Toward Safety and Positive Support in Schools for LGBTQ youth: Québec Teachers'

Perspectives on LGBTQ-Inclusive Sexual Health Curricula

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Abstract

Lesbian, gay, bisexual, transgender, and queer (LGBTQ) students are required to spend most of

their time in schools, widely considered to be homophobic institutions. Research has consistently

demonstrated that they experience significant victimization and a lack of safety, which may lead

to an avoidance of school functions and extracurricular activities. Often considered an "at-risk"

population, research has shown the benefits of providing opportunities for social support for

LGBTQ youth. The benefits include greater school engagement, academic performance, and

social-emotional wellbeing. One way to provide social support for LGBTQ youth can be through

a LGBTQ-inclusive curriculum (GLSEN, 2019). Within the Canadian context, Québec is one of

the first provinces to implement a mandatory comprehensive LGBTQ-inclusive sexual health

education (SHE) curriculum titled *Sexuality Education*. Though LGBTQ-inclusive curriculum is

effective to positively support LGBTQ (and cisgender and heterosexual; CH) students, there is

little information about the extent to which teachers feel comfortable and competent in their

ability to teach SHE. Therefore, the overarching aims of this dissertation are to further

understand the existing literature on factors that positively impact LGBTQ students'

socioemotional and academic outcomes in schools and how social support in elementary and

high school education relate to outcomes (ie., socioemotional and academic outcomes, such as

school engagement, sense of safety, self-esteem; Russell et al., 2021) for LGBTQ students. Study

1 consists of a scoping review aimed to synthesize current research on social support for LGBTQ

students in schools, grounded by Bronfenbrenner's (1992) Ecological Systems Theory.

Specifically, Study 1 aims to respond to four objectives: 1) define social support systems in

schools, 2) identify current research on outcomes for LGBTQ students, 3) identify barriers to

support LGBTQ students in schools, and 4) identify areas for future research for LGBTQ

students and social support in schools. A systematic search of the literature from 2007 to 2021 was conducted. Following inter-rater procedures and inclusion criteria (Arksey & O'Malley, 2005), 94 articles were identified. This review gave rise to an organizational framework to consolidate various systems of social support for LGBTQ youth in schools. First, social support consisted of seven social support systems (family, curriculum, peers, teachers and school administrators, school policies, GSAs and programs, and school climate) that were positively associated with the promotion of positive socioemotional, behavioural, and educational outcomes for LGBTQ students. Though previous literature found consistent risks associated with LGBTQ students, Study 1 provided a positive outlook on LGBTQ students' school experiences and how these systems allow for LGBTQ students to act as active participants to foster a positive school climate and a sense of safety. One way to foster a sense of safety is through inclusive curricula. As LGBTQ-inclusive curricula have been shown to be one of the approaches providing support for LGBTQ students in schools, Study 2 explored whether Québec's mandatory comprehensive sexual health education (*Sexuality Education*), implemented in 2018, is effective from a practical standpoint. Study 1 highlighted that one of the barriers for teachers to support LGBTQ students is their lack of knowledge and comfort to teach a LGBTQ-inclusive curriculum. Thus, Study 2 was designed to explore the support needs of pre-service and in-service teachers to promote feeling more knowledgeable, competent, and open to teaching LGBTQ-inclusive SHE curricula. Study 2 consisted of a mixed-methods design investigating teachers' attitudes and beliefs towards the SHE topics in their mandated curriculum. However, for the sake of space and relevance to the LGBTQ students, only the quantitative data surrounding LGBTQ-inclusive SHE topics (nine-items) were explored in Study 2. Qualitative responses on teachers' attitudes towards SHE in their classrooms and the influence of COVID-19 on SHE implementation is

covered in a separate study. Grounded in the Information-Motivation-Behaviour (IMB) model

that states that behavioural change depends on having access to pertinent information, being

motivated and having the necessary skills to make positive change, Study 2 explored how

variations among teachers' attitudes, beliefs, and characteristics facilitated or hindered their

openness and competence to teach Québec's LGBTQ-related SHE topics. 441 Québec pre-

service (PST) and in-service (IST) teachers (N_{PST} = 276; N_{IST} = 165) participated in an online

survey. Results elucidated how teachers' prior SHE knowledge and training were positively

associated with their attitudes about, and importance assigned to the SHE topics. Multiple linear

regressions further revealed a significant model where prior SHE knowledge, SHE teaching

experience, sexual orientation, and teachers' attitudes about and importance assigned to the nine

LGBTQ-inclusive SHE topics positively predicted their openness and comfort, and competence

to teach SHE topics in their curriculum. Implications explore the efficacy of PD workshops and

the need for B.Ed. program reformation to effectively support teachers to increase their SHE

knowledge and opportunities to practice SHE implementation in their classrooms. Results from

this dissertation provide a better understanding of the social support systems related to LGBTQ

student outcomes in schools. In addition, results from this dissertation provide a deeper

understanding of the intricacies in providing an effective LGBTQ-inclusive SHE curriculum to

benefit all students. Study 2 provides information about how teacher attitudes and beliefs can

impact their openness and competence to effectively teach LGBTQ-inclusive SHE curriculum to

their students that was highlighted in Study 1 and the barriers to provide effective LGBTQ-

inclusive curriculum to students. Together, Studies 1 and 2 can be used to inform current

methods of supporting teachers in their quest to acquire the information, motivation, and skills to

effectively teach LGBTQ-inclusive SHE topics to their students, resulting in a safer school

environment for all students.

Résumé

Les étudiants lesbiennes, gays, bisexuels, transgenres et queer ou en questionnement (LGBTQ)

sont tenus de passer la majorité de leur temps dans des écoles, largement considérées comme des

institutions homophobes. La recherche a constamment démontré qu'ils subissent une

victimisation importante et un manque de sécurité, ce qui peut les amener à éviter les fonctions

scolaires et les activités parascolaires. Souvent considérée comme une population « à risque », la

recherche a montré des avantages à offrir des possibilités de soutien social aux jeunes LGBTQ.

Les avantages comprennent un plus grand engagement scolaire, des performances scolaires et un

bien-être socio-émotionnel. Une façon de fournir un soutien social aux jeunes LGBTQ peut être

par le biais d'un programme inclusif LGBTQ (GLSEN, 2019). Dans le contexte canadien, le

Québec est l'une des premières provinces à mettre en œuvre un programme obligatoire complet

d'éducation à la santé sexuelle (ESS) inclusive pour les LGBTQ intitulé *Éducation à la

Sexualité*. Bien que le programme inclusif LGBTQ soit efficace pour soutenir positivement les

étudiants LGBTQ (et cisgenres et hétérosexuels; CH), il existe peu d'information sur la mesure

dans laquelle les enseignants se sentent à l'aise et compétents dans leur capacité à enseigner ESS.

Par conséquent, les objectifs généraux de cette thèse sont de mieux comprendre la littérature

existante sur les facteurs qui ont un impact positif sur les résultats socio-émotionnels et

académiques des étudiants LGBTQ dans les écoles et comment le soutien social dans

l'enseignement primaire et secondaire est lié aux résultats (ie., comme l'engagement scolaire, le

sentiment de sécurité, l'estime de soi; Russell et al., 2021) pour les étudiants LGBTQ. L'étude 1

consiste en un examen de la porté visant à synthétiser les recherches actuelles sur les soutien

social des élèves LGBTQ dans les écoles, fondées sur une théorie écologique des systèmes

(Bronfenbrenner, 1992). Plus précisément, l'étude 1 vise à répondre à quatre objectifs : 1) définir

les systèmes de soutien social dans les écoles, 2) identifier les recherches actuelles sur les

résultats des élèves LGBTQ, 3) identifier les obstacles au soutien des élèves LGBTQ dans les

écoles et 4) identifier les domaines de recherche future pour les étudiants LGBTQ et le soutien

social dans les écoles. Une recherche systématique de la littérature de 2007 à 2021 a été menée.

Suite aux procédures inter-juges et aux critères d'inclusion (Arksey & O'Malley, 2005), 94

articles ont été identifiés. Cette révision a donné lieu à un cadre organisationnel pour consolider

les différents dispositifs d'accompagnement social des jeunes LGBTQ en milieu scolaire.

Premièrement, le soutien social consistait en sept systèmes de soutien social (famille,

programmes, pairs, enseignants et administrateurs scolaires, politiques scolaires, AGH et

programmes et climat scolaire) qui étaient positivement associés à la promotion de résultats

socio-émotionnels, comportementaux et éducatifs positifs pour les étudiants LGBTQ. Bien que

la littérature précédente ait trouvé des risques constants associés aux étudiants LGBTQ, l'étude 1

a fourni une perspective positive sur les expériences scolaires des étudiants LGBTQ et comment

ces systèmes permettent aux élèves LGBTQ d'agir en tant que participants actifs pour favoriser

un climat scolaire positif et un sentiment de sécurité. L'un des moyens de favoriser un sentiment

de sécurité consiste à adopter des programmes d'études inclusifs. Comme les programmes

d'études inclusifs LGBTQ se sont révélés être l'une des approches offrant un soutien aux élèves

LGBTQ dans les écoles, l'étude 2 a exploré si l'éducation complète obligatoire en matière de

santé sexuelle (éducation à la sexualité) du Québec, mise en place en 2018, est efficace d'un

point de vue pratique. L'étude 1 a souligné que l'un des obstacles pour les enseignants à soutenir

les élèves LGBTQ est leur manque de connaissances et de confort pour enseigner un programme

inclusif LGBTQ. Ainsi, l'étude 2 a été conçue pour explorer les besoins de soutien des

enseignants en formation initial (EF) et en service (ES) pour promouvoir les sentiments d'être

plus informé, compétent et ouvert à l'enseignement de programmes ESS inclusifs pour les
LGBTQ. L'étude 2 consistait en une conception à méthodes mixtes enquêtant sur les attitudes et
les croyances des enseignants à l'égard des sujets ESS dans leur programme obligatoire.
Cependant, par souci d'espace et de pertinence pour les étudiants LGBTQ, seules les données
quantitatives entourant les sujets ESS inclusifs des LGBTQ (neuf éléments) ont été explorées
dans l'étude 2. Les réponses qualitatives sur les attitudes des enseignants à l'égard de ESS dans
leurs classes et l'influence du COVID-19 sur la mise en œuvre de ESS sont couvertes dans une
étude distincte. Fondée sur le modèle Information-Motivation-Comportement (IMC) qui stipule
que le changement de comportement dépend de l'accès à des informations pertinentes, de la
motivation et des compétences nécessaires pour apporter des changements positifs, l'étude 2 a
exploré comment les variations entre les attitudes, les croyances et les caractéristiques ont facilité
ou entravé leur ouverture et leur compétence à enseigner les sujets ESS liés aux LGBTQ au
Québec. 441 enseignants québécois en formation initiale (EF) et en service (ES) (N_{EF} = 276; N_{ES}
= 165) ont participé à un sondage en ligne. Les résultats ont expliqué comment les connaissances
et la formation ESS antérieures des enseignants étaient positivement associées à leurs attitudes et
à l'importance accordée aux sujets ESS. Des régressions linéaires multiples ont en outre révélé
un modèle significatif dans lequel les connaissances ESS antérieures, l'expérience
d'enseignement ESS, l'orientation sexuelle et les attitudes des enseignants à l'égard et
l'importance accordée aux neuf sujets ESS inclusifs LGBTQ prédisaient positivement leur
ouverture et leur confort ainsi que leur compétence pour enseigner les sujets ESS dans leur
programme d'études. Les implications explorent l'efficacité des ateliers de perfectionnement
professionnel et la nécessité de réformer le programme B.Ed pour aider efficacement les
enseignants à accroître leurs connaissances ESS et les opportunités de mettre en pratique la mise

en œuvre ESS dans leurs salles de classe. Les résultats de cette thèse permettent de mieux comprendre les systèmes de soutient social liés aux résultats des élèves LGBTQ dans les écoles. En outre, les résultats de cette thèse permettent de mieux comprendre les subtilités de la fourniture d'un programme ESS efficace et inclusif des LGBTQ au profit de tous les étudiants. L'étude 2 fournit des preuves de la façon dont les attitudes et les croyances des enseignants peuvent avoir un impact sur leur ouverture et leur compétence pour enseigner efficacement un programme ESS inclusif LGBTQ à leurs élèves, ce qui a été mis en évidence dans l'étude 1, ainsi que les obstacles à la fourniture d'un programme inclusif LGBTQ efficace aux étudiants. Ensemble, les études 1 et 2 peuvent être utilisées pour informer les méthodes actuelles de soutien aux enseignants dans leur quête pour acquérir les informations, la motivation et les compétences nécessaires pour enseigner efficacement les sujets ESS inclusifs LGBTQ à leurs élèves, ce qui se traduit par un environnement scolaire plus sûr pour tous les élèves.

Acknowledgements

Through my 12 years of postsecondary education, it is surreal to believe that this document is the last assignment I am submitting to close this journey. It is both an exciting and horrifying feeling to realize that the 12 years of student life is coming to an end. My decision to continue graduate studies was one of the best decisions I have made. However, that is not to say that this was a smooth journey. The six years of doctoral studies were challenging as I intimately understood the scientific research processes. That being said, it was thrilling to personally undergo the scientific method and without the support of the team I work and live with, I cannot imagine how I would be able to close this journey.

It would make the most sense to thank the person who I believe is one of the most compassionate and respectful mentors in the world, Dr. Tara Flanagan. You decided to take me in during my masters for a research project in 2014 and, since then, we have gone through many reflections that really carried me over until the next day. I remember always leaving each meeting feeling like I am moving forward in the right direction. One of the points I would take away would be my writing skills. Throughout the journey, I've taken your feedback and resources to heart and reflected on my own writing, finding ways to be concise. I will most definitely hear your voice when I am writing, and I have never been more grateful for the many discussions we have had over my writing. My fulfilling graduate experience is a result of working with you Tara, and I look forward to continuing this relationship as a friend and colleague. In the field of inclusive education in Québec, I believe our paths will cross.

In addition to working with Tara, it has been a wonderful time collaborating with past and present members of the SPARC lab, and the larger network of friends and colleagues in the Human Development program. I would like to express my gratitude to my dissertation

Contribution to Original Knowledge

This dissertation demonstrates original scholarship and is a distinct contribution to the research of social support systems for LGBTQ students in educational settings. This program of research provides a systems framework to evaluate the effectiveness of social support systems in schools. This dissertation may be the first to define social support for LGBTQ students in schools, examine social support systems and their influence on LGBTQ students' outcomes in school, identify existing barriers across the systems and areas of future research to overcome barriers to effective social support systems for LGBTQ students. Furthermore, this dissertation provides a unique examination of Québec's *Sexuality Education*, a mandatory comprehensive LGBTQ-inclusive sexual health education (SHE) curriculum and investigates pre-service and in-service teachers' attitudes and beliefs towards LGBTQ-inclusive SHE implementation. Ultimately, building on the findings from Study 1 regarding LGBTQ-inclusive curriculum, Study 2 demonstrates the importance of teacher attitudes, beliefs (importance, belief at which grade level to introduce specific topics), and other teacher-level characteristics (e.g., prior SHE knowledge, SHE training, SHE teaching experience) on their openness, comfort, and competence to teach LGBTQ-inclusive SHE topics, with recommendations for future research and practical applications to provide additional support for teachers to impart Québec's *Sexuality Education* effectively and inclusively.

Contribution of Authors

This dissertation consists of four chapters and two manuscripts and is accordance with the Faculty of Graduate and Postdoctoral Studies' guidelines. I am the first author on all studies included in this dissertation, and I am responsible for the conception, data collection, and data analysis, in addition to writing the manuscripts. Both manuscripts are co-authored by Dr. Tara Flanagan, my supervisor. In addition to providing extensive feedback on the manuscripts, I consulted with Dr. Flanagan on all aspects of the research design including the conceptualization of the program, data collection, data analysis, and the interpretation of the findings. For Study 1, Gabriela Gomez, Sam Sullivan, and Flavio Murahara are also co-authors. I consulted with them on the creation of the database, data analysis, and the interpretation of the findings. They also provided editorial feedback on the manuscript. This research was financially supported by the Social Sciences and Humanities Research Council of Canada (SSHRC).

Introduction

The lesbian, gay, bisexual, transgender, and queer (LGBTQ) community has become

increasingly relevant, with numerous celebrities "coming out" as part of the LGBTQ community.

"Coming out" refers to the process where LGBTQ individuals work through and accept their

orientation (SO) or gender identity or expression (GI/E) and share the identity openly with other

people (Leung, 2021; Rosati et al., 2020). For example, Jojo Siwa, a 17-year-old dancer, singer,

actress, and YouTube celebrity recently came out and identified as pansexual over a series of

TikTok and Instagram posts detailing their journey (Haylock, 2021). She also announced her

love for her girlfriend in public, showing positive representations of the LGBTQ community

(France, 2021). The positive exposure of the LGBTQ community on social media platforms can

significantly benefit LGBTQ youth as the platforms serve as informal learning environments

during identity development (Craig et al., 2021). Craig and colleagues (2021) demonstrated that

social media can be an effective coping strategy for LGBTQ youth to access emotional support

and informational resources, develop their identities, and be entertained. These informal learning

environments are helping LGBTQ youth to cope with their identity development and to foster

wellbeing, yet LGBTQ youth are failing to stay safe and healthy in formal learning environments

(Russell et al., 2021).

Literature on LGBTQ students in schools has consistently found that they are at an

increased risk for harassment and victimization compared to their cisgender and heterosexual

(CH) peers (Abreu et al., 2021; Kosciw et al., 2020). Gay, Lesbian, and Straight Education

Network (GLSEN), the leading national educational organization focused on ensuring safe

schools for all students, produced a comprehensive report based on responses from 16,713

students aged 13 through 21. The 2019 report revealed that 81% of LGBTQ students have been

verbally harassed, 26% physically harassed, and 11% assaulted in the past year (Kosciw et al., 2020). Almost all LGBTQ students (98.8%) heard "gay" used with a negative connotation, 92% heard negative comments specific to gender expression, and 91.8% reported feelings of distress because of this language (Kosciw et al., 2020). Another study, utilizing the Youth Risk Behavior Surveillance System's (YRBS) national data of 15,624 students from grades nine through twelve, found that 40% of LGB students considered suicide and 30% have attempted suicide in the past year (Kann et al., 2016). Another population study, using the 2013-2015 California Healthy Kids Survey, compiled responses from 113,148 students, of which 6,962 identified as LGBTQ, who reported that transgender and gender nonconforming (TGNC) students experienced increased exposure to negative school experiences (i.e., victimization, bullying, negative school climate) compared to cisgender heterosexual and sexual minority peers (Day et al., 2019). This, in turn, has significant negative impacts on mental health and academic performance including depression, suicidal ideation, and increased rates of missing school (Kosciw et al., 2020). Overall, research has certainly demonstrated that LGBTQ youth are exposed to more negative experiences in school compared to their CH peers.

As a gay Chinese Canadian emerging adult, I attended schools in multiple settings: shifting from a private, international elementary and high school in Hong Kong to a private, Christian high school in a rural area in Fort Erie, Ontario. Having multiple conflicting identities throughout my educational journey (i.e., ethnicity, religion, culture), I experienced many outcomes that aligned with the literature. Isolation, helplessness, dejection, and non-suicidal self-injury to name a few (Leung, 2021). As a result of the hardships experienced throughout high school, my positionality has centered my research interest in exploring how to better support LGBTQ students, moving beyond the many documented risks and shifting towards a positive-

focused lens in fostering an inclusive and welcoming school climate for LGBTQ students.

Therefore, the research questions have been driven by both my anecdotal experiences of being

part of the LGBTQ population studied in academia and wishing to change the narrative to a more

positive and strengths-focused lens. Additionally, as a practitioner in the field of education in

Québec for seven years, my research questions are skewed towards praxis. With the

implementation of Québec's *Sexuality Education* curriculum, I am informed by my commitment

to Universal Design for Learning to ensure that LGBTQ students have equitable opportunities

for access to learning.

Though the research exploring the risks of LGBTQ students is abundant, there is a dearth

of research on the positive aspects and support systems present in school to minimize the risks

for LGBTQ students. The emerging research identifies four major support systems that improve

a sense of safety in schools for LGBTQ students: comprehensive policies, supportive educators,

student-led clubs, and inclusive curricula (GLSEN, 2020). Subsequently, the focus of this

dissertation is to explore the positive research on LGBTQ youth development. The current

research stands to benefit a practical lens to understand potential solutions to overcome LGBTQ

students' associated risks. Though various support systems have been noted as potential

solutions to overcome their risks, there is minimal research on creating an organizational

framework to understand the different systems available to support LGBTQ students in schools.

Within the Québec context, this dissertation will explore one of the evidence-based strategies to

support LGBTQ students, namely LGBTQ-inclusive education. Québec mandated compulsory

comprehensive sexual health education (SHE) in 2018, titled *Sexuality Education* (MEES,

2018a, 2018b, 2018c). Though Québec has not deemed this comprehensive SHE as LGBTQ-

inclusive, the topics can be perceived as LGBTQ-inclusive. Topics include understanding

sexuality, diverse gender identities, diverse sexual orientations, discrimination against LGBTQ

individuals, and gender inequalities, among other non-LGBTQ-specific topics that portray a

holistic understanding of sexual health (e.g., body image and self-esteem, personal safety,

diverse family structures; MEES, 2018a, 2018b, 2018c).

This dissertation examines the overall framework of support systems available for

LGBTQ students, identify current research on the support systems' impact on the

socioemotional and academic outcomes for LGBTQ students, identify existing barriers that

prevent support systems to promote positive socioemotional and academic outcomes for LGBTQ

students, and identify gaps for future research across the support systems. Additionally, one of

the identified support systems for LGBTQ students is LGBTQ-inclusive curriculum. Therefore,

this dissertation also investigates the LGBTQ-inclusive curriculum because of the timely

implementation of Québec's mandated comprehensive SHE curriculum, *Sexuality Education*, in

2018. Chapter 1 consists of a review of the literature on LGBTQ youth and their associated risks.

Additionally, as this program of research is situated in Québec's SHE implementation, Chapter 1

will also include a review of Québec's educational context, particularly detailing the content of

the newly implemented *Sexuality Education*. The overarching goal was achieved through the

following two manuscripts:

Study 1 (Chapter 2), Social Support in Schools and Related Outcomes for LGBTQ

Youth: A Scoping Review, in submission to Psychology in the Schools, is a scoping review that

explores and organizes the social support systems present on LGBTQ student outcomes in

schools. Study 2 (Chapter 3), Teacher Attitudes and Beliefs towards Sexual Health Education:

Québec's *Sexuality Education*, in submission to Psychology in the Schools, is a quantitative

survey research that explores teachers' attitudes and beliefs towards the implementation of

Québec's mandated comprehensive SHE curriculum. Prior to the exploration, Study 2 attempts

to replicate using same or similar measures and compare teacher attitudes and beliefs with the

flagship article by Cohen and others (2004) examining New Brunswick teacher attitudes and

beliefs towards their SHE. The final chapter of this dissertation (Chapter 4) consists of the

conclusions drawn from the two studies, as well as implications for practice and future research.

This program of research seeks to organize and confirm the available social support systems at

present to foster positive outcomes for LGBTQ students. One specific social support system,

LGBTQ-inclusive curriculum, has been recently introduced as part of Québec's *Sexuality*

Education. By creating a framework of social support systems, exploring teacher attitudes and

beliefs towards Québec's *Sexuality Education* has the potential to provide further information on

LGBTQ-inclusive curriculum system. Between each manuscript, a brief transition is included as

a bridge for the studies. Given the connectedness and shared focus of the manuscripts, there can

be repetition in the literature reviews across both studies. Note that the term LGBTQ is used to

include individuals who identify as lesbian, gay, bisexual, transgender, questioning or queer, and

those who express diverse sexual orientations, gender identities, and gender expressions (Abreu

et al., 2021).

CHAPTER 1

Review of Literature

Within the public, research, and school communities, there has been an increasing focus in schools to address the mental health and well-being of their students (Poteat et al., 2016; Schwartz et al., 2021). Though there has been significant shift in law, public policies, institutional practice, and public attitudes towards LGBTQ inclusion, only 64% of Canadians agreed that same-sex marriage should continue (Canseco, 2019). LGBTQ Canadians still reported being more likely to be victimized and experience inappropriate behaviours in public and online spaces (Jaffray, 2020). In 2019, Statistics Canada (2021a) reported 263 hate crimes that targeted sexual orientation, a 41% increase from 2018 and the highest number of hate crimes since 2009. Compared to cisgender Canadians, transgender Canadians reported greater mental health issues, were more likely to have contemplated suicide, and were more likely to be diagnosed with a mood or anxiety disorder (Statistics Canada, 2021b). Lastly, gender diverse Canadians were almost three times more likely than cisgender male Canadians to report discrimination during the pandemic (Statistics Canada, 2020). Based on the statistics of LGBTQ community experiences in Canada, LGBTQ individuals are still experiencing heightened risks, despite the shifts in public policies and practices in Canada. This chapter reviews the literature on a subset of the LGBTQ population, LGBTQ students, and their experiences in school. This review of the literature explores a subset of the LGBTQ population, LGBTQ students, and their experiences in school, with a particular focus on policy changes in the Québec context, followed by a critique of the literature in this area.

LGBTQ Student Experiences in Schools

Egale Canada, the leading Canadian national organization for LGBTQ people, conducted their first national climate survey in 2009 that revealed 64% of LGBTQ Canadian students did not feel safe in their school (Taylor et al., 2011). Unfortunately, their second national climate survey conducted in 2020 reported similar rates of safety. 61% of LGBTQ Canadian students felt unsafe at school, compared to 11% of cisgender heterosexual students (Peter et al., 2021). A longitudinal comparison between the first and second national climate survey revealed that both CH and LGBTQ students in the 2020 survey were able to identify at least one place at their school that was unsafe, higher than the first survey in 2009. The survey in 2009 revealed that 47% and 71% of CH and LGBTQ students, respectively, identified at least one place at their school that was unsafe for LGBTQ students (Taylor et al., 2011). In the 2020 survey, the percentage increased to 57% and 78% for CH and LGBTQ students respectively (Peter et al., 2021). Given the increasing attention to LGBTQ inclusion and interventions towards LGBTQ safety (e.g., anti-bullying policies), the similar rates of lack of safety in schools and the increase in students' ability to identify unsafe spaces for LGBTQ students in school is surprising. One possible explanation may be a result of the increased awareness towards LGBTQ student safety in schools (Peter et al., 2021).

Following the trend between the first and second national climate survey, there were little improvements in students' feelings of safety at school due to their LGBTQ identities. 53% of LGBTQ students felt unsafe due to their sexual identity and 29% due to their gender identity or expression in the first survey in 2009. The second survey in 2020 reported 48% and 41% of LGBTQ students feeling unsafe, respectively. The increase in students feeling unsafe due to their gender identity is alarming as it is unclear why an increasing trend is occurring given the

increased focus in ensuring LGBTQ inclusion in schools. Lastly, in both surveys, 3% and 4% of

CH students reported feeling unsafe due to sexual identity and gender identity or expression

respectively. Exploring national-level data both longitudinally and cross-sectionally between

LGBTQ and CH students have demonstrated a continuing need to understand the available

support systems to foster a sense of safety for LGBTQ students, given the disproportionate risks

of safety LGBTQ students experience in schools. Social support can be defined as the types of

relationships (e.g., family, peers, educators) that can provide unique resources and support to the

individual, providing positive adjustment and opportunities (Watson et al., 2016). Research on

the sources of social support for LGBTQ students is still in its infancy. As social support systems

are often explored separately (Watson et al., 2016), this dissertation aims to organize and

understand the different relationships that promote positive outcomes and minimize negative

outcomes for LGBTQ youth. Exploring social support in relation to LGBTQ student safety in

schools is crucial for LGBTQ students to foster positive psychological wellbeing and academic

engagement, along with a decrease in socioemotional, behavioural, and academic risks (e.g.,

depression, truancy, sense of isolation, victimization, harassment, lower grades; Hanson et al.,

2019; Proia, 2016; Russell et al., 2021).

Sexual Health Education (SHE) in the Québec Context: *Sexuality Education*

   A school-level support system commonly mentioned in LGBTQ educational research is

the inclusion of LGBTQ-inclusive curriculum. A LGBTQ-inclusive curriculum can be defined as

a curriculum that contains LGBTQ people, history, events, and related information that serves as

both a mirror reflecting LGBTQ individuals and their experiences and a window for CH

individuals to understand the experiences and perspectives of LGBTQ individuals (GLSEN,

2020; Snapp et al., 2015). Providing a LGBTQ-inclusive curriculum have shown to foster a

positive classroom environment, awareness of LGBTQ issues, among other socioemotional and

academic benefits (GLSEN, 2020). Though not explicitly titled a LGBTQ-inclusive curriculum,

a comprehensive sexual health education (SHE) curriculum can be considered inclusive to

LGBTQ-related topics (e.g., understanding sexuality, diverse family structures).

In the Québec context, there have been several curriculum changes to the state of SHE

curriculum. Since the 2005 curriculum reform in Québec, a new educational framework, the

Québec Education Program (QEP) emerged with five broad areas of learning: *Health and Well-*

Being, *Personal and Career Planning*, *Environmental Awareness and Consumer Rights and*

Responsibilities, *Media* Literacy, and *Citizenship and Community Life* (Gouvernement du

Québec, 2001). Sexuality topics outside of the biological domain of sexual health became

categorized under *Health and Well-Being* (MEQ, 2004). The Ministry of Education Québec

(MEQ) and Ministry of Health and Social Services (MSSS) collaborated with multiple

stakeholders (ie., students, parents, teachers, school administrators) to build opportunities for

students to explore sexual health through interdisciplinary projects and classroom discussions

(Garcia, 2015). However, the 2005 SHE curriculum was not a mandated curriculum. Rather,

there was a lack of concrete framework to translate SHE knowledge effectively for student. The

lack of a mandatory SHE curriculum questions the existence of SHE curriculum implementation.

The 2005 Québec educational system expected teachers to spontaneously integrate sexual health

topics into classrooms and school activities without training or explicit instructions, inviting

community organizations to develop sexual health-related activities, discussions, and cross-

curricular projects. However, collaborations between schools and community organizations led

to barriers because of ideological disagreements and a lack of clear roles, responsibilities, and

expectations (Garcia, 2015). Subsequently, collaborations resulted in misunderstandings. In

addition to misunderstandings, time and organization to plan sexual health initiatives was a

recurring barrier, resulting to the avoidance of sexual health inclusion (Garcia, 2015). Therefore,

the 2005 SHE curriculum encountered fidelity issues regarding the inclusion of sexual health

topics, negatively affecting students' effective sexual health information and skills gathering.

Another recurring issue was the lack of support in teacher education. Given teachers

mentioning the lack of SHE knowledge as a barrier to address sexual health in classrooms,

providing teachers with the knowledge and tools is critical to ensure students can effectively

receive and learn SHE. However, teacher qualifications to teach sexual health vary within

Québec as a result of the lack of SHE training in B.Ed. teacher certification programs (Otis et al.,

2012). Previous studies examining teacher training on sexual health in Québec found that 88.5%

of the high school teachers had not received any form of SHE training (Beaulieu, 2010; Garcia,

2015). McKay and Barrett (1999) found that only 39.3% of 84 teaching programs provided some

form of mandatory or elective course related to sexual health. As universities do not typically

offer SHE courses to pre-service teachers, the lack of SHE training is a point of concern. A 2017

curriculum analysis of all English B.Ed. programs in Québec found no mandatory courses on

SHE (Leung et al., 2022), a cause of concern if teachers are told to incorporate SHE initiatives

and activities in their curriculum without prior training. Only one B. Ed. program out of nine

across the French universities in Québec offered an elective sexuality course for pre-service

teachers (Beaulieu, 2010; Garcia, 2015). Therefore, teacher education on SHE places the onus on

pre-service teachers to select elective classes related to sexual health, leading to variability in

knowledge and comfort to teach SHE in their classroom (Waddell, 2017).

Lastly, the lack of a mandated SHE curriculum led to a lack of clarity in ownership. PSTs

perceived that no one would assume responsibility to teach SHE topics in their classroom

(Dowd, 2009). Similarly, ISTs were unaware of their roles and responsibilities to teach SHE topics (Dowd, 2009; Garcia, 2015). The lack of a concrete framework questions the fidelity in SHE implementation in classrooms considering the lack of training, support, time, and conflict across stakeholders.

In 2018, the SHE topics have been reformed through a mandated program entitled *Sexuality Education*, complementary to the QEP (Xanthoudakis, 2021). The objective of this program is to take a comprehensive and holistic approach to sexual health, enabling students to be self-reflective, acquire respectful and equitable relationship skills with their peers and dating partners, and develop critical thinking skills as responsible citizens (MEES, 2018c). The program is mandated to be taught from elementary through high school (optional for kindergarten), providing developmentally appropriate content to students for five to 15 hours per year (MEES, 2018c). The program is organized into eight themes: 1) comprehensive view of sexuality; 2) sexual growth and body image; 3) emotional and romantic life; 4) identity, gender stereotypes and roles, and social norms; 5) sexual assault/violence; 6) sexual behaviour; 7) pregnancy and birth; and 8) sexually transmitted and blood-borne infections (MEES, 2018c). Exploring further in the themes reveal LGBTQ-inclusive topics, for example within identity, gender stereotypes and roles, and social norms: 1) diverse gender roles, 2) identifying stereotypical representations of femininity and masculinity in society, 3) diverse sexual orientation, 4) gender inequalities, among other topics. Though Québec's *Sexuality Education* encompasses a wide variety of topics that expand beyond traditional SHE curriculum (ie., focusing on the biological lens of sexual health and abstinence-only until marriage; Roberts et al., 2020), it is unclear whether similar issues in implementation fidelity exists due to the lack of knowledge, training, and comfort to discuss the topics with their students. In particular, teachers have mentioned the lack of comfort

in discussing LGBTQ-related topics as they feel they do not possess the language or knowledge

to incorporate such topics (Weaver et al., 2005; Xanthoudakis, 2021). Though the *Sexuality*

Education curriculum was framed through a critical policy lens to create a comprehensive and

holistic SHE curriculum containing LGBTQ-inclusive topics, the lack of research assessing

teachers' perspectives on the mandated comprehensive, LGBTQ-inclusive SHE curriculum is a

cause of concern regarding the efficacy of the curriculum and its benefit to (both LGBTQ and

CH) students.

Critiques of Existing Literature

The existing literature presents many individual-level strategies, school-based programs,

and school policies that focus on supporting LGBTQ students in schools. However, there is

minimal research on creating an organizational framework to understand how all the different

strategies, programs, and policies influence, both uniquely and in collaboration with each other,

LGBTQ students' outcomes in schools. For example, GLSEN (2020) reported four major

support systems that exist to benefit LGBTQ students in schools: inclusive curriculum,

comprehensive policies, supportive educators, and student-led clubs. However, through the

Ecological Systems Theory, there may exist other support systems that have not been mentioned

as positively influencing LGBTQ student outcomes in schools (e.g., peers). It is evident that

there are many studies that document risks for LGBTQ students because of their sexual and

gender identity (e.g., Hafeez et al., 2017; Higa et al., 2015). Further, emerging research is

changing the narrative of LGBTQ students to positively empower their identities and experiences

in schools (Johns et al., 2019; Wilson & Cariola, 2020). Therefore, there is a need to organize the

emerging literature that focuses on the available social support systems for LGBTQ students in

schools. By providing a systemic framework on social supports for LGBTQ students, this can

provide a foundation to which all relevant stakeholders (teachers, school administrators, researchers, parents, students) can understand how to support LGBTQ students comprehensively and most effectively in schools.

