has influenced scholars around the world, including Canada. Within New Zealand, cultural safety has provided a mechanism for analysing how a bicultural perspective operates between Māori and non-Māori people in specific areas such as State-Crown relations, education and health authorities (Ramsden, 2005). Although New Zealand's historic

[11] Within this context emancipatory potential enables readers to identify particular research that is perpetuating inequities and limiting views on Aboriginal girls' health. Emancipatory action requires the reader continuously reflect on how alternative discourses could further promote health or "share the ethic of social justice and relational practice" (Doane & Varcoe, 2005, p.344).

and political context are distinct, processes of marginalization and colonization are relevant to the Canadian context (Fleras & Elliot, 1992). Almost universally in healthcare contexts is the tendency to essentialize culture, in response cultural safety serves as a concept to decolonize, address race, power, oppression, disparities and inequities operating in policy and practice. In Canada, Browne et al., (2009) explain how this essentialized perception of culture is often masked within the rhetoric of 'multiculturism', which narrowly emphasises mere sensitivity and respect of multiple cultures, while ignoring dominant forces that continue to stereotype and categorize people. Cultural safety provides a way to examine the dominant forces, power inequities, and historical processes that are often the essence of the current health and social inequities faced by various Aboriginal people (ANAC, 2009; Browne, et al., 2012).

Within the Canadian context, Browne at al. (2009) calls for the uptake of cultural safety in nursing because it brings a critical cultural lens to the everyday practices and structures of health care. Specifically, the concept of cultural safety shifts ,attention from the 'culture' of the 'Other' to the culture of health care and the structural inequities and power relations that shape health care and client-nurse relationships. The uptake of cultural safety within nursing education has helped to shift the need for cultural awareness, sensitivity, and skill-based competencies to the comprehension of power differentials inherent within health care delivery, seeking restoration of inequities through educational processes and critical reflection (Rowan et al, 2012). Browne et al., advocate for teaching activities that address the historic essence of social inequities experienced by Indigenous people be integrated into nursing curricula. Integrating cultural safety into nursing curricula focuses on supporting nurses to develop a critical awareness, uptake and analyses that account for the social determinants of health, and the health and social impacts of intergenerational trauma associated with residential school experiences and

related histories (Browne et al.). Returning to the focus of this REA, cultural safety as a concept underscores my analysis of sexual health inequities and policy and programming designed to promote sexual health. Specifically, I will ask: does the approach or programme take into account the root causes of reproductive and sexual health challenges such as histories of economic, social and political subjugation apparent within some Aboriginal communities?

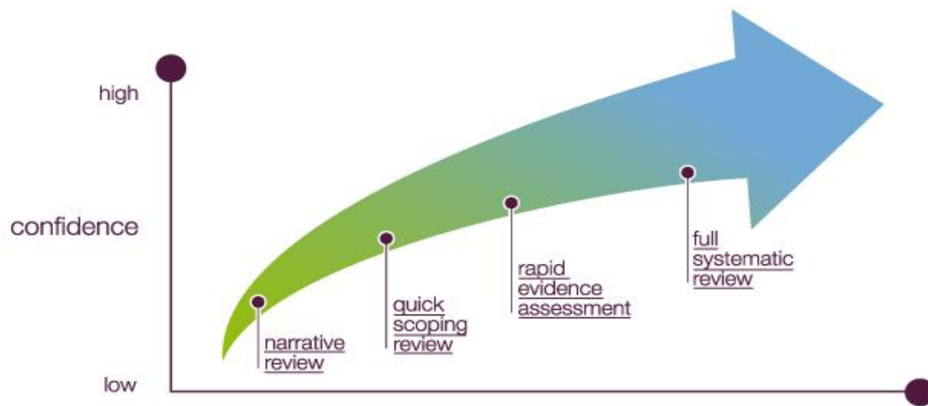
A combined relational and culturally safe lens offers a way of analyzing how contextual factors of racism, discrimination and family destruction continue to shape many Aboriginal people's health. Cultural safety also shares the goal of relational inquiry; requiring nurses recognize that culture is a relational experience among people and a set of differences among people (Doane & Varcoe, 2005). By employing these perspectives I was better able to analyse how positive, meaningful and culturally safe sexual health services may be realized for Aboriginal girls who live in rural Canadian settings.

2.2 Methodology

A Rapid Evidence Assessment (REA) differs from a systematic review. A systematic review reaches beyond the scope of this thesis requirement. Hemingway and Brereton (2009) contend that increasingly, health policy makers and clinicians cannot wait the year or so necessary for a full systematic review to deliver findings. REAs present quick summaries of what is already known about a topic or intervention. REAs use systematic review methods to search and evaluate the literature, but the comprehensiveness of the search and other review stages may be limited. Figure 1 illustrates the various methods to review research studies and literature hierarchy from a narrative review, quick scoping review, rapid evidence assessment to the full systematic review. A REA requires a clear statement of the objective, a discussion of the inclusion and exclusion criteria of the studies and the search strategy and analysis of the eligible

studies. The review then proceeds to describe the analysis, synthesis of the findings and new conclusions to inform evidence in relation to the selected phenomena.

Figure 1 Types of reviews and their increasing confidence



Source: http://hlwiki.slais.ubc.ca

As described previously, my literature review highlights the significance of this evidence assessment. Lack of adequate support strategies to assist and respond to some Aboriginal girls' sexual health concerns pose a challenge for many public health nurses to create evidence-based practices that will address these needs. The method used for this search and appraisal is systematic and rigorous, but the depth of the search is limited by the development of search terms and breadth of resources searched (Civil Service, 2011). This type of assessment is particularly useful to quickly gather existing evidence and provides a practical approach to disseminating research and determining needs and gaps. REAs move forward evidence-based findings for more accessible informative decision making (Gough, 2011).

The following procedures were used to locate relevant studies for this REA. First, a search of electronic databases was conducted of a range of medicine, social science; health

policy and general reference electronic databases were explored. Next an internet search of the Canadian Journal of Research was conducted. This approach was recommended by the UBC research librarian to locate relevant Canadian related research to this phenomenon. The search criteria and process are described in detail below.

2.2.1 Search criteria

This Rapid Evidence Assessment was conducted following the UBC thesis option guidelines. These searches were conducted on January 17th 2013.

The following search terms were used:

1. Effective*: outcome, impact, result, evaluation, intervention
2. Aboriginal*:Indigenous, First Nations, Native, Indian
3. Sexual Health*: Reproductive Health, Sexuality, STI's, HIV/AIDS, Pregnancy Prevention, Healthy Choices
4. Adolescents*: Teens, Youth, Girls, Young people, Young adults

The UBC Librarian also suggested a number of databases to be searched, these were: Medline PsychINFO, Sociological Abstracts, PubMed, Medline, CINAHL, BioMed Central, Cochrane, EBM reviews, EBMbase, Web of Science, PsychINFO, IEEEXPlore. Other sources searched for coverage include the World Wide Web (Google and Google Scholar).

2.2.2 Search process

The search strategies were developed using the search terms suggested by UBC Librarian with a number of additions to the list. Two approaches were tried:

1. Searches using the term ‘Adolescent' and variations of ‘youth’ and variations of "Aboriginal'

2. Searches using the above terms but with the addition of 'intervention*' and variations and 'Sexual health' and variations

Using an estimate of the size of the generally relevant literature was obtained; then the use of a more specific set of references was obtained. However, it is likely that relevant material would be missed because of the generally poor quality of indexing in many social science databases. The search strategies used were as follows:

1. Aboriginal* and (young people or juvenile* or teenage* or youth* or adolescent*) and (sexual health* or sexual education* or best practice* or reproductive health* or STI*)
2. Indigenous* and (young people or juvenile* or teenage* or youth* or adolescent*) and (sexual health* or reproductive health* or health review* or practice approach* or Canadian*) and (intervention* or evaluate* or outcome* or impact* or result* or effect*)

Databases used: CINAHL, OVID, EBSCO Host, Nursing Abstracts, Social Sciences - Full Text, Inside Web of Knowledge. The period initially searched from 2008 to February 2013, although all the databases vary in the year from which data is covered. Nine additional studies were also included from 2003 to 2007 as they were most relevant to the questions of inquiry.

2.2.3 Inclusion criteria

This search was conducted for published English empirical studies from 2003 to 2013; research on the most current evidence is typically retrieved from the last five years, and however setting the parameters to five years excluded several important and relevant studies that inform the sexual health context for Aboriginal girls. One study from 2003, one study from 2004, two studies from 2006 and five studies from 2007 were included. The other 15 studies were published within the last five years. The objective of the search strategy was to identify evidence

which explored and measured Aboriginal (Indigenous, First Nations, Native or Indian) youth (Adolescent, teen, young people or girls) sexual or reproductive health. I sought studies that could be synthesized to best inform or quality practice for sexual and reproductive health outcomes or practice. Research, specific to First Nations girls 'sexual and reproductive health remains limited; and thus this review had to include some research on both Aboriginal female and male youth, not simply female youth. To be included in the rapid evidence assessment (REA), studies required focus on developing or evaluating interventions targeting adolescent sexual health practice, outcomes or experience. Studies meeting these criteria were only included if the design compared sexual health experience with Aboriginal youth. Exceptions of four additional studies, not specific to Aboriginal peoples but Canadian youth were included, as they identified positive youth sexual health promotion strategies specifically. Those studies that examined the impact of sexual health interventions of outcomes, or indicated a positive effect on sexual health experiences were included. A total of 24 studies met the final inclusion criteria and inform this review[12].

Excluded studies were those categorized as grey literature, which is unpublished, less readily available research, editorials, unpublished narratives and book chapters. This exclusion unfortunately limits the quantity and quality of this analysis as numerous relative literature is available though not formally published. For those studies meeting eligibility criteria, their reference lists were screened for potentially relevant studies. Studies published prior to 2007 were not included with the exception of the above noted which were particularly informative to

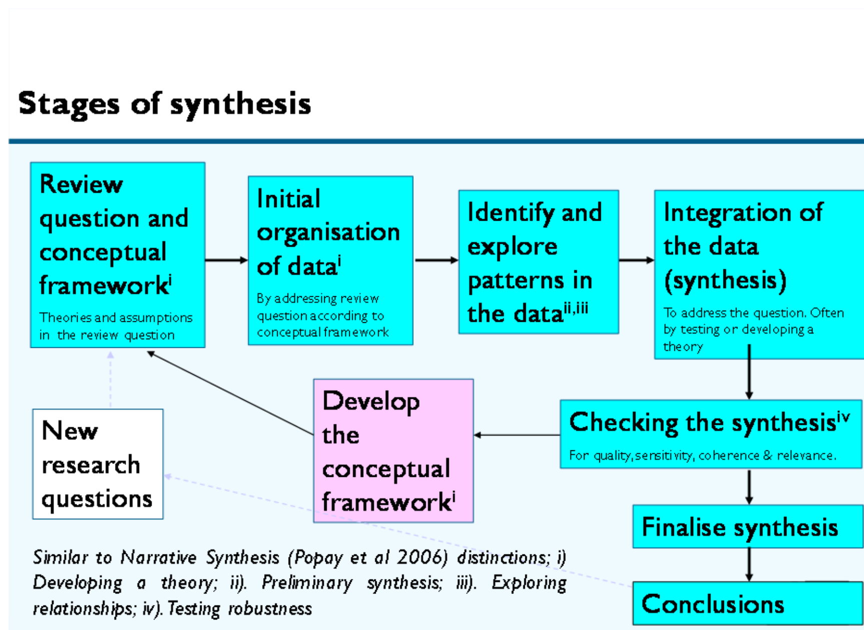
[12] This author acknowledges a purposeful selection of included studies intended to best gather evidence to inform public health nursing practice and respond to the identified needs prevalent within in some rural Canadian Aboriginal communities. It is likely there is alternative evidence demonstrated in actual community-based practice though not currently published to review. These studies were discussed for relevancy at length with colleagues who practice within similar contexts.

this review. The Government Social Research Service (GSRS) (2010) insists there are four features to report within the rapid evidence assessment (REA) method that must be incorporated in the assessment. First the REA must include the inclusion criteria which are outlined above. Second, the sources of the searched studies, which are provided earlier, must be made apparent. Third, the GSRS maintain two search strategies, which are comprehensive and purposive, and outlined within the search process and criteria. This was established by comprehensively seeking all relevant studies which meet the inclusion criteria. Next purposely searching for research specific to First Nations youth was required. The fourth GSRS feature required for REAs is reporting all rationales for inclusion criteria, thereby increasing transparency.

2.2.4 Screening evidence

There were three main processes exercised to select and screen studies for this rapid evidence assessment (REA). First, all eligible studies' abstracts were screened and compared with the criteria for inclusion. At this point if studies did not meet the inclusion criteria they were removed. Next the full reports were read, identifying findings and conclusions. Lastly utilizing the theoretical perspective outlined previously, studies were screened for their relevance and attention for use of a relational and cultural safety perspective that is imperative to practice with First Nations girls living in rural communities. The Government Social Research Service (GSRS) demonstrates in Figure 2 the stages of synthesis employed for this REA.

Figure 2 Stages of Synthesis



Source: GSRS:

http://www.civilservice.gov.uk/networks/gsr/resourcesandguidance/rapidevidenceassessment/how-to-do-a-rea

2.2.5 Selecting studies

Key terms and Medical Subject Headings (MESH) words within 340 records were identified as illustrated in Figure 3. After the inclusion criteria were examined 299 studies were removed. 42 studies were left to review their abstracts and titles. After careful review, 24 studies were finally selected and included in this rapid evidence assessment. The 24 studies chosen for this REA and are presented in Appendix B. The appraisal criteria and process will now be described as illustrated in Figure 3.

Figure 3 Appraisal Process

2.2.6 Critical appraisal

The findings from the critical appraisal are found in Appendix C, Table 2. The studies were coded using the Government Social Research Service (GRSR) Evidence for Policy and Practice Information (EPPI, 2007) data extraction tables, see Appendix D. The EPPI tool is designed to evaluate single primary studies, and for extracting and coding information, while assessing the quality and internal validity of the study. The EPPI tool includes a Weight of Evidence (WOE) framework which determines the quality of selected studies and adds further evaluation of evidence.

The 24 research studies were appraised for reliability and relevance using the Government Social Research Service (GSRS) data extraction matrix using the Weight of Evidence Assessment (WOE) criteria categorized into four sections of A though D (EPPI, 2007),

see Appendix E. WOE criteria: A which focuses on the soundness of reviews; WOE B for appropriateness of the research design and analysis used to answer the REA question; WOE C for relevance of review topic focus to the REA question; and WOE D for overall weight taking into account A, B, C (Gough, 2007).

The WOE allocates three score levels of evidence:

- High level of evidence - 3
- Medium level of evidence - 2
- Low level of evidence - 1

I also used the Maryland Scientific Methods Scale (MSMS) to appraise methodological quality of quantitative research studies identified in Appendix F. The MSMS assisted in reviewing "what works" when reviewing studies (Sherman et al., 1997) and was helpful exploring what is working when promoting positive reproductive health strategies with Aboriginal girls in rural communities, and assists in identifying potential threats to internal validity such as casual direction, confounding factors, chance factors, and selection bias (Sherman et al., 2002).

The MSMS appraises five categories: (1) correlational studies, which report correlations and denotes relationship strength between intervention and outcome, (2) before and after studies of a target group only with no target group, (3) comparison studies, where before and after measures are compared for experimental and comparison groups; (4) controlled trials in which before and after measures are compared with experimental and control groups, with confounding variables controlled; (5) randomised controlled trials (RCTs), where experimental and control groups are compared after randomization of groups (Sherman et al., 2002).

The Maryland SMS scores five levels of evidence:

- Lowest level of evidence - 1
- Medium levels of evidence - 2, 3, 4
- Highest level of evidence - 5

For qualitative studies I utilized the Critical Appraisal Skills Program (CASP) Qualitative Appraisal Tool (Public Health Resource Unit, 2006). The CASP was an appraisal method that scored each research study based on ten questions (1= Yes, 0 = No). The CASP allocates three levels of evidence according to criteria identified in Appendix G:

- High level of evidence scoring - 8-10
- Medium level of evidence scoring - 4-7
- Low level of evidence scoring - 1-3

For mixed methods and systematic reviews, both the Maryland SMS and CASP were utilized. The use of the combined appraisal tools in the REA provided a process for mapping and synthesizing the studies and conducting a rigorous quality assessment of the current research of Aboriginal youth sexual health for the REA.

2.2.7 Research design and interventions

Of the 24 studies 11 were qualitative design ,[1, 2, 4-6, 11, 14-16, 18, 20], five were quantitative design [3, 7, 8, 10, & 22], four studies were systematic reviews [9, 12, 17, & 21] and four used a mixed methods approach [13, 19, 23-24]. Reproductive and sexual health research interventions were investigated, assessed and reviewed. The interventions applied within the twenty non-systematic reviews are as follows: five studies used a quazi-experimental mentoring group participation [1, 2, 16, 18 & 20], five studies used surveys [3, 7, 8, 10 & 22], three studies used focus groups [11, 14, & 15], and three

utilized narrative interviewing [4, 5 & 6]. Of the mixed method interventions: two used a focus group and survey [13 & 23], one used a pre and post-test comparison survey and education session [19], and lastly, one used a survey and in-depth interviewing [24.]

2.2.8 Research studies aims

The aims of each study are as follows: To understand sexual and reproductive health and best practice within indigenous contexts [1-3, 10, 13, 14, & 18]; to examine reasons, factors or predictors for sexual health behaviour, patterns and vulnerabilities [4-9, 15, 19, 22-24]; and to examine preventative strategies and positive facilitators to inform adolescent reproductive health program development [11-12, 16-17, 20-21, & 23].

2.2.9 Participants

The participants in all the studies were Aboriginal adolescent or youth with age ranging from 12-30 years with the exception of one study which examined Canadian youth and their mothers [10]; four studies included adults and elders with youth [11, 14, 19 & 23]. One study explored health provider's perceptions of working with Aboriginal youth and included adults 23-65 years of age [18]. The countries of research origin are as follows: 19 studies were completed within Canada [1-10, 13, 15-16, 18-19, 21-24], three studies were completed within the United States (US) [11-12, 17] and two studies were completed in Australia [14,20]. This ratio of Canadian literature is important when exploring strategies that foster reproductive health promotion and future directions with Aboriginal youth living in rural Canada. From the studies reviewed the literature has shown a historic and contemporary widespread shared experience of Indigenous peoples in Australia and Canada suggesting research worth examining when exploring people's lives, resources and outcomes.

2.2.10 Communicating findings

The last stage of the rapid evidence assessment (REA) method is communicating the findings in a 'robust and reliable manner' (Civil Service, 2011). One such way is presented using the 1:3:25 format. This communicates results in one page to provide high-level implications for policy and clinical implications. A maximum of three pages is used for traditional executive summary and description of findings and implications from the research, and the 25 page format then presents the findings.

2.2.11 Methodological reflections

Before considering recommendations for public health nursing practice, I will reflect on the processes of analysis, the creation and maintenance of rigour throughout this inquiry and the limitations of the assessment. In doing so, I offer the reader an opportunity to evaluate the credibility or quality of the REA in advance of reviewing its relevance for positive sexual health promotion with Aboriginal girls living in rural settings.

2.2.12 Findings synthesized

The findings from the 24 studies varied in relation to their purpose. All 24 studies gave medium to high weight of evidence (WOE), using the Maryland Scientific Methods Scale (MSMS) and Critical Appraisal Skills Programme (CASP). The key findings are outlined below; they represent a synthesis of the 24 studies assessed and my analysis of their contribution to evidence from a relational and cultural safety theoretical perspective. The presentation of key findings from the evidence is keeping in line with the 1:3:25 communication of findings format described above.

2.2.13 Key findings

The key findings from this REA regarding Aboriginal youth reproductive health and maintaining a relational cultural safety lens are as follows:

1. Promotion of dialogue, awareness, health literacy, practical skill building, and improved sexual health decision making behaviour through mentoring that fosters self-determination within the context of youth's sexual health issues. Positive Youth Development (PYD) programs can promote adolescent sexual and reproductive health while maintaining goals of family and school strengthening within a positive atmosphere [1, 2, 12].
2. Self-reports of 'risky sexual health behaviour'[13] and analysis of barriers to sexual health education require cultural relevance within sexual health curriculum and resources. Youth suggested enhanced culturally relevant education and community-based pregnancy prevention initiatives to provide consistent and multimodal messaging [3, 11, & 14].
3. Enhanced 'condom use negotiation' and 'sexual refusal skills' are necessary as youth indicate coercive patterns within intimate relationships. Effective sexual health promotion should include teaching assertive communication skills, self-efficacy and social support retrieval especially with younger youth. Youth's negative association between condom use and having a steady partner call for sexual health interventions that address contextual factors of colonial

[13] The author acknowledges the essentializing tone and subjugation of 'risky sexual behaviour' projected in the current evidence review again and offer's Shoveller and Johnson's (2006) understanding of the commonly presented essentializing discourse of 'risky behaviour'. Shoveller and Johnson contend that health professionals often authorize who in society is at risk (i.e.: homosexual males and Aboriginal youth). The sexual behaviour discourses frequently establish risk of HIV/AIDS and other STIs that are manifested in particular behaviours such as intravenous drug users, engaging in unprotected sex, promiscuity, and anal intercourse, which are positioned as risky or ignorant, while conversely compliant, safe and knowledgeable actions are deemed optimal sexual health behaviour (Shoveller & Johnson).

history as determinates of condom use [4, 9, 22]. Relationship patterns and decision-making in relation to condom use and STI rates are associated and therefore should be addressed in interventions and programming. Interventions must include individual efforts to promote 'healthy' relationships as the context for engaging in or delaying sexual relations [5, 6].