There is a lack of existing research on the inclusive curriculum system recently implemented in 2018. Previous literature has mentioned that Canadian, including Québec, teachers lack the SHE knowledge, comfort, training, and time to incorporate SHE topics in their curriculum (Robinson et al., 2019). Québec teachers voiced their need for additional training to deliver SHE and opportunities to learn about sexuality and how to think critically in delivering the material to their students (Garcia, 2015; Xanthoudakis, 2021). A search on the 2018 implementation of Québec's *Sexuality Education* mandate resulted in minimal research surrounding the efficacy of effective SHE implementation by teachers. One study by Xanthoudakis (2021) conducted a content analysis on Québec's *Sexuality Education* found that the curriculum provided a balance of positive and negative aspects of sexual health: sexuality, relationships, and STI prevention, for example. Having positive aspects of sexuality shows great progress for LGBTQ students compared to SHE curriculum in other Canadian provinces and U.S. states. For example, Ontario currently implements an abstinence-only SHE curriculum, with no mention of sexuality and gender diversity (Gilbert, 2021; Meyer, 2010). The exclusion of LGBTQ-related topics can result in decreased LGBTQ students' sense of belonging, sense of safety, and academic engagement (Wilson & Cariola, 2020). However, though there is an inclusion of LGBTQ-related topics, a lack of concreteness in goals and outcomes for several SHE topics were found, hindering an effective implementation of the LGBTQ-inclusive curriculum for students.

Beyond Xanthoudakis's study (2021), there is no research investigating the teachers'

attitudes and beliefs towards the 2018 mandated comprehensive SHE curriculum in Québec. The

lack of analysis on teacher attitudes and beliefs towards Québec's comprehensive SHE

curriculum presents a gap to understand the teachers' perspective towards teaching an effective

SHE curriculum. Though a comprehensive SHE curriculum can present benefits for LGBTQ

students, the effectiveness of SHE curriculum is based on the teachers' beliefs in their program

implementation (Cohen et al., 2004). Similarly, teachers' attitudes towards SHE curriculum can

influence the variability in which they cover certain sexual health topics and their pedagogy to

effectively promote sexual health. Not specific to Québec's SHE curriculum, Cohen and

colleagues (2004) presented one of the foundational studies exploring a comprehensive list of

SHE topics in New Brunswick's SHE curriculum through the teachers' perspectives. This study

provided an in-depth coverage that showcased teachers' attitudes, beliefs, and their comfort to

teach each SHE topic in their classroom. The analysis of each specific SHE topic revealed

descriptive findings indicating teachers' lack of comfort in teaching certain SHE topics (e.g.,

homosexuality). As there has been no research similarly exploring Québec's *Sexuality Education*

curriculum, replicating the analysis on teachers' attitudes and beliefs can provide insight in how

teachers feel across each SHE topic. Given that Québec's *Sexuality Education* curriculum was

mandated in 2018, there is a lack of research exploring how teacher attitudes and beliefs may

influence their openness and competence to teach comprehensive SHE topics to their students.

Therefore, though Québec's *Sexuality Education* has made great advances to include LGBTQ-

inclusive topics that can benefit both LGBTQ and CH students, the shift towards mandatory

comprehensive SHE curriculum leads to many clarifying questions surrounding the pre-existing

issues on teacher education, training, and support, and whether teachers can effectively translate LGBTQ-related materials to their students, fostering a safer classroom environment.

Objectives

The reviewed body of research provides preliminary data for the various support systems that influence LGBTQ student outcomes in school. One of the systems, LGBTQ-inclusive curriculum, has been shown to be an effective system to foster academic engagement and sense of safety, while minimizing LGBTQ students' sense of isolation and depression (Proia, 2016). Given the recent changes to Québec's educational curriculum, similar rates of victimization and lack of safety perceived by LGBTQ students, and lack of organizational framework to understand the available systems of support for LGBTQ students in schools, more research is required to evaluate (1) the range of effective social support systems for LGBTQ students and (2) teacher (PST and IST) attitudes and beliefs towards their openness and competence to teach SHE curriculum.

Study 1 explores and organizes the effectiveness of social support systems on LGBTQ student outcomes in schools. Specifically, the first objective of Study 1 is to define social support for LGBTQ students in schools based on the Ecological Systems Theory. The second objective is to identify and describe the current research on outcomes for LGBTQ students given the implementation of these social support systems. The third objective is to identify the barriers and difficulties encountered by each social support system. Lastly, the fourth objective is to identify areas for future research across the social support systems for LGBTQ students in schools.

Study 2 explores how different characteristics among teachers facilitate or hinder their openness and perceived competence to teach Québec's mandated comprehensive SHE curriculum. Specifically, the first objective of Study 2 is to analyze associations between teacher

characteristics (e.g., prior SHE knowledge, sexual orientation, gender identity/expression,

PST/IST) and their attitudes and beliefs on nine LGBTQ-related SHE topics. The second

objective is to determine whether differences in teacher attitudes, beliefs, and characteristics

predict their openness and comfort, and perceived competence to teach the nine LGBTQ-related

SHE topics. Prior to the two objectives, an intermediate objective exists to replicate and compare

the current study's teacher attitudes and beliefs towards specific SHE topics with Cohen and

other's (2004) flagship article to determine chronological shifts from 2004 to 2021 towards the

specific SHE topics.

The purpose of this research program is to create an organizational framework

understanding the various social support systems contributing to LGBTQ student outcomes in

schools (Study 1: Scoping Review) and to examine the effectiveness of teacher implementation

of LGBTQ-related SHE topics in Québec's comprehensive LGBTQ-inclusive SHE curriculum

(*Sexuality Education*) by understanding teachers' attitudes and beliefs on their openness and

competence to teach LGBTQ-related SHE topics (Study 2: Teacher Attitudes and Beliefs

towards Sexual Health Education: Québec's *Sexuality Education*). Collectively, the studies in

this research provide further information on LGBTQ student experiences in school, their sense of

safety, and psychological wellbeing. Each study represents an original contribution to the field

and a first step to evaluate Québec's *Sexuality Education*, taking into consideration in-service

and pre-services teachers' perspective and experiences to teach a LGBTQ-inclusive SHE

curriculum.

CHAPTER 2

Study 1

Social Support in Schools and Related Outcomes for LGBTQ Youth:

A Scoping Review

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Abstract

Recent research has increasingly focused on positive factors and supports for LGBTQ youth.

This scoping review explores existing social support for LGBTQ youth in schools through the

ecological systems approach to respond to the following four objectives: 1) define social support

systems in schools, 2) identify current research on outcomes for LGBTQ youth, 3) identify

barriers to support LGBTQ youth in schools, and 4) identify areas for future research for

LGBTQ youth and social support in schools. A systematic search (Arksey & O'Malley, 2005)

between 2007 through 2021 resulted in 94 articles. This review gave rise to an organizational

framework to consolidate various systems of social support for LGBTQ youth in schools. Social

support consisted of seven social support systems (family, curriculum, family, peers, school

policies, GSAs and programs, and school climate) that are positively associated with the

promotion of positive socioemotional, behavioural, and educational outcomes for LGBTQ youth.

Though the literature has been clear surrounding the risks associated with LGBTQ youth, this

scoping review provides a positive outlook on LGBTQ youth's school experiences and how

these systems of social support allow for LGBTQ youth to act as active participants to foster a

positive school climate and sense of safety.

Keywords: change; LGBTQ; schools; social support; systems; youth

Social Support in Schools and Related Outcomes for LGBTQ Youth: A Scoping Review

Lesbian, gay, bisexual, transgender, and queer (LGBTQ) youth spend most of their lives in schools, navigating through the difficult and threatening space (Johns et al., 2019; Mufioz-Plaza et al., 2002). Schools can be a threatening space for LGBTQ youth as they experience increased victimization and a lack of safety (Kosciw et al., 2018). This fact is alarming since students spend most of their time in schools, approximately 175 to 220 days per year with an average of five to 8.5 hours per school day (National Center on Education and the Economy, 2018). Schools, then, can be thought of as youths' second home, particularly concerning for LGBTQ youth due to the lack of safety in their school environment.

Many studies have indicated that LGBTQ youth experience numerous socioemotional, educational, and health risks at school due to LGBTQ-specific prejudice and victimization. This includes isolation from peers, low social support, low school engagement, low academic success, school dropout, stress, anxiety, depressive symptoms, and suicidal ideation and attempts (Hafeez et al., 2017; Higa et al., 2015; Kosciw et al., 2012). However, rather than problematizing youth as at-risk, emerging research shifts the focus onto the systems that create and carry the risks towards LGBTQ youth, subsequently exploring through a positive lens to begin unpacking LGBTQ needs in schools (Johns et al., 2019). Recent research has increasingly focused on positive factors and supports for LGBTQ youth. For example, the presence of a supportive adult in a LGBTQ youth's lives facilitated a smoother high school experience (i.e., decreased absenteeism, increased academic engagement; McDonald, 2018). The goal of this study is to systematically explore the positive support systems available for LGBTQ youth, further exploring other potential social support systems beyond supportive adults, that are present in schools to mitigate the risks for LGBTQ youth and promote positive outcomes. This study will

begin by outlining Bronfenbrenner's (1992) Ecological Systems Theory as an approach to

understanding social support for LGBTQ youth. A cursory review of the protective factors and

stress experiences for LGBTQ youth in school will be explored followed by the process of a

scoping review and thematic analysis. Notably, the review seeks to pivot from a deficit lens of

LGBTQ youth considered at-risk toward systems that promote the positive outcomes of LGBTQ

youth. Additionally, the acronym LGBTQ will be used primarily when discussing the LGBTQ+

population. However, when applicable, other acronyms will be used to denote specific

subgroups. This can include LGB for studies that explore sexual minority individuals only.

Understanding Social Support for LGBTQ Youth Through Ecological Systems Theory

LGBTQ youth experiences have been increasingly explored in a variety of settings:

family, community, and school settings. One approach to organize the LGBTQ youth literature is

through a broader, systemic lens. Bronfenbrenner's (1977, 1992, 2005) Ecological Systems

Theory can provide the systemic lens needed that allows a way of thinking for the study of

interconnections among systems. The model views the individual's development as a complex

system of interactions and relationships across multiple systems surrounding the individual. The

systems suggested by Bronfenbrenner (1997, 1992, 2005) include: 1) microsystem, 2)

mesosystem, 3) exosystem, 4) macrosystem, and 5) chronosystem. Briefly, the microsystem

consists of the immediate stakeholders that are directly in contact with the individual (e.g., peers,

family). The mesosystem includes the interactions between the individual's microsystems (e.g.,

parents speaking with educators). The exosystem consists of stakeholders or environments,

which do not contain the individual, that indirectly influence the individual via their

microsystems (e.g., family's workplace). The macrosystem consist of the cultural components

that influence an individual's development (e.g., class, ethnicity). The chronosystem consists of

normative and/or non-normative environmental changes that occur over the lifespan that can

influence an individual's development (e.g., elementary to high school transition, COVID-19

pandemic). An understanding of the various systems surrounding the individual allows for the

exploration of the relationships between the systems (e.g., mesosystems). The Ecological

Systems Theory shifts the research focus to a more relational, developmental systems view,

acknowledging the interconnectedness of the systems and its associations to the individual (e.g.,

Bronfenbrenner, 1992, 2005).

Taken together, this scoping review attempts to explore existing social support for

LGBTQ youth in schools through the Ecological Systems Theory. An ecological systems

approach in understanding the existing literature on social support for LGBTQ youth can provide

an organizational framework necessary to consolidate the comprehensive literature of social

supports for LGBTQ youth in schools. As the scoping review attempts an initial exploration and

organization of existing social support for LGBTQ youth in schools, a deeper exploration on the

relationship between the systems will be explored in a separate review.

School-Based Protective Systems for LGBTQ Youth

American Psychological Association (2015) published an informational guide

summarizing the various school-based protective systems present for LGBTQ youth. Although

not comprehensive, the guide listed several supportive systems available in schools: 1) educators,

2) school policies, 3) gay-straight alliances, 4) inclusive curriculum, and 5) school climate.

Briefly, the guide implicated the importance of educators to help create a safe school climate for

LGBTQ youth, the need to create and enforce anti-harassment policies, the creation of gay-

straight alliances, and the development of LGBTQ-inclusive curriculum. Each system

(educators, policies, GSAs, inclusive curriculum) were found to be critical to an establishment of

a LGBTQ-affirming school climate, which in turn was shown to help minimize victimization

rates and increase sense of safety for LGBTQ youth (Johns et al., 2019; Wilson & Cariola,

2020). Other research similarly suggests the importance of LGBTQ-affirming school climate as a

supportive system to help minimize victimization rates and increase sense of safety for LGBTQ

youth (De Pedro et al., 2018).

As literature in this field typically examines systems of social support in isolation (e.g.,

curriculum, teachers, school policies separately), this scoping review aims to provide a more

comprehensive search strategy in consolidating the research on the available social support

systems for LGBTQ youth in schools. This scoping review attempts to bring together the

literature across multiple systems of social support for LGBTQ youth to develop a systemic

definition of social support for LGBTQ youth, identify the current research across all systems of

social support, identify the barriers and difficulties experienced by LGBTQ youth in schools, and

identify areas for future research in understanding the social support systems for LGBTQ youth.

Schools as a Key Site of Stress for LGBTQ Youth

Results from the 2015 Youth Risk Behavior Survey (YRBS) indicate that over 60% of

LGB youth experienced prolonged feelings of hopelessness compared with only 25% of

heterosexual youth. In a national survey of LGBTQ youth (Kosciw et al., 2018), 67% of LGBTQ

youth reported frequently hearing homophobic comments at school, 58% felt unsafe because of

their sexual orientation, and 43% felt unsafe because of their gender expression. Although there

was a high percentage of LGBTQ-specific concerns, only 12% of LGBTQ youth reported

teacher intervention. In Gay Lesbian Straight Education Network (GLSEN)'s national survey

(Kosciw et al., 2018), 92.6% of the LGBTQ youth mentioned health concerns (e.g., depression,

anxiety) as the main reason for not graduating high school, followed by academic (e.g., poor

grades, absences), and safety concerns (e.g., hostile school climate, harassment, unsupportive

peers and staff). Therefore, a further detailed systematic breakdown of the social support systems

in place in the educational setting is required to better understand what can be done to offset

negative experiences and risks. This analysis will also clarify the barriers schools face in

providing support and inform future inquiry for schools to move towards improved support for

LGBTQ youth.

Present data highlight that LGBTQ youth are at a heightened risk for numerous health

and educational concerns. Such concerns can be attributed to a lack of connection with their

teachers and school staff (Kolbert et al., 2015), a lack of acceptance from their family members

(Katz-Wise et al., 2017; McConnell et al., 2017), and peers (Wilson & Cariola, 2020), school

curricula and policies that value LGBTQ diversity (Snapp et al., 2015c), and the existence of

overall hostile and exclusionary school climates (Kosciw et al., 2018). The level of warmth and

positivity in a school environment can positively impact LGBTQ students' experiences and their

subsequent health and educational outcomes. For example, positive teacher-student relationships

are associated with greater school engagement, better academic performance, and overall better

social-emotional wellbeing for LGBTQ youth (Lee, 2012). This review seeks to pull together

literature on how LGBTQ youth are supported in schools and examine the ways that different

types of social support can affect outcomes to provide an organized framework to effectively

support LGBTQ youth.

Research Question and Aims of the Current Study

While efforts have been made to support LGBTQ youth in schools, literature is diffuse

and shows mixed results (Johns et al., 2019; Toomey et al., 2017). Subsequently, a systematic

surveying of the literature on all support systems set in place that provide the necessary social

support for LGBTQ youth is necessary. Social support includes numerous school professionals

and community members such as school psychologists, educators, counsellors, and principals to

act as critical individuals holding the power to support and advocate for LGBTQ youth. The

scoping review aims to synthesize current research on social support for LGBTQ youth in

schools. Recurring literature on social supports for LGBTQ youth include gay-straight alliances

(GSAs), school policies, curriculum, and parent and peer support (Johns et al., 2019). The review

seeks to direct future research by providing clarity and illuminating gaps in literature to foster

more nuanced research and interventions that ameliorate significant health and educational

disparities for LGBTQ youth. As research is robust indicating the disproportionate stress that

LGBTQ youth experience (Wilson & Cariola, 2020), this review is imperative to systematically

explore the systems of social support for LGBTQ youth.

This study seeks to respond to the following question:

How does social support in elementary and secondary education relate to outcomes for LGBTQ

youth?

with the following objectives:

(1) Define what it means to have social support in schools,

(2) Identify and describe the current research on outcomes for LGBTQ youth given the

implementation of these social support systems,

(3) Identify barriers and difficulties to support LGBTQ youth in an educational setting, and

(4) Identify areas for future research for LGBTQ youth and social support in schools.

Method

Search Strategy

This study follows the methodologically rigorous scoping review approach designed by Arksey and O'Malley (2005) and conducted a systemic search across the disciplines of education and psychology. A scoping review was chosen to allow for the inclusion of multiple study designs and to allow for post-hoc analysis of inclusion and exclusion criteria (Pham et al., 2014). In particular, as a systematic review approach required study appraisals, a scoping review was more appropriate due to the inclusion criteria of both empirical and non-empirical studies.

Eligibility Criteria

A set of inclusion and exclusion criteria were established a priori to provide guidance for the systematic search strategy

Information Sources

The search used the following databases: PsycINFO, ERIC, Genderwatch, ProQuest Dissertation and Thesis, Web of Science, Cochrane Database of Systematic Reviews, and Campbell Systematic Review. A description of keywords can be seen in Table 1 and a visual for the search and data collection process in Figure 1.

Search

A social science librarian was consulted to ensure a systematic procedure following scoping review procedures. The five databases were cross-checked with an expert in the field of LGBTQ studies to ensure a comprehensive collection of databases. After databases were confirmed, key concepts were brainstormed and cross-checked with the second and third author,

the expert in the field of LGBTQ research (April 2017), and the librarian (May 2017). Keywords

were broken down into three sections. The first column consists of LGBTQ terms (e.g.,

homosexuality, bisexuality, gender identity, transgender or [attitudes towards]). The second

column consists of school terms (e.g., high school students). The last column consists of social

support terms (e.g., peers). Refer to Table 1 for a full list of search terms. All keywords in each

column were combined. After a collaborative process between the authors, librarians, and expert,

all keywords and related terms were included in each database.

Data Collection Process

Data were collected during June 2017 and revised in February 2021 to ensure consistency

between the searches. Throughout the collection process, the authors engaged in an iterative

process to discuss obstacles that arose during the screening phase. As depicted in the flow chart

(Figure 1), the initial data collection yielded 565 articles ($n_{2017} = 364$; $n_{2021} = 199$) . After

deduplications were removed, 533 articles remained ($n_{2017} = 335$; $n_{2021} = 198$).

Phase One: Title and Abstract Screening (2017)

Phase one consisted of an initial screening of the relevant literature. During this phase,

the first, second, and third authors conducted independent title and abstract screening of the 335

articles, resulting in an interrater agreement of 71.94%. Any disagreements across the authors

were discussed until a consensus was reached based on the inclusion/exclusion criteria.

Following the screening, 128 articles remained.

Phase Two: Full Text Screening

An independent screening by the first, second, and third authors of the 128 articles identified in phase one resulted in 54 articles being retained in the review. Interrater agreement was 80.47%. Consensus was achieved through iterative discussion among the authors to determine the final literature count.

Phase Three: Data Extraction

Once the final sample of studies were selected, a table was created to depict important information from each study: 1) study characteristics (e.g., study design, school setting, research question), 2) group demographics (e.g., LGBTQ acronym, sample size, grade level, age range), 3) social support factors, and 4) key findings.

The resulting 54 articles from the full-text screening were broken into three blocks of 18. Each author independently read two of the three blocks of articles and extracted relevant data (such that the first author independently read blocks A and B; the second author independently read blocks A and C; and the third author independently read blocks B and C). After independent data extraction, the two reviewers for each corresponding block resolved any differences.

Phase Four: Revised Data Collection (2021)

A revised data collection was addended since the 2007 through 2017 phase. Another round of data collection, abstract, and full-text screening was conducted from 2017 through 2021. An additional 198 articles were collected for initial screening (totalling 533 articles, see Figure 1). Following the same procedures of phase one title and abstract screening, independent screening was conducted by the first and fourth author, resulting in 56 articles retained with an inter-rater reliability of 84.34% ($N_{2017+2021} = 184$). Replicating phase two, the first and fourth

author conducted independent full-text screening on the 56 articles, resulting in 40 articles with an inter-rater reliability of 75.00% ($N_{2017+2021} = 94$). Following phase three, the resulting 40 articles from the full-text screening were broken into two blocks of 20. Each author independently read one block of articles and extracted relevant data. After independent data extraction, the two authors checked and resolved any differences in the other block.

Synthesis of Results

After data abstraction, quantitative data was collected on the following categories (see Table 2): 1) research design, 2) participant sample size range, 3) LGBTQ acronym, 4) school setting, 5) number of schools, 6) number of students, and 7) the types of social support. Initial IRR of 94 articles was 76.60% and discrepancies were discussed and resolved through an iterative process between the first through fourth authors.

Subsequent thematic analysis (Anderson, 2004; Braun & Clarke, 2006; Creswell, 1998; Gbrich, 2007; Vaismoradi et al., 2013) was conducted. This method of analysis is justified as a descriptive, qualitative method to identify common themes found in the key findings of the 94 articles. Initial IRR was 78.72%, above the acceptable level of reproducibility, and discrepancies were discussed and resolved among the first four authors.

Data analysis involved both quantitative (e.g., frequency analysis) and qualitative (e.g., thematic analysis) methods, resulting in a multi-layered synthesis process that allowed for the identification of existing gaps in the literature and revealed potential topics for conducting future systematic or novel reviews.

Results

Study Characteristics

Refer to Table 2 for a tabulation of characteristics across the 94 articles.

Research Design

Out of the 94 articles, there were 48 (51.06%) quantitative studies, 43 (45.74%) qualitative studies, and three (3.19%) mixed-methods studies.

LGBTQ Acronym

As each article used several LGBTQ acronyms interchangeably, there is a total of 102 acronym frequencies across 94 articles. Acronyms include LGBTQ/GLBTQ ($n = 40$; 39.22%), LGBT/GLBT ($n = 15$; 14.71%), sexual minority/SMY ($n = 10$; 9.80%), LGBQ ($n = 7$; 6.86%), LGB/GLB ($n = 6$; 5.88%), transgender/trans* ($n = 4$; 3.92%), SSA ($n = 3$, 294%), GSM/GSD ($n = 3$; 2.94%), LGBTQQ ($n = 2$; 1.96%), gender-variant ($n = 2$; 1.96%), GM ($n = 2$; 1.96%), LGBTQ2S ($n = 2$; 1.96%), LGBTQ+ ($n = 2$; 1.96%), queer ($n = 1$, 0.98%), MSMY ($n = 1$; 0.98%), bisexual/pansexual ($n = 1$; 0.98%), TGD ($n = 1$; 0.98%).

Participant Sample Range

Across 94 articles, 42 studies provided specific age or grade ranges of the participants. Participants range from students in grades nine through 13 ($n = 20$; 21.28%), grades seven through 12 ($n = 10$; 10.64%), grades 8 through 12 ($n = 6$; 6.38%), grades 10 through 12 ($n = 4$; 4.26%), and grades 6 through 12 ($n = 2$; 2.13%). 40 studies did not provide specific age or grade range of students and only included the educational institution broadly: high school ($n = 16$;

17.02%), middle and high school ($n = 7$; 7.45%), high school and college ($n = 5$; 5.32%), middle

school ($n = 4$; 4.26%), elementary school ($n = 4$; 4.26%), college ($n = 3$; 3.19%), elementary and

high school ($n = 1$; 1.06%). The remaining 12 studies included adult staff or parent participants

($n = 5$; 5.32%) or did not specify ($n = 7$; 7.45%).

School Setting

As each study recruited school settings that were different in type (i.e., catholic, private,

democratic) and in developmental age (i.e., elementary, middle, high school), there was a total of

108 counts of school settings across the 94 articles. School settings included high school ($n = 46$;

42.59%), middle and high school ($n = 28$; 25.93%), private schools ($n = 5$; 4.63%), elementary

through high school ($n = 4$; 3.70%), elementary school ($n = 4$; 3.70%), catholic schools ($n = 4$;

3.70%), middle school ($n = 3$; 2.78%), college ($n = 3$; 2.78%), alternative schools ($n = 2$; 1.85%),

community center ($n = 1$; 0.93%), democratic school ($n = 1$; 0.93%), and independent school (n

$= 1$; 0.93%). Six studies (5.56%) did not specify the type of school setting.

Types of Social Support

Each study reported more than one type of social support related to LGBTQ students,

resulting in a total of 188 counts of social support types. Social support was organized into four

categories: school support ($n = 139$; 73.94%), peer support ($n = 24$; 12.77%), parental support (n

$= 16$; 8.51%), and community support ($n = 9$; 4.79%). School support was further broken to

include gay-straight alliances ($n = 42$; 22.34%), supportive non-teaching staff ($n = 34$; 18.09%),

supportive teachers ($n = 24$; 12.77%), positive school climate ($n = 12$; 6.38%), programs and

policies ($n = 11$; 5.85%), school-wide approaches ($n = 9$; 4.79%), and curriculum ($n = 7$; 3.72%).

Synthesis of Results

Based on Bronfenbrenner's Ecological Systems Theory, the constructed themes that arose across the 94 articles were organized into support systems that directly impact LGBTQ youth outcomes. As geographical information was not extracted, findings are generalized and may not accurately represent specific geographically contextualized policies and environments.

The Role of Family (Caregiver) Systems and Social Support

Three distinct themes were constructed from the literature: 1) high actual or perceived family/caregiver support buffered many negative socioemotional or educational outcomes ($n_{articles}$ = 12), 2) family/caregiver support was not consistently adequate to buffer the negative emotional, behavioral, and educational outcomes ($n_{articles}$ = 3), and sex differences within family experiences highlight complexities of family/caregiver support ($n_{articles}$ = 3).

High Caregiver Support Buffering Negative Outcomes

When family (or caregiver) support was low, LGBTQ youths' level of emotional and behavioural distress was high (Antonio & Moleiro, 2015; Bidell, 2014; Button et al., 2012; Craig & Smith, 2014; Grace & Wells, 2009; Johnson et al., 2011; Pearson & Wilkinson, 2013; Poteat et al., 2011; Wright et al., 2012). A lack of social support in the family system (e.g., family harassment, low caregiver support, low communication and closeness) was positively associated adverse social (e.g., disengaging from peers, running away from home; Grace & Wells, 2009; Johnson et al., 2011; Pearson & Wilkinson, 2013; Wright et al., 2012), emotional (e.g., depression, psychological distress, substance abuse, suicidal ideation; Antonio & Moleiro, 2015; Bidell, 2014; Button et al., 2012; Johnson et al., 2011; Pearson & Wilkinson, 2013) and educational outcomes (e.g., school dropout; Bidell, 2014) for LGBTQ youth. However, studies

have shown that family acceptance was a type of social support that fostered LGBTQ youths'

critical thinking and advocacy for safe spaces in schools to support marginalized students (Grace

& Wells, 2009; Wright et al., 2012). Family support was particularly associated with better

school performance for LGBTQ racialized youth. For both White and racialized LGBTQ youth,

perceptions of being close with parents and direct involvement with parents in activities

moderated experiences of victimization at school, and reduced substance use and suicidality,

educational risks, and increased school belonging (Button et al., 2012; Pearson & Wilkinson,

2013; Poteat et al., 2011). Moreover, LGBTQ-affirming resources aimed at developing family

support (e.g., parent advocacy, allyship, communication, trust) fostered LGBTQ youth academic

well-being, physical and emotional safety, and ability to be authentic in classrooms (Craig et al.,

2018; Goldstein et al., 2018; Pace et al., 2020).

Caregiver Support Inconsistent in Buffering Negative Outcomes

Studies showed that family (or caregiver) support did not consistently buffer the negative

outcomes that happens at school (Button, 2016; Poteat et al., 2011). Though family support may

be protective against victimization and self-harm among youth, effects were less robust for

gender minority youth (Ross-Reed et al., 2019).

Sex Differences Within Family Experiences

Three unique studies found differences present for 1) boys and girls and 2) mothers and

fathers. Pearson and Wilkinson (2013) found that only sexual minority girls were less distressed

when they reported a sense of strong family relationships. However, there was no association

found between caregiver support and peer victimization for sexual minority girls (Johnson et al.,

2011). Bos and others (2008) found less distress among all LGBTQ youth who established a

strong relationship with their fathers (e.g., more disclosure and communication) but not their mothers. A strong relationship with fathers resulted in increased positive social (e.g., more peer acceptance), emotional (e.g., increased self-esteem, decreased depression), and educational outcomes (e.g., increased school belonging; Bos et al., 2008).

Supporting LGBTQ Youth Through the Curricular Education System

Four distinct themes were constructed from the literature: 1) LGBTQ-inclusive curriculum was most often taught in social sciences, humanities, and health classes, fostering authenticity with students and creating an inclusive classroom ($n_{articles} = 6$), 2) LGBTQ-inclusive curriculum led to decreased victimization and negative socioemotional outcomes and increased sense of safety ($n_{articles} = 5$), 3) a hidden, heteronormative curriculum exists behind the official academic curriculum that impedes LGBTQ youth support and engagement ($n_{articles} = 4$), and 4) a need for teachers to feel supported to teach LGBTQ-inclusive curriculum effectively ($n_{articles} = 4$).

LGBTQ-Inclusive Curriculum Fostering Authenticity With Students and Creating an Inclusive Classroom

LGBTQ-inclusive curriculum appeared to be taught only in specific classes, specifically in social sciences, humanities, and health classes (Blackburn, 2007; Snapp et al., 2015; Wright et al., 2012). Making connections with LGBTQ-inclusive material allowed students to make authentic connections between their lives and the class content (Mayo, 2013b) which contributed to an increased psychological wellbeing and disrupted homophobia and other forms of oppression (Blackburn, 2007; Snapp et al., 2015a; Wargo, 2019; Wright et al., 2012). Teachers who incorporated LGBTQ material into their curriculum allowed youth to identify teachers as possible safe adults to discuss sensitive concerns (e.g., LGBTQ-related concerns, coming out). Teachers also agreed on the importance of weaving social justice topics in the curriculum to

model critical literacy and to create an inclusive curriculum, benefitting all students (Pearce & Cumming-Potvin, 2017).

LGBTQ-Inclusive Curriculum Decreased Negative Outcomes and Increased Sense of Safety

LGBTQ-inclusive curricula had supportive elements at the individual and school level (ie., increased feelings of safety at school, decreased feelings of isolation and depression, and more awareness of victimization at school; Luecke, 2011; Snapp et al., 2015c). Incorporating LGBTQ-inclusive curriculum and having access to LGBTQ-related information in schools was positively associated with perceptions of a safer school environment and negatively associated with perceptions of victimization (Snapp et al., 2015c; Toomey et al., 2012). Therefore, developing a curriculum that centers LGBTQ issues can disrupt homophobia, injustice, and other forms of oppression, which can provide safety and acceptance, and validate LGBTQ youths' experiences at school (Shelton & Lester, 2018; Wargo, 2019).

Hidden, Heteronormative Curriculum Impedes LGBTQ Youth Support and Engagement

This theme expands on the hidden, heteronormative curriculum that exists behind the official academic curriculum. Castro and Sujak (2014) mentioned the need for LGBTQ-inclusive curriculum to expand outside of academics, such as the social (e.g., relationships and communication) and campus curriculum (e.g., inclusive group space). LGBTQ-inclusive curriculum is most effective when it can be generalized beyond formal learning spaces. Gay-straight alliances (GSAs), a supportive network outside of the classroom, is one space that can supplement LGBTQ-inclusive curriculum outside formal education. Informal spaces of LGBTQ-inclusive curriculum can foster student engagement and provide further opportunities for

students to engage in social advocacy and promote a positive school climate (Lapointe, 2014;

Mayo, 2013b; Woolley, 2012).

Teachers Need to Feel Supported to Teach Effective LGBTQ-Inclusive Curriculum

Though LGBTQ-inclusive curricula can be a pillar of social support for LGBTQ youth,

teachers often miss teachable moments conducive to inclusive curriculum (Luecke, 2011; Snapp

et al., 2015a). Teachers mentioned difficulty fostering an inclusive curriculum due to rigid

curriculum, high stakes testing, and parental resistance (Pearce & Cumming-Potvin, 2017),

requiring the administration to provide the support needed for teachers to change the curriculum

(Liboro et al., 2015). Note that the barriers may be contextual as high-stakes testing does not

occur in all school contexts and curricula may be externally-constructed in relation to the

geographical context of the school environment.

Gay-Straight Alliances (GSAs) and Other School Programs

Six distinct themes were constructed from the literature: 1) gay-straight alliances (GSAs)

fostered a space for empowerment and change, creating a safe space and climate for LGBTQ

youth ($n_{articles} = 24$), 2) GSAs created opportunities for connection for LGBTQ students in their

community ($n_{articles} = 13$), 3) GSAs allowed for engagement and youth involvement in schools

($n_{articles} = 11$), 4) GSAs had varying functions ($n_{articles} = 7$), 5) GSAs encountered challenges in

delivering positive outcomes ($n_{articles} = 15$), and 6) school-based interventions (non-GSAs) were

effective in supporting LGBTQ students ($n_{articles} = 6$). Note that most of the articles referred to

GSAs as gay-straight alliances. One article referred GSAs as gender-sexuality alliances.

GSAs Foster a Space for Empowerment and Change, Creating a Safe Space and Climate for LGBTQ Youth

GSAs help students provide a space to act together to create cultural and institutional change (Elliot, 2016; Russell et al. 2009; Woolley, 2012) and can be transformative for school culture. These spaces provide a positive and safe physical and intellectual space where students can engage in knowledge transfer and discuss LGBTQ issues otherwise silenced in the larger school community and bring attention to exclusive policy and practices (Elliot, 2016; Grace & Wells, 2009; Lapointe, 2014, 2015; Liboro et al., 2015; Mayberry et al., 2013; Mayo, 2013a; McGlashan & Fitzpatrick, 2017, 2018; Russell et al., 2009; St. John et al., 2014; Sutherland, 2019; Woolley, 2012). GSAs give LGBTQ youth a safe place to go where they can be accepted (Liboro et al., 2015). GSAs can be a space where mental health promotion programs can be incorporated to provide students with coping skills and resources (Heck, 2015). The presence and membership in GSAs were positively associated with school belongingness, school engagement, school safety, academic success, wellbeing, and negatively associated with substance use, psychological distress, and victimization incidents (Bain & Podmore, 2020; Heck, 2014; Heck et al., 2013; Ioverno & Russell, 2021; Lessard et al., 2020; Poteat et al., 2013; Toomey & Russell, 2013; Toomey et al., 2011). Entering GSA classrooms offered visibility, positive symbols of acceptance, respect, and affirmation, providing LGBTQ youth with a sense of safety (Bain & Podmore, 2020; Porta et al., 2017).

GSAs Create Opportunities for Connection for LGBTQ Students in Their Community

GSAs provide accountability, support, community, increased academic success, and decreased feelings of isolation by connecting youth with other LGBTQ community members, events, and resources. Subsequently, the connections lead to increased validation and normalization of identity, sense of hope, acceptance, greater self-esteem, greater appreciation for self and other peers, adaptive social relationship skills, and a sense of safety and empowerment

for LGBTQ youth (Elliott, 2016; Grace & Wells, 2009; Heck et al., 2013; Liboro et al., 2015;

Mayberry et al., 2013; Mayo, 2013a, 2013b; McCormick et al., 2015; Russell et al., 2009; St.

John et al., 2014; Toomey & Russell, 2013). GSAs allowed for connections to community

organizations, providing a gateway to the wider LGBTQ community, supportive adults,

community resources, and fostered activism opportunities and LGBTQ visibility (Bain &

Podmore, 2020; Porta et al., 2017).

GSAs Allow for Engagement and Youth Involvement in Schools

Participation in GSA was positively associated with perceptions of a safer space for

LGBTQ youth to engage in self-expression and identity validation, through participating in

discussions and activities (Lapointe, 2017). Their involvement in GSA-related activities and

events increase their self-efficacy (Chong et al., 2019), academic success, school engagement,

school belongingness (Hazel et al., 2019; Toomey & Russell, 2013; Toomey et al., 2011), sense

of hope, and advocacy and awareness-raising efforts (Poteat et al., 2018, 2020). Engaging with

GSAs enabled students to form their own identities grounded in empowerment rather than as

victims (Elliott, 2016; Russell et al., 2009). LGBTQ youth, teachers, and school administrators

have reported that having and engaging in their GSA gave students space for emotional safety

(Mayberry et al., 2013; Mayo, 2013a).

GSAs Vary in Their Function (e.g., Advocacy, Educational, Socialization)

GSAs had distinct purposes in assisting different aspects of LGBTQ youth: 1) advocacy,

education, and social support; 2) literature to reflect on the lives and experiences of LGBTQ

youth; and 3) developing skillsets to assist students in fostering inclusion and acceptance

(Underhill, 2017). Advisors believed the primary role of GSAs is to bring awareness and act in

schools, whereas students believed the purpose was to foster a sense of community and

belongingness (Lapointe, 2015; Mayberry et al., 2013; Robertson, 2008). The varying functions

of GSAs depend on the internal provisions of support, from visibility raising to collective social

change (Mayberry et al., 2013; Poteat et al., 2015; Woolley, 2012). Students who were more

involved in accessing information and advocacy efforts discussed more health-related topics,

prepared more awareness-raising campaigns, and had increased school engagement (Poteat et al.,

2017). On the other hand, GSAs with a stronger focus on socialization efforts focused less on

mental health discussions (Poteat et al., 2017).

GSAs Encounter Challenges in Delivering Positive Outcomes

Although GSAs were found to be effective in supporting LGBTQ youth in schools, only

19.1% of youth reported an existence of a GSA in their high school (Bidell, 2014). Program

implementations within GSAs also encountered common problems. Problems include a lack of

staff training and safe staff, a lack of student understanding of or sensitivity to LGBTQ issues,

and challenges in discussing sexuality in a school setting (Horowitz & Itzkowitz, 2011; Liboro et

al., 2015). GSAs struggled to subvert the heteronormative school climate in schools where the

greater community was unsafe, particularly in rural environments (De Pedro et al., 2018;

Lapointe, 2015; Mayberry et al., 2013). For example, high schools had concerns and restricted

policies on GSA student behaviours , limiting activities allowed by students (Elliott, 2016;

Fetner et al., 2012). In communities that were indifferent or hostile towards LGBTQ populations,

GSA advisors were required to negotiate with school administrators to provide LGBTQ youth a

safe space in schools (Bain & Podmore, 2020). In schools with high levels of victimization, the

benefits of GSA-related social justice involvement and presence dissipated (Toomey et al., 2011;

Toomey & Russell, 2013). In some schools, the presence or participation in GSA activities did

not predict student school engagement and was not associated with mental health outcomes or

sense of safety (Colvin et al., 2019; De Pedro et al., 2018; Poteat et al., 2013; Seelman et al.,

2012, 2015). Rather, the presence of a GSA led to emotional vulnerabilities to the wider school

community (Bain & Podmore, 2020). As such, the impact of GSAs on LGBTQ youth safety and

school climate may vary widely across schools and geographic context.

School-Based Interventions (non-GSAs) Were Effective to Support LGBTQ Youth

There is a need to employ a pragmatic approach and focus on student safety to gain

administrative support to conduct interventions (Lassiter & Sifford, 2015; Liboro et al., 2015;

Robertson, 2008). Classroom intervention focused on accepting individual differences through

open discussion and participation of emotional and sensitive issues were effective in framing

uniqueness as a strength and fostered change towards an accepting classroom climate (Luecke,

2011; Robertson, 2008). Youth-led theater and dialogue-based interventions were effective to

address heterosexism and genderism in schools, with increased reports of willingness and

intention to advocate for social justice and equality for LGBTQ people (Wernick et al., 2016).

Hall and others (2018) showed how a student-led community art gallery was effective to create a

space for discussion and consider gender issues and take action towards supporting LGBTQ

youth.

The Role of Peer Systems in Supporting LGBTQ Youth

Two distinct themes were constructed from the literature: 1) peer support and acceptance

were related to lower levels of emotional and behavioural distress and fostered positive outcomes

($n_{articles} = 13$), and 2) inconsistencies in the effectiveness of peer support for diverse LGBTQ

youth ($n_{articles} = 4$).

Fostering Peer Support and Acceptance Relates to Lower Levels of Emotional Distress and

Fosters Positive Social and Educational Outcomes

LGBTQ youth who had higher levels of peer acceptance and lower levels of strained peer relationships experienced lower levels of depression and suicidal behaviour, higher levels of self-esteem, increased academic success (Bos et al., 2008; Huang et al., 2018; Jones, 2017), particularly for youth from rejecting families (Craig et al., 2018). On the other hand, lower peer acceptance or connection predicted higher levels of depressive symptoms and lower levels of self-esteem and belongingness to the school (Bos et al., 2008). Uniquely, peer acceptance from straight allies played an important role to address anti-gay stereotypes (Lapointe, 2014). Engaging in peer education and interventions led to increased levels of safety for LGBTQ youth (De Pedro et al., 2018; Fantus & Newman, 2021; Shelton & Lester, 2018). Older youth were found to have less homophobic attitudes and were more willing to remain friends with GL youth (Toomey et al., 2012). Schools where GLB youth had opportunities to socialize reported increased belonging in their school and in their larger community (McLaren et al., 2015). Being out (i.e., disclosure of gender or sexuality) to more peers at school was generally associated with higher grades and less school harassment (Watson et al., 2015). Similarly, seeing peers who were out was positively associated with sense of safety in schools (Palkki & Caldwell, 2018). Having thick friendships were shown to help encourage LGBTQ youth to question their sexuality (Gilbert et al., 2019). The culmination of research on peer support reiterates the importance of peer support in schools for an increasingly safe and positive school environment.

Inconsistencies in the Effectiveness of Peer Support for Diverse LGBTQ Youth

Though peer support was effective in fostering positive socioemotional outcomes and minimizing emotional distress, inconsistencies were found within the LGBTQ community. Sub-

group identities had different conclusions regarding the effectiveness of peer support. Craig and

Smith (2014) found that racialized LGBTQ youth did not have a relationship between peer

support and educational outcomes. Studies show that having supportive peers to discuss

problems increased the risks of suicidal ideation and attempts for LGBTQ youth, particularly for

LGBQ youth who have had been victimized and gender minority youth (Button, 2016; Ross-

Reed et al., 2019). Generally, social support did not buffer effects of victimization on self-esteem

for LGBTQ students (Taylor et al., 2020), questioning the nuances in the efficacy of peer support

as a social support system.

School Professionals and Teachers as a System of Support for LGBTQ Youth

Four distinct themes were constructed from the literature: 1) high level of within-school

adult support resulted in positive benefits ($n_{articles} = 19$), 2) high level of within-school adult

support reduced negative outcomes ($n_{articles} = 10$), 3) teachers and school staff were ineffective

and inconsistent in supporting LGBTQ students ($n_{articles} = 7$), and 4) school staff perceived

external support as key to ensure coordination of inclusivity for LGBTQ students ($n_{articles} = 4$).

High Level of Within-School Adult Support Results in Positive Benefits

LGBTQ youth perceived more support in schools when they perceived that their school

staff, administrators, and teachers showed more than verbal support (i.e., lip service). LGBTQ

youth mentioned the need to observe school staff acting and having a presence explicitly taking a

stance against bigotry, emphasizing the importance of behavioural management to establish a

safe classroom space (Blackburn, 2007; Liboro et al., 2015; Luecke, 2011; Mayberry et al., 2013;

Pearce & Cumming-Potvin, 2017). LGBTQ youth who had natural mentors (e.g., teachers, staff

members, school administrators) were three times as likely to graduate from high school

compared to youth who did not have such mentors (Drevon et al., 2016), had increased intentions

to seek help for suicidal thoughts (Colvin et al., 2019), and had positively impacted their

engagement and connectedness to their school (Craig et al., 2018). When the number of "safe

adults" increased at school, LGBTQ youth would become more engaged with their school and

community through opportunities and access to resources from supportive staff members (Liboro

et al., 2015; Mayo, 2013a; Seelman et al., 2012, 2015). Supportive teachers had the power to

foster a safe classroom climate and environment, set clear expectations, open inclusive dialogue

with students, implement LGBTQ-inclusive school and classroom procedures that positively

impact LGBTQ youths' safety and acceptance in schools (De Pedro et al., 2018; Shelton &

Lester, 2018), educational achievement (Fenaughty et al., 2019), and wellbeing (Vantieghem &

Houtte, 2020). Teachers having power to foster a safe classroom climate was similarly voiced by

TGNC youth, subsequently supporting their transition (Goldstein et al., 2018). Likewise,

teachers and school staff understood the importance of developing skill sets (e.g., use of

inclusive language) to foster an inclusive and supportive classroom environment for LGBTQ

youth (Ullman, 2018; Underhill, 2017). Therefore, supportive school staff are key stakeholders

to foster a safer classroom environment and to create opportunities to foster awareness of

LGBTQ issues in their school environment (i.e., creating a community art gallery; Hall et al.,

2018).

High Level of Within-School Adult Support Reduces Negative Outcomes

LGBTQ youth perceptions of greater adult support (i.e., principals, social work

professionals, teachers, school administrators) at school was linked to lower levels of

victimization, school avoidance, substance use, suicidal behaviour, and other mental health risks

(depressive symptoms; Colvin et al., 2019; Craig et al., 2018; Darwich et al., 2012; Huang et al.,

2018; Seil et al., 2014). The identification of an adult ally predicted a decrease in fear-based

truancy (Mayo, 2013a; Seelman et al., 2012, 2015). Principals agreed that there is a need to

increase efforts to reduce discrimination towards LGBTQ youth by setting a safe and positive

climate in schools (Boyland et al., 2018). An avenue that was effective in creating an inclusive

and affirmative environment and reduce health risks among LGBTQ youth are school-based

health centers (Zhang et al., 2020).

Teaching and Non-Teaching School Staff were Ineffective in Supporting LGBTQ Students

Though there are benefits in having a supportive school staff, there was a lack of

communication between LGBTQ youth and school staff. 80.9% of LGBTQ youth reported never

talking to a teacher about LGBTQ topics, 70.8% of youth never talked to a school health

counselor, and 86.5% of youth never talked to a school administrator about LGBTQ issues in

school (Bidell, 2014). The lack of action or silence teachers and school administrators take

towards LGBTQ topics or incidents is a reason for the lack of communication. Students reported

that teachers are inconsistent in their intervention against victimization incidents, often focused

on stopping the harassment and providing reasoning for why such incidents can cause harm

(Hillard et al., 2014). There was a common perception of school administration silence

surrounding LGBTQ topic as normative in school environments (Mayberry et al., 2013).

Teachers reported feeling unprepared to support LGBTQ youth and required more information,

for example, through collaboration with GSAs to improve pedagogy (Luecke, 2011; Mayo,

2013a). Coulter and others (2017) found that within-school adult support was ineffective in

protecting LGBTQ youth against suicidality compared to outside-school adult support.

Therefore, teachers and school staff need to increase their responsibility to support LGBTQ

youth (Goldstein et al., 2018).

School Staff Perceived External Support as Necessary to Foster Staff Support for LGBTQ Students

School staff mentioned the importance of having a coordinator external to the school to provide support for curricular efforts and activities to students and staff, and adapting to school needs, reducing harassment for LGBTQ youth (Horowitz & Itzokowitz, 2011; Liboro et al., 2015; Luecke, 2011). Schools with an external source of support (i.e., external staff) showed significant improvements towards supporting LGBTQ youth, as reported by student observations (Horowitz & Itzkowitz, 2011). Sexuality education workshops were another form of external support that led to significant positive effects on teachers' beliefs and behaviours to support their LGBTQ youth (Kwok, 2018).

The Role of School Policies and Safer School Spaces for LGBTQ Youth

Three distinct themes were constructed from the literature: 1) socio-political values of the wider community beyond the school impacted school policies and staff attitudes ($n_{articles} = 7$), 2) implementation of inclusive and anti-discriminatory policies were effective in fostering a safer school space for LGBTQ students ($n_{articles} = 5$), and 3) school policy and community support showed challenges in fostering positive outcomes ($n_{articles} = 4$).

Socio-Political Values of Wider Community Impacting School Policies and Attitudes

Policies from the broader context can provide the support needed for schools to have inclusive school policies. Supportive government and school board policies allowed for organizations (i.e., GSAs) to be accepted, subsequently fostering community connection and support for LGBTQ youth (Liboro et al., 2015; St. John et al., 2014). However, schools located in communities with more non-progressive attitudes and beliefs about LGBTQ individuals due to

political or religious conservatism generated hesitation to support LGBTQ students by school

administrators (Lassiter & Sifford, 2015; Mayberry et al., 2013; Wright et al., 2012). Hesitations

to support LGBTQ youth include the ban of GSA creation, sending a message regarding LGBTQ

invisibility in school environments (Lassiter & Sifford, 2015). School staff were cautious and

focused on minimizing external resistance and pressure from the larger community. As a result,

this led to restrictions in GSA activities and spaces (Lassiter & Sifford, 2015; Mayberry et al.,

2013). Snapp and others (2015b) found that school policies were inequitably enforced as

LGBTQ youth were punished for public displays of affection and violation of dress code

compared to heterosexual peers, indicative of a lack of inclusive school policies.

Reframing the support for LGBTQ youth as systematic inclusion to meet the needs of all

students may be a method to circumvent the restrictions and pressures from the larger

community environment. Reframing support for LGBTQ youth to general support for all

students can reduce the hesitance school staff have to support LGBTQ youth (Lassiter & Sifford,

2015; Mayberry et al., 2013; St. John et al., 2014). Most notably, a school-wide approach and

communal investment is required to change and move towards inclusive school policies,

promoting the social, psychological, and physical safety for all students (Fantus & Newman,

2021).

The Implementation of Inclusive and Anti-Discriminatory Policies to Foster Safe School Spaces

Schools with higher reported implementation of inclusive and anti-discriminatory

policies had lower levels of discrimination against LGBTQ youth (Boyland et al., 2018),

fostering a safer school space. Effective bills such as Bill 13 (i.e., Accepting Schools Act,

Ontario, Canada) allowed LGBTQ youth to create a space to transform their lives and offer

opportunities of activism (Iskander & Shabtay, 2018). Inclusive policies allowed for inclusive

events (i.e., Pride Prom, Day of Silence) that provided a safer environment for LGBTQ youth

(Sutherland, 2019). Therefore, inclusive policies are important to set up a safe environment for

students and challenge the hetero/cisnormative dynamic present in policy documents and

classroom environment (Ullman, 2018). Introducing inclusive policies require collaboration

across professionals to support legislation that acknowledges LGBTQ issues in schools (Kwok,

2018).

Inconsistencies in Fostering Positive Outcomes From Inclusive School Policies and Wider Community Support

Bullying policies did not consistently predict LGBTQ safety and victimization (Boyland

et al., 2018; De Pedro et al., 2018). Rather, higher proportions of students who reported inclusive

school policies predicted lower perceptions of safety based on gender nonconformity (Toomey et

al., 2012). Lastly, community support was not related to decreased rates of harm for LGBTQ

youth (Ross-Reed et al., 2019).

The Role of a Positive School Climate on LGBTQ Youth Outcomes in School

Three distinct themes were constructed from the literature: 1) a positive school climate

reduced negative emotional-behavioural outcomes ($n_{articles} = 4$), 2) a positive school climate

fostered positive psychosocial and educational outcomes ($n_{articles} = 11$), and 3) a whole school

effort is required to foster a positive school climate ($n_{articles} = 10$).

Positive School Climate Reducing Negative Emotional-Behavioural Outcomes

For both LGBTQ and heterosexual youth, a positive school climate, strong school

connectedness, and involvement in school-based activities predicted fewer physical

victimization, fewer depressive symptoms, less suicidal ideation and attempts, substance use, and truancy (Birkett et al., 2009; Colvin et al., 2019; Denny et al., 2016; Ethier et al., 2018). Similarly, teachers reported perceiving fewer depressive symptoms among their male sexual minority youth in positive and supportive school environments (Denny et al., 2016).

Positive School Climate Fostering Positive Psychosocial and Educational Outcomes

A positive and safe school climate (e.g., GSA activities; LGBTQ-affirming school-wide campaigns) can promote tolerance, respect and inclusion for LGBTQ youth (Liboro et al., 2015; Mayo, 2013a; Wernick et al., 2016). LGBTQ youth who were in less heteronormative schools, had inclusive classroom environments, and LGBTQ affirming school climates allowed them to be more inclusive, have increased opportunities to understand diversity and differences (Shelton & Lester, 2018), fostered increased psychological wellbeing (Vantieghem & Houtte, 2020), and had more positive perceptions of safety in their schools (De Pedro et al., 2018). A positive school climate has also benefitted teachers by helping them feel comfortable to advocate for their LGBTQ youth (Luecke, 2011; Mayo, 2013a). Students, parents, and school staff mentioned the importance of having a safe space as a deciding factor to attend school for students to be recognized, accepted, and participate in their school (Hope & Hall, 2018). Subsequently, those who were more involved in school activities and had stronger school connectedness felt safer in schools and had increased achievement (Ethier et al., 2018; Fenaughty et al., 2019; Seelman et al., 2012).

Whole School Effort is Required to Foster a Positive School Climate

Creating and maintaining a positive and safe school climate for LGBTQ youth can foster positive outcomes for all students. This effort requires constant vigilance from all relevant

stakeholders: students, teachers, administration, and community members (Robertson, 2008).

Effective interventions (LGBTQ-inclusive curriculum, GSAs, supportive school staff, staff

development and training, awareness events, appropriate mental health services, inclusive

policies, inclusive language, school-home-community connections, and community partners) are

all necessary to foster a positive school climate. This, in turn, provides support for LGBTQ youth

and fosters wellbeing, and educational and social success (Goodrich & Barnard, 2019; Horowitz

& Itzkowitz, 2011; Jones, 2017; Palkki & Caldwell, 2018; Robertson, 2008; Wernick et al.,

2016; Woolley, 2012; Wright et al., 2012). A concerted effort provides LGBTQ youth with

access to resources and create more opportunities to carry out programs and training that can

maximize the potential for LGBTQ youth to feel supported in their wellbeing and safety.

Additionally, a whole-school approach can support teachers and school administrators by

providing them with more resources and external support, all instrumental to attain a whole-

school system that is positive and inclusive (Liboro et al., 2015). GSAs may be an avenue

whereby students can act to address anti-LGBTQ bias, to provide education, and address the

silences on LGBTQ issues through whole school efforts (Liboro et al., 2015; Wernick et al.,

2016; Woolley, 2012). Most importantly, having a supportive principal can facilitate a positive

whole-school approach to promote LGBTQ inclusivity in schools (Luecke, 2011).

Discussion

A Systemic Definition of Social Support for LGBTQ Youth

The first objective of this review is to define what social support in schools mean for

LGBTQ youth. Prior to understanding how social support in elementary and high school

education relate to outcomes for LGBTQ youth, the scope of social support needs to be defined

to create a systemic framework that can map how different social support systems are associated with LGBTQ youth outcomes in school.

Organized through the Ecological Systems Theory, social support can be defined as support that is provided across various systems related to LGBTQ youth. This scoping review brought forth how social support in schools for LGBTQ youth can span across systems: 1) family, 2) curriculum, 3) GSAs (and other school programs), 4) peers, 5) school administrators and teachers, 6) school policies, and 7) school climate.

The seven systems that were constructed from the review indicated that they impact LGBTQ youth and their experiences in school. The parental system was constructed from the review as a form of social support that is associated with LGBTQ youth outcomes in schools. Parents or caregivers who support their LGBTQ youth through advocacy, open communication, trust, closeness, and acceptance minimized many negative educational outcomes (ie., depressive symptoms, substance use, victimization) and promoted wellbeing, academic success, physical and emotional safety among other outcomes. The curricular system was constructed to show how influential LGBTQ-inclusive curriculum can be for LGBTQ youth. LGBTQ-inclusive curriculum provides LGBTQ youth the opportunity to explore their LGBTQ identity, make authentic connections, challenge oppression, and acquire knowledge inclusive of LGBTQ people and issues. When a LGBTQ-inclusive curriculum is introduced in classrooms, LGBTQ youth reported feeling safer, more accepted in their classroom, and lower victimization incidents. GSAs and other school-based programs was a social support system that was constructed based on the robust data related to how GSAs can provide space for empowerment and change, creating a safe space and climate for LGBTQ youth. This, in turn, can promote many positive outcomes in schools (i.e., school engagement, safety, acceptance, wellbeing) and decrease

substance use, victimization, and psychological distress among other risks. Supportive and accepting peers were a system of social support that fostered higher levels of school belongingness, school engagement, academic success, sense of safety, and minimized levels of depression and school victimization for LGBTQ youth. School administrators and teachers were another system of support for LGBTQ youth. The higher the number of safe adults that were identified at school, the greater the school engagement for LGBTQ youth. Supportive adults at school, through the knowledge, resources, and connections they have about LGBTQ issues, act against bigotry and victimization incidents at school, and foster a positive student-teacher relationship for LGBTQ youth. Subsequently, they perceive a safer and accepting classroom environment, increased sense of school belonging, academic success, and wellbeing. School policies was constructed as a system influential to LGBTQ youth outcomes in schools. Schools with LGBTQ-inclusive policies reported lower levels of victimization, and increased sense of safety and opportunities for LGBTQ youth to act towards an empowering climate. School climate arose as an overarching system where the other systems (ie., GSAs, school policies, curriculum, school administrators and teachers, peers) interacted to foster a safer and accepting climate for LGBTQ youth, promoting tolerance, respect, academic success, wellbeing, and school connectedness.

Based on the seven systems of social support for LGBTQ youth in schools, social support in schools can be defined as an understanding of systemic interactions amongst the seven microsystems (ie., family, peers, curriculum, GSAs, school administrators and teachers, school policies, and school climate) and how each system, uniquely and in overlap, can both positively promote academic, socioemotional, and behavioural outcomes, and moderate the health and psychological risks typically associated with LGBTQ youth in schools. Therefore, grounded in

the ecological systems approach, social support cannot simply be understood in a single dimension but across multiple dimensions.

Changing the Narrative of Social Support: From Passive Recipients of Support to Opportunities and Spaces for Activism, Skill Learning, and Engagement

The second objective of this review was to identify current research on outcomes for LGBTQ youth given the implementation of the social support systems. Identifying current research sheds light to understand how social support provided across the social support systems are associated with LGBTQ youth outcomes. The current research on social support outcomes for LGBTQ youth sheds light on the multifaceted nature of social support systems shown to influence LGBTQ youth outcomes in schools.

The current research on family systems focuses on fostering positive connections between parents and LGBTQ youth. More specifically, current research expands beyond family acceptance and closeness as family support. Family support also entails the active support through advocacy, allyship, and communication. This finding was replicated in other social support systems where providing social support for LGBTQ youth entails the act of standing up, advocating, and challenging the LGBTQ-related issues present in schools and community.

Current research on curriculum support highlights variance in the implementation of LGBTQ-inclusive curriculum. LGBTQ-inclusive curriculum was most often incorporated in social sciences, humanities, and health classes where students were able to make authentic connections between their lives and LGBTQ-relevant social events (i.e., Stonewall, DADT legislation). Moving towards a systematic implementation of LGBTQ-inclusive curriculum that expands beyond social sciences, humanities, and health classes is an important step to provide safety for LGBTQ youth in schools. A heteronormative curriculum excludes LGBTQ youth from

making authentic connections with their own lives, subsequently influencing their interest and engagement in classrooms. Increasingly incorporating LGBTQ-inclusive curriculum in education can move towards the vision for LGBTQ youth to foster authentic connections between their identity and their curriculum. This can result in improvements in their learning, wellbeing, identity exploration, and foster a supportive school and classroom climate. Like the family system, pushing for a LGBTQ-inclusive curriculum moves the system to actively challenge and disrupt the homophobia and injustice that is present in schools. Based on the findings from both systems, it appears that activism, advocacy, and this shift towards criticality against an injustice educational system is common in the literature reviewed from 2017 through 2021.

Current research on GSAs and other school programs were effective in creating a safe space for empowerment and change for LGBTQ youth. Though GSAs had different functions based on the schools' needs and context, two of GSAs' functions were to act as a space for advocacy and education, and acquire coping skills and resources to support their mental health. Similar to the previous systems, GSAs are moving towards a stance to provide LGBTQ youth the skills and opportunities necessary to be active participants in fostering a LGBTQ-inclusive school environment and making connections to the wider community for support.

Current research on peer support similarly highlights the importance of peers as active participants in schools to foster a sense of safety and positive classroom environment for LGBTQ youth. Beyond peers as allies, the act of peer education and intervention where peers take an active role to support their LGBTQ peers in schools led to increased sense of safety and positive classroom experiences for LGBTQ youth. Positive friendships, also known as 'thick' friendships, pushed LGBTQ youth to question their sexualities, reflect, and consider how their LGBTQ identity emerges in their lives. This form of close relationship with friends helped

LGBTQ youth take an active role in self-reflection of their LGBTQ identity and disruption against existing oppression in schools.

Current research on school administrators and teachers focused on school staffs' LGBTQ-inclusive knowledge, relationships with students, and opportunities for students to open the space for discussion on inclusion and diversity. School administrators and teachers have the power to create opportunities for students to foster awareness of LGBTQ issues in their schools through community events (i.e., community art gallery). This shows the importance for school administrators and teachers to have the knowledge and skills to create opportunities for students to be active participants in critical dialogue and reflection, subsequently promoting safety and acceptance in the classroom.

Like the interaction between GSAs and the community system surrounding the school, school policies were also impacted by the socio-political values of the wider community. Inclusive school policies allowed students to have opportunities to create change in schools, such as the creation of LGBTQ-inclusive events like Pride Prom and the Day of Silence to acknowledge and promote awareness of LGBTQ issues and inclusivity. Recent research further emphasized the importance of a school-wide approach to effect change in schools and incorporate inclusive policies. The research on school policies as a social support system emphasizes social support as an interaction of systems where the larger context and values can impact both the inclusivity of school policies for LGBTQ youth and the level of supportiveness from school administrators and teachers, family, and peers.

School climate, the last social support system, highlights the interrelatedness between all systems. Many articles indicated the robustness of a positive school climate and the academic, socio-emotional, and behavioural benefits for LGBTQ youth. To achieve a positive school

climate, each social support system is relevant to provide social support for LGBTQ youth. Each

social support system can influence each other in their effectiveness to provide the necessary

space and opportunity for LGBTQ youth to act and challenge their school environment.

In sum, the current research on social support for LGBTQ youth has moved beyond

understanding LGBTQ youth as passive recipients of education to recognizing LGBTQ youth as

active co-creators of supportive spaces and opportunities that promote inclusive school climates

that foster a sense of belongingness and safety. The change in narrative from past to current

research may be an indication that social support is more than providing support to LGBTQ

youth, changing the narrative from passive LGBTQ youth towards active LGBTQ youth, taking

initiative to create change and develop skillsets to be successful in their school (i.e., both

academic and social outcomes).

School Administration and Larger Community Environment as Barriers to Supporting

LGBTQ Youth in Educational Settings

The third objective of this review was to identify barriers and inconsistencies to support

LGBTQ youth in schools. Though seven social support systems were identified to foster positive

socioemotional, behavioural, and educational outcomes, barriers, and inconsistencies to support

LGBTQ youth were identified in each system.

Family support did not consistently buffer negative emotional, behavioural, and

educational outcomes. Rather, general parental support was associated with peer victimization,

self-harm, and poorer academic success (Button, 2016; Poteat et al., 2011; Ross-Reed et al.,

2019). Button (2016) found that victimized LGBQ youth performed worse academically when

they reported general parental support, indicating nuances between the buffer from parental

support on LGBTQ youth outcomes. Inconsistencies may be explained by the functionality of

family support as LGBTQ youth may perceive that their family support is ineffective to resolve harassment experienced at school.

Several studies indicated the barriers of incorporating LGBTQ-inclusive curriculum in an effective manner in schools. One aspect includes the need to understand the hidden curriculum that exists beyond the formal, academic curriculum. The social relationships and school spaces can convey heteronormativity, adversely affecting LGBTQ youth and their sense of safety and engagement in schools. Additionally, there is a need for administration to provide support for teachers to effectively incorporate LGBTQ-inclusive curriculum. Oftentimes, teachers miss teachable moments that is conducive to inclusive curriculum due to the rigid curriculum of high stakes testing and fear of parental backlash. There is indication where GSAs can be spaces used to insert LGBTQ-inclusive curriculum in an informal space to compensate the barriers that exist in classrooms (e.g., rigid curriculum). Therefore, school administrators act as key members to ensure a LGBTQ-inclusive curriculum can be incorporated effectively in classrooms.

GSAs also demonstrated barriers and difficulties in delivering positive outcomes for LGBTQ youth. Schools restricted GSA activities and presence because of sociopolitical reasons (i.e., parental and community backlash, surrounding political environment), limiting activism for LGBTQ youth. There is this need to negotiate between GSA advisors and administration for LGBTQ spaces in schools. Beyond macro-level barriers, GSAs also encountered difficulties in program implementation because of a lack of staff training to discuss sensitive topics (e.g., sexuality) in schools. There were inconsistent results in the benefits of having a GSA in schools. Possible barriers may be due to the larger school and geographic context as being involved in GSAs in more hostile or unsafe environments places LGBTQ youth at risk. In schools and

geographical areas that is more hostile, the presence and involvement of GSA-related activities is associated with increased risks of safety and decreased positive outcomes.

Peers were inconsistent in their support for LGBTQ youth. Victimized LGBTQ youth who had peers to confide to and discuss problems performed worse academically, had lower self-esteem, and had increased suicidal ideation. For racialized LGBTQ youth, peer support did not moderate perceived discrimination in schools and had no association with school performance. In addition, the lack of association for racialized LGBTQ youth suggests how peer support may be overshadowed by other (non)-LGBTQ concerns (e.g., victimization based on ethnicity, lack of family acceptance due to cultural norms and stigma towards LGBTQ identities).

School administrators and teachers were met with barriers to effectively support their LGBTQ youth in schools. Many LGBTQ youth reported not reaching out to school adults for support. The barrier appears to lie on the onus of LGBTQ youth to reach out to school staff for support. This can be due to a lack of trust or belief that teachers or administrators can effectively help them. LGBTQ youth reported teachers not knowing how to intervene in situations of harassment or teachers not feeling prepared to teach inclusive content and answer LGBTQ-related questions. LGBTQ students reported the need for teachers to increase their responsibility in teaching and conveying LGBTQ-inclusive material as the burden lies on students to provide education to their peers. From the perspective of school staff, they perceived the need for external support to coordinate support for teachers for curricular efforts, activities, and actions to reduce harassment towards LGBTQ youth and foster a greater sense of safety. Having an external coordinator as the point person to organize efforts to push the school for LGBTQ inclusion can foster increased LGBTQ acceptance in schools.

The wider sociopolitical context that surrounds the school has an influence on the availability of LGBTQ-inclusive school policies. The sociopolitical context act as barriers limiting the schools' abilities to have GSAs and school staff to show support for their LGBTQ youth. However, there has been mixed evidence showing an inverse relationship between an increase of inclusive school policies and a decrease in perceptions of safety. Though there may be inclusive policies put in place in schools, such policies may not be consistently enforced by school staff, lending to the ineffectiveness of inclusive school. Consistent implementation of inclusive school policies will require dedicated school staff to monitor the progress of policy implementation. In this review, school administrators and teachers have mentioned the need to have an external staff coordinator to monitor consistent implementation of inclusive school policies due to the lack of time and energy. School principals also play a major role in the implementation of inclusive school policies as top-down administrative support is needed to send a message to school staff that they are supported by administration should they receive family or community backlash.

A Whole School Approach to Support LGBTQ Youth With Particular Focus to Subpopulations Within the LGBTQ Acronym

The fourth objective of this review was to identify areas for future research for the seven social support systems and their associations with LGBTQ youth outcomes in schools. The barriers and inconsistencies found to support LGBTQ youth across each system merits further research to explore the nuances in each system and their relationships to LGBTQ youth outcomes in school.

Within family support, there is a nuance that lie between fathers and mothers, and LGBTQ boys and girls, indicating a need to understand the complex nature of family

relationships and reasons why certain family members may provide more effective social support

towards LGBTQ boys or girls. For GSAs, there needs to be further exploration to understand

effective methods to overcome problems in discussing sexuality in school settings due in part to

the lack of school staff training and student sensitivity towards LGBTQ issues. Different aspects

of a GSA (i.e., presence, membership, engagement) have shown different social support

outcomes for LGBTQ youth. In schools that are hostile and unsafe, positive outcomes from GSA

presence and engagement dissipate, highlighting the interaction between the school climate and

GSAs' ability to be considered as an effective social support system. Mixed findings demonstrate

an inverse relationship between GSA presence and lower sense of safety by LGBTQ youth.

Lastly, though GSAs were primarily conceptualized as gay-straight alliances, an exploration of

gender-sexuality alliances can provide insight in the nuances between experiences of students

from diverse sexualities and diverse genders.

For peer systems, it is necessary to further explore reasons why peer support is either

positively associated with more behavioural and emotional risks or have a lack of association.

This can be due to the nature of peer support. As peer rumination can lead to further issues in

schools rather than problem-solving discussions, the nature in how peers support LGBTQ peers

in schools can shed light why there may be such an association. Another avenue of future

research is the intersection of ethnicity among LGBTQ youth. The lack of association between

peer support and positive social outcomes for racialized LGBTQ youth may be a result of the

interplay of other identities that require other forms of support. For example, LGBTQ Asian

youth may have an increased emphasis on the importance of family and familial piety, the need

for racialized youth to bring pride to their family and minimize shame. Perhaps for racialized

LGBTQ youth, the lack of association between peer support and positive outcomes may be a result that leans towards family systems as increasingly important for such racialized youth.

An area of future research involves an exploration of methods to circumvent the larger sociopolitical context that limits the provision of LGBTQ support via inclusive policies. One possible avenue to provide LGBTQ support can be under the guise of Universal Design for Learning (UDL). This framework suggests the need to support all students, focusing LGBTQ support under the need to support diverse students. Another avenue of research involves exploring an explanation for inclusive policies to predict lower perceptions of safety. This may be due to the inclusive policies setting up motion to create change towards an inclusive school environment. Creating change, however, can still lead to decreased sense of safety and increased harassment issues for LGBTQ youth.