4. Parents misconceive their teen's friends as models for sexuality, while youth look to their parents, over peers and celebrities, for modeling and trust health practitioners for information. Interventions must support accurate information sharing with teens from health practitioners and parents to support knowledge acquisition [10, 14, 16, 21]. Youth report the most important topics to be incorporated into health programming as drug, alcohol, violence prevention and support, guidance and information from their families. Importance of engaging youth in envisioning their future is also recognized as a capacity that facilitates healthy sexual practices [20].
5. Accounting for the historical and ongoing impact of colonialism and other structural factors such as poverty, marginalization and residential school into both Aboriginal and non-Aboriginal sexual health programs. Positive Aboriginal HIV testing, services and counselling must be respectful, compassionate, non-judgemental and culturally safe, while providing effective emotional support and HIV information. Aboriginal youth and facilitators increase HIV/AIDS knowledge through peer-based prevention education technique. Aboriginal youth's awareness of sexual health knowledge was lacking and limited access to information and services existed [6, 7, 8 & 13].
6. Implementing programs focused on self-esteem and those integrating culturally relevant and tribal intervention programs involve key Aboriginal community members. Sexual risk

behaviours were associated with more complex emotional issues that have to be understood within the context of the legacies of colonialism [13, 15, 19, 24].

7. Recognizing that reproductive health is a specialized practice that requires organizational policy and practice support; i.e. increased time with clients to enable relationship building, appropriate resources to provide effective care and analysis of barriers to care that result in health care providers disengaging from youth. PHNs providers must have knowledge of the local context and history to generate relevant and effective approaches that also involve Elders, community leaders, and youth themselves in developing interventions [14, 18, 21].
8. Recognition of the importance of school, family and community connectedness[14] programming which address history of sexual and substance abuse to reduce sexual risks [7, 8]. Youth determined protective factors which build on pre-existing assets, resilience[15] and strengths in their communities are found to improve health. Significant challenges to healthy development remain and require culturally safe services. Protective factors[16,] are associated with responsible adolescent sexual and reproductive health outcomes of six connectedness constructs: family connectedness, parent-adolescent general communication, parent-

[14] Within this review connectedness is guided by Barber and Schluterman (2008) three concepts: relatedness, referring to interpersonal connections; validated autonomy or individuality; and the regulation of behaviours from others (ie: parents, peers, or teachers), interactions to achieve appropriate regulation. There is acceptance that multiple subcontracts of connectedness include "concepts such as support, close relationships, intimate communication, and guidance across multiple actors and socialization domains" (Markham et al., 2010, p.S24). Connectedness is explored further in chapter three.

[15] Resilience is understood as Anderson et al., (2008) describe "as the means in which people choose to use individual and community strengths to protect themselves against adverse outcomes, and build their future" (p.95). Resilience is more than actions that protect from illness, it is the interconnections of social, cultural, and behavioural factors which of strength, spirituality and support networks to flourish in the face of adversity (Anderson et al.).

[16] Kirby and Lepore (2007) indicate protective factors for youth within the sexual health context to include factors that might prevent 'risk taking behaviour' such as unprotected intercourse, unplanned pregnancy, STI, early intercourse, multiple partners, and or untoward relationships. While Saewyc, Taylor, Homma & Ogilvie (2008) add protective factors for adolescents are clearly associated with healthy sexual development. Protective factors are expanded further in chapter three.

adolescent sexual communication, parental monitoring, partner connectedness, and school connectedness [17, 23].

2.3 Summary and Synthesis of Evidence

This REA focuses on evidence to support public health nurses to identify and implement practices that foster positive sexual health development with Aboriginal girls living in rural communities. These findings need to be interpreted with caution as they do not necessarily justify approaches to promote sexual and reproductive health for every Aboriginal youth. However, the findings will contribute to the ongoing efforts to develop evidence that informs PHN practice and future research focused on health promotion. In the next section, I outline the process of theme analysis and describe how the rigour of the study was created through the REA.

To generate themes that represent the findings from this REA the following steps were taken:

1. First, the intervention associated with the sexual and reproductive health outcomes were combined to form conclusions, recommendations and implications for practice see section 2.4.
2. Second, exploration of patterns within the studies, with delineation to individual youth, peer, school, community, and professional implications are analyzed.
3. Third, all 24 studies are examined within Doane and Varcoe's (2005) relational theoretical perspective and Ramsden (2005) cultural safety lens. The theme analysis seeks acknowledgement of the sociohistorical context of colonization and social practice while simultaneously scrutinizing for power inequities and offering decolonizing solutions, approaches and evidence.

After the studies were critically explored for central themes they were coded for dominant ideas and categories influencing sexual and reproductive health promotion. Each study was reviewed and coded, yielding several themes that constitute evidence to advance positive sexual development and outcomes for youth. After collapsing these categories constructed through the analysis of the outcomes and findings of the selected studies, seven final themes were derived.

2.4 Themes

Seven themes were constructed from the review and synthesis of the 24 selected studies to outline domains for sexual health promotion with Aboriginal youth. Collectively these themes reflect the complex, intersecting forces shaping Aboriginal youth's sexual health. The themes located within the analysis of the rapid evidence assessment (REA) are:

1. Positive Youth Development (PYD) which includes peer and mentoring interventions
2. Health education that reflects Aboriginal culturally-specific curriculum
3. Relationship patterns and contextual understanding of risk behaviours
4. Historic, contextual and structural factors
5. Protective factors and connectedness
6. Health practitioner responsibility
7. Effective youth skill building

The next section summarizes the key findings from this analysis and the themes synthesized from the outcomes. From the REA synthesis, themes were constructed to depict those actions that hold the greatest potential for promoting sexual health with Aboriginal youth from a relational and culturally safe perspective. As only medium to high weight of evidence

(WOE) studies were included for the rapid evidence assessment, only reliable conclusions were synthesized, see Appendix C (Table 2.4). As Appendix C outlined the WOE of each study, research with higher scores of appraisal using the EPPI WOE, Maryland MSM, and CASP accorded more reliability than medium scored relevant research.

2.5 Limitations

There are a number of issues that limit this rapid evidence assessment (REA) review which are discussed. First, the REA only searched published studies which may be subject to some publication bias. Publication bias is a consequence of studies with a positive outcome being more likely to be published. Undertaking a full systematic review, which would include the searching of 'grey' literature, would help address this limitation. This would also permit inclusion of papers by Indigenous leaders and scholars who have published key reports on Aboriginal women and youth in the Canadian context.

Second, in order to provide timely information to adhere to the UBC thesis guidelines for a REA, a cut-off date was required for the receipt of the study papers. It was not possible to include any requested studies that were received after this date. This REA will reflect the date when studies were retrieved, no studies were included after February 2013; thus, any papers received after the deadline were not considered. This limitation could also be avoided by undertaking a full systematic review.

Finally, any systematic review or REA can only report on published interventions where a full evaluation has taken place using an appropriate research design. This is because, as previously mentioned, many argue that only published studies can provide strong evidence of the counterfactual situation and, hence, causality and hence net effectiveness (Sherman et al., 1997). As a result, other unidentified interventions may exist that are effective in promoting youth

sexual health. Just because an intervention has not been evaluated properly does not mean it is failing to achieve its goals, but without methodologically robust evaluation of these interventions we cannot be sure.

The 24 studies identified in this REA are categorized as 'methodologically strong' scoring high evidence, or 'methodologically average' scoring medium evidence. These scientific methods scores reflect only the strength of evidence about positive sexual health development, and not the strengths of the effects themselves (Sherman et al., 1997). Despite these limitations, this REA currently provides the best evidence available in the time period required to meaningfully inform health practitioners of the factors that foster positive sexual health outcomes Aboriginal girls living in rural communities.

The findings of this review cannot be generalized in a statistical sense, although there is a strong degree of generalizability to similar populations who share common challenges in sexual health. My inexperience as a researcher conducting this review independently is another significant limitation. I recognize my biases and expectations when selecting the studies for analysis as I sought optimal sexual health outcomes for Aboriginal youth within my opinion and experience of nursing for 16 years in rural practice settings. I have lived and worked in a clinical setting that serves many Aboriginal youth for several years and recognize some perspectives that certainly may bias the gathering of preferable data to meet the needs of this review. I sought studies with relevance for my area of practice and community-like contexts within which I practice. While gaps within this review can be identified (described in the next chapter), and colleagues immersed in the work were quick to point them out, I see the findings of this REA as contributing to public health nursing through the provision of some general principles that ought to be tailored to local contexts.

CHAPTER 3: Findings of the Rapid Evidence Assessment

In this chapter I discuss the evidence assessment of the 24 selected studies using the REA method. The two research questions were: what factors foster positive sexual health development for Aboriginal girls living in rural communities? And how do Canadian public health nurses use existing evidence to promote the reproductive and sexual health of Aboriginal girls? The seven themes generated from the REA were: positive youth development (PYD), health education that reflects Aboriginal culturally-specific curriculum, relationship patterns, historic, contextual and structural factors, protective factors and connectedness, health practitioner responsibility, and effective youth skill building. These themes are now discussed in relation to the sexual health challenges confronting many Aboriginal girls and the public health nurses working with them. I begin by briefly contextualizing the public health nursing role within the rural context and then discuss the themes synthesised from the findings and conclusion from Chapter one.

3.1 Rural Public Health Nursing Practice

Contextualizing this evidence assessment requires acknowledging several factors related public health nursing practice in rural contexts. It is necessary to expand on rural, the rural public health nursing role, and rural nursing context.

3.1.1 Rural defined

The term “rural” has no agreed upon definition in research, policy or planning and is continuously debated within the literature (Adams et. al., 2003; MacLeod, 1999). The most widely used definition from Statistics Canada, MacLeod et al. (2004) define ‘rural and small town Canada’ as areas with a population of less than 10,000, where less than 50 percent of the

labour force commutes to an urban centre. This definition McCoy (2009) recognizes as both the distribution of people and refers to commuting of labour force, and the importance of access and availability of services as elements of rural. Moreover, access to care is a central concern for rural and remote communities across Canada, requiring a variety of roles, and appropriately prepared nurses for available health services (MacLeod et al.; Bourke et al., 2004; Dussault & Franceschini, 2006).

Generally, the health of people living in rural, remote, northern and Aboriginal communities is poorer than that of their urban counterparts; indeed, health status declines with distance from urban centres (Girls Action Foundation, 2009; MacLeod et al., 2004; Atav & Spencer, 2002). Compared with urban residents, people living in rural and northern communities experience boredom, loneliness, depression, and attitudes that undervalue, underutilize, and limit women's capabilities (Leipert & Reutter, 2005). The literature clearly presents geography and gender as significant to comprehensive health (Romanow, 2002; Leipert & Reutter). Specifically Devries and Free (2010) offer the rural context as a structural factor affecting young people's substance use, experiences of violence and abuse, family relationships, and ideas of pregnancy and fertility which ultimately shape sexual behaviour more broadly. Mohajer, Bessarab and Earnest (2009) maintain rural communities have distinct social, cultural and educational challenges that require culturally appropriate and contextually relevant health initiatives. This reality for many girls living in rural settings implies that a clear direction for sexual health promotion is required to address the potential health inequities associated with geography.

3.1.2 Rural public health nursing role

The scope of practice for a rural community nurse varies considerably from community to community, although standards for practice do exist. Bushy (2002) describes rural scope of practice for nurses to often include an expanded generalist role, with an expectation of overlapping with other disciplines, all while functioning in an advanced practice role to help meet the needs of underserved regions. MacLeod, Browne and Leipert (1998) describe nurses in rural and remote communities work in a variety of settings that reflect the resource-based economics of rural Canada. Rural nurses' work is found in small rural hospitals, community health clinics, outpost nursing stations or long-term care facilities. Rural community nurses are often expected to work as public health nurses[17], community mental health nurses and continuing care nurses (MacLeod et al.). Rural nurses frequently have responsibilities that span large areas and several communities. An increasing number of nurses are working in positions that link hospital and community practice and provide a combination of acute care, health promotion and prevention services (MacLeod et al.).

The rural community nurse is commonly the first point of healthcare contact for many people (Kulig et al., 2008). This contact requires a scope of practice which ranges from generalist requirements to multi-specialist knowledge (Hegney, McCarthy, Clark & Gorman, 2002; Hunsberger, Baumann, Blythe, & Crea, 2009; Kulig et al., 2008; Misener et al., 2008). For youth seeking sexual health care services and support, the community nurse must quickly initiate a relationship of trust, where flexible and confidential care is provided within a depth of

[17] Specifically public health nurses working within a relational approach are recognized to contextualize and locate inequities resulted from structural disadvantages such as those experienced by some Aboriginal youth, and simultaneously respond to the risk or uncertain behaviours created by those structural inequities (Browne et al., 2010).

skills (Howie, 2008). Adolescents often seek community nurses for access to birth control, pregnancy testing and counselling, STI treatment, harm reduction services, and general advice on relationship challenges. This reproductive and sexual health care requires special orchestration as nurses are commonly caring for people they know due to their dual role as professional and community member (Kulig et al.).

3.2 Rural Nursing Context Themes

Guided by a relational and cultural safety theoretical perspective, the analysis and interpretation of thematic content in relation to the weight of evidence (WOE) will now be presented. The Government Social Research Service (GSRS) WOE, Critical Appraisal Skills Programme (CASP) and Maryland Scale for Scientific Methods (MSMS) tools were used to appraise each of the 24 studies in Appendix B. Patterns identified within the analysis of this rapid evidence assessment (REA) were categorized and coded as presented in chapter two. These themes are considered significant in response to the overarching research questions of what factors foster positive sexual health development for Aboriginal girls living in rural communities, and how can Canadian public health nurses use existing evidence to promote reproductive health. The seven themes will now be discussed.

3.2.1 Positive youth development

The first theme synthesized to support positive sexual health outcomes for Aboriginal youth recognized positive youth development (PYD) programs. PYD programs advocate cognitive, emotional, social, behavioural, and moral competence as being essential to healthy youth development, including decisions regarding sexual health (Catalano et al., 2010; House et al., 2010). Providing a safe group setting for adolescents to learn and develop social and

cognitive skills that House et al., describe may have a positive impact on sexual and reproductive health as well as other youth outcomes.

This review recognized four studies with clear demonstration of the benefits of PYD, scoring high levels of the GSRS weight of evidence (WOE) in this appraisal (Banister & Begoray, 2006a&b; Garwick et al., 2008; Majumdar, Chambers & Roberts, 2004). Banister and Begoray high level of evidence (GSRS-9 and CASP-10) used a knowledge translation approach arising from a feminist and Aboriginal conceptual framework within their small groups. This approach ensured equalized power for the girls, and made certain every girl was respected as an expert of her own experiences, while fostering open discussion, "talking stuff out about relationships" (2006a, p.79). The small group format with the presence of a mentor and local female Elder added a sense of connectedness while utilizing strategies to encourage deeper interaction and facilitate a sense of trust and respect (Banister & Begoray, Garwick et al.; Majumdar, Chambers & Roberts). This small group process can be defined as a community process of work, where partnerships with adolescents within the healthcare setting target resources which most accurately suit youth while fostering self-determined goals and affect the broader social factors influencing common disparities often seen in rural communities (Rogers & Robinson, 2003; Markham et al., 2009). For example, Banister and Begoray (2006a) describe this as an opportunity to facilitate youth to become successful lifelong learners or "border crossers" who have learned in the safety of a group setting and shared common levels of education, socioeconomic status, gender and inequity (p.172).

This partnership process was also referred to as 'capacity building'[18], which draws on strengths from multiple levels, uses processes that are endorsed by community leaders and links

[18] In this process, 'capacity building' with youth is recognized as the ensured participation of the rural community in policy development, programming and sexual and reproductive health promotion initiatives. Williams and Mumtaz

human and financial resources that pose sustainability (Smith et al., 2010). Banister and Begoray's studies also suggest incorporating nutritious food to encourage rapport and build trust; while circling, check-in and closing provide a barometer of how girls are doing at the same time as fostering sharing, appreciation, and a sense of community. These PYD examples within the research are significant to Aboriginal girls and public health nurses as they provide realistic activities that nurses can facilitate to increase positive awareness and response to girls' health issues and the ability to maintain their own Aboriginal identity.

Gavin et al. (2010) revealed another high level of evidence study (GSRS-8 and CASP-9 and MSMS-4) where they evaluated thirty positive youth development (PYD) programs that promoted Adolescent sexual health. Their review offered strong evidence that determined a difference in sexual health education programs with those that provide youth with the skills and knowledge needed to practice healthy sexual behaviour, and those such as effective implementation of PYD programs that provide the "motivation to do so" (p.s88). By carefully adapting initiatives to the unique cultural needs of the specific youth population such as rural Aboriginal girls, PYD programs are better suited to reach the targeted goals. This is critical within the rural environment when exploring effective initiatives that will inform the provision of optimal sexual healthcare. Moreover, this REA indicated that PYD programs should be rigorously evaluated before ‘applied’ to other contexts. The successful programs found within this REA target important goals that focus on strengthening family and school environments, and provide meaningful opportunities and experiences that were delivered in a positive atmosphere. Overall this REA finds that targeting age appropriate interventions towards preschool and elementary school age children has some of the strongest and most sustained impacts on

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(2007) believe by focusing on the collaborative strengths of youth and their community, initiatives will encourage sustainability, as opposed to focus on deficits which hold little value.

adolescent sexual health. Effective PYD programs which improved reproductive health hold multiple benefits with demonstrated elevated academic achievement, decreased levels of violence and substance use, lower crime rates, and overall improved mental health. Nurses practicing from a relational and cultural safety perspective must consider these facts when advocating for vulnerable youth, to disrupt and address multiple barriers to optimal sexual health.

Nurses can foster positive youth development (PYD) initiatives through community engagement using a variety of approaches whereby public health services can provide capacity and opportunity for individuals to determine how their specific needs are best found (Ochoa & Nash, 2009). Rogers and Robinson (2003) describe community engagement as an opportunity for individuals such as youth to bring a personalized voice forward towards a public service. Rural nurses are well positioned to collaborate with community members to provide creative venues such as PYD programs for health promotion, education and genuine care to meet the local needs of youth (Bourke et al., 2004).

Saewyc et al. (2008) suggest regular monitoring of trends in sexual health and behaviours among adolescents to provide strong evidence to guide intervention programs and health policies. This REA indicates the critical importance of community processes and working partnerships with adolescents to secure resources at the community level rather than targeting individuals. Addressing the broader factors and social determinants of youth sexual health will mobilize community and population level access that is necessary to address the common disparities often seen in rural communities (Rogers & Robinson, 2003). In particular, community engagement with Aboriginal youth requires a positive youth development (PYD) approach which can promote adolescent sexual health, including preventing STI's and teen pregnancy

(Gavin et al., 2010). As some youth struggle with risky behaviours that threaten healthy development, PYD can offer nurses the tools to work relationally with youth, families and schools.

3.2.2 Aboriginal culturally-specific health curriculum

The second theme revealed in this rapid evidence assessment (REA) is the significant requirement for culturally safe and relevant education programming for Aboriginal youth. Reproductive health education and services ought to be provided under the "pervasive concern about when and in what type of relationship is desirable for youth" (Maticka-Tyndale, 2008, p.91). Programs reflecting western values are shown to further isolate some Aboriginal youth at a time when cultural connections have their greatest impact. Devries and Free (2010) established high levels of evidence within their study (GSRS-9 and CASP-9) for the necessity of culturally specific education and support. They found numerous sexual health promotion programs aimed at Aboriginal youth have been adapted by non-Aboriginal populations who don't share the same context, culture or realities achieve limited success. A relational perspective maintains staying in collaboration and sync (Doane & Varcoe, 2005) with youth; integrating Aboriginal culture into sexual health promotion initiatives may support ways towards working ‘in sync’. This theme is in keeping with the Aboriginal Nurses Association of Canada (ANAC, 2009) framework to provide education and supportive health promotion using a culturally safe approach. The ANAC describe cultural safety as exposing social political and historical contexts, challenging unequal power relations and providing a safe leaning environment where youth are more likely to respond positively.

Cole (2003) (GSRS-7 and MSMS-3) also offers relevant findings for the REA research questions. Youth feedback within this study found success with structured, creative and

culturally appropriate approaches to address the high rates of STI's and adolescent pregnancies. Likewise, Garwick et al. (2008) (GSRS-8 and CASP-8), reported on a successful pregnancy prevention 'Native-led program' using traditional "Talking Circle" to impart knowledge and cultural traditions through storytelling and personal experiences in a non-hierarchal way (p.87). This traditional process and way of learning for American Natives incorporated oral tradition, congruent with relational practice with youth. Culturally relevant programming includes identifying family, Elder and community members as important sources of prevention information and was found as central to the role of educating Aboriginal youth. Smith et al., (2010) Canadian study of 'Nursing Best Practices within Aboriginal Communities' emphasized how knowledge that supports community wellness, guided by Aboriginal values and principles is a critical component to high quality healthcare.

A culturally safe approach was determined to increase the effectives of educational programs "…transferring knowledge in a manner that is not culturally sensitive reduces the relevance of the material and in turn, affects the receiver's ability to make healthy choices and avoid risky behaviour" (Majumdar, Chambers & Roberts, 2004, p.71). This process of knowledge translation (KT) can be made clear by seeking input from community members and service providers. Effective knowledge translation includes mentoring strategies with Aboriginal girls' and their community in the conceptualization, delivery, application and evaluation of the program (Bannister & Begoray, 2011). For example, Banister & Begoray, (2006a&b) found mentors and Elders who foster authentic indigenous voices with Aboriginal girls can share knowledge through storytelling and reflection and only reinforces the significance of their culture. Preserving Aboriginal culture in health curriculum is keeping in harmony with a

relational and cultural safety lens that provides public health nurses with a health promotion strategy that enlists local Aboriginal worldviews and knowledge.

3.2.3 Relationship patterns

Relationship patterns play a powerful role in shaping every youth's sexual health. Some Aboriginal youth have experienced disrupted family patterns, abuse, forced separation and violence, all of which undermine their experiences of and learning about healthy relationships (Browne, 2007). As a consequence, it is not uncommon for adolescents to define relationships as 'serious' and emotionally engaging after a short duration (Devries & Free, 2011a). Benoit and Shumka suggest that emotionally unsafe dating relationships disrupt girl’s normal development of a healthy self-concept and positive body image which can interfere with the necessary capacities for healthy self-esteem required in healthy sexual relationships. The research of Lys and Reading (2012) scored medium levels of evidence (GSRS-6 and CASP-6), while Devries and Free (2011a&b) scored high levels of evidence (GSRS-9 and CASP-9) to support the importance of comprehension of relationship patterning with Aboriginal youth. Both studies clearly indicated 'serious relationships' perceptions often regard ambivalence towards pregnancy and contraception, creating opportunity where unprotected sex is likely to occur and thereby increasing STI risk and unplanned pregnancies. Nurses must be cognizant of the social practices of youth, the dynamics of interpersonal relationships and respond relationally to the context, history, needs and experiences when addressing relationship patterns, challenges and desires.