One of the specific populations highlighted to be a key support system for LGBTQ youths were educators. One constructed theme involved the inconsistency in showing support through their actions. Several of the themes highlighted how students perceived their school staff members (teachers, counselors, school psychologists, administration, principals) as being hesitant to discuss LGBTQ issues. By being hesitant and uncomfortable to teach LGBTQ issues, a norm of LGBTQ silence exists in the school environment. Attitudes and beliefs where educators believed that homosexuality and other LGBTQ topics should not be discussed in school can lead to students perceiving their school staff as uncaring and exclusive towards LGBTQ youth. Therefore, educators and other school staff members need to be comfortable and foster an inclusive attitude and belief that they are supportive of all students, as shown through their actions. Effective actions students have mentioned include consistent intervention against LGBTQ-specific harassment, and opening dialogue on the importance of inclusive and

acceptance (ie., through a LGBTQ-inclusive curriculum). When students heard LGBTQ-inclusive topics in their classes, they felt an increased sense of safety. It is therefore important to have teachers be comfortable and open to teach LGBTQ-inclusive curriculum to increase LGBTQ youths' sense of safety.

The findings of this scoping review indicate three primary implications for future research and application. First, a whole school approach was emphasized by the themes as one of the most effective ways to provide social support for LGBTQ youths. Studies that focused on specific domains of support such as peer support or family support have similarly shown their effectiveness in supporting LGBTQ youth. However, having all relevant stakeholders involved in the process of supporting LGBTQ youth, such as a whole school approach, was evidently the most effective. Notwithstanding, a collaborative, whole school approach may be overly idealistic and an unrealistic approach for schools embedded in a larger, more conservative environment. A middle ground between realism and idealism could be attained by auctioning the GSA as a physical, supportive space where students can feel safe (within the club). This would be contrasted to having GSAs be a space for education and activism towards an increasingly LGBTQ-inclusive environment. In some cases, the inclusion of GSA spaces within schools may mean that, generally, the larger school spaces are unsafe for LGBTQ youth, influencing the concrete actions that educational stakeholders can take to provide support and opportunities for their students.

Second, there were differences in perceived support and outcomes depending on the subpopulation of LGBTQ youth, highlighting the issues of generalizing the LGBTQ youth population as a homogenous population. For example, there were different perceptions of safety and struggles between sexual orientation minority youths and gender identity minority students.

For example, there were unique issues of gender nonconformity for youths who did not conform

to their assigned gender at birth, whereas LGBQ youth were faced with victimization due to their

sexual orientation. Of note, there have been a recent trend for studies reviewed between 2017

through 2021 to include trans and gender non-conforming youth as the focus, beyond the

LGBTQ general identities. As several key findings foregrounded sexual identities over gender

identities, future inquiries of LGBTQ youth should take into critical consideration the specific

LGBTQ subgroups to be studied by researchers. Particularly, intersectionality should be taken

into consideration as issues of gender, class, and ability may influence how specific LGBTQ

students experience school supports. By doing so, researchers can be aware of the various

intersecting sexual orientation and gender identities that LGBTQ youth have to manage and to be

inclusive of programs, interventions, and strategies that are intended to support LGBTQ youth as

a whole. Though the seven social support systems have been shown to effectively support

LGBTQ youth, the inconsistencies that some articles brought up shed light with the interaction

of these social support systems and their intersectional identities.

Third, there were differences in perceived support and outcomes depending on the

ethnicity and race of the youths. For example, LGBTQ Eurocentric youths experienced

increasing emotional and behavioral distress due to LGBTQ-specific victimization, whereas

LGBTQ racial and ethnic minority youths experienced less distress. A hypothesis explaining the

difference may be linked to the coping skills and resilience that the racial and ethnic minority

LGBTQ youths have already learned to cope in the face of racial and ethnic-specific

victimization. This results in more frequent use of their coping skills and a higher resilience and

grit in the face of LGBTQ-specific victimization and being in a school environment that is

perceived to be less safe. Therefore, future inquiry should consider the multiple, intersecting

minority identities LGBTQ youths may have had to juggle and its effect on their perceived safety and support in their school environment. Particularly, critically thinking through race and its impacts on the experience of school supports for LGBTQ students should be a priority for future research. Based on their intersectional identities and experiences in schools, the seven social support systems found in this review may vary in effectiveness based on their other identities.

Limitations

This scoping review attempts to consolidate material from 2007 through early 2021, organize, and respond to the four research questions of defining social support, identifying the current social support outcomes for LGBTQ youth, the barriers and inconsistencies encountered by the social support systems, and the areas for further research because of the barriers and inconsistencies found in the literature. Due to the scope of the review, the literature search strategy was broad and resulted in a larger volume of articles. Though the search strategy was comprehensive, consulting various experts to ensure rigidity and confidence of the search strategy, a scoping review search strategy utilizes a less defined search compared to a full systematic review. Additionally, difficulty in consolidating a comprehensive search term strategy can lead to an increasingly narrow understanding of LGBTQ individuals. For example, no articles explored nonbinary parents or children. The search strategy did not account for an intersectional understanding of LGBTQ+ identities, particularly Two-spirit (2S) identities. As the initial search strategy was executed in 2017, Two-spirit identities were uncommon and, subsequently, not taken into consideration. Future reviews should include the search strategy to account for an intersectional approach to the 2SLGBTQ+ community. Further, search strategies for LGBTQ+ terms are difficult to standardize and capture comprehensively. Even though various experts were consulted to ensure confidence in the search strategy, the rigidity of

keywords and subheadings in article search engines can be barriers to capturing the nuances

inherent to the 2SLGBTQ+ community. Particularly, transgender and non-binary (TGNC) terms

were limited. Moving forward, it would be important to implement the University of

Minnesota's search hedges (tested and standardized search strategies to retrieve articles on

specific concepts) for TGNC terms (University of Minnesota, 2021). As well, this scoping

review did not follow the required critical appraisals and risk of bias assessment found in

systematic literature reviews. However, based on the purpose of this study, a scoping review

methodology was the best approach due to the wide body of literature that has not been

comprehensively reviewed. Additionally, scoping reviews are best used when the purpose is to

clarify working definitions (i.e., social support) and conceptual boundaries of this topic (i.e.,

social support systems for LGBTQ youth in schools), and identify gaps in existing literature.

Therefore, though a scoping review utilizes a less defined, broader search strategy, resulting in a

broader literature less systematic and confident compared to a full systematic review, the

purposes of this study and research questions align with the scoping review design.

Conclusion

There have been many studies replicating the risks that LGBTQ youth experience in

schools: socioemotional (e.g., depression), behavioural (e.g., substance use), and educational

(e.g., truancy, decreased school engagement). However, literature exploring the positive or

protective factors for LGBTQ youth has been steadily increasing in the field of LGBTQ youth.

As it is still an emerging perspective to explore through a positive youth development lens the

protective factors for LGBTQ youth, this review consolidated literature and gave rise to an

organizational framework to consolidate the various systems of social support for LGBTQ youth

in schools. From the review, social support consists of seven social support systems (family,

curriculum, family, peers, school policies, GSAs and programs, and school climate) that, both uniquely and in overlap, are positively associated with the promotion of positive socioemotional, behavioural, and educational outcomes and the moderation of the risks typically associated with LGBTQ youth in schools. Though the literature consistently revealed the benefits of ensuring that these seven systems are present to positively support LGBTQ youth's development, inconsistencies and barriers in providing positive outcomes for LGBTQ youth was a result of 1) a lack of training and support for school administrators and teachers to enforce LGBTQ-inclusive policies and curriculum, 2) a larger sociopolitical context impeding or preventing LGBTQ activism and support in schools, and 3) unique differences within the subgroups of LGBTQ youth including ethnicity, sex, and gender identity and expression. Future research should explore the gaps present in this review to address the barriers and inconsistencies found to effectively provide social support for LGBTQ youth across these seven systems. This review highlights a positive outlook towards the available systems of social support to promote positive development for LGBTQ youth. Though the literature has been clear surrounding the risks associated with LGBTQ youth, this scoping review endeavored to provide a positive outlook on LGBTQ youth's school experiences by highlighting how these systems of social support allow LGBTQ youth to act as active participants in the promotion of a positive and safe school climates.

Conflict of Interest

The authors declare that they have no conflict of interests.

Ethical Approval/Informed Consent

For this type of study, formal consent is not required.

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Appendix

Table 1

Keyword Search across Five Databases

First key concept (LGBTQ+)	Second key concept (School)	Third key concept (Social Support)
PsycINFO Subheadings	**PsycINFO Subheadings**	**PsycINFO Subheadings**
Homosexuality or (attitudes towards) or Male Homosexuality	High School	Peer relations
Bisexuality	Middle Schools	Social groups
Transgender or (attitudes towards)	Elementary Schools	Clubs (Social Organization)
Gender Identity	Junior High Schools	Social support
Lesbianism	Secondary Education	Social programs
Hermaphroditism	Religious Education	After School Programs
Sexual Orientation	Public school education	Extracurricular activities
Transsexualism	Private school education	Group Intervention
Gender Identity Disorder	Student attitudes	Online social networks
Sexuality	Teacher attitudes	Social networks
	Boarding schools	Community involvement
	Charter schools	Therapeutic social clubs
	Military schools	Peers
	Technical schools	Support groups
	High school students	Activism
	Elementary school students	Student Activism
	Junior high school students	
	Elementary education	
	High school education	
	Middle school education	
	Nontraditional education	
	Vocational education/vocational	
ERIC Subheadings	**ERIC Subheadings**	**ERIC Subheadings**
"Homosexuality"	"Ancillary school services"	"Peer acceptance"
"Lesbianism"	"Bilingual schools"	"Peer coaching"
"Bisexuality"	"Boarding schools"	"Peer counseling"
"Sexual orientation"	"Catholic schools	"Peer mediation"
"Gender issues"	"Charter schools"	"Peer relationship"
"Sexual identity"	"Community schools"	"Social justice"
"Sexuality"	"Comprehensive school health education"	"Social promotion"
	"Consolidated schools"	"Social services"
	"County school districts"	"Social support groups"
	"Day schools"	"Clubs"
	"Disadvantaged schools"	"Group activities"
	"Elementary Schools"	"Group counseling"
	"Elementary school students"	"Group therapy"
	"School districts"	"Groups"
	"High School students"	"Community support"
	"High school"	"Activism"
	"Middle School Students"	"School activities"
	"Middle Schools"	"School community programs"
		"School guidance"

"School organization"
"School safety"
"School space"
"School support"

GenderWatch Keywords	**GenderWatch Keywords**	**GenderWatch Keywords**
"Gays & lesbians"	"Elementary education"	"Education policy"
GLBT Studies	"Rural school"	"Social structure"
"Gender identity"	Rural education	Activism
"Sexual orientation"	"Secondary school"	"Social justice"
"Transgender persons"	"High school"	"Sex education"
Gender nonconforming children and adolescents	"Middle school"	"Health education"
Lesbian, gay, bisexual, and transgender youth	"Elementary school"	"Educational partnership"
"LGBTQ studies"	Charter schools	"Gay-straight alliance"
Sexuality	School district	Alliances
"Social identity"	"Public school"	Clubs
Homosexuality	"Primary school"	"Peer relations"
"Gender differences"	"Catholic school"	"Political activism"
Bisexuality	"Junior high school"	"Education reform"
Gender equity	"Secondary education"	"Equal rights"
Transgender	"Boarding school"	"Social support"
Lesbianism	"High school education"	"Inclusive education policy"
"Gender identity disorder"	"Vocational education"	"Student voice"
Hermaphroditism	"Vocational school students"	"Social connectedness"
Transsexualism		"Sexual health education"
		"Straight allies"
		"Youth program"
		"School-based prevention"
		"After school program"
		"Extracurricular activity"
		"Social network"
		"Community involvement"
		"Support group"
		"Policy making"
		"Safe school"
		"School safety"

ProQuest Dissertations and Theses Subheadings	**ProQuest Dissertations and Theses Subheadings**	**ProQuest Dissertations and Theses Subheadings**
"Homosexuality"	"Ancillary school services"	"Peer acceptance"
"Lesbianism"	"Bilingual schools"	"Peer coaching"
"Bisexuality"	"Boarding schools"	"Peer counseling"
"Sexual orientation"	"Catholic schools	"Peer mediation"
"Gender issues"	"Charter schools"	"Peer relationship"
"Sexual identity"	"Community schools"	"Social justice"
"Sexuality"	"Comprehensive school health education"	"Social promotion"
	"Consolidated schools"	"Social services"
	"County school districts"	"Social support groups"
	"Day schools"	"Clubs"
	"Disadvantaged schools"	"Group activities"
	"Elementary Schools"	"Group counseling"
	"Elementary school students"	"Group therapy"
	"School districts"	"Groups"
	"High School students"	"Community support"
		"Activism"

	"High school" "Middle School Students" "Middle Schools"	"School activities" "School community programs" "School guidance" "School organization" "School safety" "School space" "School support"

Web of Science Keywords	**Web of Science Keywords**	**Web of Science Keywords**
Same-sex	"High school"	"Peer relations"
Homosexual*	"Secondary school"	"Social support"
Bisexual*	"Primary school"	"Sex education"
Gay	"Catholic school"	"Inclusive education policy"
Lesbian*	"Middle school student"	"Student voice"
Transgender	"High school student"	"Social connectedness"
LGBT*	"Elementary school student"	"Gay-straight alliance"
"Sexual Orientation"	Primary/elementary	"Sexual health education"
Gender-role	"Middle school"	"Straight allies"
"Gender expression"	"Elementary school"	"Youth program"
"Sexual minority"	"Junior high school"	"Psychological empowerment"
Nonheterosexual	"Secondary education"	"School club"
"Diverse sexualities"	"Boarding school"	"School-based prevention"
Heteronormativity	"Charter school"	Activism
Transsexual	"Institutional school"	"Multicultural education"
"Gender identity"	"Elementary education"	"Social group"
	"High school education"	"After school program"
	"Vocational education"	"Extracurricular activity"
	"Vocational school student"	"Group intervention"
		"Online social network"
		"Social network"
		"Community involvement"
		"Support group"
		"School safety"
		"Educational Program"
		"Safe school"

Note subheadings were used when possible pending search options in each database. Otherwise, keywords in quotation marks were used to show specific keywords used for the search. Each column in each database was then combined with the Boolean term 'AND', with each keyword under each key concept combined with the Boolean term 'OR'.

Search Strategy: Literature search databases
(PsycINFO, ERIC, GenderWatch, ProQuest
Dissertation, Web of Science)

($n = 565$)

Duplicates removed

($n = 533$)

Phase One: Titles and abstracts screening

($n = 184$)

Excluded articles on non-LGBTQ specific
population, unrelated to school environment,
social support outcomes not for students,
were not in English

($n = 349$)

Phase Two: Full text screening

($n = 94$)

Excluded articles for general findings
tangentially related to social support for
LGBTQ students

($n = 90$)

Final sample

94 articles

Figure 1. Visual flowchart of search strategy

Table 2

Study Characteristics of 94 Articles (Study Type, LGBTQ Acronym, Participant Sample Range,

School Setting Type[Educational Level], Types of Social Support)

Study Type (*n* = 94)	*n*	%
Quantitative	48	51.06%
Qualitative	43	45.74%
Mixed Methods	3	3.19%
LGBTQ Acronym* (*n* = 102)		
LGBTQ/GLBTQ	40	39.22%
LGBT/GLBT	15	14.71%
Sexual minority/SMY	10	9.80%
LGBQ	7	6.86%
LGB/GLB	6	5.88%
Transgender/Trans*/TGD	5	4.90%
GM/Gender-variant	4	3.92%
GSM/GSD	3	2.94%
SSA	3	2.94%
LGBTQQ	2	1.96%
LGBTQ2S	2	1.96%
LGBTQ+	2	1.96%
Bisexual/Pansexual	1	0.98%
MSMY (multi-ethnic)	1	0.98%
Queer	1	0.98%
Participant Sample Range (*n* = 94)		
Grades 6 – 12	2	2.13%
Grades 7 – 12	10	10.64%
Grades 8 – 12	6	6.38%
Grades 9 – 13	20	21.28%

Grades 10 – 12	4	4.26%
College	3	3.19%
High school/College	5	5.32%
Elementary School	4	4.26%
Elementary/High School	1	1.06%
High school	16	17.02%
Middle school	4	4.26%
Middle school/high school	7	7.45%
Parents/advisors/adults	5	5.32%
Not specified	7	7.45%
School Setting Type – Educational Level (*n* = 94)		
High school	46	48.94%
High school/Middle school	28	29.79%
Elementary/Middle/High school	4	4.26%
Middle school	3	3.19%
Elementary school	4	4.26%
Community center	1	1.06%
College/University	3	3.19%
Not specified	5	5.32%
School Setting Type – School Type (*n* = 94)		
Private school	5	5.32%
Catholic school	4	4.26%
Alternative school	2	2.13%
Democratic school	1	1.06%
Independent school	1	1.06%
Not specified	81	86.17%
Types of Social Support* (*n* = 188)		
Peer Support	24	12.77%
Parental Support	16	8.51%

Community Support	9	4.79%
School Support (*n* = 139)		
Gay-Straight Alliance	42	22.34%
Supportive Staff	34	18.09%
Supportive Teachers	24	12.77%
Positive School Climate	12	6.38%
Programs and Policies	11	5.85%
School-Wide Approach	9	4.79%
Curriculum	7	3.72%

*Each study mentioned multiple types of social support within their studies, therefore not totaling to 54 types of social support.

Table 3

Thematic Table of 94 Articles

Constructed Themes	Unique Theme Source	Thematic Elements
		Family
High actual or perceived family/caregiver support buffered many negative social-emotional or educational outcomes	12	1. When actual or perceived family/caregiver support was low, levels of emotional and behavioral distress (suicidal ideation and school difficulties) were high (**Antonio and Moleiro, 2015; Pearson and Wilkinson, 2013**)
		2. Significantly higher levels of psychological distress were found among high school graduates who reported LGBT harassment at home (**Bidell, 2014**).
		3. Particularly for LGBT homeless youth, family-based harassment is more psychologically distressful compared to school-based harassment (**Bidell, 2014**)
		4. Low caregiver support, uniquely and in combination with peer victimization and a sexual minority identity were associated with higher levels of depressive symptomatology for SM youth (**Johnson et al., 2011**)
		5. Family acceptance enabled LGBT students to evolve socially and engage in cultural action to help them be strong and advocate, which promoted positive outcomes, including a safe space for students to share experiences, reflect, raise consciousness, and enable praxis to foster a positive school environment for LGBT students (**Grace and Wells, 2009; Wright et al., 2012**)
		6. Particularly for MSMY, increased family support was associated with better school performance (**Craig and Smith, 2014**)
		7. Family support is significantly associated with reduced risk of victimization, substance use, and suicidality for students, regardless of sexual orientation (**Button et al., 2012**)
		8. Experiencing sexual stigma makes SM/SSA youth perceive less parental closeness and support, therefore being at an increased risk of experiencing depressive symptoms, substance use, running away from home (**Johnson et al., 2011; Pearson and Wilkinson, 2013**)
		9. Adolescents' perceptions of closeness with their parents, their involvement in shared activities and their overall sense of support from their families were associated significantly with their well-being and risk behaviors (**Pearson and Wilkinson, 2013**)
		10. For LGBTQ youth, working with parents to foster youth resilience moderated the effects of general victimization on suicidality and greater school belonging and indirectly predicted lower educational concerns (**Poteat et al., 2011**)
		11. LGBT-affirming resources aimed at developing family support fostered student academic well-being and physical and emotional safety (**Craig et al., 2018**).
		12. Parent advocacy and allyship was important for transgender children to feel safe and be their authentic selves in their classroom (**Goldstein et al., 2018**).
		13. Parental communication and parental trust was shown to minimize homophobic victimization (**Pace et al., 2020**).
Family/caregiver support is not	3	1. Victimized LGBQ youth who feel supported by their parents are more likely to perform poorly in school (**Button, 2016**)

consistently adequate to buffer the negative emotional, behavioral, and educational outcomes		2. When LGBTQ youth were victimized, general parent support did not consistently attenuate the negative outcomes **(Button, 2016; Poteat et al., 2011)** 3. Family support may be protective against violence victimization and self-harm among high school students, however, effects were less robust for GM youth **(Ross-Reed et al., 2019)**
Sex differences within family experiences arose highlighting complexities of family/caregiver support	3	1. Overall sense of support from family is more important than parental closeness or involvement to explain the decreased well-being among SM girls. For SM boys, involvement in shared activities with parents is associated with an increased likelihood of risk behaviors, including substance use and running away from home **(Pearson and Wilkinson, 2013)** 2. (SSA) Adolescents who reported less disclosure to their fathers (only fathers not mothers) experienced less acceptance from peers, felt more peer role strain, and reported lower levels of self-esteem, higher levels of depression, and lower levels of school identification/belonging **(Bos, et al., 2008)** 3. For SM girls, no association was found between caregiver support and peer victimization **(Johnson et al., 2011)**
		Curriculum
LGBTQ-inclusive curriculum was most often taught in social sciences, humanities, and health classes and fostered authenticity with students, creating an inclusive classroom	6	1. By exploring conceptual connections across sociology classes, inquiring key historical events such as Stonewall and the rise of Harvey Milk or DADT legislation allowed students to make more authentic connections between their lives and the "official" social studies topics being taught **(Mayo, 2013b)** 2. They were most often taught in social sciences, humanities, and health classes and brought opportunities for critical conversations about systematic oppression and were able to learn how such curriculum reflected their identities and created a supportive school climate, improving their learning and well-being, and fostered an authentic connection with the teacher in such classes **(Blackburn, 2007; Snapp et al., 2015a; Wright et al., 2012)** 3. A [Q]SP invites educators to work and tinker along the lives and edges of LGBTQ2 children and youth, disrupting homophobia, injustice, and other forms of oppression by centering the queer in culture **(Wargo, 2019)**. 4. Teachers agreed on the importance of weaving social justice topics in the curriculum to model critical literacy in creating an inclusive curriculum to benefit all students **(Pearce & Cumming-Potvin, 2017)**.
LGBTQ-inclusive curriculum led to decreased actual/perceived bullying and social-emotional outcomes (e.g., depression) and increased sense of safety for LGBTQ students.	5	1. LGBTQ-inclusive curricula were associated with higher reports of safety at the individual and school levels, and lower levels of bullying at the school level. Supportive curricula were related to feeling safer and awareness of bullying at the individual and school levels and combat feelings of isolation and depression **(Luecke, 2011; Snapp et al., 2015c)** 2. School safety was higher for schools in which more students reported the presence of LGBTQ-inclusive sexuality and health education. Further, in schools where sexuality and health education was perceived as supportive of LGBTQ people and issues, there was more safety and less bullying. Schools are more personally safe and have less bullying when curricula are supportive **(Snapp et al., 2015c)** 3. When students report inclusion of LGBTQ issues in the curriculum, have accessible information related to LGBTQ issues, and when teachers intervene in sexual orientation- and gender nonconformity-based harassment, they perceive their schools as safer for gender nonconforming male students **(Snapp et al., 2015c; Toomey et al., 2012)** 4. Safety and acceptance requires the effort of the teacher to be present and update the curriculum to be inclusive to validate LGBTQ students' experiences **(Shelton & Lester, 2018)** 5. Developing a [q]ulturally sustaining stance and disposition to center SOGI issues in elementary school spaces can recognize the whole person, bringing a possible avenue to bring LGBTQ2 inclusive topics in early childhood and

		elementary classrooms to disrupt homophobia, injustice, and other forms of oppression benefitting LGBTQ2 children and youth **(Wargo, 2019)**
A hidden, heteronormative curriculum (e.g., heteronormative academic content, social spaces, relationships) exists behind the official academic curriculum that impedes LGBTQ+ youth support and engagement	4	1. The 'hidden' heteronormative curriculum directly and adversely affects SM youth on their psychological and educational levels and that LGBTQ-inclusive curriculum needs to take into account not only the academic, official curriculum, but also the social curriculum (relationships) and campus curriculum (group space; **Castro and Sujak, 2014)** 2. GSAs also supplement positive educational outcomes as formal education lacks a queer perspective and content on queer history **(Lapointe, 2014; Mayo, 2013b; Woolley, 2012)**
There is a need for teachers to feel supported to teach LGBTQ-inclusive curriculum effectively, including the need for increased understanding and implication of LGBTQ-related content in curriculum and support from administration	4	1. Teachers often missed teachable moments conducive to inclusive curriculum **(Luecke, 2011; Snapp et al., 2015a)** 2. The administration's role was highlighted not only in a supporting capacity, but more significantly, as a catalyst for small but positive changes in the curriculum, providing the support needed for teachers **(Liboro et al., 2015)** 3. Teachers mentioned difficulty fostering an inclusive curriculum due to rigid curriculum, high stakes testing, parental resistance, and fear from parental backlash **(Pearce & Cumming-Potvin, 2017)**
School programs (such as GSAs)		
Gay-Straight Alliances (GSAs) have been shown to foster a space for empowerment and change, creating a safe space and climate for LGBTQ students, subsequently leading to various positive	25	1. GSAs help students act together to create cultural and institutional change and can be transformative for school culture and students to recuperate, engage and resist oppression, share experiences, reflect, raise consciousness, and motivate engagement in social advocacy, leadership, and create plans of actions.These spaces provide a positive physical and intellectual space where students could discuss LGBTQ issues that were silenced or omitted in the larger school community **(Elliott, 2016; Grace and Wells, 2009; Lapointe, 2014, 2015; Liboro et al., 2015; Mayberry et al., 2013; Mayo, 2013a; Russell et al., 2009; St. John et al., 2014; Woolley, 2012)** 2. The club gives students who identify a safe place to go, to have a safe place to be accepted no matter what and that it helps educate other people because people need to learn more about us **(Liboro et al., 2015).** 3. GSAs were the third space that promoted learning and social change where teachers could also participate **(Mayo, 2013a).**

outcomes and reduced negative outcomes		4. Students who attended a high school with a GSA reported significantly more favorable outcomes related to school experiences, alcohol use, and psychological distress, and attenuating a range of health risks **(Heck, 2014; Heck et al., 2013; Poteat et al., 2013)** 5. GSA participation in activities and presence of a GSA was positively associated with school belongingness and GPA. GSA membership is also positively associated with school belongingness.1) Presence of a GSA, 2) participation in a GSA, and 3) perceived GSA effectiveness promoted school safety differently for young adult well-being and differently moderated the negative associations between LGBT-specific school victimization and well-being **(Toomey and Russell, 2013; Toomey et al., 2011)** 6. Integrating mental health promotion programs within a GSA was feasible and students found such programs enjoyable, helpful, and feasible, providing coping skills and resources **(Heck, 2015)** 7. Entering GSA classrooms offered visibility, positive symbols of acceptance, respect, and affirmation in safe spaces from homophobia/transphobia **(Bain & Podmore, 2020)** 8. Presence of GSAs was associated with lower levels of safety **(De Pedro et al., 2018)**. 9. GSAs were shown to be high functioning for LGBTQ students particularly in schools with a negative school climate, as homophobic bullying was least frequent **(Ioverno & Russell, 2021)**. 10. Schools with GSAs were shown to reduce SGM-specific and intersectional identities victimization and had higher perceptions of school safety and increased academic success **(Lessard et al., 2020)** 11. Rainbow group enabled trans students to explore, contest, and perform their gender identities in their schools, going against the binary hierarchy embodied in schools and challging the wider school culture **(McGlashan & Fitzpatrick, 2017, 2018)** 12. GSAs provided a trusting foundation to fulfill LGBTQ student needs and acts as a source and symbol that LGBTQ youth needs to have a sense of safety **(Porta et al., 2017)** 13. GSAs brought attention to exclusive policy and practices by hosting queer-friendly events, working towards a safer environment for transgender students **(Sutherland, 2019)** 14. Engaging with GSAs enabled students to form their own identities grounded in empowerment rather than as victims **(Elliott, 2016; Russell et al., 2009)**
GSAs can create opportunities for connection for LGBTQ students in their community	13	1. GSAs can provide accountability, support, community, increased GPA, decreased feelings of isolation by connecting youth with other LGBTQ community members, events, and resources, leading to increased validation and normalization of identity, sense of hope, greater self-esteem, greater appreciation for self and other peers, adaptive social relationship negotiation skills, acceptance, and a sense of safety and empowerment to its members **(Elliott, 2016; Grace and Wells, 2009; Heck et al., 2013; Liboro et al., 2015; Mayberry et al., 2013; Mayo, 2013a, 2013b; McCormick et al., 2015; Russell et al., 2009; St. John et al., 2014; Toomey and Russell, 2013)** 2. GSAs allowed for connections to community organizations, fostering activism opportunities, connections and visibility for students **(Bain & Podmore, 2020)** 3. GSAs provides a gateway to wider LGBTQ community, supportive adults, and community resources **(Porta et al., 2017)**
GSAs allowed for engagement and youth involvement in schools and GSAs,	5	1. Participating in GSA was shown to be a safe space for bi/pansexual youths to 1) self-express and have pride and 2) learn and educate through advocating beyond the fe/male binary. GSA was a space for many students for self-discovery and validate their self-identity, providing the space for activities and discussion **(Lapointe, 2017)**

leading to positive outcomes (e.g., self-efficacy).	2.	Students' involvement in transgender-related discussions in GSAs contributed to their self-efficacy to address transgender issues, particularly for those who had more GSA engagement and discussions in their GSAs **(Chong et al., 2019)**.
	3.	There was a positive relationship in schools with GSAs where GSM students were found to be more engagement and had better academic success **(Hazel et al., 2019)**.
	4.	GSA members who had higher levels of involvement and received more social-emotional support and informational resources from GSAs reported greater general civic engagement, higher levels of hope, more advocacy and awareness-raising efforts related to SOGI issues, and reduced effects of victimization **(Poteat et al., 2018, 2020)**.
GSAs vary in their function (e.g., advocacy, educational, socialization) 7	1.	GSAs were more distinct from one another on advocacy than socializing. For youths who were more actively engaged in the GSA as well as GSAs whose youth collectively perceived greater school hostility and reported greater social justice efficacy did more advocacy. The varying functions of GSAs depend on the internal provisions of support, to visibility raising, to collective social change **(Mayberry et al., 2013; Poteat et al., 2015; Woolley, 2012)**
	2.	Students who were more involved in accessing information/resources and in advocacy in their GSA discussed more health-related topics, prepared more awareness-raising campaigns, and had increased engagement in their school and increased knowledge gathering **(Poteat et al., 2017)**
	3.	GSAs where the focus was more on support/socialization less frequently integrated mental health discussions during their meeting **(Poteat et al., 2017)**
	4.	GSAs had distinct purposes in assisting differnet aspects of LGBTQ+ students: 1) advocacy, education, and social support; 2) litearture to reflect lives and experiences in students; 3) developing skill sets to assist students in fostering inclusion and acceptance **(Underhill, 2017)**
	5.	Advisors believed the primary role of the GSA was to provide an emotionally safe environment for LGBT students to bring awareness and take action, whereas students perceived fostering a sense of community and belongingness as importance, therefore GSAs serving two diverging roles **(Lapointe, 2015; Mayberry et al., 2013; Robertson, 2008)**
GSA's encounter challenges in their execution and in delivering positive outcomes 15	1.	Program implementations within GSAs to support LGBTQ+ youths had common problems which were: 1) lack of staff training and safe staff, 2) lack of student understanding of or sensitivity to LGBTQ issues, and 3) challenges of discussing sexuality in a middle school setting **(Horowitz and Itzkowitz, 2011; Liboro et al., 2015)**
	2.	GSAs still struggle to subvert the heteronormative school climates among other students and teachers when antigay comments occurred in the school setting or in schools where the greater community is unsafe. **(Lapointe, 2015; Mayberry et al., 2013)**
	3.	High schools have concerns and restrict policies on GSA student behaviors, limiting the activities that were feasible or imaginable among participants and activism was not always allowed or done **(Elliott, 2016; Fetner et al., 2012).**
	4.	Only 19.1% youth reported their high school having a supportive LGBT club such as a GSA **(Bidell, 2014)**
	5.	GSA effects were nonsignificant for general or homophobic victimizaiton, grades, and school belonging. Presence of a GSA did not predict student school engagement. However, GSA size, visibility and perceived support predicted engagement and engagement is a significant predictor of GPA. Personal involvement in a GSA did not predict student school engagement **(Poteat et al., 2013; Seelman et al.,2012, 2015)**
	6.	The positive benefits of GSA-related social justice involvement and the presence of a GSA disspate at high levels of school victimization **(Toomey et al., 2011; Toomey and Russell, 2013)**
	7.	Being in a GSA space can lead to emotional vulnerabilities to wider school community **(Bain & Podmore, 2020)**

	8.	GSA-admin were required to negotiate the LGBTQ2S space in school, going against indifferent culture towards supporting LGBTQ2S students **(Bain & Podmore, 2020)**
	9.	Presence of a GSA was not associated with mental health outcomes or predictor of help-seeking behaviors **(Colvin et al., 2019)**
	10.	The impact of GSA's on LGBTQ safety and school climate may vary widely across schools and geographic contexts as GSAs in rural areas may negatively related to safety **(De Pedro et al., 2018).**
School-based interventions (non-GSAs) were shown to be effective to support LGBTQ youth	1.	An intervention was conducted in a classroom to accept individual differences in a positive manner through active and cooperative group participation, express feelings in a positive manner shown by open discussion of emotional issues within group, and to show progress on accepting constructive feedback in a positive manner. Intervention showed an openness to address important and sensitive issues among the students. Interventions that were effective framed uniqueness as a strength and fostering a change in the classroom climate towards acceptance **(Luecke, 2011; Robertson, 2008)**
	2.	Youth-led theater and dialogue-based interventions was an effective strategy to address heterosexism and genderism in schools. Participation in the performance was significantly associated with increased reports of willingness to advocate for social jusitce, fairness, and equality for LGBTQQ people, increasing students' intentions to participate in macro-level change around LGBTQQ issues **(Wernick et al., 2016)**
	3.	There is a need to employ a pragmatic approach and focus on student safety to gain administrative support to conduct interventions **(Lassiter and Sifford, 2015; Liboro et al., 2015; Robertson, 2008)**
	4.	The art gallery prompted adults in the community to consider gender issues and led them to take action and behave differently, with them being more supportive or affirming of LGBTQ youth moving forward, considering the use and impact of language related to gender, and reflect on and confront their own biases related to sexuality and gender as well as confronting bias within others **(Hall et al., 2018).**

(Note: the number **6** appears in the leftmost count column for the "School-based interventions" row.)

Peers/Friends

Fostering peer support and acceptance relates to lower levels of emotional and behavioral distress and fosters positive psychological, social, and educational outcomes (e.g. sense of belonging)	1.	Adolescents with higher levels of peer acceptance and lower levels of peer role strain experienced lower levels of depression and is associated significantly with their self-esteem **(Bos, et al., 2008)**
	2.	Higher levels of sense of belonging to GLB youth groups were associated with higher levels of school, teacher, and peer connectedness. School and teacher connectedness played an indirect role in predicting depressive symptoms, via peer connectedness. Belonging to a GLB youth group increased feelings of confidence and sense of belonging and foster expectations of being accepted by teachers and broader school community **(McLaren et al., 2015)**
	3.	Older adolescents were found to have less homophobic attitudes and more willing to remain friends and attend school with GL peers **(Toomey et al., 2012)**.
	4.	Additionally, straight allies play an important role to address anti-gay stereotypes by being an ally **(Lapointe, 2014)**
	5.	Being out to more friends solely or in combination with other groups of individuals (such as family) was generally associated with higher grades and less school harassment, however, youth who reported being out at home but not at school reported the worst grades and more harassment **(Watson et al., 2015)**
	6.	A lower quality of peer support/relationship resulted in higher levels of depression and lower levels of self-esteem and school identification **(Bos, et al., 2008)**
	7.	Peers were also mentioned as support systems, particularly for youth with rejecting families **(Craig et al., 2018)**.
	8.	Peer education and interventions have been shown to be associated with more positive school/classroom experiences and higher levels of safety for LGBTQ youth **(De Pedro et al., 2018; Fantus & Newman, 2021)**

(Note: the number **13** appears in the leftmost count column for the "Fostering peer support" row.)