Specifically within the context of sexual health history, cultural norms positively emphasize childbearing and fertility (Barman, 1997; Fiske, 1996). Devries and Free (2011a) stress that these cultural norms have certainly emphasized the importance of family in terms of families of origin and childbearing, which dissuades condom use interventions. Unprotected

sexual activity is considered one of the major causes of morbidity, mortality and social problems in adolescence (Smith et al, 2010). Influencing individual behaviour and decision making implies addressing and attending to the critical reasons to delay pregnancy and acknowledging the contextual and structural elements that shape relationship patterns, sexual health and family interaction. For example, Devries and Free note contextual elements of family relationships, gender power imbalances, substance use, history of sexual abuse, and structural elements such as migration between communities, gendered expectations and socioeconomic status as well-known influences on relationships. Further exploration of relationship patterns then may be key to reducing STI risk and optimal decision making among youth. Another example is the pattern of on-off relationships. This ideology could certainly be contributing to STI rates when association of condom use is only used during 'off' periods of relationships (Devries &Free; Lys & Reading, 2012). Foundational to relational practice is comprehension of the contextual structures influencing health issues facing youth. Within a relational approach public health nurses (PHN) are required to move beyond the taken for granted conceptualizations (Varcoe & Doane, 2005), and be guided by evidence to offer sexual and reproductive health promotion that addresses the true contextual factors of relationship patterns, power imbalances, and family support. With this recognition of the complexity of relationship patterns PHN practice should entail exploring the influence of on and off relationships have on condom use and STI prevention in clinical, educational and counselling practice with youth in rural communities.

3.2.4 Historical, contextual and structural factors

The fourth theme exposed after analysis of this rapid evidence assessment (REA) is the impact of historic, contextual and structural factors influencing this population. Kelly & Luxford's, (2007) study scored high levels of evidence (GRSR-8 and CASP-8) explaining while

Aboriginal communities are experiencing complex health, social and cultural needs, sexual health is a sensitive and more difficult topic to engage and often sits low on the list of priorities. Clearly, each Aboriginal community maintains a unique experience of colonization and decolonization; however the evidence locates significant commonalities. Colonial history, poverty, trauma, substance misuse, lack of access to health care services and socio-economic disadvantage are interrelated, creating a context of complex health inequities that ultimately confront some Aboriginal youth (Devries & Free, 2011a&b; Devries et al, 2009a; Majumdar, Chambers & Roberts, 2004). The destruction of traditional culture and social reorganization as a result of colonization has overwhelmingly affected many Aboriginal communities (Browne, 2007; Ning & Wilson, 2012; Varcoe et al., 2013). As a consequence, Aboriginal youth report higher levels of substance abuse than non-Aboriginal youth (Devries et al, 2009a; Hampton et al.). Aboriginal youth with prior experiences of sexual violence and substance use are also burdened with greater risk of pregnancy and STI contraction (Devries et al, 2009a; Arbeau, Galambos & Jansson, 2006).

Historical, contextual and structural factors influencing sexual health include living on-reserve, cultural traditions, sexual abuse, parental supervision, community involvement, school and family connectedness and peer attitudes (Devries et al., 2009b). Importantly, these factors were found to contribute as predictors of reproductive health behaviours of youth which are often beyond youth's control, requiring "higher-order prevention efforts" (Devries et al., p.861). The studies of Devries et al. (2009b), Hampton et al. (2007) and Ricci et al.(2009) offer medium to high levels of evidence that support the critical importance of accounting for the historic, contextual and structural elements that shape the development of sexual behaviour and or partnership patterns. Without comprehension of these critical influences and cumulative effects,

interventions will be meaningless and remain ineffectual. Interventions, Devries et al. (2010b) persist, should reduce increased risks of STI and unwanted pregnancies in collaboration with initiatives aimed at the root of substance and sexual abuse. This enduring experience of Aboriginal peoples is being described in emerging literature as "increased allostatic load" and accounts for the considerable cumulative effects of stressors such as socioeconomic status, racism, exposure to violence, loss and historical trauma (Varcoe et al., 2013, p.2). Based on high levels of evidence found in Larkin et al., (2007) (GSRS-7 and CASP-7) and Shercliffe et al., (2007) (GSRS-7 and MSMS-5) health initiatives must respond with programs that promote family connectedness, mentorship programs, and community involvement to deconstruct the colonial forces continuing to challenge adolescents today.

These studies offer a level of evidence that can guide nurses to respond relationally to the crucial historical, structural and contextual factors youth are faced with. This is actualized when nurses move away from traditional assessment tools and educational models to relational and culturally safe orientations of service provision and practice. For example, within sexual health practice the nurse should gather information, validate adversities, identify personal strengths and capacities and respond in every moment to acknowledge the youth's experience.

In addition, culturally safe policy and resources require tackling the root causes of inequities causing ill-health; this necessitates funding and evaluation of efforts attending to on and off-reserve factors (Devries et al, 2009b). For many Aboriginal youth, policy must translate directly to changes influencing poverty, isolation and lack of future prospects, which seriously impact maintaining or improving sexual health in the future (Maticka-Tydale; Benoit & Shumka, 2009; Devries et al, 2009b). Garwick et al., (2008) study presents high level of evidence (GSRS-8 and CASP-8) describing effective sexual health interventions for Aboriginal youth that should

not only be grounded in theory but also in social and cultural contexts of the youth. For public health nurses (PHN) informed by this evidence and a cultural safety lens, this means incorporating history into programs that disrupt racism and stereotypes targeting the unique needs of the local population. Programming designed to reduce young people's substance use and sexual risk behaviours will have limited effect in a context where attention is not specified to the effects of the previously mentioned generations of disrupted community structures and family relationships.

3.2.5 Protective factors and connectedness

The fifth persistently recognized theme within this rapid evidence assessment (REA) is protective factors, which are described as factors which positively promote health and establish responses to the historic, structural and contextual factors influencing Aboriginal youth (Tsuruda et al., 2012). Saewyc and Tonkin (2008) maintain that protective factors buffer risk when created through family and school connectedness, community engagement and positive peer support, and ultimately foster healthy development, and promote healthier choices. While encouraging successful negotiation of adolescence, these factors are found to create more positive outcomes and foster resilience to negative experiences if or when they occur (Saewyc & Tonkin). Promoting protective factors includes examining connectedness or bonding, which refers to the emotional attachment and commitment youth make in social relationships in their family, peer group, school, community, or culture (Markham et al., 2010). Distinctively, connectedness in the literature is clarified as a protective behaviour demonstrated in adolescent sexual health with family connectedness, partner connectedness and school connectedness.

Research has shown that adolescence is a point in development when possibilities for relationships present themselves and an adult such as a parent, educator, Elder, community

leader or health practitioner can step in and make a significant difference. Banister & Begoray, (2006a&b) (GSRS-9 and CASP-10) and Frappier et al., (2008) (GSRS-7 and MSMS-3) offered high WOE scores. These studies concur that if adolescent girls are not in a position to have meaningful and positive relationships, social pressures can affect their ability to make decisions regarding safe sex, contraceptive use and contribute to risk-taking behaviours. Support comes from health practitioners, schools and families and especially parents. For example in Mohajer and Earnest's (2009) (GSRS-6 and CASP-6) study asked youth who they would most rather discuss their personal problems, the most common response was 'parents'. Even though most parents and youth are often uncomfortable addressing sexual health education, parent-youth sexual health communication is linked to responsible sexual behaviour and decision making (Burgess, Dziegielewski, & Green, 2005). This message of the importance of parent-youth communication must be fostered with families and school resource support. The significance of protective factors is so essential to Aboriginal youth as Tsuruda et al. (2012) strong level of evidence (GSRS-9, CASP-9 and MSMS-5) assert, cultural connectedness impacts every aspect of their lives. Their study found factors which foster engagement in activities provide Aboriginal youth with feeling of being valued, listened to and supported, making them more likely for improved health, better decision making, and plan to attend higher education. The evidence is clear, relational and culturally safe public health practice requires the enlistment of protective factors and connectedness to positive sexual health promotion for Aboriginal girls living in rural Canadian communities.

3.2.6 Practitioner responsibility

Exploring protective factors maintains fostering capacity and accountability for youth to address their individual needs. However, equally imperative to youth reproductive health is an

examination of how professionals are accountable in their response to youth[19]. The sixth theme discovered through this rapid evidence assessment analysis exposes the practitioner responsibility within the search for what fosters positive sexual health with Aboriginal youth. The rapid evidence assessment (REA) revealed nurses indeed practice in pivotal positions with Aboriginal youth. Youth seek sexual health services where nurses act as educators, advocates, and promoters of holistic and culturally competent care. This review offered numerous proposals of what practitioners should and shouldn't be doing in education and practice with sexual and reproductive health promotion. Kelly and Luxford (2007) high scores of evidence (GSRS-8 and CASP-8) examined precisely what nurses need to know in order to meet the reproductive health needs of young Aboriginal women. Their study highlights the importance of being clinically competent, providing culturally safe care, maintaining trustworthy relationships, and being cognizant of gender considerations. Correspondingly, youth reported the importance of facilitating trustworthy relationships between Aboriginal youth, Elders and nurses in order for sexual health initiatives to be meaningful and effective. Hampton et al., (2007) (GSRS-7, CASP-6 and MSMS-3) concur with Kelly & Luxford that practitioners should obtain a solid understanding of the geographic location, community and culture prior to clinical work. Kelly and Luxford describe how nurses must always be reflective about themselves in relation to Aboriginal culture and clarify ones strengths and limitations of their knowledge to themselves, and the communities they are serving. Ricci et al., (2009) also add the importance of incorporating culturally specific, sensitive, decolonizing approaches within ones clinical capacity

[19] This notion of accountability is poignant, as many nurses end up working with youth feeling ill-prepared or worse yet unaware of the necessary knowledge to provide effective care. In a national needs assessment Saewyc, Bearinger, McMahon and Evans (2006) found a large response of nurses who care for adolescents to report low levels of knowledge in some serious adolescent health issues, suggestive of unawareness of contributing significant mortality and morbidity high-risk behaviours.

in their high level of evidence study (GSRS-8, CASP-8 and MSMS-5). This is congruent with Steenbeek's (2004) research where nurses are encouraged to actively work with Aboriginal youth to address the potentially psychosocial issues affecting their sexual health, which develops a practice area that is accountable to the community.

Masaro et al., (2012) who's level of evidence scored GSRS-9, CASP-8 and MSMS-5, and Lys & Reading, (2012) which scored GSRS-6 and CASP-6, found another familiar thread throughout this review is the lack of appropriate human and physical resources available to practitioners in order to provide effective care. Without adequate and appropriate resources practitioners are restricted in their services. For example, in rural on-reserve communities, nurses are often restricted from providing contraceptive management under federal organization, thus encouraging youth to access off-reserve services where providers may lack cultural knowledge or support, while posing another geographic barrier. The Worthington et al. (2010) study which scored high levels of evidence (GSRS-8, CASP-8 and MSMS-5), found practitioners expressed a need for better and specialized training in adolescent health. The widespread description of specialized care necessary for youth was obvious when examining the care provider's role within sexual health practice (Masaro et al.). In addition to specialized care Ricci et al., (2009) determined nurses also need to collaborate with various members of the community including youth, Elders, schools and organizations, as role models, advocates and educators.

The literature described practitioners are frequently advised to practice in ways that foster connectedness and emotional support while providing open, reliable, friendly, non-judgemental, and respectful interactions (Tsuruda et al., 2012; Worthington et al., 2010). For example, youth in Worthington et al., high evidence study wanted their practitioner to "make the person feel at home-comfortable" and "ask them in a way they don't feel ashamed" (p.1273).

Likewise, Saewyc and Tonkin (2008) found youth appreciate clinicians who are non-judgemental, practice active listening and arrange convenient and confidential office appointments. Ochoa and Chreshelle (2009) persist, nursing practice that fosters authentic or trusted nurse-client relationships while providing quality sexual health education, and support positive youth development, is most effective.

Tylee et al. (2007) offer three main types of approaches to improve providers' performance when caring for youth: provision of guidelines, provider training, and quality-improvement strategies, incorporating provider training. While Gavin et al., (2009) high scores of evidence (GSRS-8, CASP-9 and MSMS-4), describe practice requirements of practitioners to engage with youth prior to first sexual contact, address age appropriate sexual health education, while incorporating family and school strengthening opportunities. For example, in two rural British Columbia Aboriginal communities, public health nurses collaborate with the Infant Development Program (IDP) and on-reserve Maternal Child and Family resources to provide a "Body Science" and "Let's Talk about Touching" (LTAT) information to families[20]. Relational practice involves giving every family that attends the 'Three Year Old Round Up' and 'Pre-Kindergarten Health Fair' age appropriate and culturally relevant body science and reproductive health children's book. This resource book for families of three and five year olds addresses appropriate sexuality questions, answers around appropriate touching, private body parts, and assertiveness skill that parents can discuss and read with their children. Additionally every parent meets with a public health nurse (PHN) to discuss common information and concerns regarding

[20] Within the author's practice a collaborative response was determined to attend to numerous reports of historic and current suspected child sexual abuse reports. The initiative aimed at not only informing children but whole families as to what was normal behaviour, what requires further support, where to discuss concerns, the importance of open communication within families, and accurate and age appropriate resources on reproductive development, sexuality, and concern of abuse are p. The response from Aboriginal partners, schools, and families have been positive though reaching the entire communities is the voiced on-going goal.

normal sexuality of preschool children. McKegg (2011) argues that this meaningful dialogue with families facilitates critical questioning and trust towards building long-term relationships where people are safe to inquire without judgement; this is congruent with a relational nursing practice perspective.

Saewyc (2000) also offers another approach to practice with adolescents which calls for a caring adult to engage in ongoing connectedness; whether family, health practitioner, or community, it is maintained; "the relationship is the mechanism for change in self-perception, and self-efficacy" (p.118). Specifically, Saewyc recognizes caring theories[21] which incorporated into practice requires a "moral stance or commitment to adolescents" (p.120). Analogous to relational and culturally safe nursing practice these caring theories insist health practitioners develop a "passion for the population" and promote healthy living through a genuine understanding of adolescent activities and establish culturally appropriate response (Saewyc, p.121).

3.2.6.1 Evidenced based approach

Attending to the aforementioned inequities of Aboriginal youth reproductive health, requires 'best practices' aimed at improving the quality of services and health outcomes that are informed by evidence such as this research, clinical experiences and client preference (Smith et al., 2010). Nursing best practices have exploded within Canada and the world to aid in better use of clinical knowledge, research and tools; however, nursing best practice within the context of rural Aboriginal sexual health promotion and services have yet to be developed. This rapid

[21] Saewyc (2000) suggests caring theories can be used as a framework to inform nurse's practice who work with youth, this requires "articulating the primacy of the caring relationship to prevent technical procedures from being the focus of care, [and not] leaving caring relationships as the icing on the cake that is only actualized if there is time" (p.124).

evidence assessment (REA) method specifically highlights quality practice within Canadian Aboriginal communities. A key component to evidence based practice is reflective practice[22] which entails reflecting on the evident ‘taken for granted’ assumptions (Craig & Smyth, 2007) of rural Aboriginal communities and “assess the impact and outcomes of interactions and interventions with patients, clients, and the public” (p. 8). As there is currently no evidence to support best practice[23] with rural Aboriginal youth sexual health, this evidence is essential to guiding nurses towards optimal sexual health promotion with girls living in rural communities. This evidence assessment combined with a relational and culturally safe approach, specialized education, practitioner’s intuition, and clear understanding and knowledge of a youth's context should direct positive sexual health promotion.

3.2.7 Youth skill building

The last theme identified within this rapid evidence assessment (REA) is probably the most critical; it involves empowering youth's control over their health and development. Yet effective youth skill building is intrinsically connected with all six other themes described above, it is likely the bi-product of positive youth development, protective factors, culturally specific care and practitioner responsibility. Disproportionately, one third to one half of Aboriginal youth reported being sexually exploited (Benoit & Shumka, 2009; Devries, Free, Morrison & Saewyc,

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[22] Critical self-reflection or reflexivity in Doane and Varcoe (2005) relational practice approach calls for nurses to purposefully examine: who you are, what your beliefs, values and practices are, ones socioenvironmental location, and question or challenge any taken-for-granted knowledge, understandings, or past experiences. This process enables nurses to consciously be in-relation with youth that is meaningful and responsive.

[23] Nursing best practice for public health nurses in rural Aboriginal communities requires "unique knowledge, skills and attitudes, such as cultural humility, must be added to current understandings of cultural competence in order to address what should be a minimum ethical standard of culturally safe nursing practice" (Smith et al., 2011, p. 33). This can be achieved by: shifting nurses' role to partnership with the community, challenging health inequities, connecting cultural knowledge as a means to strengthen individuals and families, promoting evidence-based capacity development, and basing practices on Aboriginal self-defined vision of health (Smith et al.).

2009b). Therefore, any relational and culturally safe response necessitates facilitating youth's capacity for self-respect, choice and control while also recognizing the structural forms of violence that shape their lives. Benoit and Shumka claim "…girls are at risk for relationships which disrupt normal developmental processes such as the development of a stable self-concept and integrated body image and may lead to impairments in behaviours, thoughts, and feelings which can ultimately affect self-esteem and emotional health" (p.24). Compounding the negative forces impacting development is the impact of poverty on sexual health; lower socioeconomic status is correlated with higher reports of abusive relationships and greater difficulty to leave (Benoit & Shumka; Shoveller & Johnson, 2006; Maticka-Tyndale, 2008; Banister et al, 2006; & Devries & Free, 2011). Despite these realities one effective skill associated with positive sexual health outcomes is 'assertive communication' found in Shercliffe et al. (2007) high score of evidence study (GSRS-7 and MSMS-5), and Banister and Begoray's (2006a) study (GSRS-9 and CASP-10). Their studies maintain skills of assertiveness, role playing and practicing are effective strategies found to increase optimal sexual health decisions with Aboriginal youth.

Further skill building was identified in Tsuruda et al. (2012) report (GSRS-9, CASP-9 and MSMS-5), which maintained youth who possess certain skills appeared strongly linked with better health outcomes. For example, feeling skilled at sports was associated with lower likelihood of binge drinking regularly or ever trying drugs. Additionally if youth felt they were good at school they were more likely to report better health than those who did not report a school-based skill. Adolescents also benefit from developing life and problem solving skills (Saewyc & Tonkin, 2008). Another good example of effective skill building was demonstrated in Banister and Begoray (2006b) study which also scored high levels of evidence (GSRS-9 and CASP-10). This study evaluated girls' health behaviours and set goals towards positive change

while encouraging empowerment and enhanced self-esteem. Moreover, Devries et al., (2009b) high level of evidence (GSRS-8, CASP-9 and MSMS-3) explored volunteering and helping in one's community as effective skills associated with improved sexual health decisions. These high levels of evidence studies illustrate the benefits of skill building that support Aboriginal youth to achieve positive sexual health promotion. Support and initiatives that encourage assertive communication, self-empowerment, sports, cultural identity, and positive attributes are other assets in optimal sexual health promotion.

3.3 Summary of Themes

In this investigation, I have conducted a rapid evidence assessment (REA) guided by a relational and cultural safety theoretical perspective that illuminate seven themes of positive considerations for sexual health promotion with Aboriginal girls. The findings from this review are consistent with the results of previous studies which suggest an expansive investigation of youth's connection between agency, social context and personal experiences will offer a more complete comprehension of the complexities impacting health-related behaviours (Shoveller et al., 2004). The first theme of positive youth development (PYD) is clearly located in the literature as an encouraging initiative that provides support through group, mentoring, local knowledge and expert novice collaboration. The use of knowledge transference from Elders to youth was found in several studies as a significant and effective approach to share culturally relevant information. Likewise, the second theme identified successful health education of Aboriginal culturally specific curriculum as sought after support specific to the local community needs. Additionally, incorporating knowledge transfer via family, Elders, and community leaders demonstrates promising sexual health outcomes. The third theme of relationship patterns insists that unconventional ideas of ‘serious relationships' sets some Aboriginal girls up for uncertain

sexual health outcomes. Structural factors such as disrupted family patterns, forced separation, socioeconomic status, and perceptions of relationships offer better understanding of addressing reasons to delay sexual activities and pregnancy. These factors present a more in-depth comprehension of the morbidity, mortality and health consequences related to 'risky' relationships facing adolescence, while beseeching further understanding, exploration and care.

The fourth theme synthesized from this rapid evidence assessment (REA) is the influence of historic, structural and contextual factors influences on sexual health. These factors were declared throughout almost every study reviewed. These factors however require constant consideration and response; they include and are not limited to factors such as social environment, cultural traditions and values, community involvement, school and family connectedness, peer attitudes, living on or off reserve and in some cases, history of sexual abuse, and substance misuse. Almost always beyond youth's control (Saewyc & Tonkin, 2008); these factors are seen as influences and or predictors contributing to sexual health behaviours, decisions and outcomes. The contextual factors require thorough scrutiny when planning and assessing for efficacy of services. Clearly it implores policy makers to address these factors that act as barriers such as historic colonial legacies, poverty, and inequitable distribution of resources when making decisions regarding resources for Aboriginal youth.

The fifth theme identified is protective factors which highlight a positive feature associated with optimal sexual health outcomes for youth. Protective factors potentially buffer risk and comprise of emotional attachment and commitment to social relations including family, school, and cultural connectedness, community engagement and peer support. These factors suggest actions families, communities, educators, and health providers can promote and facilitate towards improved self-esteem and better decision making, while inspiring a sense of inclusion

and pride. The sixth theme of practitioner responsibility is crucial to Canadian public health nurses and Aboriginal youth as it clearly takes sole responsibility away from youth and insists conscientious responses from practitioners. The literature reviewed for this REA directs important strategies practitioners must uphold to instil effective transfer of sexual and reproductive health knowledge and support. These proficiencies include practitioner's ability to provide clinically specialized and culturally competent care. Practitioners must engage with community partners, families, and resources, establishing trustworthy relationships, active listening, while being reflective of one's own values and contextual realities of youth.