	9.	Thick friendships were shown to help encourage LGBTQ youth to question their sexualities, reflect with each other surrounding questions of sexuality, and how queer positivity emerges from such rellationships, interactions, and attachments, disrupting school bullying and listening to LGBTQ youths' stories and narratives **(Gilbert et al., 2019)**.
	10.	For SM Chinese adolescents, having supportive peer relations mediated the effect of their suicidal behavior **(Huang et al., 2018)**
	11.	TGD students also mentioned the importance of having peer support in their schools, shown to have improved academic success **(Jones, 2017)**.
	12.	Students reported feeling encouraged seeing 'out' peers in their classrooms as a form of feeling safer in their school **(Palkki & Caldwell, 2018)**
	13.	Degree of safety and acceptance required peers be present to think, exist, and accept outside gender-established boxes **(Shelton & Lester, 2018)**.
Limited and poorly developed conclusions regarding peer support 4	1.	For MSMY youth, peer support was not associated with better school performance and did not moderate effects of perceived discrimination **(Craig and Smith, 2014)**
	2.	For LGBQ youth who have been victimized, those who had peers to discuss problems related to substance use and/or sex were more likely to perform poorly in school and report considering planning and/or attempting suicide **(Button, 2016)**
	3.	Positive correlation between peer support and NSSI among all students, although the relationship between peer support and NSSI was stronger among GM students **(Ross-Reed et al., 2019)**
	4.	Social support did not buffer the effect of victimization on self-esteem in either cisgender LGBQ students or transgender students **(Taylor et al., 2020)**
School professionals, administrators, teachers		
Having a high level of within-school adult support result in positive benefits (e.g. increased probability of graduating from high school) 19	1.	LGBTQ students perceive more support in their school when school staff, administrators, and teachers show support through actions and presence that take a stance against bigotry and defends marginalized students **(Blackburn, 2007; Liboro et al., 2015; Luecke, 2011; Mayberry et al., 2013)**
	2.	LGB youths who reported having natural mentors (teachers, staff members, school administrators) were about three times as likely to graduate from high school compared to those who do not have natural mentors **(Drevon et al., 2016)**
	3.	The more types of safe adults at school, the greater the school engagement of LGBTQ youth **(Mayo, 2013a; Seelman et al., 2012, 2015)**
	4.	Supportive school staff members were able to provide community partnerships for LGBT students for opportunities and resources access outside of school, increasing the sense of belonging with a community **(Liboro et al., 2015)**
	5.	Supportiveness of school staff was associated with increased intentions to seek help for suicidal thoughts and a positive school climate **(Colvin et al., 2019)**.
	6.	The importance of social work professionals as "safe" adults at school impacting academic engagement, and school connectedness and support **(Craig et al., 2018)**.
	7.	Teacher intervention were associated with higher levels of safety for LGBTQ youth **(De Pedro et al., 2018)**.
	8.	Supportive adults in schools were shown to be knowledgeable about SOGI issues and implement school and classroom procedures that help LGBTQ youth feel safe in their schools **(De Pedro et al., 2018)**.
	9.	Supportive teacher expectations for SM students resulted in these students having increased educational achievement **(Fenaughty et al., 2019)**.

	10.	From the perspective of TGNC children, they perceive that teachers have the power to foster a safe classroom climate and environment, supporting the transition of transgender youth **(Goldstein et al., 2018)**.
	11.	Supportive school staff allowed for students to create a community art gallery for students to foster awareness of LGBTQ issues in their school and surrounding environment **(Hall et al., 2018)**.
	12.	Teachers also mentioned becoming allies of LGBT students as a role model and not be bystanders to pejorative language, emphasizing the importance of behavioral management to establish a safe classroom space **(Pearce & Cumming-Potvin, 2017)**
	13.	Teachers were integral in opening conversations to be inclusive and relevant to all students to promote safety and acceptance in the classroom **(Shelton & Lester, 2018)**.
	14.	Teachers understood the importance of inclusive language use as an indicator of a supportive environment for trans/gender-diverse students in their classrooms **(Ullman, 2018)**.
	15.	Teachers, school psychologists, and principals are key stakeholders to develop skill sets to support LGBTQ+ students in fostering inclusion and acceptance **(Underhill, 2017)**
	16.	Positive teacher relationships suggests more positive wellbeing amongst all students, particularly in environments where there is heteronormative environments **(Vantieghem & Houtte, 2020)**
Having a high level of within-school adult support reduces negative outcomes (e.g. lower levels of sexual orientation-based victimization) 10	1.	Regardless of one's sexual orientation, student perceptions of greater adult support at school were consistently linked to their reports of lower levels of sexual-orientation victimization, school avoidance, and substance use, particularly for LG youths **(Darwich et al., 2012)**
	2.	School engagement predicts a decrease in fear-based truancy for those who have higher levels of fear at school. The presence of supportive adults at school reduced the number of days skipping school due to fear **(Mayo, 2013a; Seelman et al., 2012, 2015)**
	3.	Having an adult ally at school is associated with a decrease in fear-based truancy **(Seelman et al., 2012).**
	4.	LGB youths who had a school adult connection were less likely to use substance and decreased mental health risks (e.g., suicidality; **Seil et al., 2014).**
	5.	Principals agreed that there is a need for increased efforts towards reducing bullying/discrimination towards LGBTQ youth, setting the tone for their schools **(Boyland et al., 2018)**.
	6.	Supportiveness of school staff was associated with fewer depressive symptoms **(Colvin et al., 2019)**.
	7.	The importance of social work professionals as "safe" adults at school decreased substance use **(Craig et al., 2018)**.
	8.	For SM Chinese adolescents, having supportive teachers mediated the effect of their suicidal behavior **(Huang et al., 2018)**
	9.	Access to school-based health centers can ameliorate health disparities among SMY youth, providing an inclusive and affirmative environment to reduce SMY's barriers to health care **(Zhang et al., 2020)**.
Though teachers and school staff can be supportive adult figures to reduce negative psychological outcomes, have been shown to be 7	1.	Students have reported that teachers sometimes do not know how to intervene effectively, with the two most common intervention strategies for verbal harassment include 1) stopping the harassment and 2) explaining why it is wrong. **(Hillard et al., 2014)**
	2.	Teachers were shown to not feel prepared to support LGBTQ students and needed more knowledge and information, to which collaborating with GSAs helped improve their pedagogy **(Luecke, 2011; Mayo, 2013a)**
	3.	Though there were benefits in identifying and having a supportive adult, 80.9% reported never talking to a teacher regarding SOGI topics, 70.8% never talked to a school/mental health counselor and 86.5% never talked to a school administrator about issues related to SOGI during high school **(Bidell, 2014)**

ineffective in supporting LGBTQ students		4. GSA students perceive faculty silence surrounding SOGI topiccs as a normative feature of the school environment and the lack of overt resistance to the existence of GSAs in their schools **(Mayberry et al., 2013)** 5. Within-school adult support was not as protective against suicidality compared to outside school adult support **(Coulter et al., 2017)**. 6. Teachers need to increase their responsibility to support students as transgender children were tired/burdened to educate others on how to support them **(Goldstein et al., 2018)**.
School staff perceived external support as key to ensure coordination to foster staff support for LGBTQ students	4	1. School staff emphasized the importance of having a coordinator external to the school as this person was able to continuously push the school's administrators to be willing to talk about issues of sexuality with instant availability to provide support for curricular efforts, activities and adapting to student, staff, and school needs, subsequently reducing harassment for LGBTQ students **(Horowitz and Itzkowitz, 2011; Liboro et al., 2015; Luecke, 2011)** 2. Having an external source of support showed statistical improvements where students reported that LGBTQ students were accepted at their school 'sometimes' or 'a lot of the time'. **(Horowitz and Itzkowitz, 2011)** 3. External supports such as sexuality education workshops were shown to have had significant positive effects on teachers' beliefs and behaviors' to support SGM students **(Kwok, 2018)**
School Policies		
The socio-political values of the wider community beyond the school have an impact on school policies and staff attitudes	7	1. Students and faculty mentioned non-progressive attitudes and beliefs about LGBTQQ people due to political and religious conservatism led to faculty hesitation about forming a GSA and that the administration yielded to the beliefs and attitudes of the larger community regarding sexual orientation **(Lassiter and Sifford, 2015; Mayberry et al., 2013; Wright et al., 2012)** 2. GSA ban resulted in increased powerlessness, frustration, disappointment, and anger as school counselors believed that students are prevented from experiencing benefits of GSA presence and sent a message regarding the visibility of LGBTQQ community **(Lassiter and Sifford, 2015)** 3. Supportive staff members attempted to foster resistance through systematic inclusion by framing that the ban will foster risks as the school is not meeting the needs of the students and that the school should be altruistic to support all students (resistance needs to be framed as a general support and benefits for all students to reduce the hesitance) **(Lassiter and Sifford, 2015; Mayberry et al., 2013; St. John et al., 2014)** 4. Certain GSAs were limited in the activities and spaces (only activities deemed important and appropriate) they were allowed to hold to minimize the risk of external resistance from parents and community **(Lassiter and Sifford, 2015; Mayberry et al., 2013)** 5. School policies were sometimes more enforced unequally to LGBTQ youth as they were being punished for PDA and violating dress code. The lack of inclusive school policies, in combination with the lack of support from teachers, staff and administration led to students resisting to protect themselves **(Snapp et al., 2015b).** 6. Supportive government and school board policies allowed for GSAs in this region to flourish and foster community connections, showing an importance for the larger community to support schools **(Liboro et al., 2015; St. John et al., 2014)** 7. Local communities, regions, and districts result in variations in their school plan to support LGBTQ students (and what can and cannot be done in their policy work based on funding and backing) **(Fantus & Newman, 2021)** 8. Effecting change across multilevel contexts within schools requires a school-wide approach and communal investment from within and in the local community in order to promote the social, psychological, and physical safety for all students **(Fantus & Newman, 2021).**

Implementing inclusive and anti-discriminatory policies have been shown to be effective in fostering a safer school space for LGBTQ students, fostering both positive psychological outcomes and reducing social-emotional risks	5	1. Schools with higher reported implementation of policies and best practices had lower levels of reported bullying or discrimination against LGBTQ students (**Boyland et al., 2018**). 2. Effective bills such as Bill 13 were shown to allow LGBTQ youth to create a space for them to transform their own lives and offering opportunities of activism for marginalized youth (**Iskander & Shabtay, 2018**)\ 3. Inclusive policies allow for events such as Pride Prom and Day of Silence that provides a safer environment for gay and lesbian youth to celebrate their graduation (**Sutherland, 2019**) 4. Policy frameworks have shown that it is not only important to provide a safe context for students but more to challenge the hetero/cisnormative dynamic present in policy documents and classroom and create concrete action to create an empowering climate (**Ullman, 2018**). 5. Policies are needed to ensure collaboration across professionals to support legislation to recognize sexuality and gender issues in schools (**Kwok, 2018**)
School policy and community support showed challenges and mixed conclusions in fostering positive outcomes	4	1. Higher proportions of students who reported inclusive school policies predicted lower perceptions of safety based on gender nonconformity (**Toomey et al., 2012**) 2. Bullying policies were not consistently enforced and was not significantly predicting LGBTQ safety and victimization (**Boyland et al., 2018; De Pedro et al., 2018**). 3. Community support was not related to decreased rates of harm (**Ross-Reed et al., 2019**)
School Climate		
A positive school climate can reduce negative emotional-behavioral outcomes and reduce educational risks.	4	1. For LGB and heterosexual students who are in a positive school climate and not experiencing homophobic teasing, they scored the lowest on depression/suicidality, alcohol/marijuana use, and truancy (**Birkett et al., 2009**) 2. Students who reported a more supportive and positive school environment were less likely to report anxiety or depressive symptoms and less suicidality (**Colvin et al., 2019; Denny et al., 2016**) 3. SM students who were more involved in school-based activities and had stronger school connectedness were less likely to have ever used alcohol/marijuana, drugs, and decreased physical fights (**Ethier et al., 2018**). 4. Teacher reports of more supportive school environments were associated with fewer depressive symptoms among male but not female SM students (**Denny et al., 2016**)
A positive school climate can foster positive psychosocial and educational outcomes	11	1. By fostering safer school climates by combining GSA-type clubs with other programs such as LGBT-affirming school-wide campaigns and significant events, this promoted tolerance, respect and inclusion for LGBT youths (**Liboro et al., 2015; Mayo, 2013a; Wernick et al., 2016**) 2. A positive school climate has shown to help teachers feel comfortable with advocating for LGBT students (**Luecke, 2011; Mayo, 2013a**) 3. Student school engagement was found to be a significant predictor of student GPA (**Seelman et al., 2012**) 4. LGBTQ affirming school climates in rural school communities are associated with more positive perceptions of safety for LGBTQ youth (**De Pedro et al., 2018**).

	5.	SM students who were more involved in school-based activities, had supportive school structures, and had stronger school connectedness felt safer in schools and had increased achievement **(Ethier et al., 2018; Fenaughty et al., 2019)**.
	6.	Students, parents, and school staff mentioned the importance of having a safe space as a deciding factor to attend the school, not only having a safe space but a thriving space where students are recognized, accepted, and are able to be present and participate in their school **(Hope & Hall, 2018)**
	7.	Irrespective of gender, students felt more positive psychological wellbeing in less heteronormative schools **(Vantieghem & Houtte, 2020)**
	8.	Classroom environments that were inclusive allowed LGBTQ students to be more inclusive and increased opportunities to understand diversity and differences **(Shelton & Lester, 2018)**.
A whole-school effort (e.g., promoting LGBTQ+ student-led change initiatives) is required to foster a positive school climate and lead to various positive outcomes 10	1.	Interventions such as staff development and training, LGBTQ-inclusive curriculum, GSA-type clubs, and awareness events are necessary to foster a positive school climate which in turn fosters educational and social success **(Horowitz and Itzkowitz, 2011; Wernick et al., 2016; Woolley, 2012)**
	2.	By providing their LGBT students access to more resources by connecting them with LGBT-positive community partners, this can create more opportunities to carry out programs such as professional development, staff training, and curricular changes that maximized the potential of the students, teachers, administrators, and board trustees, to attain a whole-school system environment that fostered a positive school climate **(Liboro et al., 2015)**.
	3.	GSAs, faculty and staff support, education and training for the school community, appropriate mental health services, school-home-community connections, and inclusive curriculum supports for GLBT students are all aspects of support systems needed to meet the needs of GLBT youth and foster a sense of positive school climate **(Robertson, 2008; Woolley, 2012; Wright et al., 2012)**
	4.	A positive school climate was attempted by students in a GSA by actively taking action to address anti-LGBTQ bias, to provide education, and address the silences on LGBTQ issues through whole school efforts such as school events and classroom discussions **(Liboro et al., 2015; Wernick et al., 2016; Woolley, 2012)**
	5.	By having a supportive principal, this facilitated a positive whole-school approach to support a student (Jaden) feeling comfortable with herself going through her transition **(Luecke, 2011)**
	6.	School districts found it was important to be able to create school-wide approaches (e.g., inclusive policies, school staff knowledge development, safe/supportive school environment, healthy/supportive peer connections, access to affirming services, community and family engagement), such as large-scale programmes, to be able to ensure the support of LGBTQ/TGNC students in schools **(Goodrich & Barnard , 2019)**
	7.	A whole school approach is needed to promote TGD activism and support TGD students' wellbeing. This includes school staff can create a safer school environment, having professional development opportunities for staff to feel knowledgeable, inclusive policies, and having an inclusive curriculum **(Jones, 2017)**.
	8.	Students mentioned the importance of a school-wide approach to support LGBTQ students. This included inclusive language from educators, seeing supportive staff as role models, inclusive curriculum, inclusive policies (e.g. dress), and overall school and classroom climate being safe for LGBTQ students **(Palkki & Caldwell, 2018)**

Fostering Social Support through LGBTQ-Inclusive Curricula

When examining current research on social support systems for LGBTQ students in schools, several systems fostered positive socioemotional, behavioural, and academic outcomes. Results from the scoping review revealed that social support consists of seven social support systems (family, curriculum, family, peers, school policies, GSAs and programs, and school climate) that, both uniquely and in overlap, are positively associated with the promotion of positive socioemotional, behavioural, and educational outcomes and the moderation of the risks associated with LGBTQ students in schools. However, barriers to providing positive support were found to be due in part to a lack of training and support for school administrators and teachers to consistently enforce LGBTQ-inclusive policies and curricula. Given the findings from Study 1, and Québec's recently mandated comprehensive SHE curriculum (*Sexuality Education*) in 2018, there is a need to ensure that the curriculum is being integrated into the classrooms effectively to benefit all students.

LGBTQ-inclusive curricula have been shown to foster many benefits for all students. As indicated in Study 1, for LGBTQ students, an inclusive curriculum fosters authenticity, increasing academic engagement, psychological wellbeing, and sense of identity and belonging. LGBTQ-inclusive curricula allow LGBTQ students to identify teachers as "safe teachers" with whom they can discuss sensitive concerns. An inclusive curriculum decreases victimization and negative socioemotional outcomes (e.g., depression, feelings of isolation). Additionally, LGBTQ-inclusive curricula can benefit CH students. An inclusive curriculum increases students' feelings of safety, increases awareness of victimization in schools, and disrupts forms of homophobia and oppression in the classroom, thereby fostering an inclusive classroom. Therefore, in terms of student safety, incorporating a LGBTQ-inclusive curriculum is an

effective support system to create change in classroom and school environments. The findings

further suggest the need to evaluate Québec's comprehensive SHE curriculum (*Sexuality

Education*) implemented in September 2018. The stated goal and topics covered in Québec's

Sexuality Education curriculum can be considered a LGBTQ-inclusive curriculum. The goal of

Québec's *Sexuality Education* curriculum is to enable students to be self-reflective, acquire

respectful and equitable relationship skills with their peers and dating partners, and develop

critical thinking skills as responsible citizens (MEES, 2018c). Québec's Ministry of Education

(MEES, 2018c) mentioned that the *Sexuality Education* covers a variety of subjects including

gender stereotypes, romantic relationships, an understanding of sexuality and themselves,

exploring sexuality and gender stereotypes in the public space and social media platforms,

discrimination against sexual and gender diversity, and fostering attitudes and skills to be

respectful citizens in society (respecting diversity, conflict resolution). There are a total of eight

themes covered in the curriculum, of which four were related to LGBTQ-inclusivity: 1) sexual

growth and body image, 2) identity, gender stereotypes and roles, and social norms, 3) emotional

and romantic life, and 4) comprehensive view of sexuality. Based on the topics and themes

covered throughout Québec's comprehensive SHE curriculum, the inclusion of LGBTQ-related

topics shows promise to benefit (both LGBTQ and CH) students. However, given the findings in

Study 1, teachers reported lacking support to discuss LGBTQ-related topics (Liboro et al., 2015;

Luecke, 2011; Pearce & Cumming-Potvin, 2017; Snapp et al., 2015). Teachers often miss

teachable moments conducive to inclusive curriculum (Luecke, 2011; Snapp et al., 2015).

Teachers mentioned difficulty fostering an inclusive curriculum due to rigid curriculum, high

stakes testing, and parental resistance (Pearce & Cumming-Potvin, 2017), requiring the

administration to provide the support needed for teachers to change the curriculum (Liboro et al.,

2015). Particularly in the Québec context, a small number of articles were found that explored

teachers' views toward fostering an inclusive curriculum. Teachers in Québec believed that it

was important to include LGBTQ issues in curricula but also mentioned parental resistance, lack

of training and understanding in inclusive curriculum implementation, and developmental

inappropriateness (for elementary-level teachers) as barriers for implementing a LGBTQ-

inclusive curriculum (Di Salvio, 2005; Garcia, 2015)

Though LGBTQ-inclusive curricula can be a pillar of social support for LGBTQ

students, teachers encounter difficulties to implement LGBTQ-inclusive curricula effectively.

Ineffective LGBTQ-inclusive SHE curriculum implementation, through a lack of fidelity or

adaptations made by teachers, can fail to meet the stated goals of Québec's *Sexuality Education*

curriculum. As this curriculum was formulated in collaboration with various stakeholders (e.g.,

experts in pedagogy, sexology, and health), the lack of fidelity to implement the curriculum can

create missing opportunities for LGBTQ and CH students and minimize the benefits of having a

LGBTQ-inclusive curriculum (increased psychological wellbeing, increased sense of safety,

inclusive classroom and school climate, disruption of homophobia and other forms of

oppression, authentic connections and identity development, critical literacy). A curriculum

analysis of English B.Ed. programs in Québec revealed that PSTs do not have required classes

related to SHE but are required to teach comprehensive SHE curriculum (Leung et al., in

preparation). Given the findings in Study 1, though teachers agreed on the importance of

incorporating LGBTQ-inclusive topics in their curriculum (Pearce & Cumming-Potvin, 2017),

they mentioned lacking the knowledge and support needed to include LGBTQ-related topics

(Blackburn, 2007; Mayo, 2013; Snapp et al., 2015; Wargo, 2019; Wright et al., 2012) and

believed that LGBTQ-inclusive topics should be taught in specific classes (social sciences, humanities, and health classes; Blackburn, 2007; Snapp et al., 2015; Wright et al., 2012).

In reviewing the research on LGBTQ-inclusive curriculum in schools, it is evident that numerous factors impact the effectiveness of LGBTQ-inclusive curriculum implementation. Future research should consider the role of teachers' attitudes, beliefs, and their individual differences when implementing a LGBTQ-inclusive curriculum for students' wellbeing in schools. Given that Québec recently mandated a comprehensive SHE curriculum containing LGBTQ-inclusive topics, a first step to address the effectiveness of the implementation of *Sexuality Education* curriculum is to evaluate the underlying factors that are contributing to teachers' openness and competence to teach SHE curriculum in their classrooms. Therefore, Study 2 aims to explore teachers' (both PSTs and ISTs) attitudes, beliefs, and characteristics on their openness and comfort, and competence to teach SHE in their classrooms.

CHAPTER 3

Study 2

Teacher Attitudes and Beliefs towards Sexual Health Education: Québec's *Sexuality Education*

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Abstract

As of September 2018, all Québec elementary and high schools were mandated to provide mandatory sexual health education (SHE), titled *Sexuality Education*. However, there is little information about the extent to which pre-service and in-service teachers feel comfortable and competent in their ability to teach SHE. Grounded in the Information-Motivation-Behaviour (IMB) model, the objective of the present study is to explore how variations among teachers' attitudes, beliefs, and characteristics facilitate or hinder their openness and perceived competence to teach Québec's LGBTQ-related SHE topics (nine-items). An online survey of 441 Québec pre-service (PST) and in-service (IST) teachers ($N_{PST} = 276$; $N_{IST} = 165$) participated. Results elucidated how teachers' prior SHE knowledge and SHE training were positively associated with their attitudes and importance assigned to the SHE topics. Multiple linear regressions further revealed a significant model where prior SHE knowledge, experience teaching SHE, sexual orientation, and teachers' attitudes and importance on the nine LGBTQ-inclusive SHE topics positively predicted their openness and comfort, and competence to teach SHE topics in their curriculum. Implications explore the efficacy of PD workshops and the need for B.Ed. program reformation to effectively support ISTs and PSTs in increasing SHE knowledge and opportunities to practice SHE implementation in their classrooms.

Keywords: curriculum; inclusion; LGBTQ; sexual education; teacher education; Québec

Teacher Attitudes and Beliefs Towards Sexual Health Education: Québec's Sexuality

Education

As of September 2018, all Québec elementary and high schools were mandated to

provide mandatory sexual health education (SHE) as part of their regular classes (optional at the

kindergarten level), titled *Sexuality Education*, focusing on age-appropriate information

concerning sexuality, anatomy, body image, healthy relationships, emotional regulation, and

gender identity (Éducation et Enseignement Supérieur, 2017; Jetté & Ouimet, 2017;

Xanthoudakis, 2021). However, many Canadian teachers are not adequately prepared as the

curricula of most Bachelor of Education (B.Ed.) programs for kindergarten, elementary or

secondary education do not include required or elective SHE courses (Leung et al., 2022; McKay

& Barrett, 1999; Rigby, 2017). The lack of knowledge and experience teaching SHE may result

in a lack of effective SHE implementation. Effective SHE should enable students to explore the

attitudes, feelings, and values that may influence their choices regarding sexual health (Weaver

et al., 2005). Research has shown that students who received higher quality SHE had greater

sexual knowledge (Byers et al., 2003, 2017) and that the quality had a positive influence on

students' attitudes and behaviours (Fegan, 2011). Particularly for lesbian, gay, bisexual,

transgender, and questioning (LGBTQ) students, having a LGBTQ-inclusive SHE curriculum

(e.g., diverse sexuality, diverse gender identity/expression) fostered academic engagement, self-

esteem, sense of safety and belongingness, and connectedness to their schools (GLSEN, 2019).

On this basis, it is imperative to understand the extent to which pre-service teachers feel prepared

to deliver SHE and how supported in-service teachers are to incorporate SHE in their classrooms.

As it is the responsibility of Canadian provinces and territories to develop curriculum, the quality of SHE students receive in Canada vary, with no system in place to monitor the delivery and results of SHE implementation (Action Canada, 2019). Within the Canadian context, a foundational study conducted descriptive analyses investigating New Brunswick teachers' attitudes and beliefs towards their comprehensive SHE. They found that New Brunswick elementary and middle school teachers were supportive of providing comprehensive SHE (Cohen et al., 2004). Specifically, teachers mentioned the importance of a developmental perspective in providing appropriate information to their students. However, though teachers rated specific SHE topics as extremely important, they rated themselves as somewhat knowledgeable and comfortable to teach those topics. The discrepancy may suggest a need to focus on pedagogy and methods of teaching SHE topics for teachers to be more knowledgeable and comfortable in these topics (Cohen et al., 2004). The scant literature exploring teacher-related factors (e.g., teacher self-efficacy) and pedagogical approaches on SHE curriculum have implications on students' sexual knowledge in light that research has consistently indicated positive links between teachers' perceived competence and student achievement (Zee & Koomen, 2016).

Accordingly, this study aims to address this important gap by drawing from the information-motivation-behavioral skills (IMB) model. The IMB model points to the promotion of positive sexual knowledge and attitudes in students and aims to help students become better *informed* (information), become *motivated* (motivation) to apply their knowledge and understanding, and *acquire* (behavioral) skills to foster an inclusive perspective of sexual

knowledge and attitudes (Public Health Agency of Canada, 2003). Though this model has been

adopted in health care situations to promote positive sexual health through comprehensive sexual

knowledge, this model has yet to be adopted in educational situations to understand the

promotion of positive sexual knowledge through teachers being better informed and motivated to

translate such information to their students. Previous research has shown that teachers who

believed in their content knowledge and understanding highlighted positive links with student

academic achievement (Zee & Koomen, 2016). Based on components of the IMB model, the

relationships between teacher-level factors and their resulting openness and competence to teach

SHE must be understood to ensure effective sexual health dissemination for their students.

Québec's Approach to Sexual Health Education (SHE)

SHE topics are culturally sensitive and commonly mentioned as '(in)-appropriate'

depending on the social context in which culture, ethnicity, race, gender, and socio-economic

status can influence what is deemed socially 'appropriate' (Kaley, 2020; Leung et al., 2019;

Roudsari et al., 2013). Although teachers may believe that students are becoming sexually

autonomous at a decreasing age, they continue to report feeling uncomfortable to discuss sexual

pleasure in grades four to six, resulting in discrepancies between an authentically relevant SHE

curriculum for student needs and teacher attitudes and beliefs (Bryce, 2017). With respect to

LGBTQ student needs, teachers report LGBTQ-related topics as uncomfortable to teach and may

decide to omit certain culturally relevant topics (e.g., LGBTQ-related) when teaching SHE

(Bryce, 2017). Therefore, although comprehensive SHE curriculum may encompass LGBTQ-

related topics (e.g., diverse sexuality, diverse gender identity), there are variations in teacher

fidelity when implementing the comprehensive SHE curriculum. The omission of LGBTQ-

relevant topics can translate to the erasure of LGBTQ students from curricula, which is reported

to result in academic disengagement, a sense of isolation, and a lack of safety (Snapp et al.,

2015). Though teachers agree that it is important to discuss SHE topics in school, they perceive

personal discomfort, external pressures, and systemic barriers that prevent them from effectively

teaching SHE in their classrooms.

In 2018, Québec mandated a compulsory comprehensive SHE curriculum, titled *Sexuality*

Education, across elementary and high schools, with kindergarten being optional. The

comprehensive SHE curriculum can be considered a LGBTQ-inclusive SHE curriculum due to

the inclusion of topics that go beyond traditional topics of sexual health (e.g., sexual

reproduction, safe sex). The curriculum includes topics that discuss emotional and romantic life

(e.g., healthy interpersonal relationships, how to express feelings, respectful communication),

sexual growth and body image (e.g., positive body image), and identity, gender stereotypes and

roles, and social norms (e.g., stereotypes, homophobia, sexual diversity), among many other

topics (see MEES, 2018a, 2018b, 2018c). On the other hand, SHE curricula that focused

exclusively on LGBTQ issues were shown to stigmatize LGBTQ students and fostered a hostile

school environment (Burdge, 2019; GLSEN, 2016). For example, Roberts and others (2020)

found that traditional SHE included topics that were stigmatizing against LGBTQ individuals,

hindering students' abilities to have positive experiences learning about sexual health and

prevented the inclusion of more appropriate and relevant content beneficial for LGBTQ students.

It is reassuring that Québec had made progress in the content and dissemination of their SHE

curriculum. Prior to 2018, Québec's SHE curriculum was not comprehensive and led to many

concerns who may be responsible to teach SHE topics (Xanthoudakis, 2021). Québec's mandate

in 2018 provided a comprehensive SHE curriculum implementation that moved away from

traditional forms of SHE that were typically exclusive to LGBTQ students, by including

LGBTQ-related topics (e.g., understanding sexuality, diverse gender identities). Theoretically, Québec's comprehensive SHE curriculum can benefit all students, allowing cisgender and heterosexual (CH) students to have a better understanding of LGBTQ-related issues (e.g., sexual diversity) and LGBTQ-affirmative information, widening their perspective-taking skills critical in an increasingly diverse society. In sum, a comprehensive SHE curriculum can foster feelings of representation, improved school engagement, and improve perceptions of safety in school, not only for LGBTQ students but all students (Johns et al., 2019). However, not much information is available due to the recency of the SHE curriculum implementation.

Current Study

Based on the IMB (information-motivation-behaviour) model where individuals must be informed, motivated, and possess the skills to influence behavior change, the objective of the present study is to explore how variations among teachers (attitudes, beliefs, and characteristics including prior SHE knowledge) facilitate or hinder their openness and perceived competence to teach SHE. The proposed project explores two research questions:

1) Is there an association between teacher characteristics (e.g., prior SHE knowledge) and their attitudes and beliefs about sexual health education?

2) Do differences in attitudes, beliefs, and characteristics (e.g., prior SHE knowledge) contribute to their willingness and perceived competence to teach sexual health education.

Prior to the two research questions, this study will replicate and compare prior studies' results on teachers' attitudes and beliefs toward specific SHE topics as an intermediate objective (Cohen et al., 2004). Note that the flagship article, Cohen and others (2004), for comparison has grouped their teachers across both sex and teaching level (elementary and middle school). Our

replication will only focus on sex as teaching level cannot accurately be compared due to differing educational grade system across Canada (New Brunswick and Québec).

Method

Research Design

The overarching research design takes a mixed-method approach. Prior studies exploring SHE focused on quantitative analysis of teachers' knowledge, attitudes, importance, beliefs, competence, and openness to teach specific SHE topics. This research design will replicate prior studies' knowledge, attitudes, importance, beliefs, competence, and openness to teach specific SHE topics and expand beyond the studies by incorporating other specific SHE topics that is unique to Québec's mandated 2018 comprehensive SHE curriculum. Though not included in this study, open-ended responses expand beyond the quantitative analyses to include attitudes surrounding SHE in their schools and how the COVID-19 pandemic has influenced their implementation of SHE in their curriculum. While qualitative data from pre-service and in-service teachers can provide richness to the findings, qualitative analyses will be explored in other articles due to the breadth of data and insufficient space. As Québec recently implemented a policy that requires all teachers to incorporate a comprehensive SHE curriculum from Elementary through Secondary five (Grade 11 is the maximum grade level prior to pre-university college in Québec), this study uses an online survey research to approach teachers' responses to various SHE topics. This study has been approved by McGill University Research Ethics Board (#20-08-028) and Concordia University Research Ethics Board (#30014013) along with approval across four English Québec school boards.

Participants

Participants were teachers practicing in Québec, Canada due to the provincial implementation of the SHE policy in Québec schools. As students training to become teachers (pre-service teachers) are entering schools required to teach the comprehensive SHE curriculum both pre-service (PSTs) and in-service (ISTs) teachers are relevant and included to respond to the online survey. Note that a comprehensive analysis comparing differences between pre-service and in-service teachers have been conducted separately (Leung & Flanagan, 2022).

All PSTs and ISTs that are currently training, in-practice, or have taught the current 2018 mandatory SHE in Québec were eligible to participate in the online survey. To recruit in-service teachers, an online survey was sent out to 24 schools across four English Québec school boards and two private schools in Montréal. As the online survey was constructed in English only, thus schools in the French sector were ineligible. Future studies about Québec's *Sexuality Education* curriculum in the French school boards are welcomed as they would help to capture a wider understanding of the *Sexuality Education* mandate. Online advertisement posts were shared across two closed Facebook groups containing Québec teachers. To recruit pre-service teachers, an online survey was sent out to 54 classes across two universities in Montréal. Recruitment posts were shared across six university student associations. For both IST and PST recruitment, snowball sampling was encouraged by participating teachers to share with their colleagues. A total of 441 teachers ($N_{PST} = 276$; $N_{IST} = 165$) participated in the survey.

Measures

The online survey consists of four sections:

The first section consists of attitudes, beliefs, importance, competence, knowledge, and openness to specific sexual health topics in SHE curriculum. There are a total of 62 topics across seven categories: 1) comprehensive view of sexuality (nine items; e.g., understanding what sexuality is), 2) sexual growth and body image (six items; e.g., having a positive body image), 3) identity, gender stereotypes and roles, and social norms (eight items; e.g., diverse sexual orientation), 4) emotional and romantic life (17 items; e.g., skills for healthy relationships), 5) sexual assault and sexual violence (eight items; e.g., understanding ways of protecting yourself), 6) biology and sexual health (11 items; e.g., safer sex practices), and 7) technology (three items; e.g., media literacy). The terminology for the 62 topics was taken from previous studies (i.e., Cohen et al., 2004) and MEES's (2018c) *Sexuality Education* curriculum. For each topic, there were six question variables: 1) how knowledgeable are you about this topic? (5-point Likert scale; 1= not at all knowledgeable, 5 extremely knowledgeable), 2) what is your attitude towards this topic in SHE curriculum? (5-point Likert scale; 1=extremely negative, 5=extremely positive), 3) beliefs at which grade level the topic should be introduced (7-point Likert scale; 1 = Kindergarten, 4 = Elementary Cycle 3 [Grade 5-6], 7 = Should not be included), 4) how important is this topic in SHE curriculum? (5-point Likert scale; 1 = Not at all important, 5 = Extremely important), 5) how competent are you to teach this topic? (7-point Likert scale; 1 = Prefer not to answer, 4 = Not sure I could do it, 7 = Very competent, including leading discussion and answering questions), and 6) how comfortable and open are you to teach this topic? (5-point Likert scale; 1 = not at all comfortable and open to teach, 5 = extremely comfortable and open to teach). The 62 topics were adapted from several studies investigating SHE (Cohen et al., 2004; McKay et al., 2014; Tietjen-Smith et al., 2014; Tietjen-Smith et al., 2008; Weaver et al., 2002) and incorporated topics from the Ministère de l'Éducation et

Ministère de l'Enseignement supérieur (MEES; Ministry of Education and Higher Education in Québec) to cover all the topics included in Québec's mandated SHE curriculum (MEES, 2018a, 2018b, 2018c).

The second section consists of general teacher attitudes towards the SHE curriculum. This section contains five items adapted from two studies (McKay et al., 2014; Weaver et al., 2002). Four items consist of five-point Likert scale (e.g., school and parents should share responsibility for providing children with SHE; 1=strongly disagree, 5=strongly agree). The last item consists of seven-point Likert scale (e.g., SHE should begin at a specific grade level; 1 = Kindergarten, 4 = Elementary Cycle 3 [Grades 5/6], 7 = CÉGÉP [Pre-university college-level]).

The third section consists of general teacher beliefs towards the SHE curriculum. This section contains 20 items (e.g., the main goal of SHE in school should be providing knowledge; Gunay et al., 2015) on a four-point Likert scale (1 = strongly disagree; 4 = strongly agree).

The last section consists of teacher demographic and grouping questions. This section contains 21 items, six of which are open-ended responses. The 15 items include: 1) type of teacher (pre-service or in-service), 2) age, 3) education level, 4) community (rural, suburban, urban), 5) sex, 6) gender identity, 7) gender expression, 8) ethnicity, 9) sexual orientation, 10) prior knowledge on SHE, 11) SHE teaching experience, 12) training in SHE, 13) teachable subject, 14) school year, and 15) teaching grade.

To better focus this study, we will not incorporate the open-ended responses and instead will include selected items that address LGBTQ-specific SHE topics.

Data Analysis

SPSS version 20 was used to conduct all analyses. For the intermediate objective of replicating prior studies, several analyses were conducted. Four MANOVAs were conducted to replicate the 1) general attitudes towards SHE (4-items), 2) importance towards specific SHE topics (10-items), 3) knowledge towards specific SHE topics (26-items), and 4) comfort and openness to specific SHE topics by sex (26-items; Cohen et al., 2004). A t-test by sex was conducted to compare the training that teachers receive to teach sexual health (5-point Likert scale; poor to excellent). Lastly, medians, percentages, means, and standard deviations were calculated to compare to the flagship article (Cohen et al., 2004) across general attitudes towards SHE, importance, knowledge, comfort and openness, preferred grade levels (26-items), and teacher training to teach SHE.

For the first research question, two sets of correlations will be conducted. Pearson correlation will be conducted to explore the relationship between teacher characteristics (prior knowledge level, teaching SHE experience, teaching grade, education level, age) and teacher attitudes (sum of the attitudes on nine specific SHE topics) and beliefs (sum of the importance on nine specific SHE topics). Chi-square tests of independence will be conducted to explore the relationship between teacher characteristics (SHE training, sexual orientation, sex, gender identity, gender expression, community) and teacher attitudes (general attitude towards SHE – one-item) and beliefs (specific SHE topics belief at what grade level should they be introduced – nine-items). Residuals of more than 2 (Sharpe, 2015) will be highlighted as significant differences across the levels.

For the second research question, two multiple linear regressions will be conducted to estimate the contribution of teacher characteristics (age, gender identity, sex, teacher type, prior

knowledge level, and experience in teaching SHE), attitudes (sum of the attitudes on nine

specific SHE topics) and beliefs (sum of the importance on nine specific SHE topics) on 1)

teachers' openness to teach SHE (sum of the openness on nine specific SHE topics) and 2) their

competence to teach SHE (sum of the competence on nine specific SHE topics). Note that

teacher type (pre-service or in-service teacher) is included as a predictor variable based on

separate analyses finding significant differences between pre-service and in-service teachers'

knowledge, attitudes, importance, attitudes, and competence to teach the nine LGBTQ-related

SHE topics (Leung & Flanagan, 2022).

Results

General Demographics

A total of 441 teachers ($N_{PST} = 276$; $N_{IST} = 165$) responded to the online survey on their

attitudes and beliefs towards SHE. Teacher demographic characteristics were collected (e.g., age,

sexual orientation, gender identity, gender expression, sex, prior SHE knowledge, SHE teaching

experience, SHE training, among other characteristics). As the purpose of this study is to

understand the two groups of teachers, demographic information was organized by pre-service

(PST) and in-service (IST) teachers. Notably, the majority of the teachers were biologically

female ($\%_{PST} = 71.64\%$; $\%_{IST} = 78.18\%$), identified as female ($\%_{PST} = 68.73\%$; $\%_{IST} = 78.66\%$),

expressed as female ($\%_{PST} = 69.45\%$; $\%_{IST} = 78.05\%$), identified as heterosexual orientation

($\%_{PST} = 67.90\%$; $\%_{IST} = 80.00\%$), were from European descent ($\%_{PST} = 62.59\%$; $\%_{IST} = 81.21\%$),

attained or is attaining their Bachelor (B.Ed.) degree ($\%_{PST} = 88.32\%$; $\%_{IST} = 58.18\%$), reported

moderate levels of prior knowledge in SHE ($\%_{PST} = 40.96\%$; $\%_{IST} = 44.51\%$), reported no

teaching experience in SHE ($\%_{PST} = 65.67\%$; $\%_{IST} = 31.71\%$), reporting being in their third year

of their B.Ed degree ($\%_{PST} = 23.88\%$), and reported teaching at the Secondary Cycle two grade

(Grades 9 – 11; $\%_{IST} = 30.06\%$). The two groups differed in their highest frequencies for their age (18 – 24: $\%_{PST} = 60.51\%$; 30 – 39: $\%_{IST} = 36.59\%$), their residence (Urban: $\%_{PST} = 54.55\%$; Suburban: $\%_{IST} = 47.27\%$), and their teachable subjects (English or French as first language: $\%_{PST} = 22.86\%$; science, tech, and mathematics: $\%_{IST} = 37.50\%$). Table 1 summarizes demographic information by the two groups of teachers.

Intermediate Objective: Replication Results on Flagship Article(s)

General Attitudes Toward SHE

Most teachers (89.77%) either agreed or strongly agreed that SHE should be provided in schools. MANOVA results with 1) teachers' attitudes towards providing SHE in schools and 2) sharing the responsibility between schools and parents to provide children with SHE indicated a significant main effect for sex, $F(2, 434) = 3.46$, $p = .032$, $\eta^2 = .016$. Specifically, results by sex were significant on teachers' attitudes towards providing SHE in schools, $F(1, 435) = 6.91$, $p = .009$, $\eta^2 = .016$. Female teachers ($M = 4.55$) generally had more positive attitudes than male teachers ($M = 4.27$) towards providing SHE in schools. Results run contrary to Cohen et al.'s (2004) study where male teachers had more positive attitudes ($M = 4.6$) than female teachers ($M = 4.4$).

Most teachers (87.05%) either agreed or strongly agreed that responsibility should be shared between schools and parents to provide children with SHE. Results were similar between the current study and Cohen et al.'s (2004) study as both yielded no differences between male and female teachers. The current study found both male ($M = 4.20$) and female ($M = 4.37$) teachers agree or strongly agree that responsibility should be shared between schools and parents, $F(1, 435) = 2.56$, $p = .11$.

Attitudes Towards Specific SHE Topics

Importance Assigned to Specific Sexual Health Topics. Teachers rated all 10 of the

listed SHE topics as important, as indicated by the teachers' median responses (see Table 2).

Teachers rated decision-making skills as extremely important. They rated reproduction and birth,

birth control methods and safer sex practices, correct names for genitals, puberty, personal

safety, abstinence, and sexual pleasure and orgasm as very important. They rated sexually

transmitted disease, and sexual coercion and sexual assault as important.

MANOVA results with the importance on the 10 SHE topics as dependent variables

revealed a significant main effect for sex, $F(10, 429) = 5.33$, $p < .001$, $\eta^2 = .11$. The results of the

follow-up ANOVAs are reported in Table 3. The ANOVAs revealed that female teachers

assigned significantly more importance than male teachers to six of ten topics: reproduction and

birth, birth control methods and safer sex practices, puberty, personal safety, sexually transmitted

disease, and sexual coercion and sexual assault. Male teachers assigned significantly more

importance than female teachers on the topic of abstinence.

Compared to Cohen et al.'s (2004) study, there were differences in teachers' importance

across six of ten topics: puberty ($M_{2021}=4$; $M_{2004}=5$), personal safety ($M_{2021}=4$; $M_{2004}=5$),

abstinence ($M_{2021}=4$; $M_{2004}=5$), sexual pleasure and orgasm ($M_{2021}=4$; $M_{2004}=3$), sexually

transmitted diseases ($M_{2021}=3$; $M_{2004}=5$), and sexual coercion and sexual assault ($M_{2021}=3$;

$M_{2004}=5$). Note that M represents the median of responses (see Table 3).

Knowledge About Specific Sexual Health Topics. The teachers were asked to indicate

how knowledgeable they felt about 26 specific SHE topics. On average, the teachers reported

feeling somewhat knowledgeable or quite knowledgeable about sexual health, as indicated by

their average ratings across topics (M = 3.58, SD = .68). Teachers' median scores across the 26

topics indicated that they felt at least somewhat knowledgeable about all the topics (see Table 4).

Teachers did not report feeling extremely knowledgeable about any topic. However, they felt

quite knowledgeable about menstruation, communication about sex, body image, reproduction

and birth, birth control methods and safer sex practices, correct names for genitals, building

equal romantic relationships, puberty, attraction and love, sexual problems and concerns, sex as

part of a loving relationship, sexuality in the media, sexual behavior, dealing with peer pressure

to be sexually active, masturbation, personal safety, abstinence, and sexual pleasure and orgasm.

Teachers felt somewhat knowledgeable about all the other topics.

The MANOVA results with knowledge about each of the 26 specific SHE topics as the

dependent variables revealed significant main effects for sex, $F(26, 413) = 11.60$, $p < .001$, η^2

=.42. Mean comparisons revealed that female teachers rated themselves as significantly more

knowledgeable than male teachers on only one topic, menstruation. On the other hand, male

teachers rated themselves as significantly more knowledgeable than female teachers on 11

topics: sexuality in the media, masturbation, abstinence, sexual pleasure and orgasm, sexually

transmitted diseases, sexual coercion and sexual assault, teenage pregnancy and parenting,

pornography, wet dreams, being comfortable with the other sex, and teenage prostitution.

Eight of the 26 sexual health topics were different compared to Cohen et al.'s (2004)

study: menstruation ($M_{2021}=4$; $M_{2004}=5$), communication about sex ($M_{2021}=4$; $M_{2004}=3$), sexual

problems and concerns ($M_{2021}=4$; $M_{2004}=3$), sexuality in the media ($M_{2021}=4$; $M_{2004}=3$),

masturbation ($M_{2021}=4$; $M_{2004}=3$), sexual pleasures and orgasm ($M_{2021}=4$; $M_{2004}=3$), sexually

transmitted diseases ($M_{2021}=3$; $M_{2004}=4$), and being comfortable with the other sex ($M_{2021}=3$;

$M_{2004}=4$). Note that M represents the median of responses (see Table 7).

Comfort About Specific Sexual Health Topics. The teachers were also asked to rate

their openness and comfort teaching each of the 26 SHE topics. Across topics, the teachers felt,

on average, somewhat or quite comfortable and open to teach sexual health (M = 3.68, SD = .97).

Median responses indicated that the teachers felt extremely comfortable and open to teaching

two topics: body image and communicating about sex. They felt very comfortable and open to

teach 17 of 26 topics (see Table 5). The remaining seven topics were reported as being between

somewhat and very comfortable and open to teach by teachers.

The MANOVA results with comfort and openness to teach the 26 specific SHE topics as

the dependent variables revealed a significant main effect for sex, $F(26,413) = 6.71$, $p <.001$, η^2

= .30. The results of the follow-up ANOVAs are presented in Table 5. Male teachers rated

themselves as significantly more comfortable and open than female teachers with seven of the 26

topics: abstinence, being comfortable with the other sex, wet dreams, teenage prostitutions,

pornography, masturbation, and sexual pleasure and orgasm. Female teachers rather themselves

as significantly more comfortable and open than male teachers with three of the 26 topics: body

image, communicating about sex, and menstruation.

17 of the 26 sexual health topics were different compared to Cohen et al.'s (2004) study:

body image (M_{2021}=5; M_{2004}=4), communication about sex (M_{2021}=5; M_{2004}=3), building equal

romantic relationships (M_{2021}=4; M_{2004}=3), birth control methods and safer sex practices

(M_{2021}=4; M_{2004}=3), sexuality in the media (M_{2021}=4; M_{2004}=3), sexual problems and concerns

(M_{2021}=4; M_{2004}=3), sexually transmitted diseases (M_{2021}=4; M_{2004}=3), dealing with peer pressure

to be sexually active (M_{2021}=4; M_{2004}=3), diverse sexual orientation (M_{2021}=4; M_{2004}=3),

attraction and intimacy (M_{2021}=4; M_{2004}=3), teenage pregnancy and parenting (M_{2021}=4;

M_{2004}=3), sexual coercion and sexual assault (M_{2021}=4; M_{2004}=3), sex as part of a loving

relationship (M_{2021}=4; M_{2004}=3), sexual behaviours (M_{2021}=4; M_{2004}=3), abstinence (M_{2021}=3.5; M_{2004}=4), masturbation (M_{2021}=3; M_{2004}=2), and sexual pleasure and orgasm (M_{2021}=3; M_{2004}=2). Note that M represents the median of responses (see Table 7).

Preferred Grade Levels for Introducing Sexual Health Topics. Most teachers (87.19%) thought that SHE should start in kindergarten and elementary school, of which 31.12% indicated it should start by kindergarten. 12.35% of teachers believed that SHE should start in high school and CÉGÉP and .46% of teachers believed that SHE should not be included. Teachers also were asked to indicate the grade level at which they thought schools should start to teach each of the 26 specific SHE topics (see Table 6). Teachers supported the inclusion of all 26 topics in the curriculum: Between 87.30% and 99.80% of the teachers wanted each topic to be covered in the curriculum. They indicated that most topics should be introduced by grades seven and eight, (Secondary Cycle 1) and several topics should be included in elementary school grades three through six (Elementary Cycle 2 and 3).

The median responses were used to determine the grade level at which teachers thought the topic should be introduced. Teachers indicated that body image should be introduced in grades 3-4. Menstruation, correct names for genitals, reproduction and birth, wet dreams, homosexuality, sexuality in the media, communicating about sex, puberty, and personal safety were all topics where 50% or more of the teachers wanted to be introduced in grades 5-6. Teachers' median responses suggests that 16 of the 26 topics to be introduced in grades 7-8. Lastly, abstinence (12.70%), pornography (10.70%), sexual pleasure and orgasm (8.30%), teenage prostitution (7.80%), masturbation (7.80%), wet dreams (5.40%), and sex as part of a loving relationship (5.80%) were all topics where more than 5% of teachers believed should not be included in the curriculum.

Though direct comparisons may not be made with Cohen et al.'s (2004) study due to different grade systems across New Brunswick and Québec, several observations can be noted. Different grade levels were observed for pornography (M_{2021}=7-8; M_{2004}=9-12), teenage prostitution (M_{2021}=7-8; M_{2004}=9-12), sexual problems and concerns (M_{2021}=7-8; M_{2004}=9-12), and sexual pleasure and orgasm (M_{2021}=7-8; M_{2004}=9-12). Teachers in the current study believed these topics should be introduced at an earlier grade. Personal safety was a topic (M_{2021}=5-6; M_{2004}=K-3) where teachers in the current study believed they should be introduced at a later grade. Lastly, there were differences observed in the percentage of teachers who believed the following topics should not be included in the curriculum: diverse sexual orientation ($\%_{2021}$=2.90; $\%_{2004}$=16.3), masturbation ($\%_{2021}$=7.80; $\%_{2004}$=15.7), sexual behaviour ($\%_{2021}$=4.90; $\%_{2004}$=14.9), pornography ($\%_{2021}$=10.70; $\%_{2004}$=23.5), teenage prostitution ($\%_{2021}$=7.80; $\%_{2004}$=19.7), sexual problems and concerns ($\%_{2021}$=2.50; $\%_{2004}$=19.0), and sexual pleasure and orgasm ($\%_{2021}$=8.30; $\%_{2004}$=36.7). Abstinence ($\%_{2021}$=12.70; $\%_{2004}$=0.6) was the only topic where a higher percentage of teachers in the current study believed should not be included in the curriculum (see Table 7).

Training to Teach Sexual Health. 74.42% of the teachers indicated that they had received no training to teach sexual health. Of the 111 teachers who had received training to teach sexual health, no differences were found between male (N=56; 50.45%) and female (N=55; 49.55%) teachers, $\chi^2(1) = .009$, $p = .92$. Of the 111 teachers who had received training to teach sexual health, over half of the teachers rated their sexual health education training as good (27.90%), very good (33.00%) or excellent (12.60%). On the other hand, a quarter of the teachers reported their training as poor (8.00%) or fair (18.00%).

The results of a t-test with quality of training to teach sexual health as the dependent variable revealed significant differences between male and female teachers and their rating of their training to teach sexual health, $t(109) = -4.39$, $p<.001$. Male teachers ($M = 3.68$) were rated their sexual health training significantly higher than female teachers ($M = 2.80$). Compared to Cohen et al.'s (2004) study, the current study appeared to have similar percentage of teachers not having received training to teach sexual health ($\%_{2021}= 74.42\%$; $\%_{2004}= 65.0\%$). The current study showed no differences between male and female teachers receiving sexual health training whereas Cohen et al.'s (2004) study had more male than female teachers having training. Different ratings of sexual health training appeared to be observed (see Table 8). Male teachers, compared to female teachers, rated significantly better quality of sexual health training. On the other hand, Cohen et al.'s (2004) teachers showed the opposite trend where female teachers rated the quality of their training as better, compared to their male teachers.

Research Question 1: Associations Between Various Teacher Characteristics and Their Attitudes and Beliefs About SHE

Relationship Between Teacher Characteristics and Teacher Attitudes and Importance to the Nine SHE Topics

A Pearson correlation was conducted to explore the relationship between teacher characteristics (prior knowledge in SHE, teaching experience in SHE, grade level, education level, age) and teacher attitudes (sum of the attitude scores of the nine specific SHE topics) and beliefs (sum of the importance of the nine specific SHE topics).

The resulting correlation revealed significant relationships between two teacher characteristics (prior knowledge in SHE, age) and their attitudes and importance towards the nine SHE topics. A significant positive relationship was found between teachers' prior knowledge in

SHE and their attitude ($r = .27$, $p < .001$) and importance ($r = .22$, $p < .001$) toward the nine SHE

topics. This may indicate that teachers who have more prior knowledge about SHE may tend to

have a more positive attitude towards the nine SHE topics and perceive the topics as more

important. For age, there was a significant negative relationship between teachers' age and their

attitude ($r = -.17$, $p < .001$) and importance ($r = -.22$, $p < .001$) toward the nine SHE topics (Table

9). This may indicate that older teachers may tend to have a more negative attitude towards the

nine SHE topics and perceive the topics as less important.

Relationship Between Teacher Characteristics and Teacher General Attitude Toward SHE and Belief at Which Grade Level Each SHE Topic Should be Introduced

A Chi-square test of independence was conducted to explore the relationship between

teacher characteristics (training in SHE, sexual orientation, sex, gender identity, gender

expression, community) and their general attitude towards SHE and belief at what grade level

each of the nine SHE topics should be introduced in school.

The resulting chi-square revealed numerous significant relationships between the six

teacher characteristics (training in SHE, sexual orientation, sex, gender identity, gender

expression, community) and their general attitude towards SHE as well as their belief at which

grade level the nine SHE specific topics should be introduced in schools (Table 10). Note for the

nine-items on teachers' belief at which grade level each topic should be introduced, regrouping

of levels were done from seven to three (kindergarten, elementary, secondary school). The

general attitude item has been regrouped from eight levels to four levels (kindergarten,

elementary school, high school, CÉGÉP). Note that post-hoc of standardized residuals were

analyzed and the detailed table highlighting significant residuals can be seen in Table 11 through

13. Residuals above and including two were considered significant due to the lack of

standardized approach for a chi-square post-hoc analysis (Sharpe, 2015). Due to the numerous

associations within each cell standardized residual, general observations will be detailed.

For training in SHE, there was a significant relationship with the following SHE topics:

understanding sexuality [χ^2 (2) = 8.86, p = .012] , diverse gender roles [χ^2 (2) = 12.82, p

= .0016], diverse sexual orientation [χ^2 (2) = 18.32, p < .001], diverse gender expression [χ^2 (2) =

13.44, p = .0012], and gender inequalities [χ^2 (2) = 8.77, p = .012]. General observations of

standard residuals revealed a trend where there were more teachers than expected who have had

SHE training and believed the SHE topics should be introduced in high school.

For sexual orientation, there was a significant relationship with their general attitude

towards SHE [χ^2 (9) = 28.85, p < .001] and the following SHE topics: understanding sexuality

[χ^2 (6) = 29.32, p < .001], diverse gender roles [χ^2 (6) = 30.82, p < .001], diverse sexual

orientation [χ^2 (6) = 54.46, p < .001], diverse gender identities [χ^2 (6) = 31.29, p < .001], diverse

gender expression [χ^2 (6) = 25.22, p < .001], gender inequalities [χ^2 (6) = 15.90, p = .014],

discrimination against GI/GE [χ^2 (6) = 13.18, p = .040], discrimination against SO [χ^2 (6) =

13.39, p = .037], and personal safety [χ^2 (6) = 12.96, p = .044]. General observations of standard

residuals revealed a trend where there were more heterosexual teachers than expected who

believed the SHE topics should be introduced in high school and less of them believing that SHE

should be introduced in kindergarten. On the other hand, this trend was the opposite for non-

heterosexual teachers. More bisexual, homosexual, and teachers who identify as other sexualities

than expected believed that the SHE topics should be introduced in kindergarten, with less of

them believing that these topics should be introduced in high school.

For sex, there was a significant relationship with their general attitude towards SHE [χ^2

(3) = 47.74, p < .001] and the following SHE topics: understanding sexuality [χ^2 (2) = 20.05, p

< .001], diverse gender roles [χ^2 (2) = 28.34, p < .001], diverse sexual orientation [χ^2 (2) = 26.86, p < .001], diverse gender identities [χ^2 (2) = 17.50, p < .001], diverse gender expression [χ^2 (2) = 25.47, p < .001], gender inequalities [χ^2 (2) = 24.41, p < .001], discrimination against GI/GE [χ^2 (2) = 13.24, p < .001], discrimination against SO [χ^2 (2) = 19.50, p < .001], and personal safety [χ^2 (2) = 15.26, p < .001]. General observations of standardized residuals revealed that more biologically male teachers than expected believed that the SHE topics should be introduced in high school, and less believed that these topics should be introduced in kindergarten or elementary school. This trend was reversed for biologically female teachers, as there were fewer female teachers who believed that SHE topics should be introduced in high school. Generally, more female teachers than expected felt like SHE should be introduced in kindergarten.

For community, there was a significant relationship with their general attitude towards SHE [χ^2 (6) = 17.89, p = .0065]. Generally, more teachers than expected who lived in a rural community felt like SHE should be introduced in CÉGÉP.

For gender identity, there was a significant relationship with their general attitude towards SHE [χ^2 (6) = 47.52, p < .001] and the following SHE topics: understanding sexuality [χ^2 (4) = 26.28, p < .001], diverse gender roles [χ^2 (4) = 36.78, p < .001], diverse sexual orientation [χ^2 (4) = 34.18, p < .001], diverse gender identities [χ^2 (4) = 19.58, p < .001], diverse gender expression [χ^2 (4) = 29.60, p < .001], gender inequalities [χ^2 (4) = 37.04, p < .001], discrimination against GI/GE [χ^2 (4) = 16.81, p = .0021], discrimination against SO [χ^2 (4) = 26.19, p < .001], and personal safety [χ^2 (4) = 21.01, p < .001]. General observations of standardized residuals revealed that more male-identified teachers believed that SHE topics should be introduced in high school, with less male-identified teachers believing that SHE topics should be introduced in kindergarten of elementary school. There were less female-identified or

TGNC-identified teachers than expected who believed that SHE topics should be introduced in high school.

For gender expression, there was a significant relationship with their general attitude towards SHE [χ^2 (6) = 47.48, p < .001] and the following SHE topics: understanding sexuality [χ^2 (4) = 21.08, p < .001], diverse gender roles [χ^2 (4) = 24.93, p < .001], diverse sexual orientation [χ^2 (4) = 28.74, p < .001], diverse gender identities [χ^2 (4) = 16.45, p = .0025], diverse gender expression [χ^2 (4) = 23.73, p < .001], gender inequalities [χ^2 (4) = 26.08, p < .001], discrimination against GI/GE [χ^2 (4) = 17.66, p = .0014], discrimination against SO [χ^2 (4) = 20.10, p < .001], and personal safety [χ^2 (4) = 14.72, p = .0053]. General observations of standardized residuals revealed that more teachers who expressed as male believed that the SHE topics should be introduced in high school, with less of them believing that the SHE topics should be introduced in kindergarten or elementary school. There were less teachers who expressed as female who believed that the SHE topics should be introduced in high school.

Research Question 2: Prediction of Teacher Characteristics, Attitudes, and Beliefs on Their Openness and Competence to Teach SHE

Teacher Characteristics, Attitudes, and Beliefs Predicting Teacher Openness and Comfort to Teach SHE.

A multiple regression was conducted to predict teachers' openness and comfort to teach SHE, with teacher type (pre-service or in-service), prior knowledge in SHE, experience teaching SHE, SHE training, age, sex, gender identity, gender expression, sexual orientation, attitudes and importance towards the nine SHE topics as the 11 predictors. Note that the variable type of teacher (pre-service or in-service) was included based on a separate MANOVA analysis indicating significant differences found across pre-service and in-service teachers on their

knowledge, importance, openness, attitudes, and competence to teach the nine specific SHE topics (Leung & Flanagan, 2022). Overall, the model significantly predicted teachers' openness and comfort to teach SHE, $F(11, 415) = 59.67$, $p < .001$, $R^2 = .61$. Out of the 11 predictors, teachers' prior knowledge level ($t = 5.02$, $p < .001$, $b = 1.90$, B = .18), experience teaching SHE ($t = 3.16$, $p = .0017$, $b = .79$, B = .14), age ($t = -2.66$, $p = .0081$, $b = -.12$, B = -.11), sexual orientation ($t = 3.38$, $p < .001$, $b = 1.32$, B = .11), attitudes to the nine SHE topics ($t = 3.92$, $p < .001$, $b = .27$, B = .21), and importance assigned to the nine SHE topics ($t = 8.15$, $p < .001$, $b = .56$, B = .45) significantly predicted their openness and comfort to teach SHE. Type of teacher ($p = .18$), SHE training ($p = .32$), sex ($p = .93$), gender identity ($p = .81$), and gender expression ($p = .95$) did not significantly predict teachers' openness and comfort to teach SHE.

Teacher Characteristics, Attitudes, and Beliefs Predicting Their Competence to Teach SHE.

With the same predictors, a multiple regression was conducted to predict teachers' competence to teach SHE. Overall, the model significantly predicted teachers' competence to teach SHE, $F(11, 404) = 44.84$, $p < .001$, $R^2 = .55$. Out of the 11 predictors, teachers' prior knowledge level ($t = 7.45$, $p < .001$, $b = 2.90$, B = .29), experience teaching SHE ($t = 2.74$, $p = .0063$, $b = .70$, B = .13), SHE training ($t = -2.19$, $p = .029$, $b = -1.73$, B = -.087), sexual orientation ($t = 2.65$, $p = .0082$, $b = 1.06$, B = .097), attitudes to the nine SHE topics ($t = 3.74$, $p < .001$, $b = .27$, B = .22), and importance assigned to the nine SHE topics ($t = 5.46$, $p < .001$, $b = .39$, B = .33) significantly predicted their competence to teach SHE. Type of teacher ($p = .76$), age ($p = .075$), sex ($p = .34$), gender identity ($p = .35$), and gender expression ($p = .71$) did not significantly predict teachers' competence to teach SHE.

Discussion

Comparison Between Flagship Article and Current Study's Descriptive Results

The comparison between the descriptive statistics from the current study and the flagship article (Cohen et al., 2004) revealed several points of interest. For teachers' general attitudes towards SHE, this study found that female teachers had more positive attitudes than male teachers toward providing SHE in schools, contrary to Cohen's study (2004). There were no differences between the teachers in 2004 and teachers in the current study as most in both groups, regardless of sex, agreed that providing SHE is a responsibility shared between schools and parents. It is unclear how sex differences can be speculated, perhaps due to a difference in teachable subjects across male and female teachers (STEM versus social sciences and humanities).

Comparisons across specific SHE topics found that teachers in the current study assigned less importance across half of the topics compared to the 2004 teachers. Of note, these topics can be considered as traditional topics of sexual health (e.g., puberty, abstinence, STDs, sexual assault), Rather, teachers assigned sexual pleasure and orgasm as more important than teachers in Cohen's (2004) study. The change in importance assigned to different topics may indicate a change in conceptualization of what sexual health should encompass: more positive and holistic aspects of sexual health rather than the traditional topics (e.g., abstinence and puberty). This finding aligns with recent research exploring the aims of SHE, beyond the provision of biology-based sexual health information (e.g., Leung et al., 2019). Teachers in the current study appeared to have similar or slightly more knowledge across the SHE topics compared to teachers in 2004. Notably, teachers in the current study had either similar or higher levels of comfort and openness to teach SHE compared to teachers in Cohen's (2004) study. These positive trends can be

attributed to a chronological shift in current society's attention to media literacy, socioemotional

learning, relationships, and sexuality (e.g., Plaza-del-Pino et al., 2021). Though this study is not

longitudinal, the change in how teachers felt in 2004 compared to teachers in the current study is

reassuring as the results highlight how teachers are increasingly comfortable and open to teach

SHE topics in their classroom. Previous research has consistently mentioned the barriers that

teachers encounter in implementing a LGBTQ-inclusive SHE curriculum: developmentally

inappropriate, lack of policy support, fear of families and communities, conflicting religious

practice, and lack of knowledge and training (e.g., Betawi & Jabbar, 2019; Elia & Eliason,

2010b; Hermann-Wilmarth & Ryan, 2019; Taylor et al., 2016; Zarrilli, 2021). However, teachers

have mentioned their increasing awareness in current media and the shift towards gender

equality, LGBTQ inclusion, and a holistic definition of sexual health (communication, respect,

diversity, consent; Plaza-del-Pino et al., 2021). The shift toward a more holistic view of sexual

health aligns with teachers in the current study and their lower comfort and openness levels to

teaching about the outdated notion that abstinence will reduce sexual activity (Elia & Eliason,

2010a; Gowen & Winges-Yanez, 2014; Hoefer & Hoefer, 2017). However, it is crucial to note

the nuance between abstinence as a loaded term and abstinence-only education, the latter of

which has been shown to be ineffective and possibly harmful. Taking into consideration

students' different identities and backgrounds (e.g., culture), abstinence may still be considered

an important part of their culture. As such, rather than discounting the outdated notion of

abstinence-only education, teaching the topic of abstinence in a comprehensive SHE curriculum

can be a part of larger critical discussions. The comparison of teachers' openness and comfort to

teach positive LGBTQ-related SHE topics is beneficial for LGBTQ and cisgender/heterosexual

(CH) students as they can receive accurate and relevant information that can motivate them to

make well-informed choices in their own lives. As society moves towards an ever-increasing awareness of equity, diversity, and inclusion of all populations, teachers may increasingly feel more comfortable and open to teach LGBTQ-related SHE topics as LGBTQ becomes increasingly normalized to discuss in schools. This can be promising for both LGBTQ and CH students as they can be in an inclusive classroom where they are exposed to LGBTQ-related SHE topics that is authentic and relevant to their own lives, fostering diverse perspectives in society, and increasing sense of school belonging and safety (Burdge et al., 2012).

A comparison between teachers' beliefs in the current study and Cohen et al.'s (2004) study revealed that teachers in the current study believed many topics (e.g., sexuality in the media, diverse sexual orientation, pornography, sexual problems and concerns, teenage prostitution) should be introduced either earlier or at a similar grade level compared to the teachers in Cohen's (2004) study. The trend of introducing developmentally appropriate SHE topics can benefit students' accurate knowledge gathering. Particularly, discussing topics such as sexuality in the media and diverse sexual orientation can benefit all (both LGBTQ and CH) students. By providing a space to discuss such topics, this can increase academic engagement and sense of belonging for LGBTQ students, while fostering a safer and inclusive classroom for all (LGBTQ and CH) students (Russell et al., 2021; Toomey et al., 2012). As students are increasingly exposed to media culture (Lambton-Howard et al., 2021), introducing these topics at an earlier age may clarify any inaccurate or misinformation surrounding sexual health and wellbeing. Further, the positive trend of introducing SHE topics at an earlier grade level is supported by the increased inclusion of more traditionally, socially contentious SHE topics. Compared to teachers in Cohen's (2004) study, there were more teachers in the current study that believed topics such as diverse sexual orientations, masturbation, sexual behaviour, pornography,

and teenage prostitution should be included in schools. The trends of both earlier introductions of

certain SHE topics and increased inclusion of socially contentious SHE topics are promising

observations, lending to the belief that teachers in the current study perceive that their students

should be introduced to the various contentious SHE topics, particularly the topic on diverse

sexual orientation. One possible explanation for the trends may be a result of the increasing focus

in society with the equity, diversity, and inclusion (EDI) movement. With many institutions and

organizations bearing witness to the rise of anti-Black, anti-Asian, and anti-Indigenous racism

across Canada (Statistics Canada, 2021), many educational stakeholders are increasingly aware

of issues surrounding equity, diversity, and inclusion. Such exposure in media may possibly lead

to an increased awareness in their attitudes towards diversity in their own environments.

A topic of contention in the comparison between the current study and Cohen's study is

the topic on abstinence. Aligned with previous findings in the current study on teachers' assigned

importance and knowledge on abstinence, more teachers in the current study believed that

abstinence should not be included in schools. Teachers are aware that abstinence is highly

unrealistic and lends to an illusion that their students will not engage in sexual behaviours. By

introducing abstinence, commonly through scare tactics, this can send a harmful message to

LGBTQ students. Abstinence is a topic commonly grounded in heteronormative expectations of

heterosexual marriage and behaviours. Fisher (2009) has found that abstinence discussions can

actively silence LGBTQ students, masking potentials of healthy sexual existence, leading to

sense of isolation, anger, and hostility to the teacher and their classroom space. Particularly as

non-heterosexual marriage has recently been legalized (Canada in 2005; Nash & Browne, 2015),

abstinence only until marriage is a topic that is archaic and does not respect the current society's

EDI movement. Abstinence, in this sense, is an ineffective sexual health topic that does not

authentically connect with contemporary students' reality in sexual health and prevents discussions on students' sexual health and wellbeing. The prevention and lack of awareness surrounding sexual health can then be harmful for students' wellbeing as they are left unknown and unclear about sexual health. The increasing proportion of teachers that believe it is important to introduce socially relevant and inclusive topics earlier to students and decreasing proportion of teachers that believe exclusive topics such as abstinence should be included shows promise to the chronological change towards a society that normalizes LGBTQ population, following the EDI movement.