The last theme located within this rapid evidence assessment (REA) is effective youth skill building that can be supported and validated with Aboriginal adolescents. The REA findings endorse the fact that youth can maintain power, self-confidence, and enhanced health when they acquire positive assertiveness skills through role playing, sports, academic achievement, goal setting and volunteering. The benefits can be maximized if they include skill building within Aboriginal culture such as art, dance, drumming, music, hunting and gathering. These activities are strongly associated with improved self-concept, health and sexual health decision making. These seven themes are significant common subjects that can potentially influence positive sexual health development with Aboriginal youth living in rural communities. However, despite the clear evidence to support these themes found within this review there remain several missing contributing elements to optimal sexual health promotion and outcomes within the evidence. The following section will address the gaps identified in the REA that are continuing to challenge sexual health promotion with Aboriginal girls living in rural Canadian communities.

3.4 Gaps in the Evidence

I have identified important issues that were not directly attended to within this rapid evidence assessment (REA). First, there were only three narrative interview studies that address Aboriginal girls' authentic experiences specifically with sexual health services and realities in the rural environment. The REA studies presented were limited to primarily descriptive and population-based observational studies presented in surveys and focus groups, which although rigorously achieved, often harbour biases (Polit & Beck 2008), and only offer insights into optimal interventions. It is commonly accepted that experimental designs are considered the 'gold standard' of research because they can infer causal relationships, which would be valuable to inform nursing practice advancements (Polit & Beck). Only Mujumdar, Chambers and Roberts (2004) offered a quasi-experimental design with a pre- and post-test comparison study which found demonstrated change in attitude and comprehension toward safe sex and HIV/AIDS. This clearly presents a gap in the literature of measuring and evaluating the effectiveness of reducing health inequities faced by some Aboriginal girls. The lack of experimental or intervention-based studies necessary to support strategies to foster positive sexual health promotion is scarce. The majority of current research on sexual health with Aboriginal youth is predominantly observational, often exploring the pervasive stereotypical discourse of sexual risks, ‘HIV/AIDS', 'condom use', 'booty calls' and 'pregnancy prevention'. Aboriginal girls’ voices and realities of everyday experiences and challenges are not currently being represented within the literature. The non-Aboriginal sexual health research offered some insight into positive sexual health outcomes; however the lack of cultural knowledge unique to many Aboriginal communities is clearly not transferable when findings suggest resources, realities and contextual factors that are not generalizable to many Aboriginal youth.

The literature reviewed for this REA examined several suggestions of optimal sexual health practice, characteristics and requirements, though lacked clear interventions and applications for youth, communities and health providers to enact. What does trusting relationships or fostering connectedness require from health practitioners within the reproductive health context? How much information, time and resources should be shared within overworked, under resourced practice settings? What does specialized training for adolescent sexual health require beyond reproductive health, STI and contraceptive management advanced certification? What would constitute culturally relevant sexual health professional development opportunities?

In this review, I did not acknowledge the common organizational constraints barriers to practice, such as experienced within on-reserve Aboriginal organizations. For example, organizational barriers to collaborating between provincial health authorities and federal Health Canada found on many reserves remain challenging. Often in rural practice there are separate documenting systems which do not allow for easy transfer of health information; this is particularly relevant for youth and families who migrate between on and off-reserve communities. I also did not acknowledge any on-reserve programming limitations which often include Health Canada community health nurses (CHN) inability to provide contraceptive management and STI services. Often physicians visit infrequently on-reserve, during school hours, thereby creating barriers to youth accessing care. This demonstrates the important role Nurse Practitioners also could play, although this was not acknowledged in any of the studies reviewed.

Finally, there is a significant gap in the literature indicating how responsibility of healthcare leaders and health authority decision-making allocate improved resources to Aboriginal youth and public health nurses. Further research to generate interventions to redress

health inequities in policy and practice for under-resourced rural practice is critical. The responsibility of healthcare leaders to influence health policy and structural inequities cannot be overlooked.

The next chapter focuses on how this research can inform Canadian public health nursing practice. I will discuss the implications of this rapid evidence assessment (REA) for professional nursing practice in general and make recommendations for advancing this knowledge through research, education, policy, and practice.

CHAPTER 4: Summary and Recommendations

The findings of this evidence assessment reflect a synthesis of knowledge that can inform public health nursing practice with Aboriginal girls' in the area of sexual health. These findings also have implications for nursing policy, education and scholarship within the areas of youth sexual health. I now return to the research questions guiding this rapid evidence assessment (REA) to summarize and outline recommendations.

4.1 Positive Sexual Health Development Factors

To summarize, the findings of this REA indicate there are several factors that foster positive sexual health development. These factors include the necessity of implementing culturally safe sexual health resources within communities that account for the protective factors of family, school and cultural connectedness, including feeling skilled, engaged, valued, validated and listened to. These protective factors can foster the resiliency required when youth are faced with adversity in their daily lives. The findings of this REA confirm that when nurses adopt a relational approach, they can develop supportive and trusting relationships, places where girls can feel comfortable discussing questions in a culturally safe environment. Additionally, knowledgeable sexual health practitioners can partner with families and parents to create a supportive context for youth to develop the skills necessary for optimal decision-making within relationships. Working from a 'strengths-based' perspective, nurses need to work to support rural Aboriginal girls' capacities which enable positive sexual health outcomes. An intervention such as early sexual health education starting with body science at a preschool level was identified as foundational support towards positive sexual health and life-long learning.

Girls must be provided the opportunity to voice their needs for sexual health development in an environment free of judgement or assumptions. Positive reinforcement supports healthy relationship patterns, connectedness and acceptance. Nurses need to inquire and learn from Aboriginal girls' daily lives and needs, responding with sexual health information that is tailored, compassionate and responsive. Despite efforts to improve condom use, encourage birth control and provide pertinent sexual education, optimal sexual decision-making stems from protective factors of genuine connected relationships; nurses play a key role in helping girls learn about such relationships. Girls being heard and valued in their relationships with nurses is a contributing factor to strengthening identity, self-worth and capacity. This relationship principle of connectedness is the direction nurses must take to foster positive sexual health development for Aboriginal girls living in rural communities.

4.2 Nursing Implications

How can Canadian public health nurses use existing evidence to promote the sexual health of Aboriginal girls?

Addressing the practical challenges of sexual and reproductive health promotion with Aboriginal youth for public health nurses is a complex task. Given this complexity, how can this REA contribute to nursing practice aimed at promoting positive sexual health outcomes and decision-making? Evidently, implementing reproductive health programming that address behaviours imbued with hegemonic norms and western values have proven less than effective as evidenced by the current factors influencing the sexual health of some Aboriginal girls (Devries & Free, 2010). This review confirms that public health nurses in Canada must consider developing and implementing sexual health promotion programs that encourage creation of trusting relationships through dialogue (Banister & Begoray, 2006). Using a relational approach

within clinic settings with youth allows for an analysis of the interconnection of individual and social factors shaping their sexual health. This is accomplished by creating a safe environment where girls can connect with nurses and openly voice their health concerns. Effective collaboration and dialogue with Elders, mentors and nurses must establish trust, employ culturally relevant knowledge, and ensure resource availability. This 'community of practice' can encourage novices (youth) and skilled (Elders, leaders and nurses) to collaborate with their community in culturally safe and positive ways.

Nurses have a professional responsibility to maintain expertise, engagement and knowledge of the local community, and an understanding of culture and the multiple contexts shaping the lives of Aboriginal girls living in rural communities. Nurses working in health clinics are encouraged to integrate meaningful symbols of youth's cultural identity if deemed relevant by youth themselves. For example, displaying artefacts, symbols, totems and art might be one way to signify respect for how youth identify with their culture. Public Health Nurses must seek every opportunity to share, mentor, educate and collaborate with communities to learn about what protective factors foster sexual health within specific local contexts. The empowerment of Aboriginal girls through relationship support, protective factors, and culturally appropriate sexual health programming will contribute to reducing the multiple barriers to sexual health they may experience.

4.3 Evidence-Based Practice

The following recommendations are proposed from this Rapid Evidence Assessment (REA) to inform PHN practice with Aboriginal girls living in rural settings:

1. PHNs have to ensure they maintain reproductive health expertise. This includes knowledge of protective factors and supporting youth to develop capacities for optimal reproductive health. Nurses must link sexual health learning with healthy relationships, family and community connections.
2. PHNs guided by concepts of relational practice and cultural safety must draw attention to the critical complexities facing many youth today. This involves critical reflection of how youth are positioned within wider structures, acknowledging the root causes of sexual health inequities and establishing socially just and decolonizing responses to specific youth needs.
3. PHNs will educate communities and families of the protective factors of family, school and community connectedness.
4. PHNs will ensure sexual and reproductive health interventions take account of historic and colonial legacies of trauma and socioeconomic disadvantages when addressing the relationship between substance use, sexual abuse and sexual health outcomes.
5. PHNs will ensure awareness of the historic community norms surrounding childbearing, fertility, relationship patterns and condom use by speaking with local community leaders, Elders, mentors, educators and experts.
6. PHNs will create safe and trusting learning environments which normalize sexuality as a part of human development, and promote healthy relationship practices.

7. PHNs will explore Aboriginal girls' perspectives when considering optimal support and possible alternatives for sexual behaviours, which may delay sexual activity and inform programming.
8. PHNs will advocate for public health promotion initiatives that address preschool and elementary school age children and families. Collaborating within communities to promote early education and awareness as a strong and sustainable impact on sexual health assertiveness and self-efficacy.
9. PHNs should explore with community leaders and Elders health promotion initiatives that foster protective factors such as PYD programs, supportive relationships, cultural and community connectedness, and engagement in local activities and language.
10. PHNs will advocate awareness of and commitment to the protection and promotion of sexual and reproductive health rights of Aboriginal youth by health care providers, organizations, and political and community leaders across Canada.

4.4 Summary

It is clear that some Aboriginal girls living in rural communities face a potentially vulnerable and challenging sexual health reality as a result of inappropriate resources, legacies of colonization, and limited access to appropriately tailored sexual health programming. The findings of this REA confirm that an enhancement of Aboriginal youth social and community connectedness fortifies a sense of belonging and relational affinity within the community, while offering a source of resilience (Tsuruda et al., 2012; Banister & Begoray, 2011). Goals for optimal sexual and reproductive health must be determined by Aboriginal people themselves while afforded appropriate approaches and assurance of effective practitioner and policy support.

Practitioners working within Aboriginal communities must recognize the common negative discourses of 'risky behaviours' and respond proactively to the individualized sexual health needs of youth.

The nature and complexity of practice within many rural Aboriginal communities requires an expanded or advanced practice expertise. Many Aboriginal girls, directly or indirectly, are impacted by historic and ongoing colonial relations rooted in racism and poverty that result in multiple barriers to care. This REA demonstrates how Aboriginal youth require effective interventions grounded in an integrated understanding of specialized sexual health practice and culturally safe approaches to care. Practitioners hold an important responsibility to provide culturally safe care that moves beyond mere sensitivity and engages with local knowledge when planning and implementing effective care. From this analysis I argue that optimal sexual health decisions are realized when youth have the knowledge, self-esteem, and confidence to engage in positive and connected relationships. My goal is to expand nursing knowledge of the intersections of relationships, history, community, family, culture, and sexual health. Nurses' everyday practice will then approach optimal therapeutic effectiveness to redress the sexual health challenges facing many youth.

4.5 Future Research

Given the findings of this analysis, research focused on the sexual health experiences of Aboriginal girls ought to be conducted in ways that are relevant and meaningful to the diversity within Aboriginal communities. Aboriginal leaders, Elders and knowledge systems must be the centre of research, health service development, implementation and evaluation for success (Smylie, 2011). Specifically, community-based research that moves beyond observational studies to develop interventions is required to further advance sexual and reproductive health

initiatives and outcomes. Sexual health research with Aboriginal girls that illustrates experiences and complexities of sexual health outcomes that vary between on and off-reserve is also notably absent.

It is also essential that policy and health care leaders collaborate with Aboriginal leaders to move the evidence of positive sexual health promotion strategies into clinical practice. This can be actualized by nurses being supported to engage in relational practice that addresses the contextual barriers associated with socioeconomic impacts of colonial relations which continue to influence positive sexual health development. Family disruption, loss of parenting skills, loss of cultural identity, legacies of abuse and many more contextual factors create significant barriers to the sexual health of many Aboriginal youth, which cannot be ignored. Awareness and inaction are not sufficient, nor are approaches that do not account for the interconnections described within this REA. Upholding the rights of Canadian Aboriginal youth today requires significant investment into sexual health policy and planning tailored to the unique realities and experiences shaping their lives.

"...the responsibility of the nurse is not to make people well, or to prevent their getting sick, but to assist people to recognize the power that is within them." (Newman, 1994, p. xv)

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Appendix A: Rapid Evidence Assessment Thesis Option

The Rapid Evidence Assessment process is a cut-down form of systematic review and is suggested as a possible thesis option for Master's students. Conventionally, systematic reviews are needed to establish clinical and cost-effectiveness of an intervention. Increasingly, to support evidence based practice they are required to establish if an intervention or activity is actually feasible, if it is appropriate (ethically or culturally) or if it relates to evidence of experiences, values, thoughts or beliefs of clients and their relatives. However, health policy makers, clinicians and clients cannot always wait the year or so required for a full systematic review to deliver its findings, and this has led to the development of rapid evidence assessments (REAs), that can provide quick summaries of what is already known about a topic or intervention. REAs use systematic review methods to search and evaluate the literature, but the comprehensiveness of the search and other review stages are limited (Hemmingway & Brereton, 2009).

The UK Government Social Research Service (GSRS) has developed an REA toolkit that is recommended as the minimum standard for rapid evidence reviews (Hemmingway & Brereton, 2009; GRSS, 2009). This REA approach is designed to take from two to six months to complete as a rapid overview of existing research on a constrained topic and a synthesis of the evidence provided by these studies to answer the REA questions. REAs are a useful systematic literature review methodology when:

- When there is uncertainty about the effectiveness of a policy or service and there has been some previous research
- When a decision is required within months and policy makers/researchers want to make decisions based on the best available evidence within that time
- When a map of evidence in a topic area is required to determine whether there is any existing evidence and to direct future research needs.

Types of Question Suitable to explore with a REA

a. Impact questions

Reviewing methods are most developed for "What Works?" questions: for example, 'Do Teen Courts reduce rates of juvenile re-offending'? Methods for finding, coding, quality appraising and synthesizing such studies are well developed and available 'off the shelf' for you to use.

Methods for undertaking REAs are most developed for impact questions but an REA may still not be suitable for your specific impact question.

Answering impact questions through an REA relies on finding studies that have:

•investigated the population you are interested in;

•investigated the intervention that you are interested in;

•used a suitably rigorous method (i.e. they have at least used a control group); and

•measured (quantitatively) the outcomes that you are interested in.

If these types of studies do not exist in the area that you are interested in the findings from the REA are likely to be inconclusive.

The narrower the question (for example, in terms of how specific the population or intervention is defined) the more you may limit the available evidence. However, there is a trade off to be made because making your question broader is likely to take up more resources.

Non-impact questions

REA methods for answering non-impact questions are less developed than for impact questions. This is largely because systematic reviews have focused on synthesizing evidence from experimental and quasi-experimental research, and because there is a greater consensus on the hierarchy of available evidence on "what works?" (I.e. randomized controlled trials at the top and simple before and after studies at the bottom).

REAs, however, are still suited to answering a range of other questions, which can be grouped as:

•'Needs' questions

What do people want or need?

•Process questions

Why/how does it work?

•Implementation questions

What is required to make it work?

•Correlation questions

What relationships are seen between phenomena?

•Attitude questions

What do people think? What are their experiences?

•Economic questions

How much does it cost and with what benefit/harm?

Methods

The REA approach involves the following stages:

1. Setting out the conceptual framework(s) used. E.g. you might chose to apply an equity lens informed by critical theoretical perspectives as you move forward with developing the REA.
2. Formulating the REA questions. The research question is posed as an impact or non-impact question, and can also be written in the familiar PICO format.
3. Assessment of the quality and relevance of studies
   In deriving inclusion and exclusion criteria, there are three main dimensions to be considered in the appraisal of quality and relevance of studies (Gough 2007). These are:
   - The methodological quality of the study being considered;
   - The relevance of that research design for answering the REA question; and
   - The relevance of the study focus for answering the REA question.

   Criteria will be devised to weigh studies according to their quality and relevance (e.g. use of established and well-standardized pain assessment tools)
4. Search Strategy
   A systematic purposive search strategy is devised to include a comprehensive range of search terms. Sources searched should include English international electronic bibliographic databases in medical, nursing and allied health and computer science domains (Academic Search Complete; including PubMed, Medline, CINAHL, BioMed Central, Cochrane, EBM reviews, EBMbase,Web of Science, PsychINFO; IEEEXPlore). Other sources that will be searched for coverage of some grey-literature include the World Wide Web (google and Google Scholar, Yahoo, Bing, and Meta Search Engines such as iBoogie, Infogrid, infonetware, Ithaki, ixQuiak, Metacrawler, and Answers.com). The actual detailed methods of this strategy should be written up in the final thesis so that others can see how the search was undertaken.

   The time pressures of REAs mean that the searching process needs to be carried out quickly, and limitations will include:

   - Limit the searching of grey literature
   - English language only
   - Only studies available in electronic format
   - Only studies completed in the last 10 years
5. Final data Collection and storage should be performed using the Refworks https://refworks.scholarsportal.info/refworks2/?r=authentication::init&groupcode=ubclibref bibliographic management software application to create an electronic REA database (or equivalent electronic bibliographic software).
6. Once studies have been identified, the next stage is to screen them to check that they meet the inclusion criteria identified in stage 3. This involves reviewing abstracts and would normally be performed by two independent reviewers, as is common practice in systematic reviews. However, as this is a student thesis project the student may undertake a single person review.

7. Once selection from abstracts has been performed (and for those studies without abstracts using title) a full-text analysis is performed by the student and the key information from each study extracted and coded into a data extraction matrix (in an Excel spreadsheet for example). This is created from the research questions and inclusion/exclusion limitations. (See the following for an example http://resources.civilservice.gov.uk/wp-content/uploads/2011/09/data_extraction_form_economic_tcm6-7399.doc
8. Before conclusions can be drawn from the studies that have been selected for inclusion in the REA, they need to be critically appraised to ensure that they are both relevant and that their findings are reliable (Popay et al, 2006). There are three main dimensions considered as "weight of evidence" in quality and relevance appraisal of studies used in this method (Gough 2007). These are:
    A. The methodological quality of the study being considered,
    B. The relevance of that research design for answering the REA question, and
    C. The relevance of the study focus for answering the REA question

    The research question will have incorporated these three dimensions as part of the inclusion criteria and so only studies of the specified relevance should have been included. A final determination of the exact final appraisal tools to be used should be made after the initial results of the data gathering have been undertaken, and the number and nature of the published work established.

    a) For all studies each study will be weighted according to the GRSS REA weight of evidence tool that identifies dimensions A, B and C, and in conjunction with each other these judgments will be combined into a dimension D that signifies the overall WOE judgment (See Appendix A).
    b) In appraising impact studies The Maryland scale to establish methodological quality (Sherman et al, 1997) may be utilized to aid in establishing quality and rigor (See Appendix B)
    c) For non-impact questions and qualitative research studies the Critical Appraisal Skills Program (or other well established) Qualitative Appraisal Tool may be utilized See: http://resources.civilservice.gov.uk/wp-content/uploads/2011/09/Qualitative-Appraisal-Tool_tcm6-7385.pdf These questions can also be scored to provide a quantitative research quality indicator.
9. Only those studies that remain in the REA after the critical appraisal stage will form a critically appraised map of evidence. The findings of lower quality studies will be either excluded, or will be given less weight in the final synthesis of evidence which is written up in the thesis.
10. The final thesis write up should include a comprehensive overview of the RAE process including an introduction establishing the rationale for inquiry, and research question, background, methods, results synthesis/discussion, and conclusion, referenced appropriately throughout.

5. Ethical considerations

As there are no human subjects directly involved and only secondary data will be involved from previously published studies an independent ethical review is not required. For

security all research data should be kept in a secure locked cabinet within the researcher's office or stored on secure password protected computer network drives.

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Appendix B

Table 1 Rapid Evidence Assessment Studies

Authors, Year, Country, Title and Brief Description
1. **Banister, E. M. & Begoray, D. L. (2006). Canada.** Adolescent girls' sexual health education in an Indigenous context. This is a community-based mentorship research study focused on understanding girls' sexual health concerns and best practices for addressing them. The research suggests health practitioners consider developing and implementing adolescent sexual health promotion programs that encourage dialogue among girls.
2. **Banister, E. M. & Begoray, D. L. (2006). Canada.** A community of practice approach for Aboriginal girls' sexual health education. This study presents an overview of recent research addressing intervention programs for Aboriginal girls that are often delivered in culturally inappropriate ways. Findings illustrate how successful mentorship programs use a community of practice approach that empowers youth.
3. **Cole, M. (2003). Canada.** Youth sexual health in Nunavut: A needs-based survey of knowledge, attitudes and behaviour. A participatory research study driven by the need for culturally specific data on sexual health beliefs and behaviours to implement appropriate public health interventions. Findings suggest a culturally acceptable, structured and creative sex education curriculum is necessary for this population.

4. **Devries, K. & Free, C. (2010). Canada.** I told him not to use condoms: Masculinities, femininities and sexual health of aboriginal Canadian young people.

   This qualitative research involved in-depth interviews with Aboriginal people in Vancouver's downtown East Side and two rural reserves on Vancouver Island. The purpose was to help develop improved sex education programmes based on individual experiences. The results found gendered hegemonic behavioural norms, in particular with young women actively negotiating condom use, and young men experiencing coercion. Caution is insisted with adapting interventions appropriately.

5. **Devries, K. & Free, C. (2011a). Canada.** Boyfriends and booty calls: Sexual partnership patterns among Canadian Aboriginal young people.

   This study provides in-depth individual interviews that explored sexual-partnership patterns, forced sex and condom non-use. The findings suggest interventions must address both individual level behaviour and the contextual elements that shape behaviour.

6. **Devries, K. & Free, C. (2011b). Canada.** It's not something you have to be scared about: Attitudes towards pregnancy and fertility among Canadian Aboriginal young people.