Overall, from Cohen's 2004 study, the replication results observed similarities across teachers' importance, knowledge, level of comfort, beliefs, and SHE training. Slight trend differences indicate that teachers in the current study were increasingly open and comfortable as well as believed certain, more positive aspects of SHE topics to be introduced in earlier grades. It is promising to observe that positive, more socially contentious, but relevant, aspects of sexual health (e.g., sexuality in the media, sexual orientation, teenage prostitution, communicating about sex) is believed to be important by teachers. Most notably, it is promising to observe that abstinence as a sexual health topic is perceived as less important, less open, and comfortable to teach, and should not be included in schools.

Associations Between Teacher Characteristics and Their Attitudes and Beliefs About Sexual Health Education

The two sets of correlations between teacher characteristics and their attitudes and beliefs about SHE revealed several interesting points. Note that comparisons between PSTs and ISTs were done in separate analyses finding differences across attitudes and beliefs across the nine LGBTQ-related SHE topics (Leung & Flanagan, 2022). The first set of (Pearson) correlations

confirmed a significant positive relationship between teachers' prior knowledge in SHE and their

attitude and importance towards all nine LGBTQ-related SHE topics. Age was negatively

associated with their attitudes and perceived importance on the nine LGBTQ-related SHE topics.

The correlation adds support to the importance of providing more opportunities of SHE

knowledge to teachers. This aligns with previous research in how teachers reported the lack of

knowledge in SHE, particularly LGBTQ-related SHE topics, and how this has impeded their

level of comfort to introduce LGBTQ-related SHE topics in their classrooms (e.g., Meyer et al.,

2019). The more opportunities available for teachers to learn more about LGBTQ-related SHE

topics, the more positive attitude and importance assigned to these LGBTQ-related SHE topics.

Subsequently, the change in their attitudes and beliefs may lead teachers to be increasingly

comfortable and competent to teach LGBTQ-related SHE topics in their classrooms. Therefore,

following the IMB model, teachers who have more information on LGBTQ-related SHE topics

may increase their motivation and behaviours to teach LGBTQ-related SHE to their students,

effectively fostering student engagement and a positive, safer space through an effective

discussion of LGBTQ-related SHE topics in their classroom. A regression model to confirm this

prediction will be explored in the following research question.

The second set of (chi-square) correlations revealed several interesting correlations. First,

more teachers who had SHE training believed that SHE should be introduced in high school than

expected. This may be explained by their belief that, though these are important topics to

introduce to students, they may believe that the topics are more mature and difficult to convey to

younger students, aligned with previous research on the importance of developmental

appropriateness of SHE topics (Marques et al., 2017). Though the results in the previous

question indicate that teachers believed many of the SHE topics to be introduced at an earlier

grade level compared to Cohen's (2004) study, those who have had SHE training were more than likely to believe that these nine specific LGBTQ-related SHE topics should be more appropriately introduced in high school. This lends to further investigation in the pedagogical training provided in SHE training workshops as reasons accounting for the variability in this association.

A significant association was found for sexual orientation where more heterosexual teachers than expected believed that the nine LGBTQ-related SHE topics should be introduced in high school, whereas more non-heterosexual (bisexual, homosexual, pansexual, asexual, or other) teachers than expected believed that these SHE topics should be introduced in kindergarten. The difference between heterosexual and non-heterosexual teachers aligned with previous research findings on their beliefs, perceptions, and practices on approving LGBTQ-inclusive education. Taylor and others (2016) found that LGBTQ teachers were less likely to see their school as safe, have more confidence to support LGBTQ-inclusive education, and are more likely to approve and practice LGBTQ-inclusive education compared to CH teachers. A difference in sexual orientation on their attitudes and beliefs at which grade level to introduce the nine LGBTQ-related SHE topics can lend to non-heterosexual teachers' increased awareness of LGBTQ-related harassment to their students in their school (Taylor et al., 2016). This would require further investigation to determine how to have heterosexual teachers be similarly aware and adopt general attitudes and beliefs that these nine LGBTQ-related SHE topics should be introduced at an earlier age.

Other significant associations were found across sex, and gender identity and expression. More biologically male teachers than expected believed that the nine SHE topics should be introduced in high school. On the other hand, more biologically female teachers than expected

believed the nine SHE topics should be introduced in kindergarten. This was the case for gender

identity and gender expression where there were more male-identified and expressed teachers

who believed the nine SHE topics should be introduced in high school. On the other hand,

female-identified and expressed and TGNC identified teachers believed that the nine SHE topics

should be introduced in kindergarten. Though an explanation for the association by sex may be

influenced by the teachers' teachable subjects (STEM vs. social sciences and humanities),

findings where TGNC teachers believed the SHE topics to start at a younger age, during

kindergarten, aligns with the beliefs of non-heterosexual, cisgender teachers, explained by their

increased awareness and comfort to teach LGBTQ-related SHE topics in their classrooms.

Lastly, more teachers from rural areas than expected believed that the nine SHE topics

should be introduced in CÉGÉP (pre-university college). The findings align with previous

research explaining attitudes and beliefs that are influenced by the wider environment. Schools in

more rural communities can encounter increased pressure and backlash from the community and

families surrounding the inclusion of LGBTQ-related SHE topics. Though location may not be

changed, one consideration to persuade teachers to include LGBTQ-related SHE topics at an

earlier age is through a rights-based and legal rights framework. The framing of including

LGBTQ-related topics through an overarching legal backing has been shown to change their

attitudes and beliefs towards including LGBTQ-related SHE topics earlier (Zanatta, 2021).

Findings from various teacher characteristics shed an interesting light on teachers'

attitudes and beliefs towards teaching LGBTQ-related SHE topics in their classroom. Perhaps

teachers who identify as non-heterosexual understand their own educational experiences and are

aware of the lack of authentic and relevant sexual health information for their students. Teachers

with this perspective may then understand the need for LGBTQ-related SHE topics to be

introduced at an earlier age, setting a clear, positive classroom environment that is inclusive and accepting of LGBTQ-diversity. Though it is understandable that LGBTQ-related SHE topics can be developmentally complex, teachers believe that these topics should be introduced early, understanding the importance of classroom diversity, and providing support for their LGBTQ students. The importance of developmental appropriateness appears to be a prominent issue mentioned in previous research as teachers believe certain SHE topics are only appropriate for older students, for example, in high school (Elia & Eliason, 2010b; Leung et al., 2019; Sondag et al., 2020) or should be left out of the curriculum. However, pushing SHE to a later age can prevent LGBTQ students from engaging in authentic and relevant material in their lives. The lack of incorporating SHE or pushing teaching LGBTQ-related SHE topics to a later age can minimize the opportunities for LGBTQ students to foster a sense of belonging with their teacher and classroom (Gowen & Winges-Yanez, 2014), subsequently increasing perceptions of hostility in their classroom environment.

As Québec mandated *Sexuality Education*, a mandatory comprehensive sexual health education, across elementary and high schools, the current study is one of the first studies to explore Québec teachers' attitudes and beliefs towards *Sexuality Education*, specifically the nine LGBTQ-related SHE topics beneficial to both LGBTQ and CH students. The data provided in the two correlation matrices elucidated how teachers' prior knowledge in SHE, SHE training, age, sex, sexual orientation, gender identity, gender expression, and residence is related to their attitudes and beliefs towards the nine LGBTQ-related SHE topics. Particularly, the associations illuminate the importance of providing more opportunities to learn about SHE to foster more positive attitudes and beliefs towards the nine LGBTQ-related SHE topics. Perhaps informing CH and older teachers the importance of teaching these nine LGBTQ-related SHE topics through

a rights-based legal framework or a universal framework (e.g., Universal Design for Learning;

Katz & Sokal, 2016) can reframe the attitudes and beliefs towards teaching LGBTQ-related SHE

topics for the benefit of their students. Moving beyond teacher attitude and beliefs about SHE,

the following research question will explore the prediction of the significant variables

(characteristics, attitudes, importance) on teachers' openness and competence to teach the nine

LGBTQ-related SHE topics.

Teachers' Attitudes, Importance, and Characteristics Contribution to Their Openness and Competence to Teach SHE

To further understand the relevant variables previously explored (type of teacher, prior

knowledge on SHE, experience teaching SHE, SHE training, age, sex, gender identity, gender

expression, sexual orientation, attitudes and importance to the nine SHE topics) and their

relationship with teachers' attitudes and beliefs towards SHE, two multiple linear regressions

were conducted to determine how teacher characteristics, and attitudes and importance towards

the nine SHE topics predict their openness and competence to teach SHE. Following the IMB

model, it would be hypothesized that teachers' who have more information (e.g., more prior SHE

knowledge) and are more motivated (e.g., more positive attitudes towards SHE) would have the

skills necessary to be competent and open to teach LGBTQ-related SHE topics to their students.

Other teacher characteristics are included based on previous significant associations with their

attitudes and importance assigned to the nine LGBTQ-related SHE topics.

First, the model predicting teachers' openness and comfort to teach SHE found that

teachers' prior knowledge in SHE, experience in teaching SHE, age, and sexual orientation

predicted their openness and comfort to teach the nine LGBTQ-related SHE topics. This

provides a stronger claim regarding the directionality of the relationships between the variables.

The more prior SHE knowledge and experience in teaching SHE teachers have, the more open

and comfortable they are to teach SHE. This further reiterates the importance of the educational

system to provide teachers, regardless of if they are pre-service or in-service, the opportunities to

increase their SHE knowledge and opportunities to practice teaching and incorporating LGBTQ-

related SHE topics into their curriculum. Doing so can in turn increase teachers' openness and

comfort to teach SHE in their own classrooms. This may be in the form of traditional

professional development (PD) workshops common to in-service teachers. However, there has

been mixed findings surrounding the efficacy of PD workshops to create change in teachers'

pedagogy (Darling-Hammond et al., 2017). Research has mentioned the need for an external

point person to provide consistent support for teachers to introduce SHE in their classrooms

(Leung et al., 2022b). The inconsistencies in efficacy of PDs result in a further investigation to

explore the most effective approach to foster consistent change towards increasing SHE

knowledge. Additionally, the findings in this model point to the need for B.Ed. programs to

incorporate classes that include pedagogy and opportunities to weave LGBTQ-related SHE

topics in their own teachable subjects. A curriculum analysis on 2017 B.Ed. programs across

Québec English universities revealed no mandatory classes related to the mandatory Québec

Sexuality Education (Leung et al., 2022a). As Québec's mandate requires SHE to be

implemented from elementary through high school (with kindergarten being optional), the lack

of courses to prepare pre-service teachers to incorporate LGBTQ-related SHE topics in their own

curriculum is concerning. Based on the present model, pre-service teachers require more

opportunities to acquire SHE knowledge and SHE teaching experiences, subsequently increasing

their openness and comfort to teach LGBTQ-related SHE topics to their students.

Though age and sexual orientation are considered stable characteristics, the significant

prediction on their openness and comfort to teach SHE lends to the sociopolitical shifts in

education. As contemporary society shifts the focus on diversity and inclusion, particularly with

the current EDI movement, the authentic relevance across each teachable subject is brought into

question. The teaching pedagogy may need to change to include SHE as a relevant topic for all

students to learn, particularly for LGBTQ students. They have mentioned the need for their

course material to be relevant to their identities to foster a sense of belonging and academic

engagement in school (Gowen & Winges-Yanez, 2014). Therefore, though age and sexual

orientation (those who were heterosexual) negatively predict openness and comfort to teach

LGBTQ-related SHE topics, framing SHE knowledge as a rights-based legal framework that

focuses on the right for all students to learn can be a broader approach to change the perspective

that the LGBTQ-related SHE topics are important in their classrooms. Further exploration in

changing perspectives to understand the importance of LGBTQ-related SHE topics for all (both

LGBTQ and CH) students is necessary to ensure teachers are increasingly open and comfortable

to teach SHE, particularly when teachers are mandated to incorporate LGBTQ-related SHE

topics in their classroom.

Note that the previous question revealed a positive association between prior knowledge

in SHE and their attitudes and importance assigned to the LGBTQ-related SHE topics. In

addition to prior SHE knowledge being a significant predictor, the present model found both

attitudes and importance assigned to each LGBTQ-related SHE topic to positively predict their

openness and comfort to teach SHE in their classrooms. This indicates that teachers who have

more positive attitudes and perceive the LGBTQ-related SHE topics as more important were

increasingly open and comfortable to teach SHE in their classrooms. This is promising for

educational stakeholders to focus on increasing opportunities to weave in SHE knowledge due to

the positive associations between prior SHE knowledge and attitudes and importance to the SHE

topics. As teachers are exposed to increasing SHE knowledge, understanding what

comprehensive SHE can entail (i.e., beyond sexual health to include wider social-emotional

wellbeing discussions relevant to diverse sexual and gender minority students) is an effective

method to affect teachers' attitudes and importance LGBTQ-related SHE has on their students'

wellbeing, consequently increasing their openness and comfort to teach LGBTQ-related SHE

topics to their students. This model provided data needed to show that, rather than group

differences between pre-service and in-service teachers (Leung & Flanagan, 2022), as an

explanation for their openness and comfort to teach LGBTQ-related SHE topics, the underlying

characteristics, attitudes, and importance teachers assign to each LGBTQ-related SHE topic are

the critical predictors for them to be more open and comfortable to teach LGBTQ-related SHE

topics in their classroom.

The second model utilizes the same 11 predictors on teachers' competence to teach SHE.

Prior SHE knowledge, experience teaching SHE, sexual orientation, attitudes, and importance

assigned to the nine SHE topics similarly positively predicted their competence to teach SHE. In

addition, SHE training was a significant negative predictor on their competence to teach SHE. A

possible explanation for this prediction may lie in the variability (e.g., format, training) of SHE

training provided to teachers. Teachers who had more SHE training predicted to feel less

competent to teach SHE. Depending on how the training was provided to teachers, they may feel

overwhelmed and ambivalent towards SHE content and the feasibility of incorporating SHE in

their classroom. This was shown in prior research where teachers perceived that SHE material

was difficult to implement in their classrooms and perceived other barriers believing that

incorporating LGBTQ-related SHE topics as unrealistic or unfeasible (e.g., parental or community backlash, lack of time and organization; Taylor et al., 2016). This reiterates the importance for external support needed for teachers to feel competent as they incorporate Québec's mandated *Sexuality Education.* Between the two models, there was a lack of age predicting teacher competence whereas age negatively predicted their openness and comfort to teach SHE. This hints at the fact that, though younger teachers may feel more open and comfortable to teach SHE in their classrooms, without considering their prior SHE knowledge or experience teaching SHE, teachers' age does not predict their competence to teach SHE. The predictors in this model echo the importance of providing SHE knowledge and opportunities for teachers to practice incorporating SHE in their curriculum. Overall, prior SHE knowledge, experience teaching SHE, sexual orientation, attitudes, and importance on the nine LGBTQ-related SHE topics positively predicted their openness and comfort, and competence to teach LGBTQ-related SHE topics. Knowing this, solutions need to be posed to foster their attitudes, importance, openness, and competence to teach SHE in an effective manner that provides educational and psychological benefits for all (LGBTQ and CH) students

Implications

Québec's *Sexuality Education* implementation across elementary through high school poses many questions surrounding the logistics in how teachers are currently feeling about this recent mandate. As this implementation is recent, not much research or data is present to understand the efficacy of Québec's *Sexuality Education.* Though research is sparse surrounding teachers and SHE curriculum, available research has mentioned the difficulty to incorporate SHE in their curriculum, often feeling ambivalent and uncomfortable towards some of the topics (Taylor et al., 2016). As the goal of this study is to further any pedagogical or organizational

changes that is required following the implementation of Québec's 2018 *Sexuality Education*,

this study features the need to incorporate changes to provide increasing SHE knowledge

opportunities for both pre-service and in-service teachers and opportunities for them to practice

teaching SHE and finding ways to incorporate SHE into their teachable subjects. The findings

presented here highlight the positive associations between prior SHE knowledge and SHE

teaching experience with their attitudes and perceived importance towards SHE, with the added

finding that all four positively predict teachers to be more open and comfortable and competent

to incorporate LGBTQ-related SHE topics in their classrooms.

Previous research has shown the benefits to all students from implementing a

comprehensive, LGBTQ-inclusive SHE curriculum. The covered topics benefit not only LGBTQ

students as it provides CH students opportunities to widen their perspective and be increasingly

aware of diversity in their environment. In a contemporary society where there are different

identities and appearances, schools where the norm is welcoming and accepting of individual

differences result in an increasingly positive school climate, among other socioemotional,

behavioural, and educational benefits for students (e.g., Kosciw et al., 2018). Though much of

the data point to the positive impact a LGBTQ-inclusive SHE curriculum can have on students, it

is unclear from the teachers' perspective whether they are effective in incorporating SHE into

their curriculum. Curricular and pedagogical changes would require an exploration in how

teachers are able to effectively translate the LGBTQ-related SHE material from the *Sexuality*

Education curriculum into their teachable subjects and, in the end, their students. The way that

teachers introduce and explore these topics has an influence on students' understanding and

engagement (Gowen & Winges-Yanez, 2014; Jarpe-Ratner, 2020). Teachers who are more open

and competent to incorporate SHE into their own curriculum would be the most likely to

effectively impart LGBTQ-related SHE material to their students. Effectively teaching LGBTQ material can benefit LGBTQ students to authentically connect with course material that is relevant in their lives and benefit CH students to have perspective-taking opportunities to widen their awareness and importance of diversity and inclusion in society.

Based on the results of this study, there is a need to make changes necessary to support teachers to be open, comfortable, and competent to incorporate LGBTQ-inclusive SHE material into their curriculum for the benefit of their students' wellbeing. Traditionally, support may appear as PD workshops for in-service teachers. However, as there are mixed findings in the efficacy of PD workshops to create change for teachers, other forms of support would need to be explored to support in-service teachers to feel comfortable and competent to incorporate SHE. There are some data pointing to an external support person that coordinates continuous efforts to provide curricular support for teachers on SHE pedagogy and knowledge (Leung et al., 2022b). For pre-service teachers, a review of B.Ed. required courses across Canadian universities (Leung et al., 2022a) revealed a lack of SHE-related classes. Though pre-service teachers have options to take classes related to SHE as electives, this variability results in differences in their level of comfort and competence to incorporate SHE in their curriculum. One suggestion would be to explore how B.Ed. programs can change to effectively prepare Québec pre-service teachers to implement LGBTQ-inclusive SHE topics in their curriculum.

Future qualitative inquiry on specific SHE topics in the survey can be explored to understand teachers' views. For example, though teachers focus on the importance of pleasure when teaching SHE in Québec, as shown by their increased importance towards sex-positive topics in comparison to the Cohen et al. (2004) study, the conceptualization of pleasure is unclear. For example, a point of inquiry would be whether teachers are presenting pleasure

through a heteronormative lens, subsequently excluding their LGBTQ students. A qualitative

inquiry into how teachers understand the specific SHE topics (e.g., sexual pleasure, abstinence)

can provide insight in how teachers come to understand and teach the topics inclusively.

Limitations

Though this study provided a lot of insight on teachers' perspectives towards SHE

implementation, there is a limitation regarding survey sampling. Though the mandatory SHE

curriculum implementation has been implemented across Québec in 2018, the sample procedures

were only done in English across English schools and school boards. Therefore, the responses

may not generalize to differences that French schools and school boards may have in terms of

their attitudes and beliefs towards SHE implementation. Although the educational system is the

same across both English and French school boards in Québec, the language of instruction and

the French culture and environment may have an influence on their attitudes and beliefs towards

teaching SHE. Likewise, no French universities were reached out to recruit pre-service teachers

due to the survey being unavailable in French. Therefore, the present results cannot capture

teachers' attitudes and beliefs towards SHE outside of the English education sector of Québec.

Future exploration of Québec's *Sexuality Education* implementation should explore the French

education sector to understand whether they have differing thoughts towards the mandatory

implementation of *Sexuality Education* in their curriculum.

Conclusion

Sexual health education is a topic that is increasingly relevant in the current society.

Particularly, as media and public interest has shifted towards EDI efforts (Ainscow, 2020; Endo,

2021; Ramirez, 2021), it is progressively important to understand how to best support teachers as

they attempt to translate SHE knowledge to their students. Québec's *Sexuality Education*

curriculum encompasses many topics that is beneficial not only to LGBTQ students but all students, such as topics on identifying emotions and emotional regulation, respectful communication, and healthy dating relationships. As per the topics that Québec's *Sexuality Education* cover across elementary through high school, a comprehensive SHE curriculum encompasses topics that go beyond traditional topics of sexual health (e.g., sexual reproduction, safe sex). In this manner, Québec has made great advances toward incorporating a mandatory SHE curriculum that is authentically relevant to students and provides educational opportunities that overcome some of the concerns LGBTQ students have regarding LGBTQ-exclusive curriculum content, leading to a positive and safe classroom climate. However, past research and anecdotal information from teachers whom I have taught have voiced their concerns about the logistics of implementing Québec's *Sexuality Education*, despite their awareness and understanding of the benefits for their students. They mentioned a lack of SHE knowledge and felt uncomfortable to discuss LGBTQ-related SHE topics with their students. This was replicated in the current study as teachers who had more prior SHE knowledge and experiences in teaching SHE adopted a more positive attitude and felt SHE was important to teach to their students, subsequently predicting their openness and comfort, and competence to incorporate LGBTQ-related SHE topics in their classrooms. This study suggests more support and top-down changes needed to provide the support in-service teachers require, along with changes to the Québec B.Ed. programs in universities to respond to the 2018 mandatory *Sexuality Education* curriculum implementation. Québec's education is moving forward as they are the only province that requires a comprehensive (LGBTQ-inclusive) SHE to be mandatory across elementary through high school (with kindergarten being optional). However, it is time that educational stakeholders in Québec need to understand how teachers can be better supported to effectively translate the

SHE material in their classrooms to have the intended effect that a comprehensive (LGBTQ-inclusive) SHE curriculum can provide for students in schools.

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Appendices

Table 1

Characteristics of Pre-Service and In-Service Teachers

	Pre-Service Teachers (1)	**In-Service Teachers (0)**
Sex		
Male	78 (28.36%)	36 (21.82%)
Female	197 (71.64%)	129 (78.18%)
Total (N=440)	275	165
Gender Identity		
Male	76 (27.64%)	33 (20.12%)
Female	189 (68.73%)	129 (78.66%)
TGNC (transgender, Genderfluid, non-binary)	10 (3.64%)	2 (1.22%)
Total (N=439)	275	164
Gender Expression		
Male	74 (26.91%)	34 (20.73%)
Female	191 (69.45%)	128 (78.05%)
Androgynous	10 (3.64%)	2 (1.22%)
Total (N=439)	275	164
Sexual Orientation		
Heterosexual	184 (67.90%)	132 (80.00%)
Bisexual	57 (21.04%)	26 (15.76%)
Homosexual	10 (3.69%)	4 (2.42%)
Pansexual/Asexual/Other	20 (7.39%)	3 (1.82%)
Total (N=436)	271	165
Ethnicity		
African/Caribbean	18 (6.67%)	5 (3.03%)

European descent (non-Hispanic)	169 (62.59%)	134 (81.21%)
Latin/South/Central American	16 (5.93%)	1 (.61%)
Indigenous Peoples	1 (.37%)	0
South Asian	10 (3.70%)	3 (1.82%)
Southeast Asian	4 (1.48%)	4 (2.42%)
East Asian	11 (4.07%)	6 (3.64%)
White Asian	21 (7.78%)	7 (4.24%)
Don't know	7 (2.59%)	3 (1.82%)
Mixed	13 (4.81%)	2 (1.21%)
Total (N=435)	270	165
Education Level		
Bachelor	242 (88.32%)	96 (58.18%)
Masters/postgraduate	32 (11.68%)	67 (40.61%)
PhD/EdD/other doctorate	0	2 (1.21%)
Total (N=439)	274	165
Age Group		
18-24 (1)	167 (60.51%)	11 (6.71%)
25-29 (2)	64 (23.19%)	46 (28.05%)
30-39 (3)	38 (13.77%)	60 (36.59%)
40-49 (4)	6 (2.17%)	31 (18.90%)
50+ (5)	1 (.36%)	16 (9.76%)
Total (N=440)	276	164
Residence		
Rural (1)	17 (6.18%)	10 (6.06%)
Suburban (2)	108 (39.27%)	78 (47.27%)
Urban (3)	150 (54.55%)	77 (46.67%)

Total (N=440)	275	165
Prior Knowledge Level		
None	2 (.74%)	2 (1.22%)
Little	25 (9.23%)	20 (12.20%)
Moderate	111 (40.96%)	73 (44.51%)
Quite a bit	96 (35.42%)	53 (32.32%)
A lot	37 (13.65%)	16 (9.76%)
Total (N=435)	271	164
Teaching Sexual Health Education Experience		
None	176 (65.67%)	52 (31.71%)
Less than 1 year	26 (9.70%)	25 (15.24%)
1-2 years	19 (7.09%)	36 (21.95%)
3-4 years	20 (7.46%)	16 (9.76%)
5-6 years	27 (10.07%)	12 (7.32%)
7 years or more	0	23 (14.02%)
Total (N=432)	268	164
Subject Area		
First Language (English/French) (N=124)	64 (22.86%)	60 (35.71%)
Resource/special education (N=7)	3 (1.07%)	4 (2.38%)
Ethics, religion, and culture (N=33)	7 (2.50%)	26 (15.48%)
Social sciences (N=57)	31 (11.07%)	26 (15.48%)
Arts (N=25)	7 (2.50%)	18 (10.71%)
Second Language (N=41)	28 (10.00%)	13 (7.74%)
General Education (N=82)	62 (22.14%)	20 (11.90%)

Science, Tech, Mathematics (N=120)	57 (20.36%)	63 (37.50%)
Physical Education/Health (N=34)	31 (11.07%)	3 (1.79%)
Year in School (N=268)		
First Year	27 (10.07%)	
Second Year	42 (15.67%)	
Third Year	64 (23.88%)	
Fourth Year	55 (20.52%)	
Fifth Year	25 (9.33%)	
Graduate	55 (20.52%)	
Teaching Grade (N=163)		
Kindergarten		9 (5.52%)
Elementary Cycle 1		18 (11.04%)
Elementary Cycle 2		20 (12.27%)
Elementary Cycle 3		23 (14.11%)
Secondary Cycle 1		44 (27.00%)
Secondary Cycle 2		49 (30.06%)

Table 2

Importance Male and Female Teachers Assigned to Topics in the Sexual Health Curriculum,

Replication of Cohen et al.'s (2004) Study

Topic	Median	**Mean (SD)**			$F(10,429)$	η^2
		Across Sex	Female (N=326)	Male (N=114)		
Decision-making skills	5	4.25 (.96)	4.29 (.92)	4.13 (1.04)	2.45	.0060
Reproduction & birth	4	3.92 (.95)	4.52 (.80)	4.20 (1.00)	11.45***	.025
Birth control methods & safer sex practice	4	3.91 (1.00)	4.60 (.72)	4.21 (1.01)	20.28***	.044
Correct names for genitals	4	3.88 (1.02)	4.40 (.88)	4.23 (.98)	3.01	.0068
Puberty	4	3.78 (.88)	4.58 (.74)	4.13 (1.04)	24.57***	.053
Personal safety	4	3.55 (1.05)	4.58 (.81)	4.23 (.92)	14.43***	.032
Abstinence	4	3.53 (1.20)	3.36 (1.34)	3.69 (1.26)	5.45 *	.012
Sexual pleasure & orgasm	4	3.52 (.97)	3.69 (1.21)	3.62 (1.24)	.28	.00070
Sexually transmitted disease/AIDS	3	3.41 (1.08)	4.63 (.69)	4.22 (.94)	24.67***	.053
Sexual coercion & sexual assault	3	3.36 (1.12)	4.49 (.81)	4.13 (.96)	14.64***	.032

Note: 1 = not at all important; 2 = somewhat important; 3 = important; 4 = very important; 5 = extremely important. *$p <.05$, **$p<.01$, ***$p<.001$

Table 3

Comparison Between Cohen et al.'s (2004) Study and Current Study on Importance Assigned to

Ten Specific Sexual Health Topics

Topic	Current Study		Cohen et al.'s (2004)	
	Median	Mean (SD)	Median	Mean (SD)
Decision-making skills	5	4.25 (.96)	5	4.2 (1.0)
Reproduction & birth	4	3.92 (.95)	4	4.2 (0.9)
Birth control methods & safer sex practice	4	3.91 (1.00)	4	4.1 (1.0)
Correct names for genitals	4	3.88 (1.02)	4	4.1 (0.9)
Puberty	4	3.78 (.88)	5	4.4 (0.8)
Personal safety	4	3.55 (1.05)	5	4.6 (0.6)
Abstinence	4	3.53 (1.20)	5	4.3 (0.9)
Sexual pleasure & orgasm	4	3.52 (.97)	3	2.7 (1.3)
Sexually transmitted disease/AIDS	3	3.41 (1.08)	5	4.5 (0.8)
Sexual coercion & sexual assault	3	3.36 (1.12)	5	4.6 (0.7)

Table 4

Teacher's Knowledge About Specific Sexual Health Topics, Replication of Cohen et al.'s (2004)

Study

Topic	Median	Mean (SD)			$F(26,413)$	η^2
		Across Sex	Female (N=326)	Male (N=114)		
Menstruation	4	4.12 (1.02)	4.32 (.86)	3.55 (1.21)	53.27**	.11
Communication about sex	4	4.00 (.94)	3.99 (.92)	4.01 (1.00)	.021	.000048
Body image	4	3.98 (.92)	4.02 (.90)	3.89 (.97)	1.46	.0033
Reproduction & birth	4	3.92 (.95)	3.88 (.95)	4.02 (.99)	1.66	.0038
Birth control methods & safer sex practices	4	3.91 (1.00)	3.88 (.98)	3.96 (1.06)	.56	.0013
Correct names for genitals	4	3.88 (1.02)	3.83 (1.03)	4.00 (.99)	2.30	.0052
Building equal romantic relationships	4	3.79 (.98)	3.77 (.94)	3.85 (1.08)	.58	.0013
Puberty	4	3.78 (.88)	3.75 (.84)	3.86 (.99)	1.27	.0029
Attraction, love & intimacy	4	3.77 (1.00)	3.73 (.96)	3.87 (1.10)	1.64	.0037
Sexual problems & concerns	4	3.72 (.98)	3.70 (.94)	3.77 (1.11)	.050	.0011
Sex as part of a loving relationship	4	3.69 (1.07)	3.66 (1.05)	3.76 (1.15)	.83	.0019
Sexuality in the media	4	3.69 (.94)	3.61 (.90)	3.93 (.99)	10.01**	.022
Sexual behaviour (e.g., French kissing, intercourse)	4	3.66 (1.02)	3.61 (1.00)	3.78 (1.10)	2.35	.0053
Dealing with peer pressure to be sexually active	4	3.65 (1.08)	3.61 (1.05)	3.77 (1.20)	1.94	.0044
Masturbation	4	3.57 (1.05)	3.41 (1.03)	4.00 (.97)	28.15***	.060
Personal safety	4	3.55 (1.05)	3.50 (1.00)	3.68 (1.19)	2.52	.0057
Abstinence	4	3.53 (1.20)	3.45 (1.19)	3.82 (1.15)	8.19**	.018

Sexual pleasure & orgasm	4	3.52 (.97)	3.39 (.93)	3.85 (1.02)	19.41***	.042
Diverse sexual orientation	3	3.50 (1.03)	3.45 (1.00)	3.64 (1.11)	2.95	.0067
Sexually transmitted disease	3	3.41 (1.08)	3.24 (1.06)	3.86 (1.02)	29.27***	.063
Sexual coercion & sexual assault	3	3.36 (1.12)	3.27 (1.09)	3.56 (1.17)	5.95*	.013
Teenage pregnancy and parenting	3	3.30 (1.09)	3.23 (1.00)	3.49 (1.30)	4.93*	.011
Pornography	3	3.22 (1.13)	2.98 (1.06)	3.89 (1.05)	62.08***	.12
Wet dreams	3	3.16 (1.18)	2.90 (1.12)	3.89 (1.03)	69.45***	.14
Being comfortable with the other sex	3	2.79 (1.14)	2.60 (1.04)	3.32 (1.23)	37.16***	.078
Teenage prostitution	3	2.53 (1.15)	2.32 (1.02)	3.11 (1.32)	42.54***	.089

Note: 1 = not at all knowledgeable; 2 = very slightly knowledgeable; 3 = somewhat knowledgeable; 4 = quite knowledgeable; 5 = extremely knowledgeable. *p <.05, **p<.01, ***p<.001

Table 5

Teacher's Comfort and Openness to Teach Specific Sexual Health Topics, Replication of Cohen

et al.'s (2004) Study

Topic	Median	Mean (SD)			$F(26,413)$	η^2
		Across Sex	Female (N=326)	Male (N=114)		
Body image	5	4.27 (0.98)	4.37 (.88)	3.96 (1.17)	15.04***	.033
Communicating about sex	5	4.23 (1.03)	4.30 (.96)	4.04 (1.22)	5.39*	.012
Building equal romantic relationships	4	4.07 (1.05)	4.12 (1.00)	3.96 (1.16)	1.98	.0045
Puberty	4	4.05 (1.09)	4.06 (1.09)	4.03 (1.09)	0.1	<.001
Menstruation	4	3.97 (1.26)	4.07 (1.21)	3.69 (1.36)	7.81**	.018
Reproduction and birth	4	3.94 (1.21)	3.95 (1.23)	3.90 (1.17)	.15	<.001
Birth control methods and safer sex practices	4	3.92 (1.24)	3.91 (1.25)	3.96 (1.22)	.18	<.001
Correct names for genitals	4	3.91 (1.23)	3.91 (1.25)	3.90 (1.16)	.0032	<.001
Sexuality in the media	4	3.87 (1.19)	3.86 (1.20)	3.87 (1.19)	.0025	<.001
Sexual problems and concerns	4	3.85 (1.16)	3.89 (1.13)	3.75 (1.24)	1.31	.0030
Sexually transmitted diseases	4	3.80 (1.24)	3.78 (1.24)	3.86 (1.24)	.33	<.001
Dealing with peer pressure to be sexually active	4	3.79 (1.21)	3.79 (1.19)	3.83 (1.25)	.12	<.001
Diverse sexual orientation	4	3.76 (1.26)	3.79 (1.24)	3.68 (1.27)	.69	.0016
Personal safety	4	3.74 (1.26)	3.69 (1.27)	3.88 (1.21)	1.88	.0043
Attraction, love and intimacy	4	3.73 (1.21)	3.74 (1.17)	3.74 (1.30)	.00034	<.001
Teenage pregnancy and parenting	4	3.64 (1.16)	3.59 (1.11)	3.80 (1.27)	2.78	.0063

Sexual coercion and sexual assault	4	3.62 (1.23)	3.62 (1.23)	3.61 (1.25)	.0017	<.001
Sex as part of a loving relationship	4	3.53 (1.28)	3.54 (1.24)	3.51 (1.38)	.041	<.001
Sexual behaviour (e.g., French kissing, intercourse)	4	3.49 (1.30)	3.42 (1.27)	3.68 (1.35)	3.43	.0078
Abstinence	3.5	3.38 (1.37)	3.28 (1.35)	3.68 (1.36)	7.57**	.017
Being comfortable with the other sex	3	3.47 (1.25)	3.38 (1.23)	3.74 (1.28)	6.97**	.016
Wet dreams	3	3.25 (1.41)	3.10 (1.40)	3.75 (1.33)	19.25***	.042
Teenage prostitution	3	3.13 (1.29)	2.98 (1.23)	3.55 (1.36)	17.66***	.039
Pornography	3	3.13 (1.42)	2.91 (1.38)	3.72 (1.40)	28.67***	.061
Masturbation	3	3.12 (1.41)	2.95 (1.39)	3.61 (1.36)	19.71***	.043
Sexual pleasure and orgasm	3	3.12 (1.32)	2.94 (1.25)	3.62 (1.40)	23.38***	.051

Table 6

Grade Level at Which Teachers Thought Specific Sexual Health Topics Should be Introduced,

Replication of Cohen et al.'s (2004) Study

GRADE LEVEL		Percent indicating each grade level[b] (N = 448)						
Topic	Median[a]	K	1-2	3-4	5-6	7-8	9-11	Should not be included
Body image	3-4	20.80	12.70	20.30	24.60	15.00	6.5	0.20
Menstruation	5-6	0.20	2.20	25.70	51.60	12.10	7.80	0.40
Correct names for genitals	5-6	11.20	12.50	17.90	25.40	22.30	9.80	0.90
Reproduction & birth	5-6	3.10	5.80	11.20	31.90	34.20	13.60	0.20
Wet dreams	5-6	0.40	1.60	11.60	44.00	27.00	10.00	5.40
Homosexuality	5-6	7.10	7.80	17.00	31.00	24.30	9.80	2.90
Sexuality in the media	5-6	1.30	2.90	11.40	37.10	33.00	12.50	1.10
Communicating about sex	5-6	18.30	13.40	12.70	23.90	20.80	10.00	0.90
Puberty	5-6	1.10	2.50	23.70	50.20	16.50	5.60	0.40
Personal safety	5-6	9.80	8.30	10.30	25.20	31.90	14.10	0.40
Sexual coercion & sexual assault	7-8	4.50	3.80	6.50	22.30	41.10	20.50	1.30
Sexually transmitted disease/AIDS	7-8	0.20	1.60	3.10	20.80	56.00	17.90	0.40
Birth control methods & safer sex practices	7-8	0.00	1.60	3.30	20.10	54.20	19.90	0.90
Teenage prostitution	7-8	0.20	0.90	1.30	12.50	42.90	34.40	7.80
Sex as part of a loving relationship	7-8	0.90	0.70	2.90	13.60	38.80	37.30	5.80
Abstinence	7-8	0.90	1.60	4.70	23.70	40.60	15.80	12.70
Pornography	7-8	0.20	1.80	2.20	18.10	41.70	24.60	10.70
Masturbation	7-8	0.40	1.80	5.80	30.60	39.50	14.10	7.80

Building equal romantic relationships	7-8	7.80	6.70	8.90	21.90	34.20	19.40	1.10
Sexual behaviour (e.g., French kissing, intercourse)	7-8	1.80	4.00	7.10	27.50	37.50	17.20	4.90
Being comfortable with the other sex	7-8	1.60	2.00	6.30	19.60	36.40	30.10	4.00
Attraction, love & intimacy	7-8	1.10	1.60	8.00	24.30	39.50	22.80	2.70
Teenage pregnancy and parenting	7-8	0.40	1.10	3.30	19.00	55.60	19.40	1.10
Sexual pleasure & orgasm	7-8	0.70	2.70	0.90	21.70	35.50	30.40	8.30
Sexual problems & concerns	7-8	0.90	1.60	4.70	19.60	47.10	23.70	2.50
Dealing with peer pressure to be sexually active	7-8	1.60	1.60	6.30	27.90	45.50	16.10	1.10

Note: N = 448 (included teachers who indicated topic should not be included).