   This qualitative study on sexual health and condom use among Aboriginal young people in BC explores views on pregnancy, fertility and how these relate to STI vulnerability. Findings offer some positive norms, stigma, ambivalence and acceptance surrounding fertility and pregnancy.

7. **Devries, K., Free, C., Morison, L. & Saewyc, E. (2009a). Canada.** Factors associated with the sexual behaviour of Canadian Aboriginal young people and their implications for health promotion.

   These research studies consists of a secondary analysis of the 2003 British Columbia

Adolescent Health Survey to examine factors associated with having ever had sex, having more than one partner, and condom non-use at last incident of sexual intercourse among Canadian Aboriginal people. Findings recommend interventions that incorporate interpersonal and structural dimensions that promote feelings of family connectedness.

8. **Devries, K., Free, C., Morison, L. & Saewyc, E. (2009b). Canada.** Factors associated with pregnancy and STI among Aboriginal students in British Columbia.

   This research study consists of a secondary analysis of the 2003 British Columbia Adolescent Health Survey to examine factors associated Aboriginal adolescents becoming pregnant and contracting STI's. The results insist promotion of school, family and community sexual risk reduction programming should address history of sexual abuse and substance use.

9. **Devries, K. & Free, C. & Jategaonker, N. (2007). Canada.** Factors related to condom use among Aboriginal people: A systematic review.

   This systematic review was purposed to identify the factors associated with condom use among Aboriginal people. The review found limited evidence regarding the predictors of condom use in Aboriginal populations. Further research is necessary to explore factors that decrease risk of adverse sexual health outcomes.

10. **Frappier, J., Kaufman, M., Baltzer, F. Elliot, A., Lane, M., Pinzon, J. & McDuff, P. (2008). Canada.** Sex and sexual health: A survey of Canadian youth and mothers.

    This quantitative survey analysis sought to determine mainstream adolescents current knowledge level and sources of sexual information to identify youth needs, perceptions and roles of parents in sexual health education. The findings revealed most teens report barriers to information and lack knowledge on STI's. The survey suggests parents should become more comfortable talking to their teens about sexuality.

11. **Garwick, A., Rhodes, K., Peterson-Hickey, M. & Hellerstedt, W. (2008). United States.** Native teen voices: Adolescent pregnancy prevention recommendations.

    This community-based participatory action research study explores 20 focus groups with Native youth who had ever been involved in pregnancy to study what youth would describe as effective pregnancy prevention programs. The study suggested enhanced school-based resources, involving knowledgeable Native peers and Elders in school and community based adolescent pregnancy prevention programs.

12. **Gavin, L., Catalano, R., David-Ferdon, C., Gloppen, K. & Markham, C. (2010). United States.** A review of positive youth development programs that promote adolescent sexual health and reproductive health.

    This systematic review identified 15 programs which demonstrated improvements in at least one sexual and reproductive health outcome. The review found that effective programs are provided within a supportive atmosphere, build skills, enhance bonding and strengthen family while empowering youth to communicate expectations.

13. **Hampton, M. McKay-McNabb, K., Jeffery, B. & McWatters, B. (2007). Canada.** Building research partnerships to strengthen sexual health of Aboriginal youth in Canada.

    This community action research included Aboriginal youth, community workers and Elders to develop theory and interventions that would to improve sexual health of Aboriginal youth in an urban Canadian Center. The study finds Aboriginal youth in Canada requires relevant, culturally appropriate and improved sexual health services. The results generated a model of culturally competent sexual health care intended to guide service delivery.

14. **Kelly, J. & Luxford, Y. (2007). Australia.** Yaitya Tirka Madlanna Warratinna: Exploring what sexual health nurses need to know and do in order to meet the sexual health needs of

young Aboriginal women in Adelaide.

This participatory action research sought to identify a clear model of cultural care to guide health service delivery. Three important themes emerged affirming the necessity to reconcile cultural differences at personal, professional and organizational levels.

15. **Larkin, J., Flicker, S., Koleszar-Green, R., Mintz, S., Dagnino, M. & Mitchell, C. (2007). Canada.** HIV risk, systemic inequities and Aboriginal youth: Widening the circle for HIV prevention programming.

    This qualitative analysis utilized a modified grounded theory approach to understanding the ways Aboriginal youth understand AIDS and HIV risk for the relevance of prevention programming in Aboriginal communities. The study finds Aboriginal youth more aware of HIV/AIDS and the structural inequities that contribute to risk than their non-Aboriginal counterparts.

16. **Lys, C. & Reading, C. (2012). Canada.** Coming of age: How young people in the Northwest Territories understand the barriers and facilitators to positive, empowered, and safer sexual health.

    This is a qualitative semi-structured interviews aimed at identifying the self-perceived barriers and facilitators to positive, empowered and safer sexual health. The findings recommend that improvements are necessary to the content and delivery of sexual health education, enhancing parent-adolescent sexual health communication, empowering assertiveness workshops and supportive environments that normalize youth sexuality.

17. **Markham, C., Lormond, D., Gloppen, K., Peskin, M., Flores, B., Low, B. & House, L. (2010). United States.** Connectedness as a predictor of sexual health and reproductive health outcomes for youth.

This systematic review examines the influence of connectedness on adolescent sexual and reproductive health (ASRH). The findings found a sufficient evidence to support a protective association between ASRH outcomes and six connectedness sub-constructs. They found only one measure of parental monitoring indicated risk association with 'parental over control'.

18. **Masaro, C., Johnson, J., Chabot, C. & Shoveller, J. (2012). Canada.** STI service delivery in British Columbia, Canada; Providers' views of their services to youth.

    This qualitative study used individual semi-structured in-depth interviews with 21 service providers in youth clinics, STI clinics, reproductive health clinics, and community public health units in BC. The purpose was to explore perceptions of STI care providers and ways they approached their practice. Findings from this study insist on several deficits in the delivery of STI services in BC.

19. **Majumdar, B., Chambers, T. & Roberts, J. (2009). Canada.** Community-based, culturally sensitive HIV/AIDS education for Aboriginal adolescents: Implications for nursing practice.

    This qualitative participatory research method sought to foster communication and the creation of a support group between participants to then train local facilitators of HIV/AIDS educational programs. Implications for practice are presented.

20. **Mohajer, N., Bessarab, D. & Earnest, J. (2009). Australia.** There should be more help out here! A qualitative study of the needs of aboriginal adolescents in rural Australia.

    This qualitative study used a cross-cultural exploratory inquiry of empowerment programs Aboriginal adolescents in Australia and India. The results demonstrate rural adolescents have distinct social, cultural and educational challenges that should be addressed through culturally and contextually relevant health promotion programs.

21. **Ricci, C., Flicker, S., Jalon, O., Jackson, R. & Smillie-Adjarkwa, C. (2009). Canada.** HIV prevention with Aboriginal youth: A global scoping review.

This mixed methods review evaluates 'wise' practices in HIV prevention with Indigenous youth. The results include ten important implications for clinical practice with youth.

22. **Shercliffe, R., Hampton, M., McKay, K., Jeffery, B., Beattie, P. & McWatters, B. (2007). Canada.** Cognitive and demographic factors that predict self-efficacy to use condoms in vulnerable and marginalized Aboriginal youth.

This is a community action research on self-efficacy to use condoms in Aboriginal youth. Findings suggest individuals who have had sex at later age and self report a measure of assertive communication claimed higher levels of self-efficacy to use condoms. The study suggests how these results can be incorporated into sexual health programs.

23. **Tsuruda, S., Hoogeveen, C., Smith, A., Poon. C., Saewyc, E. & McCreary Centre Society (2012). Canada.** *Raven's Children 111: Aboriginal youth health in BC.*

A participatory research report utilizing data from the 2008 BC Adolescent Health Survey in addition to Aboriginal youth and adults in communities across the province. The aim of this report is to present an accurate picture of Aboriginal health and how some areas of youth health require improvement.

24. **Worthington, C., Jackson, R., Mill, J., Prentice, T., Myers, T. & Sommerfeldt, S. (2010). Canada.** HIV testing experiences of Aboriginal youth in Canada: service implications.

This exploratory mixed-methods community-based research objective was to explore HIV testing and service views of Canadian Aboriginal youth in order to provide information for HIV testing services. Results indicate improved services provided though improved emotional support, compassion, professional yet personable services, and personalized HIV

information. Further suggestions for practice are discussed.

Appendix C: Table 2 Critical Appraisal of Studies

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
1. Banister & Begoray (2006)a Canada	Qualitative Ethnographic Community-based mentorship	Understanding girls sexual health concerns and best practice health education within indigenous context	Phase one: 4 consecutive focus groups to obtain ethnographic data on their health concerns in their relationships Phase two: 16 weeks in group sessions of a mentoring group	Four school sites	Female Aboriginal adolescent, ages 15-16	Total (n=40) aged 15-16 Female Aboriginal youth	Self-reported health concerns in their dating relationships , group interviews including participants, mentors, site gatekeepers (principals, clinic nurse) and Elder associated with the Aboriginal girls' group	Focus groups promoted dialogue that addressed what was important to the girls. raised awareness , increased health literacy and provided practical skill building opportunities to improve sexual health behaviours	Promote dialogue that is important to the individual girls, mentoring program raises awareness and provides skill-building opportunit-ies. Aboriginal adolescent must be supported to address their own sexual health issues	WOE: High - 9	CASP: High - 10
2. Banister & Begoray (2006)b Canada	Qualitative Ethnographic Community-based mentorship	Illustrate how a mentorship program empowers Aboriginal youth to become successful	Phase one: 4 consecutive focus groups to obtain ethnographic data on their health concerns in their relationships Phase two: 16 weeks in group	Four Canadian school sites	Female Aboriginal adolescent, ages 15-16	Total (n=71) Iqaluit high school aged 15-16; and (n=31) Iqaluit college student group Female Aboriginal youth	Self-reported health concerns in their dating relation-ships, group interviews including participants,	Promoted dialogue that addressed what was important to the girls. raised awareness , increased	Consider implement-ing adolescent sexual health programs that encourage	WOE: High - 9	CASP: High - 10

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
		border crossers and helped align with the wider community	sessions of a mentoring group				mentors, site gatekeepers (principals, clinic nurse) and Elder associated with the Aboriginal girls' group	health literacy and provided practical skill building opportunitie s to improve sexual health behaviours	dialogue among clients. Involve local knowledge & delivery of the sexual health message to be effective. Consider multiple contexts which include spaces that are comfort-able, youth friendly, with symbols, artefacts and personnel representing the Aboriginal community		
3. Cole (2003) Canada	Quantitative Participatory Approach using a sexual health survey	To address the need for culturally specific data on the beliefs and	Nunavut Youth Sexual Health Survey: four page voluntary survey administered by teachers	Three schools on Baffin Island, Canada	High School students in Iqaluit, Inuit and non-Inuit, age 15-20 years	Total (n=31) Nunavut Inuit and non-Inuit, youth age 15-20 years	Part one: Survey with 36 True, False, or Don't Know pertaining to	The results indicated high self-reports of risky behaviours	Structure creative and culturally acceptable sex education	WOE: Med - 7	MSMS: Med - 3

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
		behaviours of sexual health to implement appropriate public health interven- tions			in communitie s where education council approved the survey		sexual health Part two: Questions about sexual behaviours and sex education	such as sex without condoms. Sex education was scored inadequate; findings suggest trends for this area and cannot be generalized. A draft of a sexual health local resource booklet	curriculum needs to be developed and supported widely – these implications do not seem to flow from the outcomes /findings		
4. Devries & Free (2010) Canada	Qualitative Narrative Analysis using in-depth interviews	Examine reasons for condom use, non-use and STI risk behaviour among Canadian Aboriginal young people	Individual interviews 30-90min in length 'to hear what they had to say and what their experiences were to help make better sex education programs'	One rural site (Two reserves in small neighbour -ing communit ies on Vancouve r Island) and one urban Canadian site (Vancou- ver's Downtow n East	Male and Female self-identified as Aboriginal ages 15-19	Total (n=15) male and (n=15) female Aboriginal youth	Participant characteristi cs, beliefs about masculinity and femininity, power, gendered sexual behaviour, and coercion	Both alternative and hegemonic sexual identities were identified. Specifically, young women could actively negotiate for condom use and young men experienced	Teaching condom use negotiation and sexual refusal skills is effective. The use of hegemonic heterosex- ual behaviour- assumptions of generaliza- bility may not be valid within the	WOE: High - 9	CASP: High - 9

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
				Side)				coercion	with Aboriginal youth with coercion and condom use		
5. Devries & Free (2011)a Canada	Qualitative Narrative Analysis using in-depth interviews	Explore Aboriginal young people's view on pregnancy, fertility, and how these relate to STI vulnerabi-lity	Individual interviews seeking young people's views on sexual health and condom use to make better sex education programs	One rural site (two reserves in small neighbour-ing communit-ies on Vancou-ver Island) and one urban Canadian site (Vancou-ver's Down-town East Side)	Male and Female self-identified as Aboriginal ages 15-19	Total (n=15) male and (n=15) female Aboriginal youth	Community norms around pregnancy, young people's desire for pregnancy & views on contraceptiv e use	Some stigma remains around pregnancy during adolescence, though acceptance and some positive norms surrounding pregnancy and fertility. Most like to delay pregnancy until they are ready. Serious relationship ambivalence towards pregnancy creates a situation where unprotected sex is likely to occur, increasing	Intervent-ions to change individual behaviours must address reasons to delay pregnancy and or provide improved support to young people who are expecting children. Condom use intervent-ions will not be adopted if attitudes towards pregnancy and childbearing are favourable	WOE: High - 9	CASP: High - 9

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								STI risk			
6. Devries & Free (2011)b Canada	Qualitative Narrative Analysis using in-depth interviews	Explore sexual relationships and condom use patterns among Canadian Aboriginal young people, and how these patterns relate to the socio-structural context	Individual interviews seeking young people's views on sexual health and condom use to make better sex education programs	One rural site (two reserves in small neighbouring communities on Vancouver Island) and one urban Canadian site (Vancouver's Downtown East Side)	Male and Female self-identified as Aboriginal ages 15-19	Total (N=22) Aboriginal youth, both male and female	Relationships patterns: serious, one-night stands, on-off, concurrency, and forced or coercion partnerships	On-off relationship patterns exist among Aboriginal youth. These partnerships can be considered serious thus acceptable contexts for pregnancy; can have low condom use and high rates of partner turnover. Sexual coercion and forced sex was evident, although young men's accounts are often not described	Intervent-ions that focus on partnership patterns could be key to reducing STI rates. Sexual health intervent-ions must focus on structural elements that shape the develop-ment of sexual behaviour such as migration and community violence and coercion	WOE: High - 9	CASP: High - 9
7. Devries, Free, Morison &	Quantitative Secondary analysis using the 2003 data from a large	To determine the key predictors of self-	BC Adolescence Health Survey 2003	BC Adolescence Health Survey	59 school districts were invited to participate,	Total (n=445) young women and 360 young men who self-identified as	Self-reported as Aboriginal, reported ever having	10.6% of females reported ever being pregnant,	Fostering connections to school, family and community	WOE: High - 9	MSMS: High - 5

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
Saewyc (2009)a Canada	cross-sectional survey of BC secondary students	reported pregnancy involvement and STI diagnosis in a large Aboriginal sample		2003	45 agrees, stratified random sample of male and female students from grade 7-12 from all types of schools (included on and off reserves)	Aboriginal and reported ever having sex	sex. Associations between self-reported pregnancy and STI and 11 variables were examined using logistic regression	4.2% reported ever being diagnosed with an STI. 10% of males reported ever being sexually abused. Sexual abuse and substance use are prevalent and strongly associated with self-reported pregnancy and STI diagnosis	may be promising intervention s, Programmin g must address history of sexual abuse and substance abuse to assist in sexual risk reduction. Likely individualist approaches are ineffectual. Sexual health intervention s must operate at a broader social level rather than the treatment & support for individuals		
8. Devries, Free, Morison	Quantitative Secondary analysis using the 2003 data	Examine factors that were the strongest	BC Adolescence Health Survey 2003	BC secondary schools	59 school districts were invited to	Total (n=445) young women and 360 young men who self-	Self-reported ever having had sex, having had	34% of males, 35% female reported	Address substance use and sexual	WOE: High - 9	MSMS: High - 5

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
& Saewyc (2009)b Canada	from a large cross-sectional survey of BC secondary students	predictors of sexual behaviour in Canadian Aboriginal youth.			participate, 45 agrees, stratified random sample of male and female students from grade 7-12 from all types of schools (on and off reserves)	identified as Aboriginal and reported ever having sex	with more than 1 sexual partner, and not having used a condom at last incident of sexual intercourse among	ever having sex of these 63% male & 56% female had had more than one sexual partner, and 21 % male & 41% females had not used a condom at their last incident. Frequent substance abuse, sexually abused and have lived on a land reserve were associated with sexual behaviours outcomes	abuse & gear to youth on reserve. Elements must promote feelings of family connectedness. Individual and social - level interventions are needed to produce behaviour change for Aboriginal youth		
9. Devries, Free & Jategaonkar (2007) Canada	Systematic Review of published and un-published literature	Review evidence on factors predictors of condom use among Aboriginal people & the	Two independent reviewers extracted searched 10 databases and indexes for articles published in the peer-reviewed literature, grey literature reports	Canadian and American studies were included	Studies reporting bivariate or multivariate correlations between any independent variable and male	Total (n=17) analyzes on 10 independent Samples that met the inclusion criteria	Strength of the evidence for associations between the variables of interest and condom use was assessed	The quality and quantity of evidence predictors of condom use in Aboriginal populations are	Contextual factors as determinants of condom use must be incorporated into decreasing risk of	WOE: High - 8	MSMS: High - 5 CASP: High- 9

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
		methodological quality of studies assessing these factors	and unpublished findings using condom & Aboriginal		condom use among Aboriginal people residing in Canada and the US were included. Aboriginal peoples included all person who considered themselves indigenous, First Nations, non-status Indians, Métis, Inuit and American Indians		using the criteria from Ramirez et al. Evidence was designated strong, moderate and insufficient	extremely limited. Tentative evidence emerged for a negative association between condom use and having a steady partner. Most studies included were conducted with under-representation, underpowered, and were cross-sectional. Generally poor quality and small samples with no firm conclusions regarding the correlates of condom use	sexual health outcomes. Concerted effort to primary research in needed to inform effective condom promotion interventions		
10.Frappier, Kaufman,	Quantitative survey analysis	Determine mainstream Canadian	25min on-line survey	Canadian On-line survey	Canadian youth age 14-17yrs &	Total (n=1171) of youth age 14-17yrs, &	Survey of sexual practices and	Most teen are responsible	Delivery of accurate, relevant and	WOE: High - 7	MSMS: Medium - 3

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
Baltzer, Elliot, Lane, Pinzon, & McDuff (2008) Canada		adolescents' current knowledge and sources of sexual health information, to identify their needs, and to understand the perceptions and the role of parents in sexual health education			Canadian mothers of Youth age 14-17yrs	(n=1139) mothers of teenagers aged 14-17yrs Random sample	perceptions, information sources, gaps and barriers, roles of parents & consulting a professional	when it comes to sexuality. Youth report barriers to information and lack of knowledge re: STIs. Parents should feel more comfortable discussing sexuality, especially the more value laden issues. Parents misconceived their teens friends as role models for sexuality, when in reality youth looked at their parents far ahead of peers & celebrities. Despite reporting good relationships	meaningful information is required from health practition-ers, parents and educators. Support for sexual health information to parents is vital to supporting youth as youth look to their parents for information		

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								with their mothers, 38% had not discussed sexuality with them. 94% of youth trusted information & believed it was their role from health practitioners			
11. Garwick, Rhodes, Peterson-Hickey & Hellerstedt (2008) US	Qualitative Participatory Action Research	To identify pregnancy prevention strategies from the perspectives of both male and female urban Native youth to inform program development	Four cohorts of twenty focus groups held with youth who had never been involved in pregnancy	Minneapolis & St. Paul Minnesota, US.	Native youth who had never been involved in a pregnancy, male and female ages 13-18yrs	Total (n=148) Native male and 49% female youth ages 13-18yrs (n=4) adults and (n=3) youth American Indian Community consultants from varying tribes	Participants were asked what they would do to prevent adolescent pregnancy if they were in charge of Native youth.	Youth reported limited access to comprehensive pregnancy prevention education, contraceptive and community-based programs. They suggested enhanced school-based resources, involving	Valuing youth's desires, needs and perceptions is vital to addressing sexual health concerns. Involvement of trusted knowledgeable Native family and community leaders in discussions is not only important	WOE: High - 8	CASP: High - 8

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								knowledgeable Native peers and elders in school and community-based pregnancy prevention initiatives.	but effective. Incorporate "Talking Circles" into intervention develop-ment. Multi component pregnancy prevention programs using consistent multimodal messaging is desired		
12. Gavin, Catalano, David-Ferdon, Gloppen & Markham (2010) US	Systematic Review	Identify and describe Positive Youth Development (PYD) programs that improve adolescent sexual and reproduc-tive health	Eight databases were searched	United States	Fostered at least one of 12 PYD goals in multiple socialization domains or addressed two or more goals in PYD outcomes, included youth less than 20yrs of age, & used experimental or quasi-	Total (n=30) PYD programs	PYD outcomes as compared with focus on more proximal antecedents to sexual behaviour, such as knowledge of HIV/AIDS or outcome expectations of getting pregnant as an adolescent,	PYD programs can promote adolescent sexual and reproductive health, and tested effective PYD programs should become part of a comprehen-sive approach to promoting adolescent	Utilization of any PYD intervention must maintain goals of family and school strengthening, provide meaningful opportuni-ties and experiences and be delivered in a positive atmosphere	WOE: High - 8	MSMS: Medium - 4 CASP: High- 9

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
					experimental evaluation design		and all inclusion criteria	health			
13. Hampton, McKay-McNabb, Jeffery & McWat-ters (2007) Canada	Mixed methods Community Action Research	To gain better understanding sexual health knowledge, behaviours, health service utilization, and service needs of Aboriginal youth	10/12 sexual health youth survey and Elder and youth focus group guided by an Elder and 11 Aboriginal community-based organizations	11 Saskatchewan Canadian Aborigina l-al community organizations	Research on 'Adolescent', 'Teen', 'HIV' or 'AIDS' or 'Sexually Transmitted Disease or Infection' or 'Sexual Health' 'Aboriginal' 'Native', 'First Nations', 'Indian' and 'Indigenous'. English published in articles. All papers regardless of year	Total (n=38) studies were included cross-sectional (n=16), mixed methods (n=7), longitudinal (n=5), and interventions descriptions and evaluations (n=10)	HIV prevention with indigenous youth	Themes found: reaching youth at a younger age, adopting peer education approaches, leveraging partnerships, addressing colonial impacts of HIV prevention efforts, attending diversity, addressing stigma, current emotional practices, adopting a harm reduction approach, identifying HIV as a potential point of prevention	Interventions must address the socioeconomic and systemic factors that put youth at risk. Program-ming must partner with youth to confronting the HIV/AIDS epidemic. Art-based approaches can engage and mobilize youth to creatively disseminate HIV information. Decolonizing approaches are imperative. Make	WOE: High - 7	MSMS: Medium - 3 CASP: Medium - 6

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								and Arts-based approach Very few studies address HIV prevention with Aboriginal youth	programming culturally relevant to Aboriginal youth. Illuminate HIV/AIDS can happen to anyone, and provide life skills such as conflict resolution, self- respect are effective in reducing risky behaviour. Dispel myths, clarify and break silence and shame related to HIV stigma. Educate younger age		
14. Kelly & Luxford (2007) Australia	Qualitative Participatory action research	Explore what sexual health nurses need to know in order to work more	Consultation with Elder women, Reference Group guided the selection of 3 Focus group interviews using the same trigger	South Australia: Urban Adelaide	Aboriginal Elders, health workers and young urban women and Aboriginal	Total (n=6), Elder Aboriginal women and Aboriginal health workers total (n=16) Young Aboriginal	Sexual health trigger questions and discussions within focus	Findings support positive outcomes when nurses establish relationships	Interventions must incorporate trustworthy partnership relation-ships	WOE: High - 8	CASP: High - 8

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
		effectively with young urban Aboriginal women	questions		workers supporting them, sexual health nurses who provide services to young Aboriginal women in Urban Adelaide	women & Aboriginal workers total (n=4) sexual health nurses	groups regarding working relationships and partnerships, recognition of urban Aboriginal culture and its importance, and gender consideratio ns	prior to commencing their clinic and community work. Nurses must be skilled in both cultural care and are clinical sexual health	between Aboriginal youth, elders and providers. Health promotion must recognize Aboriginal culture exists and cultural reconnectio n. Reflective and cultural care to shape sexual health practice should be implement-ed. Nurses must reflect on self in relation to Aboriginal culture. Consult with Aboriginal women to incorporate culturally specific		

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
									gender needs into all services.		
15. Larkin, Flicker, Koleszar-Green, Mintz, Dagnino & Mitchell (2007) Canada	Qualitative grounded theory interpretive approach	To understand ways Aboriginal youth in Toronto understand HIV/AIDS risk and the relevance for HIV prevention education	Gendering Adolescent AIDS Prevention (GAAP) Project : Focus groups	Toronto, Ontario	11 GAAP focus groups with Ontario youth, 4 from Toronto High schools, 1 with youth of colour, 3 with Caucasian youth in Southern Ontario and 4 Aboriginal who are used in this study	Total (n=48) Aboriginal youth (ages 14-29; average age 20). 62% male 38% female	Aboriginal youth perception and vulnerability of HIV risk, education, awareness	Some youth reported poverty, colonialism and other structural factors of risk, and hold their own community responsibly for high rates. Self-blame , substance abuse, sexual abuse, residential schooling and marginalization were identified as increasing HIV vulnerability	Incorporate history into awareness programs may help disrupt racist stereotypes associated with HIV/AIDS. Working and understand-ing unique situations of youth directly may halt the spread of the epidemic more effectively than the negative portrayals of Aboriginal people in mainstream society. Examina-tion of	WOE: High - 7	CASP: High - 7

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
									colonialism should be incorporat-ed in prevention programs for both Aboriginal and non-Aboriginal youth		
16. Lys & Reading (2012) Canada	Qualitative Approach and reflected a third-wave feminist perspective	Identify the self-perceived barriers and facilitators to positive, empowered, and safer sexual health that impact youth in the NWT	Semi-structured, face to face interviews 1-2hrs	Yellow-knife, North-west Territor-ies (NWT)	Participants had to have lived in the NWT for two years and mostly or always had relationships with males, all attend high school (Does not distinguish ethnicity)	Total (n=12) Females age 15-19	Factors which impede or facilitate the ability for young women in the NWT to either achieve or maintain sexual health	Several themes emerged including: missing sexual health information, (mis)-information, and desired unbiased knowledge about sexual health and sexuality. Relationships with the self and others and gender role expectations. Necessary adequate and	Interven-tions must explore parent-child communication patterns around sexual health and sexuality, role of alcohol and drug mis/use in sexual decision making, risk taking and assaults, comfort level of educator particularly with male instructors Programs	WOE: Medium-6	CASP: Medium - 6

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								accessible sexual health resources, media & education. The role of alcohol influences sexual health outcomes.	must reflect the reality of young people, addressing feelings of arousal, foreplay, decision-making, concepts of themselves as sexual beings, risk assessment, gay & lesbian sexualities, access to supports & resources		
17. Mark-ham, Lormand, Gloppen, Peskin, Flores, Low & House (2010) US	Systematic Review	To examine the influence of connected-ness on adolescent sexual and reproduc-tive health (ASRH)	Search of nine databases	North, Central, or South America, Europe, Australia, or New Zealand	Review of non-interven-tion, behavioural research published between 1985 & 2007, examine association between ASRH & connected-ness,	Total (n=190) articles met the inclusion criteria. Participant ages within the review included less than or equal to 20years of age	ASRH outcomes assessed: as ever having sex, frequency of having sex, recent/current sexual activity, early sexual debut, pregnancy/birth, contracep-tive use,	Review found sufficient evidence to support a protective association between ASRH outcomes and six connectedness sub constructs: family connectedne	Connected-ness as a protective factor can be fostered within interven-tions or program-ming to support responsible ASRH outcomes. Positive youth	WOE: High - 8	MSMS: High- 5 CASP: High- 8

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
					include general population or youth at risk, published in peer reviewed research journal, adequate study design of at least 100for significant results and 200 for no significant, use of multivariate analyses		condom use, number of sexual partners, sexual risk index, contraction of an STI, and sexual intentions	ss, parent-adolescent sexual communication, parental monitoring, partner connected-ness (for females), and school connected-ness. Only one measure of parental monitoring indicated evidence of a risk association-parental over control.	develop-ment programs that provide supportive relation-ships with pro-social adults, a sense of belonging, and appropriate structure may have a positive effect of youth sexual health outcomes. Integration of family, school and community efforts in positive youth develop-ment programs may provide enhanced outcomes		
18.	Qualitative	Explore the	Semi-structured	British	Worked	Total (n=21), 18	Descriptions	Specializa-	Necessity	WOE:	MSMS:

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
Masaro, Johnson, Chabot & Shoveller (2012) Canada	individual-in-depth interview ethnographic approach	perception of STI care providers and the ways they approached their practice	interviews including questions about their experiences in providing STI services to youth as well as the policies and practice guidelines that informed their work with youth	Colum-bia, Canada	with youth in BC in clinics that offered education, counselling, and full range of STI testing, others than	women & 3 men ages 23-65 years including 5 physicians, 14 nurses, 1 youth worker, and 1 admin- assistant 13 worked in (Vancouver area) urban settings, 3 worked in mid-sized settings, & 5 worked in small rural settings	of their activities and roles in their clinics shaped by three themes including specializa-tion, scarcity, and maintaining the status quo	tion theme emphasized spending more time with clients, and the need to develop specialized body of knowledge, Scarcity is described as a lack of appropriate resources to provide effective care, & lack of clarity of non-physician roles illicit fragmented and limited coordina-tion , worn down by these barriers practitioners accept the status quo, disengaging from engaging in changes and reported	for adequate training, resources, and leadership support will offer best intervention potential	High- 9	High- 5 CASP: High- 8

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								'lack of power'			
19. Majum-dar, Cham-bers, & Roberts (2004) Canada	Mixed methods participatory approach	To assist an Aboriginal population to select a member from the community to be a trained as facilitator of educational programs on HIV/AIDS. To increase knowledge of HIV/AIDS to a community of youth. To foster positive attitudes and open-mindedness toward HIV/AIDS as a condition	12 hour training for facilitator of educational HIV/AIDS then Pre-and post-test comparison of results from HIV/AIDS knowledge questionnaire	First Nations commu-nity in Ontario, Canada	Aboriginal adolescents for volunteer workshop participants ages 15-19. The First Nations Health Committee selected the 5 suitable facilitators	Total (n=24) Aboriginal adolescents, 63% were 15 yrs of age, 79% were female (n=5) Aboriginal facilitators	Knowledge of HIV/AIDS program post education training, attitudes towards HIV/AIDS and selection of facilitators	Statistically significant increase in the level of knowledge about HIV/AIDS. Increase in self-confidence & enhanced level of self-esteem. A change in attitude throughout the group was demonstrate d. Results also showed participants were sexually active and did not practice safe sex.	Peer-based prevention efforts using the train-the-trainer technique Directly involving key Aboriginal members of society and tribally relevant forms of delivery of the message is essential. Need for culturally specific intervention programs for HIV prevention. Need to address high risk behaviours which are related to more complex emotional	WOE: High- 9	CASP: High- 8

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
									issues.		
20. Mohajer, Bessarab, & Earnest (2009) Australia	Qualitative Cross-cultural exploratory	To inform the design of a health program for Aboriginal adolescents living in rural towns in Australia	In-depth interviews (IDI)and focus group discussions (FGD)	Rural Australia, 3-sites	Aboriginal youth between 12-18 years, have low school attendance and give informed consent. Identified as 'at risk' or 'vulnerable'	Total (n=99) Aboriginal youth age 11-17	Most important problems facing youth? Which topics for health programs? Where do you get help? Describe self, Future youth aspirations? Most important thing for youth to stay happy and healthy? Who should be helping you?	Youth reported the most important topics to include in a health program are drugs, alcohol and violence. They reported their family as supports and sources of information and guidance. Most youth did not have a vision for their future.	Educate family members to provide effective and appropriate education. Mentoring and peer programs could address the need for positive future visioning. Health promotion should be offered to entire family as opposed to just the youth. More holistic methods to programmin g are suggested.	WOE: Medium- 6	CASP: Medium - 6
21. Ricci, Flicker,	Systematic scoping review	Evaluate 'wise' practices in	Two reviewers 15 databases reviewed including	Canadian (Sask) Aborigin-	Hard to reach, marginalize	Total (n=201) Aboriginal youth	Sexual health risks, contraceptio	Aboriginal youth are higher risk	A solid understandi ng of the	WOE: High- 8	MSMS: High- 5

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
Jalon & Smillie-Adjarkwa (2009) Canada		HIV prevention with Indigenous youth	peer reviewed articles on HIV prevention with Indigenous youth	al urban setting	d "invisible" Aboriginal youth: youth and young people not attending school, homeless, live on the street, in foster care or group homes, in correctional centres, sex trade workers, lesbian, gay, bisexual or transgender are segregated, use needle exchange, in alternative educational programs, unconnect-ed Youth that are typically underserved and high risk	43% female, 56% male, 1 transgender, 64% First Nations, 15% Métis, 13% reported Aboriginal, 7.5% other	n use, screening, barriers to accessing health care	for sexual health problems than non-Aboriginal youth. Early sexual debut with older partners, less knowledgea ble about contraceptio n. Increased risk for long-term health problems. Higher levels of sexual violence, lower awareness of health services. Multi - dimensional barriers to health services: poverty, racism and dysfunction-al families due to residential	norms in one geographic location area must be collected prior to planning an intervention for Aboriginal youth. Elder involvement in sexual health promotion intervention s offer a world-view based on local culture, traditions and community		CASP: High- 8

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								school legacy.			
22. Sher-cliffe, Hampton, McKay-McNabb, Jeffery, Beattie & McWatters (2007) Canada	Quantitative Community Action Research	Examine the relationship between a set of cognitive and demograph-ic variables and self-efficacy to use condoms	10/12 high school survey instrument	Regina, Sask	At least one lifetime experience of sexual intercourse. Must complete entire survey Hard to reach, marginaliz-ed "invisible" Aboriginal youth: incarcerat-ed, sex trade workers, use needle exchange programs, homeless, or attend alternative school programs Self-identified as Aboriginal, were between 11-20yrs	Total (n=68) Aboriginal youth (n=31) females, and (n=37) males	Items exploring sexual health practices and behaviours. Importance Knowing Scale (IKS), Accurate Knowledge of STI (AKSTI), AIDS Knowledge Scale (AKS), Personal Resources Questionn-aire (PRQ2000), Self-Efficacy to use Condoms Scale (SEUCS), Assertive Communicat ion Scale (ACS), and Help Seeking for STD Scale	70% of males and 50% of females reported using condom on last time of sex, 67.5% females mean age 16.3yrs and 75.5% mean age 13 had over three partners. Age of first intercourse has an impact on self-efficacy to use condoms. Assertive behaviour was positively related to self-efficacy to use condoms.	Teaching assertive communicat ion skills, self-efficacy and social support retrieval to younger youth (preferably before they reach first sexual contact) may prove effective in sexual health promotion. Target intervention s to specific needs of the Aboriginal youth population i.e.: skill training, role playing and culturally specific behavioural	WOE: High- 7	MSMS: High- 5

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
							(HSSS)		strategies in programm-ing.		
23. Tsuruda, Hoogeveen, Smith, Poon, Saewyc, & McCreary Centre Society (2012) Canada	Mixed methods review using BC Adolescent Survey and consultations with several Aboriginal discussion groups,	Present a balanced picture of Aboriginal youth health and include information regarding areas in needing to be improved . Consider the role of protective factors in improving health	BC Adolescent Health Survey, focus groups of Aboriginal youths and Elders	British Columbia youth in grade 7-12	British Columbia Aboriginal self-identified youth in grade 7-12	Total (n=3000+) youth who identified as Aboriginal 4 Elders, 45 adults, and 53 youth	Physical health, injuries, nutrition, weight & body image, mental health, work life, education, sports & leisure activities, abuse & violence, substance use, sexual health, care experience, and protective factors	Many Aboriginal youth face significant challenges to healthy develop-ment. They require support of strong communi-ties, supportive schools and culturally safe services. Efforts need to be increased to improve health disparities for those in different parts of the province and those living on reserve. Rates of suicide attempts,	Promote, support and educate family and school connected-ness, school safety. Accompany youth to mental health services, foster culturally safe clinical space. Identify and encourage protective factors which decrease health risks in practice with youths, Listen, value, mentor healthy life choices, increase their self-	WOE: High- 9	MSMS: High- 5 CASP: High- 9

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								abuse, violence and discrimina-tion remain unaccep-tably high. Fostering Protective factors which build on already existing assess, resilience and strengths of Aboriginal youth and their communities is essential.	esteem, cultural identity and decision making skills through supportive relation-ships. Promote meaningful engagement		
24. Worthing ton, Jackson, Mill, Myers & Sommer-feldt (2010) Canada	Mixed-methods exploratory community-based study	To explore HIV testing experiences and service views of Canadian Aboriginal youth in order to provide information for HIV testing services.	Cross-sectional Self-administered survey	All 10 Canadian provinces and one Territory	English or French speaking, aged 15-30, Self-identified as Aboriginal, Métis, First Nations (status or non-status), or Inuit	Total (n=413) Aboriginal Youth age 15-30years	Decision to test, the testing experience and, for youth living with HIV, experiences with HIV care.	To facilitate HIV testing, services and counselling must be respectful, compassiona te, non-judgmental, and culturally responsive in order to provide effective	Ensure sexual health screening and HIV testing is client-centered, respectful, culturally safe, personal-ized, emotionally supportive	WOE: High- 8	MSMS: High- 5 CASP: High- 8

Author & Country	Design	Aims	Intervention	Location	Inclusion criteria	Participants	Measures	Outcomes/ Findings	Implications for practice	GSRS/ WOE Score	MSMS/ CASP Score
								emotional support and HIV information that is meaningful and memorable	and provides useful information on how to reduce ones risk of HIV. Non-judgement-al, & communi-cate a sense of understand-ing. Encourage family and peers to come into the clinical setting for additional support		

Appendix D: Weight of Evidence Assessment Criteria

Evidence for Policy and Practice Information (EPPI) & Government Social Research Service (GSRS) Review Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research (2007) including:

Items marked by an * have not been used in the data extraction of the selected studies for this rapid evidence assessment.

Purpose and use of this tool

This tool is designed to help those conducting systematic reviews on educational topics identify extract and code information about a particular research study that is to be included in a systematic review.

It is designed to help the reviewer obtain all the necessary information to

assess the quality of the study or its internal validity

Identify the relevant contextual information that may have affected the results obtained in the specific study

Identify the contextual information about a study that will be relevant to any assessment of the generalizability of findings in the individual study

Identify relevant information about the design , execution and context of a study for the purpose of synthesizing (bringing together) results from all the studies that are included in a particular review

The tool is designed to be used to extract data from a single primary empirically-based study. That is the report(s) of a piece of research i.e. not a review (systematic or otherwise), a scholarly paper, and treatise or opinion piece.

The study may be reported in more than one paper for which a single data extraction is completed

Each separate study included in a review will require a separate data extraction

For the purposes of producing a 'map' review groups will usually include questions from sections A,B,C, D, E (if relevant), G.

Questions B2 and G3 must be included in the coding questions for the map

Additional questions used will depend on the purpose of the map and the type of review. The

questions to be used should be agreed with the funder and the EPPI-Centre prior to starting coding Other sections and questions are completed only on studies included in the 'in-depth review'

Section A: Administrative details
Use of these guidelines should be cited as: EPPI-Centre (2007) Review Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research. Version 2.0 London: EPPI-Centre, Social Science Research Unit.

A.1 Name of the reviewer	A.1.1 Details
A.2 Date of the review	A.2.1 Details
A.3 Please enter the details of each paper which reports on this item/study and which is used to complete this data extraction. *(1): A paper can be a journal article, a book, or chapter in a book, or an unpublished report.*	A.3.1 Paper (1) *Fill in a separate entry for further papers as required.* A.3.2 Unique Identifier: A.3.3 Authors: A.3.4 Title: A.3.5 Paper (2) A.3.6 Unique Identifier: A.3.7 Authors: A.3.8 Title:
A.4 Main paper. Please classify one of the above papers as the 'main' report of the study and enter its unique identifier here. *NB(1): When only one paper reports on the study, this will be the 'main' report.* *NB(2): In some cases the 'main' paper will be the one which provides the fullest or the latest report of the*	A.4.1 Unique Identifier:

study. In other cases the decision about which is the 'main' report will have to be made on an arbitrary basis.	
A.5 Please enter the details of each paper which reports on this study but is NOT being used to complete this data extraction. *NB A paper can be a journal article, a book, or chapter in a book, or an unpublished report.*	A.5.1 Paper (1) *Fill in a separate entry for further papers as required.* A.5.2 Unique Identifier: A.5.3 Authors: A.5.4 Title: A.5.5 Paper (2) A.5.6 Unique Identifier: A.5.7 Authors: A.5.8 Title:
A.6 If the study has a broad focus and this data extraction focuses on just one component of the study, please specify this here.	A.6.1 Not applicable (whole study is focus of data extraction) A.6.2 Specific focus of this data extraction (please specify)
A.7 Identification of report (or reports) *Please use AS MANY KEYWORDS AS APPLY.*	A.7.1 Citation *Please use this keyword if the report was identified from the bibliographic list of another report.* A.7.2 Contact *Please use this keyword if the report was found through a personal/professional contact.* A.7.3 Hand search *Please use this keyword if the report was found through hand searching a journal.* A.7.4 Unknown *Please use this keyword if it is unknown how the report was found.* A.7.5 Electronic database

	Please use this keyword if the report was found through searching on an electronic bibliographic database. *In addition, if the report was found on an electronic database please use ONE OR MORE of the following keywords to indicate which database it was found on:* *aidsline* *For AIDSLINE* *appsocscience* *For Applied Social and Abstracts* *artscitation* *For the Arts and Humanities Citation Index* *aei* *For the Australian Education Index* *bei* *For the British Education Index* *bibliomap* *For the EPPI-Centre's specialist register of research* *cabhealth* *For CABhealth* *cei* *For the Canadian Education Index* *ceruk* *For CERUK* *cinahl* *For the CINAHL* *cochranelib* *For the Cochrane Library* *dissabs* *For Dissertation Abstracts* *dislearn* *For the Distance Learning Database* *eduabs* *For Education Abstracts* *educationline* *For Education-line*

	embase *For EMBASE* *eric* *For ERIC* *healthplan* *For Health Planning* *healthpromis* *For HealthPromis* *intbibsocsci* *For the International Bibliography of the Social Sciences* *langbehrabs* *For Linguistic and Language Behaviour Abstracts* *medline* *For MEDLINE* *psycinfo* *For PsycINFO* *regard* *For REGARD* *sigle* *For SIGLE* *socscicitation* *For the Social Science Citation Index* *socservabs* *For the Social Services Abstracts* *socioabs* *For Sociological Abstracts* *spectr* *For the Social, Psychological, Educational & Criminological Trials Register*
A.8 Status *Please use **ONE** keyword only*	A.8.1 Published *Please use this keyword if the report has an ISBN or ISSN number.* A.8.2 Published as a report or conference paper *Please use this code for reports which do not have an ISBN or ISSN number (eg. 'internal' reports; conference papers)*

	A.8.3 Unpublished *e.g. thesis or author manuscript*
A.9 Language (please specify)	A.9.1 Details of Language of report *Please use as many keywords that apply* *If the name of the language is specified/known then please use the name as a keyword. For example:* *Dutch* *English* *French* *If non-English and you cannot name the language: non English*

Section B: Study Aims and Rationale

B.1 What are the broad aims of the study? *Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretation. Other, more specific questions about the research questions and hypotheses are asked later.*	B.1.1 Explicitly stated (please specify) B.1.2 Implicit (please specify) B.1.3 Not stated/unclear (please specify)
B.2 What is the purpose of the study? *N.B. This question refers only to the purpose of a study, not to the design or methods used.* *A: Description* *Please use this code for studies in which the aim is to produce a description of a state of affairs or a particular phenomenon, and/or to document its characteristics. In these types of studies there is no attempt to evaluate a particular intervention programme (according to either the processes involved in its implementation or its effects on outcomes), or to examine the associations between one or more variables. These types of studies are usually, but not always, conducted at one point in time (i.e. cross sectional). They can include studies such as an interview*	B.2.1 A: Description B.2.2 B: Exploration of relationships B.2.3 C: What works? B.2.4 D: Methods development B.2.5 E: Reviewing/synthesising research

of head teachers to count how many have explicit policies on continuing professional development for teachers; a study documenting student attitudes to national examinations using focus groups; a survey of the felt needs of parents using self-completion questionnaires, about whether they want a school bus service. *B: Exploration of relationships* *Please use this code for a study type which examines relationships and/or statistical associations between variables in order to build theories and develop hypotheses. These studies may describe a process or processes (what goes on) in order to explore how a particular state of affairs might be produced, maintained and changed.* *These relationships may be discovered using qualitative techniques, and/or statistical analyses. For instance, observations of children at play may elucidate the process of gender stereotyping, and suggest the kinds of interventions which may be appropriate to reduce any negative effects in the classroom. Complex statistical analysis may be helpful in modelling the relationships between parents' social class and language in the home. These may lead to the development of theories about the mechanisms of language acquisition, and possible policies to intervene in a causal pathway.* *These studies often consider variables such as social class and gender which are not interventions, although these studies may aid understanding, and may suggest possible interventions, as well as ways in which a programme design and implementation could be improved. These studies do not directly evaluate the effects of policies and practices.* *C: What works* *A study will only fall within this category if it measures effectiveness - i.e. the impact of a specific intervention or programme on a defined sample of recipients or subjects of the programme or intervention.* *D: Methods development* *Studies where the principle focus is on methodology.* *E: Reviewing/Synthesising research* *Studies which summarise and synthesise primary*	

research studies.	
B.3 Why was the study done at that point in time, in those contexts and with those people or institutions? *Please write in authors' rationale if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretations.*	B.3.1 Explicitly stated (please specify) B.3.2 Implicit (please specify) B.3.3 Not stated/unclear (please specify)
B.4 Was the study informed by, or linked to, an existing body of empirical and/or theoretical research? *Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretations.*	B.4.1 Explicitly stated (please specify) B.4.2 Implicit (please specify) B.4.3 Not stated/unclear (please specify)
B.5 Which of the following groups were consulted in working out the aims of the study, or issues to be addressed in the study? *Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretations. Please cover details of how and why people were consulted and how they influenced the aims/issues to be addressed.*	B.5.1 Researchers (please specify) B.5.2 Funder (please specify) B.5.3 Head teacher/Senior management (please specify) B.5.4 Teaching staff (please specify) B.5.5 Non-teaching staff (please specify) B.5.6 Parents (please specify) B.5.7 Pupils/students (please specify) B.5.8 Governors (please specify) B.5.9 LEA/Government officials (please specify) B.5.10 Other education practitioner (please specify) B.5.11 Other (please specify) B.5.12 None/Not stated B.5.13 Coding is based on: Authors' description

	B.5.14 Coding is based on: Reviewers' inference
B.6 Do authors report how the study was funded?	B.6.1 Explicitly stated (please specify) B.6.2 Implicit (please specify) B.6.3 Not stated/unclear (please specify)
B.7 When was the study carried out? *If the authors give a year or range of years, then put that in. If not, give a 'not later than' date by looking for a date of first submission to the journal, or for clues like the publication dates of other reports from the study.*	B.7.1 Explicitly stated (please specify) B.7.2 Implicit (please specify) B.7.3 Not stated/unclear (please specify)
B.8 What are the study research questions and/or hypotheses? *Research questions or hypotheses operationalized the aims of the study. Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretations.*	B.8.1 Explicitly stated (please specify) B.8.2 Implicit (please specify) B.8.3 Not stated/ unclear (please specify)

Section C: Study Policy or Practice Focus

C.1 What is/are the topic focus/foci of the study?	C.1.1 Assessment (please specify) C.1.2 Classroom management (please specify) C.1.3 Curriculum (see next question below) C.1.4 Equal opportunities (please specify) C.1.5 Methodology (please specify) C.1.6 Organisation and management (please specify) C.1.7 Policy (please specify) C.1.8 Teacher careers (please specify)

	C.1.9 Teaching and learning (please specify) C.1.10 Other (please specify) C.1.11 Coding is based on: Authors' description C.1.12 Coding is based on: Reviewers' inference
C.2 What is the curriculum area, if any?	C.2.1 Art C.2.2 Business Studies C.2.3 Citizenship C.2.4 Cross-curricular C.2.5 Design & Technology C.2.6 Environment C.2.7 General C.2.8 Geography C.2.9 Hidden C.2.10 History C.2.11 ICT C.2.12 Literacy - first languages C.2.13 Literacy - further languages C.2.14 Literature C.2.15 Maths C.2.16 Music C.2.17 PSE

	C.2.18 Phys. Ed C.2.19 Religious Ed. C.2.20 Science C.2.21 Vocational C.2.22 Other C.2.23 Coding is based on: Authors' description C.2.24 Coding is based on: Reviewers' inference
C.3 What is/are the educational setting(s) of the study?	C.3.1 Community centre C.3.2 Correctional institution C.3.3 Government department C.3.4 Higher education institution C.3.5 Home C.3.6 Independent school C.3.7 Local education authority C.3.8 Nursery school C.3.9 Other early years setting C.3.10 Post-compulsory education institution C.3.11 Primary school C.3.12 Pupil referral unit C.3.13 Residential school C.3.14 Secondary school

	C.3.15 Special needs school C.3.16 Workplace C.3.17 Other educational setting C.3.18 Coding is based on: Authors' description C.3.19 Coding is based on: Reviewers' inference
C.4 In which country or countries was the study carried out? *Provide further details where relevant e.g. region or city.*	C.4.1 Explicitly stated (please specify) C.4.2 Not stated/unclear (please specify)
C.5 Please describe in more detail the specific phenomena, factors, services or interventions with which the study is concerned. *The questions so far have asked about the aims of the study and any named programme under study, but this may not fully capture what the study is about. Please state or clarify here.*	C.5.1 Details

Section D: Actual sample
If there are several samples or levels of sample, please complete for each level

D.1 Who or what is/ are the sample in the study? *Please use AS MANY codes AS APPLY to describe the nature of the sample of the report. Only indicate a code if the report specifically characterises the sample focus in terms of the categories indicated below*	D.1.1 Learners *Please use this code if a population focus of the study is on pupils, students, apprentices, or other kinds of learners* D.1.2 Senior management *Please use this code if a sample focus of the study is on those with responsibility in any educational institution for the strategic leadership and management of a whole organisation. This will include the person with ultimate responsibility for the educational institution under study. In the school setting, there term 'head teacher' is typically used ('principal' in the U.S.A., Canada and Australia); the term 'principal' is often used in a college setting, the term 'vice-chancellor' in a university setting.*

	D.1.3 Teaching staff *Please use this code if a sample focus of the study is on staff who teach (or lecture) in a classroom/lecture-hall setting* D.1.4 Non-teaching staff *Please use this code if a population focus of the study is on staff who do not teach, but whose role within the educational institution is administrative/ organisational, e.g. equal opportunities coordinators, other support staff* D.1.5 Other educational practitioners *Please use this code if the sample focus of the study includes representatives from other educational bodies, including interest/advisory groups; school governing bodies and parent support groups* D.1.6 Government *Please use this code if the sample focus of the study is on representatives from government or governing bodies e.g. from the DfES (Department for Education and Skills), BECTA (British Educational Communications and Technology Agency), LSDA (learning and Skills Development Agency, formerly FEDA - Further Education Development Agency) etc.* D.1.7 Local education authority officers *Please use this code if a sample focus of the study is people who work in a local education authority* D.1.8 Parents *Please use this code if the sample focus of the study refers to the inclusive category of carers of 'children' and 'young people', which may include natural parents/mother/father/adoptive parents/foster parents etc* D.1.9 Governors *Please use this code if the sample focus of the study is on members of the governing body, which may include teachers or parents. They play a role in the management and vision of the educational institution* D.1.10 Other sample focus (please specify)

D.2 What was the total number of participants in the study (the actual sample)? *if more than one group is being compared, please give numbers for each group*	D.2.1 Not applicable (e.g study of policies, documents etc) D.2.2 Explicitly stated (please specify) D.2.3 Implicit (please specify) D.2.4 Not stated/ unclear (please specify)
D.3 What is the proportion of those selected for the study who actually participated in the study? *Please specify numbers and percentages if possible.*	D.3.1 Not applicable (e.g. review) D.3.2 Explicitly stated (please specify) D.3.3 Implicit (please specify) D.3.4 Not stated/unclear (please specify)
D.4 Which country/countries are the individuals in the actual sample from? *If UK, please distinguish between England, Scotland, N. Ireland and Wales, if possible. If from different countries, please give numbers for each.* *If more than one group is being compared, please describe for each group.*	D.4.1 Not applicable (e.g. study of policies, documents, etc.) D.4.2 Explicitly stated (please specify) D.4.3 Implicit (please specify) D.4.4 Not stated/unclear (please specify)
D.5 If the individuals in the actual sample are involved with an educational institution, what type of institution is it? *For evaluations of interventions, this will be the site(s) of the intervention.* *Please give details of the institutions (e.g. size, geographic location mixed/single sex etc.) as described by the authors. If individuals are from different institutions, please give numbers for each. If more than one group is being compared, please describe all of the above for each group.*	D.5.1 Not applicable (e.g. study of policies, documents, etc.) D.5.2 Community centre (please specify) D.5.3 Post-compulsory education institution (please specify) D.5.4 Government Department (please specify) D.5.5 Independent school (please specify age range and school type) D.5.6 Nursery school (please specify)

	D.5.7 Other early years setting (please specify) D.5.8 Local education authority (please specify) D.5.9 Higher Education Institution (please specify) D.5.10 Primary school (please specify) D.5.11 Correctional Institution (please specify) D.5.12 Pupil referral unit (please specify) D.5.13 Residential school (please specify) D.5.14 Secondary school (please specify age range) D.5.15 Special needs school (please specify) D.5.16 Workplace (please specify) D.5.17 Other educational setting (please specify) D.5.18 Coding is based on: Authors' description D.5.19 Coding is based on: Reviewers' inference
D.6 What ages are covered by the actual sample? *Please give the numbers of the sample that fall within each of the given categories. If necessary refer to a page number in the report (e.g. for a useful table).* *If more than one group is being compared, please describe for each group* *if follow-up study, age of entry to the study*	D.6.1 Not applicable (e.g. study of policies, documents etc) D.6.2 0-4 D.6.3 5-10 D.6.4 11-16 D.6.5 17 to 20 D.6.6 21 and over D.6.7 Not stated/unclear (please specify) D.6.8 Coding is based on: Authors' description

	D.6.9 Coding is based on: Reviewers' inference
D.7 What is the sex of the individuals in the actual sample? *Please give the numbers of the sample that fall within each of the given categories. If necessary refer to a page number in the report (e.g. for a useful table).* *If more than one group is being compared, please describe for each group.*	D.7.1 Not applicable (e.g. study of policies, documents etc) D.7.2 Single sex (please specify) D.7.3 Mixed sex (please specify) D.7.4 Not stated/unclear (please specify) D.7.5 Coding is based on: Authors' description D.7.6 Coding is based on: Reviewers' inference
D.8 What is the socio-economic status of the individuals within the actual sample? *If more than one group is being compared, please describe for each group.*	D.8.1 Not applicable (e.g. study of policies, documents etc) D.8.2 Explicitly stated (please specify) D.8.3 Implicit (please specify) D.8.4 Not stated/unclear (please specify)
D.9 What is the ethnicity of the individuals within the actual sample? *If more than one group is being compared, please describe for each group.*	D.9.1 Not applicable (e.g. study of policies, documents etc) D.9.2 Explicitly stated (please specify) D.9.3 Implicit (please specify) D.9.4 Not stated/unclear (please specify)
D.10 What is known about the special educational needs of individuals within the actual sample? *e.g. specific learning, physical, emotional, behavioural, intellectual difficulties.*	D.10.1 Not applicable (e.g. study of policies, documents etc) D.10.2 Explicitly stated (please specify) D.10.3 Implicit (please specify) D.10.4 Not stated/unclear (please specify)

D.11 Please specify any other useful information about the study participants.	D.11.1 Details

Section E: Programme or Intervention description

E.1 If a programme or intervention is being studied, does it have a formal name?	E.1.1 Not applicable (no programme or intervention) E.1.2 Yes (please specify) E.1.3 No (please specify) E.1.4 Not stated/ unclear (please specify)
E.2 Content of the intervention package *Describe the intervention in detail, whenever possible copying the authors' description from the report word for word. If specified in the report, also describe in detail what the control/ comparison group(s) were exposed to.*	E.2.1 Details
E.3 Aim(s) of the intervention	E.3.1 Not stated E.3.2 Not explicitly stated (Write in, as worded by the reviewer) E.3.3 Stated (Write in, as stated by the authors)
E.4 Year intervention started *Where relevant*	E.4.1 Details
E.5 Duration of the intervention *Choose the relevant category and write in the exact intervention length if specified in the report* *When the intervention is ongoing, tick 'OTHER' and indicate the length of intervention as the length of the outcome assessment period*	E.5.1 Not stated E.5.2 Not applicable E.5.3 Unclear E.5.4 One day or less (please specify) E.5.5 1 day to 1 week (please specify)

	E.5.6 1 week (and 1 day) to 1 month (please specify) E.5.7 1 month (and 1 day) to 3 months (please specify) E.5.8 3 months (and 1 day) to 6 months (please specify) E.5.9 6 months (and 1 day) to 1 year (please specify) E.5.10 1 year (and 1 day) to 2 years (please specify) E.5.11 2 years (and 1 day) to 3 years (please specify) E.5.12 3 years (and 1 day) to 5 years (please specify) E.5.13 more than 5 years (please specify) E.5.14 Other (please specify)
E.6 Person providing the intervention (tick as many as appropriate)	E.6.1 Not stated E.6.2 Unclear E.6.3 Not applicable E.6.4 Counsellor E.6.5 Health professional (please specify) E.6.6 parent E.6.7 peer E.6.8 Psychologist E.6.9 Researcher E.6.10 Social worker E.6.11 Teacher/lecturer E.6.12 Other (specify)

E.7 Number of people recruited to provide the intervention (and comparison condition) (e.g. teachers or health professionals)	E.7.1 Not stated E.7.2 Unclear E.7.3 Reported (include the number for the providers involved in the intervention and comparison groups, as appropriate)
E.8 How were the people providing the intervention recruited? (Write in) Also, give information on the providers involved in the comparison group(s), as appropriate.	E.8.1 Not stated E.8.2 Stated (write in)
E.9 Was special training given to people providing the intervention? *Provide as much detail as possible*	E.9.1 Not stated E.9.2 Unclear E.9.3 Yes (please specify) E.9.4 No

Section F: Results and conclusions

In future this section is likely to incorporate material from EPPI reviewer to facilitate reporting numerical results

F.1 How are the results of the study presented? *e.g. as quotations/ figures within text, in tables, as appendices*	F.1.1 Details
F.2 What are the results of the study as reported by the authors? *Before completing data extraction you will need to consider what type of synthesis will be undertaken and what kind of 'results' data is required for the synthesis* *Warning! Failure to provide sufficient data here will hamper the synthesis stage of the review.* *Please give details and refer to page numbers in the report(s) of the study, where necessary (e.g. for key tables)*	F.2.1 Details
F.3 What do the author(s) conclude about the findings of the study?	F.3.1 Details

Please give details and refer to page numbers in the report of the study, where necessary	

Section G: Study Method

G.1 Study Timing *Please indicate all that apply and give further details where possible* *-If the study examines one or more samples but each at only one point in time it is cross-sectional* *-If the study examines the same samples but as they have changed over time, it is a retrospective, provided that the interest is in starting at one time point and looking backwards over time* *-If the study examines the same samples as they have changed over time and if data are collected forward over time, it is prospective provided that the interest is in starting at one time point and looking forward in time*	G.1.1 Cross-sectional G.1.2 Retrospective G.1.3 Prospective G.1.4 Not stated/ unclear (please specify)
G.2 when were the measurements of the variable(s) used as outcome measures made, in relation to the intervention *Use only if the purpose of the study is to measure the effectiveness or impact of an intervention or programme i.e. its purpose is coded as 'What Works' in Section B2 -* *If at least one of the outcome variables is measured both before and after the intervention, please use the 'before and after' category.*	G.2.1 Not applicable (not an evaluation) G.2.2 Before and after G.2.3 Only after G.2.4 Other (please specify) G.2.5 Not stated/unclear (please specify)
G.3 What is the method used in the study? *NB: Studies may use more than one method please code each method used for which data extraction is being completed and the respective outcomes for each method.* *A=Please use this code if the outcome evaluation employed the design of a randomised controlled trial. To be classified as an RCT, the evaluation must:* *i) compare two or more groups which receive different interventions or different intensities/levels of an*	G.3.1 A=Random experiment with random allocation to groups G.3.2 B=Experiment with non-random allocation to groups G.3.3 C=One group pre-post test G.3.4 D=one group post-test only

intervention with each other; and/or with a group which does not receive any intervention at all *AND* *ii) allocate participants (individuals, groups, classes, schools, LEAs etc) or sequences to the different groups based on a fully random schedule (e.g. a random numbers table is used). If the report states that random allocation was used and no further information is given then please keyword as RCT. If the allocation is NOT fully randomised (e.g. allocation by alternate numbers by date of birth) then please keyword as a non-randomised controlled trial* *B=Please use this code if the evaluation compared two or more groups which receive different interventions, or different intensities/levels of an intervention to each other and/or with a group which does not receive any intervention at all BUT DOES NOT allocate participants (individuals, groups, classes, schools, LEAs etc) or sequences in a fully random manner. This keyword should be used for studies which describe groups being allocated using a quasi-random method (e.g. allocation by alternate numbers or by date of birth) or other non- random method* *C=Please use this code where a group of subjects e.g. a class of school children is tested on outcome of interest before being given an intervention which is being evaluated. After receiving the intervention the same test is administered again to the same subjects. The outcome is the difference between the pre and post test scores of the subjects.* *D=Please use this code where one group of subjects is tested on outcome of interest after receiving the intervention which is being evaluated* *E=Please use this code where researchers prospectively study a sample (e.g. learners), collect data on the different aspects of policies or practices experienced by members of the sample (e.g. teaching methods, class sizes), look forward in time to measure their later outcomes (e.g. achievement) and relate the experiences to the outcomes achieved. The purpose is to assess the effect of the different experiences on outcomes.* *F=Please use this code where researchers compare two or more groups of individuals on the basis of their*	G.3.5 E=Cohort study G.3.6 F=Case-control study G.3.7 G=Statistical survey G.3.8 H=Views study G.3.9 I=Ethnography G.3.10 J=Systematic review G.3.11 K=Other review (non systematic) G.3.12 L=Case study G.3.13 M= Document study G.3.14 N=Action research G.3.15 O= Methodological study G.3.16 P=Secondary data analysis

current situation (e.g. 16 year old pupils with high current educational performance compared to those with average educational performance), and look back in time to examine the statistical association with different policies or practices which they have experienced (e.g. class size; attendance at single sex or mixed sex schools; non school activities etc). *G= please use this code where researchers have used a questionnaire to collect quantitative information about items in a sample or population e.g. parents views on education* *H= Please use this code where the researchers try to understand phenomenon from the point of the 'worldview' of a particular, group, culture or society. In these studies there is attention to subjective meaning, perspectives and experience'.* *I= please use this code when the researchers present a qualitative description of human social phenomena, based on fieldwork* *J= please use this code if the review is explicit in its reporting of a systematic strategy used for (I) searching for studies (i.e. it reports which databases have been searched and the keywords used to search the database, the list of journals hand searched, and describes attempts to find unpublished or 'grey' literature; (ii) the criteria for including and excluding studies in the review and, (iii) methods used for assessing the quality and collating the findings of included studies.* *K= Please use this code for cases where the review discusses a particular issue bringing together the opinions/findings/conclusions from a range of previous studies but where the review does not meet the criteria for a systematic review (as defined above)* *L= please use this code when researchers refer specifically to their design/ approach as a 'case study'. Where possible further information about the methods used in the case study should be coded* *M=please use this code where researchers have used documents as a source of data e.g. newspaper reports* *N=Please use this code where practitioners or*	

institutions (with or without the help of researchers) have used research as part of a process of development and/or change. Where possible further information about the research methods used should be coded *O=please use this keyword for studies which focus on the development or discussion of methods; for example discussions of a statistical technique, a recruitment or sampling procedure, a particular way of collecting or analysing data etc. It may also refer to a description of the processes or stages involved in developing an 'instrument' (e.g. an assessment procedure).* *P= Please use this code where researchers have used data from a pre-existing dataset e.g. The British Household Panel Survey to answer their 'new' research question.*	

Section H: Methods-groups

H.1 If Comparisons are being made between two or more groups*, please specify the basis of any divisions made for making these comparisons *Please give further details where possible* **If no comparisons are being made between groups please continue to Section I (Methods - sampling strategy)*	H.1.1 Not applicable (not more than one group) H.1.2 Prospective allocation into more than one group *e.g. allocation to different interventions, or allocation to intervention and control groups* H.1.3 No prospective allocation but use of pre-existing differences to create comparison groups *e.g. receiving different interventions or characterised by different levels of a variable such as social class* H.1.4 Other (please specify) H.1.5 Not stated/ unclear (please specify)

H.2 How do the groups differ?	H.2.1 Not applicable (not in more than one group) H.2.2 Explicitly stated (please specify) H.2.3 Implicit (please specify) H.2.4 Not stated/ unclear (please specify)
H.3 Number of groups *For instance, in studies in which comparisons are made between group, this may be the number of groups into which the dataset is divided for analysis (e.g. social class, or form size), or the number of groups allocated to, or receiving, an intervention.*	H.3.1 Not applicable (not more than one group) H.3.2 One H.3.3 Two H.3.4 Three H.3.5 Four or more (please specify) H.3.6 Other/ unclear (please specify)
H.4 If prospective allocation into more than one group, what was the unit of allocation? *Please indicate all that apply and give further details where possible*	H.4.1 Not applicable (not more than one group) H.4.2 Not applicable (no prospective allocation) H.4.3 Individuals H.4.4 Groupings or clusters of individuals (e.g. classes or schools) please specify H.4.5 Other (e.g. individuals or groups acting as their own controls - please specify) H.4.6 Not stated/ unclear (please specify)
H.5 If prospective allocation into more than one group, which method was used to generate the allocation sequence?	H.5.1 Not applicable (not more than one group) H.5.2 Not applicable (no prospective allocation) H.5.3 Random H.5.4 Quasi-random

	H.5.5 Non-random H.5.6 Not stated/unclear (please specify)
H.6 If prospective allocation into more than one group, was the allocation sequence concealed? *Bias can be introduced, consciously or otherwise, if the allocation of pupils or classes or schools to a programme or intervention is made in the knowledge of key characteristics of those allocated. For example, children with more serious reading difficulty might be seen as in greater need and might be more likely to be allocated to the 'new' programme, or the opposite might happen. Either would introduce bias.*	H.6.1 Not applicable (not more than one group) H.6.2 Not applicable (no prospective allocation) H.6.3 Yes (please specify) H.6.4 No (please specify) H.6.5 Not stated/unclear (please specify)
H.7 Study design summary *In addition to answering the questions in this section, describe the study design in your own words. You may want to draw upon and elaborate on the answers already given.*	H.7.1 Details

Section I: Methods - Sampling strategy

I.1 Are the authors trying to produce findings that are representative of a given population? *Please write in authors' description. If authors do not specify, please indicate reviewers' interpretation.*	I.1.1 Explicitly stated (please specify) I.1.2 Implicit (please specify) I.1.3 Not stated/unclear (please specify)
I.2 What is the sampling frame (if any) from which the participants are chosen? *e.g. telephone directory, electoral register, postcode, school listings etc.* *There may be two stages - e.g. first sampling schools and then classes or pupils within them.*	I.2.1 Not applicable (please specify) I.2.2 Explicitly stated (please specify) I.2.3 Implicit (please specify) I.2.4 Not stated/unclear (please specify)
I.3 Which method does the study use to select people, or groups of people (from the sampling frame)? *e.g. selecting people at random, systematically - selecting, for example, every 5th person, purposively, in*	I.3.1 Not applicable (no sampling frame)

order to reach a quota for a given characteristic.	I.3.2 Explicitly stated (please specify) I.3.3 Implicit (please specify) I.3.4 Not stated/unclear (please specify)
I.4 Planned sample size *If more than one group, please give details for each group separately.* *In intervention studies, the sample size will have a bearing upon the statistical power, error rate and precision of estimate of the study.*	I.4.1 Not applicable (please specify) I.4.2 Explicitly stated (please specify) I.4.3 Not stated/unclear (please specify)
I.5 How representative was the achieved sample (as recruited at the start of the study) in relation to the aims of the sampling frame? *Please specify basis for your decision.*	I.5.1 Not applicable (e.g. study of policies, documents, etc.) I.5.2 Not applicable (no sampling frame) I.5.3 High (please specify) I.5.4 Medium (please specify) I.5.5 Low (please specify) I.5.6 Unclear (please specify)
I.6 If the study involves studying samples prospectively over time, what proportion of the sample dropped out over the course of the study? *If the study involves more than one group, please give drop-out rates for each group separately. If necessary, refer to a page number in the report (e.g. for a useful table).*	I.6.1 Not applicable (e.g. study of policies, documents, etc.) I.6.2 Not applicable (not following samples prospectively over time) I.6.3 Explicitly stated (please specify) I.6.4 Implicit (please specify) I.6.5 Not stated/unclear (please specify)
I.7 For studies that involve following samples prospectively over time, do the authors provide any information on whether, and/or how, those who dropped out of the study differ from those who remained in the	I.7.1 Not applicable (e.g. study of policies, documents, etc.)

study?	I.7.2 Not applicable (not following samples prospectively over time) I.7.3 Not applicable (no drop outs) I.7.4 Yes (please specify) I.7.5 No
I.8 If the study involves following samples prospectively over time, do authors provide baseline values of key variables, such as those being used as outcomes, and relevant socio-demographic variables?	I.8.1 Not applicable (e.g. study of policies, documents, etc.) I.8.2 Not applicable (not following samples prospectively over time) I.8.3 Yes (please specify) I.8.4 No

Section J: Methods - recruitment and consent

J.1 Which methods are used to recruit people into the study? *e.g. letters of invitation, telephone contact, face-to-face contact.*	J.1.1 Not applicable (please specify) J.1.2 Explicitly stated (please specify) J.1.3 Implicit (please specify) J.1.4 Not stated/unclear (please specify) J.1.5 Please specify any other details relevant to recruitment and consent
J.2 Were any incentives provided to recruit people into the study?	J.2.1 Not applicable (please specify) J.2.2 Explicitly stated (please specify) J.2.3 Not stated/unclear (please specify)
J.3 Was consent sought? *Please comment on the quality of consent, if relevant.*	J.3.1 Not applicable (please specify)

	J.3.2 Participant consent sought J.3.3 Parental consent sought J.3.4 Other consent sought J.3.5 Consent not sought J.3.6 Not stated/unclear (please specify)

Section K: Methods - Data Collection

K.1 Which variables or concepts, if any, does the study aim to measure or examine?	K.1.1 Explicitly stated (please specify) K.1.2 Implicit (please specify) K.1.3 Not stated/ unclear
K.2 Please describe the main types of data collected and specify if they were used to (a) to define the sample; (b) to measure aspects of the sample as findings of the study? *Only detail if more specific than the previous question*	K.2.1 Details
K.3 Which methods were used to collect the data? *Please indicate all that apply and give further detail where possible*	K.3.1 Curriculum-based assessment K.3.2 Focus group interview K.3.3 One-to-one interview (face to face or by phone) K.3.4 Observation K.3.5 Self-completion questionnaire K.3.6 self-completion report or diary K.3.7 Examinations K.3.8 Clinical test

	K.3.9 Practical test K.3.10 Psychological test (e.g I.Q test) K.3.11 Hypothetical scenario including vignettes K.3.12 School/ college records (e.g attendance records etc) K.3.13 Secondary data such as publicly available statistics K.3.14 Other documentation K.3.15 Not stated/ unclear (please specify) K.3.16 Please specify any other important features of data collection K.3.17 Coding is based on: Author's description K.3.18 Coding is based on: Reviewers' interpretation
K.4 Details of data collection instruments or tool(s). *Please provide details including names for all tools used to collect data, and examples of any questions/items given. Also, please state whether source is cited in the report*	K.4.1 Explicitly stated (please specify) K.4.2 Implicit (please specify) K.4.3 Not stated/ unclear (please specify)
K.5 Who collected the data? *Please indicate all that apply and give further detail where possible*	K.5.1 Researcher K.5.2 Head teacher/ Senior management K.5.3 Teaching or other staff K.5.4 Parents K.5.5 Pupils/ students K.5.6 Governors K.5.7 LEA/Government officials

	K.5.8 Other educational practitioner K.5.9 Other (please specify) K.5.10 Not stated/unclear K.5.11 Coding is based on: Author's description K.5.12 Coding is based on: Reviewers' inference
K.6 Do the authors' describe any ways they addressed the repeatability or reliability of their data collection tools/methods? *e.g test-re-test methods* *(where more than one tool was employed, please provide details for each)*	K.6.1 Details
K.7 Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/methods? *e.g mention previous piloting or validation of tools, published version of tools, involvement of target population in development of tools.* *(Where more than one tool was employed, please provide details for each)*	K.7.1 Details
K.8 Was there a concealment of which group that subjects were assigned to (i.e. the intervention or control) or other key factors from those carrying out measurement of outcome - if relevant? *Not applicable - e.g analysis of existing data, qualitative study.* *No - e.g assessment of reading progress for dyslexic pupils done by teacher who provided intervention* *Yes - e.g researcher assessing pupil knowledge of drugs - unaware of whether pupil received the intervention or not.*	K.8.1 Not applicable (please say why) K.8.2 Yes (please specify) K.8.3 No (please specify)
K.9 Where were the data collected? *e.g school, home*	K.9.1 Educational Institution (please specify)

	K.9.2 Home (please specify) K.9.3 Other institutional setting (please specify) K.9.4 Not stated/ unclear (please specify)

Section L: Methods - data analysis

L.1 What rationale do the authors give for the methods of analysis for the study? *e.g. for their methods of sampling, data collection or analysis.*	L.1.1 Details
L.2 Which methods were used to analyse the data? *Please give details (e.g., for in-depth interviews, how were the data handled?)* *Details of statistical analyses can be given next.*	L.2.1 Explicitly stated (please specify) L.2.2 Implicit (please specify) L.2.3 Not stated/unclear (please specify) L.2.4 Please specify any important analytic or statistical issues
L.3 Which statistical methods, if any, were used in the analysis?	L.3.1 Details
L.4 Did the study address multiplicity by reporting ancillary analyses, including sub-group analyses and adjusted analyses, and do the authors report on whether these were pre-specified or exploratory?	L.4.1 Yes (please specify) L.4.2 No (please specify) L.4.3 Not applicable
L.5 Do the authors describe strategies used in the analysis to control for bias from confounding variables?	L.5.1 Yes (please specify) L.5.2 No L.5.3 Not applicable
L.6 For evaluation studies that use prospective allocation, please specify the basis on which data analysis was carried out.	L.6.1 Not applicable (not an evaluation study with prospective allocation)

'Intention to intervene' means that data were analysed on the basis of the original number of participants, as recruited into the different groups. *'Intervention received' means data were analysed on the basis of the number of participants actually receiving the intervention.*	L.6.2 'Intention to intervene' L.6.3 'Intervention received' L.6.4 Not stated/unclear (please specify)
L.7 Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? *e.g. using more than one researcher to analyse data, looking for negative cases.*	L.7.1 Details
L.8 Do the authors describe any ways that they have addressed the validity or trustworthiness of data analysis? *e.g. internal or external consistency, checking results with participants.* *Have any statistical assumptions necessary for analysis been met?*	L.8.1 Details
L.9 If the study uses qualitative methods, how well has diversity of perspective and content been explored?	L.9.1 Details
L.10 If the study uses qualitative methods, how well has the detail, depth and complexity (i.e. the richness) of the data been conveyed?	L.10.1 Details
L.11 If the study uses qualitative methods, has analysis been conducted such that context is preserved?	L.11.1 Details

Section M: Quality of study - reporting

M.1 Is the context of the study adequately described? *Consider your previous answers to these questions (see Section B):* *why was this study done at this point in time, in those contexts and with those people or institutions? (B3)* *Was the study informed by, or linked to an existing body of empirical and/or theoretical research? (B4)*	M.1.1 Yes (please specify) M.1.2 No (please specify)

Which groups were consulted in working out the aims to be addressed in this study? (B5) *Do the authors report how the study was funded? (B6)* *When was the study carried out? (B7)*	
M.2 Are the aims of the study clearly reported? *Consider your previous answers to these questions (See module B):* *What are the broad aims of the study? (B1)* *What are the study research questions and/or hypothesis? (B8)*	M.2.1 Yes (please specify) M.2.2 No (please specify)
M.3 Is there an adequate description of the sample used in the study and how the sample was identified and recruited? *Consider your answer to all questions in sections D (Actual Sample), I (Sampling Strategy) and J (Recruitment and Consent).*	M.3.1 Yes (please specify) M.3.2 No (please specify)
M.4 Is there an adequate description of the methods used in the study to collect data? *Consider your answers to the following questions (See Section K)* *What methods were used to collect the data? (K3)* *Details of data collection instruments and tools (K4)* *Who collected the data? (K5)* *Where were the data collected? (K9)*	M.4.1 Yes (please specify) M.4.2 No (please specify)
M.5 Is there an adequate description of the methods of data analysis? *Consider your answers to previous questions (see module L)* *Which methods were used to analysis the data? (L2)* *What statistical methods, if any, were used in the analysis? (L3)*	M.5.1 Yes (please specify) M.5.2 No (please specify)

Did the study address multiplicity by reporting ancillary analyses (including sub-group analyses and adjusted analyses), and do the authors report on whether these were pre-specified or exploratory? (L4) *Do the authors describe strategies used in the analysis to control for bias from confounding variables? (L5)*	
M.6 Is the study replicable from this report?	M.6.1 Yes (please specify) M.6.2 No (please specify)
M.7 Do the authors' state where the full, original data are stored?	M.7.1 Yes (please specify) M.7.2 No (please specify)
M.8 Do the authors avoid selective reporting bias? (e.g. do they report on all variables they aimed to study, as specified in their aims/research questions?)	M.8.1 Yes (please specify) M.8.2 No (please specify)

Section N: Quality of the study - Weight of evidence

N.1 Are there ethical concerns about the way the study was done? *Consider consent, funding, privacy, etc.*	N.1.1 Yes, some concerns (please specify) N.1.2 No (please specify)
N.2 Were students and/or parents appropriately involved in the design or conduct of the study? *Consider your answer to the appropriate question in module B.1*	N.2.1 Yes, a lot (please specify) N.2.2 Yes, a little (please specify) N.2.3 No (please specify)
N.3 Is there sufficient justification for why the study was done the way it was? *Consider answers to questions B1, B2, B3, B4*	N.3.1 Yes (please specify) N.3.2 No (please specify)
N.4 Was the choice of research design appropriate for addressing the research question(s) posed?	N.4.1 yes, completely (please specify)

	N.4.2 No (please specify)
N.5 Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? *Consider your answers to previous questions:* *Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)*	N.5.1 Yes, good (please specify) N.5.2 Yes, some attempt (please specify) N.5.3 No, none (please specify)
N.6 Have sufficient attempts been made to establish the validity or trustworthiness of data collection tools and methods? *Consider your answers to previous questions:* *Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/ methods (K6)*	N.6.1 Yes, good (please specify) N.6.2 Yes, some attempt (please specify) N.6.3 No, none (please specify)
N.7 Have sufficient attempts been made to establish the repeatability or reliability of data analysis? *Consider your answer to the previous question:* *Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)*	N.7.1 Yes (please specify) N.7.2 No (please specify)
N.8 Have sufficient attempts been made to establish the validity or trustworthiness of data analysis? *Consider your answer to the previous question:* *Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)*	N.8.1 Yes, good (please specify) N.8.2 Yes, some attempt (please specify) N.8.3 No, none (please specify)
N.9 To what extent is the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study? *e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated, concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which arise as a result?*	N.9.1 A lot (please specify) N.9.2 A little (please specify) N.9.3 Not at all (please specify)

e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?	
N.10 How generalisable is the study results?	N.10.1 Details
N.11 In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study? *Please state what any difference is.*	N.11.1 Not applicable (no difference in conclusions) N.11.2 Yes (please specify)
N.12 Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?	N.12.1 Not applicable (results and conclusions inseparable) N.12.2 High trustworthiness N.12.3 Medium trustworthiness N.12.4 Low trustworthiness
N.13 Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)? *In some studies it is difficult to distinguish between the findings of the study and the conclusions. In those cases, please code the trustworthiness of these combined results/conclusions.*	N.13.1 High trustworthiness N.13.2 Medium trustworthiness N.13.3 Low trustworthiness
N.14 Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review.	N.14.1 High N.14.2 Medium N.14.3 Low
N.15 Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question, or sub-questions, of this specific systematic review	N.15.1 High N.15.2 Medium N.15.3 Low
N.16 Weight of evidence D: Overall weight of evidence *Taking into account quality of execution, appropriateness of design and relevance of focus, what*	N.16.1 High

is the overall weight of evidence this study provides to answer the question of this specific systematic review?	N.16.2 Medium N.16.3 Low

Section O: This section provides a record of the review of the study

O.1 Sections completed *Please indicate sections completed.*	O.1.1 Section A: Administrative details O.1.2 Section B: Study aims and rationale O.1.3 Section C: Study policy or practice focus O.1.4 Section D: Actual sample O.1.5 Section E: Programme or intervention description O.1.6 Section F: Results and conclusions O.1.7 Section G: Methods - study method O.1.8 Section H: Methods - groups O.1.9 Section I: Methods - sampling strategy O.1.10 Section J: Methods recruitment and consent O.1.11 Section K: Methods - data collection O.1.12 Section L: Methods - data analysis O.1.13 Section M: Quality of study - reporting O.1.14 Section N: WOE A: Quality of the study - methods and data O.1.15 Section N: WOE B: Appropriateness of research design for review question O.1.16 Section N: WOE C: Relevance of particular

	focus of the study to review question O.1.17 Section N: WOE D: Overall weight of evidence this study provides to answer this review question? O.1.18 Reviewing record
O.2 Please use this space here to give any general feedback about these data extraction guidelines	O.2.1 Details
O.3 Please use this space to give any feedback on how these guidelines apply to your Review Group's field of interest	O.3.1 Details

Source: EPPI-Centre (2007) Review Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research. Version 2.0 London: EPPI-Centre, Social Science Research Unit.http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-ssessment/how-to-do-a-rea

Appendix E: GSRS Weight of Evidence Assessment Criteria

A Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)? High Evidence = Score 3 Medium Evidence = Score 2 Low Evidence = Score 1
B Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review. High Evidence = Score 3 Medium Evidence = Score 2 Low Evidence = Score 1
C Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question, or sub-questions, of this specific systematic review High Evidence = Score 3 Medium Evidence = Score 2 Low Evidence = Score 1
D Weight of evidence D: Combined overall weight of evidence (based on A-C) High Evidence = Scores 7-9 Medium Evidence = Scores 4-6 Low Evidence = Scores 3

Source: EPPI-Centre (2007) Review Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research. Version 2.0 London: EPPI-Centre, Social Science Research Unit.http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-ssessment/how-to-do-a-rea

Appendix F: The Maryland Scientific Methods Scale

The Maryland Scale of Scientific Methods (Sherman et al, 1997) was designed by a group of researchers in the University of Maryland for their review of "what works".

It is a five-point scale used to classify the strength of scientific evidence, it does not classify the strength of a programme's or intervention's effect. Scientific evidence is important in terms of being able to infer cause and effect. Sherman and colleagues (1997) argue that only studies with a robust comparison group design provide can provide evidence of causality. This equates to level three and above in the Maryland Scale.

Increasing Methodological Quality for Impact Studies

Level 1	Observed correlation between an intervention and outcomes at a single point in time. A study that only measured the impact of the service using a questionnaire at the end of the intervention would fall into this level.
Level 2	Temporal sequence between the intervention and the outcome clearly observed; or the presence of a comparison group that cannot be demonstrated to be comparable. A study that measured the outcomes of people who used a service before it was set up and after it finished would fit into this level.
Level 3	A comparison between two or more comparable units of analysis, one with and one without the intervention. A matched-area design using two locations in the UK would fit into this category if the individuals in the research and the areas themselves were comparable.
Level 4	Comparison between multiple units with and without the intervention, controlling for other factors or using comparison units that evidence only minor differences. A method such as propensity score matching, that used statistical techniques to ensure that the programme and comparison groups were similar would fall into this category.
Level 5	Random assignment and analysis of comparable units to intervention and control groups. A well conducted

	Randomised Controlled Trial fits into this category.

Source: Sherman et al, 1997

Appendix G: **Critical Appraisal Skills Programme (CASP)**

10 questions to help you make sense of qualitative research

This assessment tool has been developed for those unfamiliar with qualitative research and its theoretical perspectives. This tool presents a number of questions that deal very broadly with some of the principles or assumptions that characterise qualitative research. It is *not a definitive guide* and extensive further reading is recommended.

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of qualitative research:

Rigour: has a thorough and appropriate approach been applied to

- **key research methods in the study?**
- **Credibility: are the findings well presented and meaningful?**
- **Relevance: how useful are the findings to you and your organisation?**

The 10 questions on the following pages are designed to help you think about these issues systematically.
The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions.
A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.
The 10 questions have been developed by the national CASP collaboration for qualitative methodologies.

Screening Questions

1. Was there a clear statement of the aims of the research?
□ Yes □ No
Consider:
– what the goal of the research was
– why it is important
– its relevance

2. Is a qualitative methodology appropriate? □ Yes □ No
Consider:
– if the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants

Is it worth continuing?

Appropriate research design

3. Was the research design appropriate to address the aims of the research?

Consider:
– if the researcher has justified the research design (e.g. have they discussed how they decided which methods to use?)

Sampling

4. Was the recruitment strategy appropriate to the aims of the research?

Consider:
– if the researcher has explained how the participants were selected
– if they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
– if there are any discussions around recruitment (e.g. why some people chose not to take part)

Data collection

5. Were the data collected in a way that addressed the research issue?

Consider:
– if the setting for data collection was justified
– if it is clear how data were collected (e.g. focus group, semi-structured interview etc)
– if the researcher has justified the methods chosen
– if the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, did they used a topic guide?)
– if methods were modified during the study. If so, has the researcher explained how and why?
– if the form of data is clear (e.g. tape recordings, video material, notes etc)
– if the researcher has discussed saturation of data

Reflexivity (research partnership relations/recognition of researcher bias)

6. Has the relationship between researcher and participants been adequately considered?

Consider whether it is clear:
– if the researcher critically examined their own role, potential bias and influence during:
– formulation of research questions
– data collection, including sample recruitment and choice of location
– how the researcher responded to events during the study and whether they considered the implications of any changes in the research design

Ethical Issues

7. Have ethical issues been taken into consideration?

Consider:
– if there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained

– if the researcher has discussed issues raised by the study (e. g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
– if approval has been sought from the ethics committee
Data Analysis

8. Was the data analysis sufficiently rigorous?

Consider:
– if there is an in-depth description of the analysis process
– if thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?
– whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
– if sufficient data are presented to support the findings
– to what extent contradictory data are taken into account
– whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

Findings

9. Is there a clear statement of findings?

Consider:
– if the findings are explicit
– if there is adequate discussion of the evidence both for and against the researcher's arguments
– if the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst.)
– if the findings are discussed in relation to the original research questions

Value of the research

10. How valuable is the research?

Consider:
– if the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature?)
– if they identify new areas where research is necessary
– if the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

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