[a]The grade level by which 50% or more of the teachers wanted the topic introduced

[b]"Percent indicating each grade level" is based on those teachers who reported that they wanted the topic included

Table 7

Comparison Between Cohen et al.'s (2004) Study and Current Study on Knowledge, Openness and Comfort, and Belief at Which

Grade Level Each Specific SHE Topic Should be Taught.

| | Knowledge | | | | Openness and Comfort | | | | Belief of specific grade level for each SHE topic | | | |
| | Current Study | | Cohen et al.'s (2004) | | Current Study | | Cohen et al.'s (2004) | | Current study | | Cohen et al.'s (2004) study | |
Topic	Median	Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median[a]	Should not be included	Median[a]	Should not be included
Menstruation	4	4.12 (1.02)	5	4.2 (1.1)	4	3.97 (1.26)	4	3.6 (1.4)	5-6	0.40	6-8	0.3
Communication about sex	4	4.00 (.94)	3	3.5 (1.1)	5	4.23 (1.03)	3	3.2 (1.3)	5-6	0.90	6-8	4.8
Body image	4	3.98 (.92)	4	4.1 (0.9)	5	4.27 (0.98)	4	3.8 (1.2)	3-4	0.20	K-3	0.3
Reproduction & birth	4	3.92 (.95)	4	4.1 (1.0)	4	3.94 (1.21)	4	3.6 (1.3)	5-6	0.20	6-8	0
Birth control methods & safer sex practices	4	3.91 (1.00)	4	3.9 (1.0)	4	3.92 (1.24)	3	3.2 (1.4)	7-8	0.90	6-8	3.4
Correct names for genitals	4	3.88 (1.02)	4	4.2 (0.9)	4	3.91 (1.23)	4	3.6 (1.4)	5-6	0.90	4-5	0.3
Building equal romantic relationships	4	3.79 (.98)	4	3.5 (1.2)	4	4.07 (1.05)	3	3.2 (1.3)	7-8	1.10	6-8	8.8
Puberty	4	3.78 (.88)	4	4.0 (1.0)	4	4.05 (1.09)	4	3.6 (1.3)	5-6	0.40	6-8	0

Topic												
Attraction, love & intimacy	4	3.77 (1.00)	4	3.5 (1.1)	4	3.73 (1.21)	3	3.2 (1.3)	7-8	2.70	6-8	8.4
Sexual problems & concerns	4	3.72 (.98)	3	3.1 (1.2)	4	3.85 (1.16)	3	2.6 (1.4)	7-8	2.50	9-12	19.0
Sex as part of a loving relationship	4	3.69 (1.07)	4	3.7 (1.2)	4	3.53 (1.28)	3	3.1 (1.4)	7-8	5.80	6-8	4.8
Sexuality in the media	4	3.69 (.94)	3	3.3 (1.2)	4	3.87 (1.19)	3	3.1 (1.4)	5-6	1.10	6-8	7.2
Sexual behaviour (e.g., French kissing, intercourse)	4	3.66 (1.02)	4	3.5 (1.2)	4	3.49 (1.30)	3	2.6 (1.4)	7-8	4.90	6-8	14.9
Dealing with peer pressure to be sexually active	4	3.65 (1.08)	4	3.6 (1.1)	4	3.79 (1.21)	3	3.4 (1.3)	7-8	1.10	6-8	0.6
Masturbation	4	3.57 (1.05)	3	3.0 (1.2)	3	3.12 (1.41)	2	2.5 (1.4)	7-8	7.80	6-8	15.7
Personal safety	4	3.55 (1.05)	4	3.6 (1.0)	4	3.74 (1.26)	4	3.5 (1.2)	5-6	0.40	K-3	0.6
Abstinence	4	3.53 (1.20)	4	4.2 (1.0)	3.5	3.38 (1.37)	4	3.6 (1.4)	7-8	12.70	6-8	0.6
Sexual pleasure & orgasm	4	3.52 (.97)	3	3.3 (1.2)	3	3.12 (1.32)	2	2.4 (1.3)	7-8	8.30	9-12	36.7
Diverse sexual orientation	3	3.50 (1.03)	3	3.0 (1.2)	4	3.76 (1.26)	3	2.7 (1.4)	5-6	2.90	6-8	16.3
Sexually transmitted disease	3	3.41 (1.08)	4	3.5 (1.1)	4	3.80 (1.24)	3	3.3 (1.4)	7-8	0.40	6-8	0.3
Sexual coercion & sexual assault	3	3.36 (1.12)	3	3.2 (1.1)	4	3.62 (1.23)	3	3.1 (1.3)	7-8	1.30	6-8	0.9

Teenage pregnancy and parenting	3	3.30 (1.09)	3	3.5 (1.2)	4	3.64 (1.16)	3	3.3 (1.3)	7-8	1.10	6-8	1.6
Pornography	3	3.22 (1.13)	3	2.9 (1.2)	3	3.13 (1.42)	3	2.6 (1.4)	7-8	10.70	9-12	23.5
Wet dreams	3	3.16 (1.18)	3	3.3 (1.3)	3	3.25 (1.41)	3	2.8 (1.4)	5-6	5.40	6-8	6.3
Being comfortable with the other sex	3	2.79 (1.14)	4	3.7 (1.0)	3	3.47 (1.25)	3	3.4 (1.3)	7-8	4.00	6-8	3.8
Teenage prostitution	3	2.53 (1.15)	3	2.9 (1.2)	3	3.13 (1.29)	3	2.6 (1.4)	7-8	7.80	9-12	19.7

Table 8

Comparison Between Cohen et al.'s (2004) Study and Current Study on the Rating of the Quality of Sexual Health Training.

Rating	Current study	Cohen et al's (2004) study
	Percentage	Percentage
Poor	8.00	9
Fair	18.00	13
Good	27.90	39
Very Good	33.00	31
Excellent	12.60	8

Table 9

Pearson Correlation Between Teacher Characteristics (Prior Knowledge in SHE, Teaching Experience in SHE, Teaching Grade,

Education Level, Age) and the Sum Score of Their Attitude and Perceived Importance Towards the Nine Specific SHE Topics

	Prior Knowledge in SHE	Teaching Experience in SHE	Teaching Grade	Education Level	Age
Attitude	.27***	.015	.072	-.025	-.17***
Importance	.22***	.018	-.0020	-.035	-.22***

Note: ***: Correlation is significant at the .001 level.

Table 10

Chi-Square Test of Independence Between Teacher Characteristics (SHE Training, Sexual Orientation, Sex, Gender Identity, Gender Expression, Community) and Their General Attitude Towards SHE and Their Belief at Which Grade Level Each SHE Topic Should be Included.

		SHE Training (df = 6)	Sexual Orientation (df = 18)	Sex (df = 6)	Gender Identity (df = 12)	Gender Expression (df = 12)	Community (df = 12)
General Attitude towards SHE		4.58	28.85***	47.74***	47.52***	47.48***	17.89**
Belief at what grade level to include…	Understanding sexuality	8.86*	29.32***	20.05***	26.28***	21.08***	5.68
	Diverse gender roles	12.82**	30.82***	28.34***	36.78***	24.93***	4.29
	Diverse sexual orientation	18.32***	54.46***	26.86***	34.18***	28.74***	3.42
	Diverse gender identities	5.22	31.29***	17.50***	19.58***	16.45**	4.61
	Diverse gender expression	13.44**	25.22***	25.47***	29.60***	23.73***	2.29
	Gender inequalities	8.77*	15.90*	24.41***	37.04***	26.08***	.84
	Discrimination against gender identity and expression	4.73	13.18*	13.24**	16.81**	17.66**	.92

Discrimination against sexual orientation	5.26	13.39*	19.50***	26.19***	20.10***	.48
Personal safety	3.06	12.96*	15.26***	21.01***	14.72**	1.20

Note: *p* < .05, **p* < .01, *** *p* < .001

Table 11.

Residual Table (Standardized Residuals >= 2) Based on Significant Associations in Chi-Square Test of Independence From Table 10 – General Attitudes. Due to Spacing, Only Significant Levels are Reported.

		General attitude towards introducing SHE		
		Kindergarten	**High School**	**CÉGÉP**
Sexual Orientation	**Heterosexual**	-2.15		
	Bisexual	2.52	-2.27	
Sex	**Female**	2.45	-2.42	
	Male	-4.12	4.07	
Community	**Rural**			3.83
Gender Identity	**Female**	2.30	-2.46	
	Male	-3.95	4.31	
Gender Expression	**Female**	2.27	-2.48	
	Male	-3.92	4.37	

Table 12

Residual Table (Standardized Residuals >= 2) Based on Significant Associations in Chi-Square Test of Independence From Table 10 – Specific SHE Beliefs. Due to Spacing, Only Significant Levels are Reported.

Specific SHE Topics		SHE Training	Sexual Orientation				Sex	
		Yes	Heterosexual	Bisexual	Homosexual	Pansexual /Asexual	Female	Male
Understanding Sexuality	Kindergarten					2.80		
	High School	2.16	2.06	-3.05			-1.96	3.34
Diverse gender roles	Kindergarten		-2.22	2.65		2.14		-2.51
	High School	2.63		-2.35			-2.15	3.63
Diverse sexual orientation	Kindergarten	-2.46	-2.17	2.00	3.93			
	Elementary							-2.13
	High School	2.52	2.53	-3.18		-2.14	-2.06	3.53
Diverse gender identity	Kindergarten				2.54			
	High School			-2.21		-2.13		2.74
Diverse gender expression	Kindergarten							-2.03
	High School	2.43	2.00	-2.52			-2.03	3.47
Gender inequalities	Elementary							-2.19
	High School	1.99						3.30
Discrimination against GI/GE	High School							2.19
Discrimination against SO	Kindergarten							-1.96
	High School							2.63
Personal safety	Kindergarten							-2.43
	High School							2.10

Table 13

Residual Table (Standardized Residuals >= 2) Based on Significant Associations in Chi-Square Test of Independence From Table 10 – Specific SHE Beliefs (cont.) Due to Spacing, Only Significant Levels are Reported.

Specific SHE Topics		Gender Identity			Gender Expression	
		Female	Male	TGNC	Female	Male
Understanding Sexuality	**Elementary**		-2.07			
	High School		3.64		-2.03	3.13
Diverse gender roles	**Kindergarten**		-2.39			-2.11
	High School	-2.18	4.14		-1.99	3.46
Diverse sexual orientation	**Elementary**		-2.44			-2.25
	High School		3.88		-1.97	3.63
Diverse gender identity	**High School**		2.93			2.68
Diverse gender expression	**Elementary**		-1.95			
	High School	-2.03	3.81			3.34
Gender inequalities	**Elementary**		-2.58			-2.19
	High School		3.74	-2.04		3.26
Discrimination against GI/GE	**High School**		2.39			2.31
Discrimination against SO	**Elementary**		-2.20			
	High School		2.89			2.54
Personal safety	**Kindergarten**		-2.34			-2.32
	High School		2.46			1.96

Note: Community was excluded due to lack of significant associations with all SHE topics.

CHAPTER 4

General Discussion

It is important to note that though LGBTQ students are considered as an at-risk population, the risk is not due to being associated with the LGBTQ identity itself but, rather, the societal heteronormativity and homonegativity that negatively impacts LGBTQ individuals. Sufficient research analyzing LGBTQ students in educational settings have shown that LGBTQ students experience discrimination and harassment based on their sexuality and gender identity or expression. However, positive aspects of LGBTQ educational research were sporadic (Leung, 2021). Given the abundant amount of research indicating the risks disproportionately affecting LGBTQ students at school, a focus on the positive narrative to examine the available support systems is necessary. Particularly in schools, LGBTQ students have been associated with outcomes (e.g., isolation, self-esteem, depression, academic disengagement, truancy, suicide) that can negatively impact their educational experience. The purpose of this program of research was to organize a framework of evidence-based social support systems that influence LGBTQ student outcomes in schools. Additionally, the second purpose of this program of research was to focus on a specific social support system, LGBTQ-inclusive curriculum, as a result of Québec's 2018 mandate to implement a comprehensive SHE curriculum, titled *Sexuality Education*. As Québec's *Sexuality Education* contains LGBTQ-related topics, Québec's comprehensive SHE curriculum implies a LGBTQ-inclusive curriculum, an evidence-based social support system that benefits all (both LGBTQ and CH) students. This program of research addressed these objectives, and more specific research questions indicated within each of the separate studies. Findings from all studies are discussed, with a focus on their original contributions to the field, and implications for practice and suggestions for future research in the area.

Attention to the lives of LGBTQ populations, including students, teachers, and families in schools have been growing in the past decades (Snapp et al., 2015). Recent efforts have been made by LGBTQ students, educators, and researchers to resist oppressive practices in schools (Zongrone et al., 2020). There is an increasing focus on the need to emphasize approaches to improve lives and learning of LGBTQ students, deemphasizing methods that solely focus on students as "at-risk". Rather than LGBTQ students being labelled as "at-risk", the focus is shifted to the social contexts that shape the daily lives of LGBTQ students (Horn et al., 2009; Snapp et al., 2015). This shift in focus has moved researchers to ask new questions and propose novel strategies to intervene in school climates that have proven unsafe and unproductive for LGBTQ students. Although there have been research identifying school-level strategies that position schools to make systemic changes to support LGBTQ students (e.g., inclusive policies, teacher support, extracurricular clubs, LGBTQ-inclusive curriculum; Russell et al., 2010), not all strategies have been researched comprehensively. Particularly, Russell and others (2010) found that much of the positive intervention research focused on improving LGBTQ students' lives through: 1) inclusive-policies, 2) teacher support, and 3) supportive extracurricular clubs (e.g., GSAs). As this review was conducted in 2010, an updated review is necessary to consider the current state of LGBTQ educational research, organize a systems framework to provide a comprehensive understanding of the different systems that positively influence LGBTQ students in schools, and identify obstacles present in current research for these support systems to effectively support LGBTQ students. For example, not much is known about efforts to incorporate LGBTQ-inclusive curricula (Kosciw et al., 2013). Generally, individual (teacher attitudes and beliefs) and systemic (societal tension and policies towards LGBTQ populations) barriers were mentioned as a struggle to implement LGBTQ-inclusive curriculum (Truong et al.,

2020a, 2020b; Zongrone et al. 2020). However, much of this literature has been situated in the

U.S. context. This program of research has both an international and localized, Canadian-Québec

context.

Study 1 provided an updated review from 2007 through 2021 highlighting similar themes

mentioned in past reviews and original contributions towards understanding the current state of

social support systems and their barriers. First, this review provided a comprehensive framework

organizing the seven systems of social support that positively influence LGBTQ student

outcomes in school. The seven systems include: 1) family, 2) curriculum, 3) GSAs (and other

school programs), 4) peers, 5) school administrators and teachers, 6) school policies, and 7)

school climate. Previous reviews in educational research have focused on four of the seven

systems: GSAs, teachers, school policies, and inclusive curriculum. Similar to past reviews on

educational research on LGBTQ students, many included articles focused on GSAs as an

evidence-based social support system. Almost a quarter (22.34%) of the articles mentioned

GSAs as a space for empowerment and change, creating a safe space and climate for LGBTQ

youth, creating opportunities for community connection, and fostering school engagement and

involvement (Study 1). This finding is consistent with past research investigating the robustness

of GSAs in schools to support LGBTQ students. However, results also indicated more nuanced

themes underlying the effectiveness of GSAs. Current research on GSAs have further broken

down how different functionalities and attachment with GSAs can differentially affect LGBTQ

student outcomes. For example, GSAs that focused more on advocacy and educational support

had increased school engagement as they discussed more health-related topics and prepared more

awareness-raising campaigns across the school. On the other hand, GSAs that focused on social

connections discussed less mental health-related topics. Other research found that the presence or

participation in GSA activities did not predict school engagement and was not associated with their sense of safety. Though GSAs have been extensively researched as an effective social support system for LGBTQ students, the current review shed light for the need for more nuanced research understanding the variances in outcomes for LGBTQ students. For example, this review (Study 1) found that the presence of a GSA led to increased emotional vulnerabilities to the wider school community. This may be an artifact of the increased awareness of LGBTQ populations and EDI movement in the current society. As there are sociopolitical shifts towards increasing awareness of equity, diversity, and inclusion in society, the functionalities of GSAs may vary. As this study found a theme of empowerment and change amongst LGBTQ students, taking initiative and action against oppression, schools can become sites of systemic change. Therefore, Study 1 highlighted a promising trend towards a change in narrative in current LGBTQ educational research.

Study 1's systemic framework allowed the inclusion of all related systems that positively influence LGBTQ student outcomes related to school, constructing other social support systems less explored. Curriculum was one of the social support systems of interest based on previous reviews. Though only 3.72% of the articles mentioned curriculum as an effective social support system, LGBTQ-inclusive curriculum was mentioned in other inter-related systems (ie., school administrators and teachers, GSAs, school policies). For example, teachers mentioned the need for school administrators to provide knowledge and training support to have the opportunities to teach LGBTQ-inclusive curriculum and the need for school administrators to explicitly back up teachers in cases of community or parental backlash. Teachers and students mentioned how GSAs can be educational spaces where LGBTQ-inclusive information can be discussed when teachers lack the knowledge or do not feel comfortable to teach a LGBTQ-inclusive curriculum.

Though LGBTQ-inclusive curriculum has encountered barriers for effective implementation, a LGBTQ-inclusive curriculum has shown to foster authentic relationships with students, creating an inclusive classroom that benefits (LGBTQ and CH) students' sense of safety, and decreasing negative outcomes (e.g., isolation, depression). Further exploring Study 1's findings on LGBTQ-inclusive curriculum and the barriers for an effective implementation, Study 2 provides a deeper exploration in a recent comprehensive LGBTQ-inclusive SHE curriculum mandated in Québec, titled *Sexuality Education*.

Prior to the objectives of Study 2, an intermediate objective was a replication study, showcasing teacher attitude and belief changes towards specific SHE topics from Cohen's 2004 study and the current study. Following the replication, Study 2 expanded on the original analysis conducted in 2004 by analyzing specific LGBTQ-related topics and conducting multiple correlations and regressions to predict how open and competent teachers are to teach specific LGBTQ-related SHE topics to their students. There was a total of nine SHE topics extracted from the survey of 60+ topics as these nine topics aligned with a LGBTQ-inclusive curriculum: 1) understanding sexuality, 2) diverse gender roles, 3) diverse sexual orientation, 4) diverse gender identities, 5) diverse gender expression, 6) gender inequalities, 7) discrimination against GI/GE, 8) discrimination against SO, and 9) personal safety. Findings in Study 1 mentioned the need for LGBTQ-related topics to be included in the curriculum for LGBTQ students to feel included in the material they learn, subsequently fostering an authentic connection. This inclusion, in turn, increased academic engagement and sense of safety. In the context of Study 2 where Québec mandated *Sexuality Education* (comprehensive LGBTQ-inclusive SHE curriculum) to be taught from elementary through high school (optional for kindergarten), including these LGBTQ-related topics would make progress towards an increasingly safe and

inclusive classroom for LGBTQ students. However, due to a lack of research on curriculum

fidelity and how teachers are open and competent to teach these LGBTQ-inclusive SHE topics,

an in-depth analysis on teacher attitudes and beliefs towards the nine specific LGBTQ-inclusive

SHE topics is necessary.

Study 2 investigates whether teachers are adequately knowledgeable to teach the nine

LGBTQ-inclusive SHE topics in their classrooms. Based on the flagship article (Cohen et al.,

2004), the different dimensions of teacher attitudes and beliefs (knowledge, attitudes,

importance, beliefs at which grade level, openness, competence) were extracted and expanded by

conducting multiple correlations and regressions across the teacher dimensions. As this is the

first analysis conducted to explore Québec's recently mandated *Sexuality Education* from the

teachers' perspective, Study 2 provides original contribution on PSTs and ISTs' attitudes and

beliefs towards the LGBTQ-inclusive SHE topics. Though a separate analysis (Leung &

Flanagan, 2022) found group differences between PSTs and ISTs with their knowledge,

attitudes, importance, beliefs, openness, and competence towards the nine specific LGBTQ-

inclusive topics, Study 2 provided an alternative explanation. Rather than group differences

where PSTs consistently had more knowledge and more positive attitudes or beliefs, or higher

levels of importance, openness, and competence to teach the nine topics, there were underlying

variables that explained the differences. First, teachers' prior knowledge in SHE, SHE teaching

experience, attitudes towards SHE topics, importance perceived towards SHE topics, sexual

orientation, and age predicted their openness and comfort in teaching SHE, with age being a

negative predictor. Second, teachers' prior SHE knowledge, SHE teaching experience, SHE

training, sexual orientation, attitudes towards SHE topics, and importance perceived towards

SHE topics predicted their perceived competence to teach the nine SHE topics, with SHE

training as a negative predictor. Overall, prior knowledge in SHE, experience teaching SHE,

sexual orientation, attitudes, and importance on the nine SHE topics positively predicted their

openness and comfort, and competence to teach SHE. The original findings highlight Québec's

PSTs and ISTs' perspectives on the mandated curriculum. Based on the findings from Study 2,

Québec PSTs and ISTs report a need for more training and knowledge and was generally less

open, comfortable, and competent to teach LGBTQ-related topics. The results align with the

findings from Study 1, with teachers reporting the need for administrative support, a lack of

training, knowledge, and comfort to teach LGBTQ-related topics to their students. Study 2

highlights that teachers who have more SHE knowledge tend to have a more positive attitude

towards LGBTQ-related topics and perceive a higher importance with regards to the LGBTQ

topics. In turn, SHE knowledge, attitudes, and importance assigned to the LGBTQ-related topics

positively predicted teachers' openness and competence to teach the topics in their classroom,

among other positive predictors. As SHE topics are culturally sensitive and contextualized, the

findings from Study 2 provide insight into how teachers teaching in the Québec context align

with the general findings of Study 1. The findings in Study 2 reiterate the importance of fostering

positive attitudes and beliefs towards LGBTQ-related topics. As SHE is misunderstood as sexual

health specific to biological sexual health (e.g., safe sex, STIs, pregnancy; Chi et al., 2013),

teachers may have misconceptions about the importance of the topics for their students.

Providing opportunities for teachers to learn more about SHE broadly, encompassing different

themes of sexual health, can positively impact teachers' attitudes and importance towards

LGBTQ-related SHE topics. As teachers become increasingly open and comfortable and are

more competent to teach LGBTQ-related topics in their curriculum, this can lead to benefits

mentioned in Study 1: authentic connection with material and classroom, increased sense of

safety, increased academic engagement, and inclusive school climate.

This program of research shows how there are numerous social support systems that

come together to positively influence LGBTQ student outcomes in school. Particular attention

was made to Québec's recently mandated LGBTQ-inclusive comprehensive SHE curriculum

(*Sexuality Education*) and how special consideration needs to be taken to understand teacher

attitudes and beliefs towards LGBTQ-related SHE topics. By considering teacher attitudes and

beliefs, this program of research uncovered the importance of providing opportunities for

teachers to adopt a more positive attitude and belief, subsequently increasing their openness,

comfort, and competence to teach LGBTQ-related topics in their classrooms effectively.

Implication for Practice

Findings from this program of research present several implications on the social support

systems for LGBTQ students in schools. First, when attempting to support LGBTQ students in

schools, multiple systems need to be taken into account, with a school-wide approach being the

gold standard to comprehensively support LGBTQ students. As indicated in Study 1, social

support can be defined as support provided across various systems connected to LGBTQ

students. Organized through the Ecological Systems Theory, social support in schools for

LGBTQ students span across seven inter-related systems: 1) family, 2) curriculum, 3) GSAs (and

other school programs), 4) peers, 5) school administrators and teachers, 6) school policies, and 7)

school climate. Therefore, educators, school administrators, and families who are involved in

fostering a safer space for LGBTQ students can be mindful of the organized systems framework

and reflect in their own schools whether their (LGBTQ and CH) students have opportunities to

engage in a LGBTQ-inclusive curriculum, have GSAs and other school programs that foster a

sense of belonging and engagement in their schools, have supportive teachers (through action and not heteronormative silence), have LGBTQ-inclusive school policies, all creating a safer and inclusive school climate. Though peers and families are less malleable systems to change, educators and administrators can assess their own schools' systems and determine whether there are any barriers preventing the effective provision of social support for LGBTQ students. As mentioned in Study 1, each system encounters numerous barriers to effectively support LGBTQ students. It would be of utmost important for educators and administrators to assess their own schools' policies, teacher support, and school spaces to determine necessary revisions such that LGBTQ students can feel safer in their schools and can foster authentic connections with their classroom material, teachers, and possess an overall increased belonging to their school.

One specific system of support, LGBTQ-inclusive curriculum was further investigated due to Québec's unique context and their 2018 mandated *Sexuality Education*. Findings from Study 2 highlighted important information beneficial to educators, school administrators, and policymakers in Québec. Though Québec has mandated *Sexuality Education* across elementary and high schools (optional for kindergarten), with topics that are developmentally appropriate and have been scientifically-informed necessary to build social-emotional (SEL) skills (e.g., healthy dating relationship skills, emotional regulation), be respectful citizens of an ever-increasingly diverse society, and provide diverse sexual health knowledge, not much is known from the teachers' perspectives despite the benefits *Sexuality Education* may possess for all (LGBTQ and CH) students based on the topics and themes covered. The results from this study highlighted the importance on providing more opportunities to increase teachers' SHE knowledge, more SHE teaching opportunities, and exploring methods to increase teachers' attitudes and their perceived importance towards the nine LGBTQ-related SHE topics. Though

findings points to minimal differences between teachers who have had SHE training and those who have not had training, this questions the modality in which teachers are to receive opportunities to acquire knowledge about SHE topics. The minimal differences found for teachers who have or have not had SHE training may be due to training variability. PD workshops or training sessions have shown mixed results in being effective to affect change for teachers' attitudes and beliefs (OECD, 2009). Nevertheless, based on the results from Study 2, there is a need for increased knowledge acquisition in SHE topics.

Related to the significant age findings where teachers who were older had more negative attitudes, perceived the nine specific SHE topics to be less important, and were less open to teach these topics, this may due to a chronological shift in the definition of education and schooling. In a contemporary society where there is an increasing exposure and focus on inclusive movements, such as Universal Design for Learning (UDL) and EDI initiatives, classroom material and subjects become increasingly focused on the need to be authentically relevant to students, particularly the realities of marginalized populations (e.g., ethnicity, disability, LGBTQ). Therefore, a chronological shift in the definition of education and schooling in a contemporary society may account for the inverse age relationship. Nevertheless, framing SHE knowledge, not specific to the needs of LGBTQ students, but as beneficial to all (LGBTQ and CH) students may broaden teachers' attitudes and accept the importance of the LGBTQ-related SHE topics for their students' wellbeing. As Québec has mandated *Sexuality Education* curriculum across elementary and high schools, it is important to know how teachers feel when they are teaching LGBTQ-related SHE topics to their students. Particularly, findings from Study 1 revealed LGBTQ-related topics as important for LGBTQ students to feel connected with the material and for CH students to grasp a wider understanding of diversity in their society. However, from the teachers'

perspectives, it is pertinent to provide more knowledge acquisition opportunities for teachers to feel increasingly comfortable and competent to find ways to incorporate LGBTQ-related topics in their classroom.

Directions for Future Research

Findings from this program of research establish the groundwork for future research investigating and evaluating the effectiveness of the social support provisions for LGBTQ students across the seven systems.

This program of research assessed the available social support systems related to LGBTQ student outcomes in school; therefore, the next logical step would be the follow up on the barriers and gaps in research found across each system. Though each of the systems were identified to foster positive socioemotional, behavioural, and educational outcomes, barriers and inconsistencies to support LGBTQ students require further exploration. GSAs, policies, and curriculum warrant future research.

First, GSAs were shown to have different social support outcomes for LGBTQ students depending on other variables including the level of safety in schools or the functionalities of GSAs. It would of interest to understand the differences in social support outcomes depending on the presence or participation in GSA activities or whether GSAs were educational or social in nature. Both Study 1 and Study 2 indicated the provision of LGBTQ-inclusive (informal) curriculum in GSAs as a function to benefit LGBTQ students, particularly in classrooms that silence LGBTQ-inclusive classroom material. Study 1 indicated mixed results, with some indicating an inverse relationship between GSA presence and sense of safety for LGBTQ students. As GSAs have been extensively researched as an evidence-based social support system

for LGBTQ students, more nuanced research should explore whether support is perceived by all LGBTQ students. For example, research investigating multiple marginalized identities, through an intersectional approach, have shown that GSAs are not equally supportive across all groups of LGBTQ students (Baams & Russell, 2021). Therefore, an intersectional approach may be needed to understand how the presence and participation may differentially affect LGBTQ and CH students.

Second, the promotion of inclusive policies encountered barriers due to the larger sociopolitical context that can limit the provision of LGBTQ support. A possible avenue of policy research is to consider how LGBTQ-inclusive policies can be placed under the guise of Universal Design for Learning (UDL). As education is shifting towards an adoption of the UDL framework, primarily conceptualized to support students with disabilities, the tenets of UDL can similarly provide the administrative backing to conceptualize LGBTQ support as a form of providing more authentically representative content and making meaningful connections with LGBTQ students in order to increase academic engagement. Perhaps a wider adoption of UDL that includes a truly "universal" design for learning can provide the necessary reasoning for teachers to incorporate LGBTQ-related topics. As teachers have mentioned the fear of backlash from communities and families, the presence of inclusive policies may considerably make teachers feel comfortable as they have reasons for including LGBTQ-related SHE topics and can refer to the inclusive policies in situations of backlash from the community or families.

Third, educators were inconsistent in showing support to their LGBTQ students through their actions (i.e., in victimization situations) and the lack of LGBTQ-inclusive curriculum. By being hesitant and uncomfortable to teach LGBTQ issues or confront LGBTQ-based victimization in schools, a norm of LGBTQ silence can permeate in the school environment,

decreasing the sense of safety for LGBTQ (and CH) students. Findings from both Study 1 and Study 2 mention the need for educators to be comfortable to respond to homo/transphobic victimization in their school spaces and adopt positive attitude and beliefs to teach SHE topics in their classroom. As Study 2 has shown, providing more opportunities to acquire SHE knowledge and SHE teaching experience is necessary. Though there is variability in effectiveness of PD workshops, a further investigation is warranted to explore how best to provide more opportunities for SHE knowledge acquisition and SHE teaching experience in their classrooms.

One possibility can be through a reformation in the B.Ed. programs in Québec universities. A curriculum analysis conducted in 2017 across all B.Ed. programs in English Québec universities found that there were no required courses that teach SHE topics across all teachable subjects (Leung et al., 2022). Though PSTs may select electives that relate to SHE topics, this lends to variability in their openness and competence to teach a recently mandated *Sexuality Education* curriculum. For PSTs undergoing their B.Ed. programs (or other teacher certification programs) in Québec and plan to teach in Québec schools, it would make the most sense for the programs to be adjusted to include required classes that revolve around the SHE topics present in the *Sexuality Education* curriculum, particularly the LGBTQ-related SHE topics. In doing so, teachers will have more SHE knowledge acquisition and more opportunities to teach SHE and understand how to incorporate SHE pedagogy into their own curriculum. This can then promote the adoption of more positive attitudes towards SHE and believe that the SHE topics are important. Consequently, teachers (PSTs and ISTs) can be more open and comfortable, and competent to teach LGBTQ-related SHE topics, benefitting LGBTQ students' sense of safety and engagement in school.

Conclusion and Summary

LGBTQ students are known to experience disproportionate rates of LGBTQ-related victimization and experience negative socioemotional, behavioural, and educational outcomes in school. However, recent research has shifted towards a positive or problem-solving approach to explore how best to support LGBTQ students in schools. Rather than simply claiming that LGBTQ students are labelled "at-risk" and are associated with many issues because of their LGBTQ identity, research is shifting towards an understanding that the risks are not associated with the identity label but how society views and treats individuals who identify as LGBTQ. Therefore, rather than replicating findings that show LGBTQ students at risk for various consequences, LGBTQ educational research needs to shift towards exploring and problem-solving the systemic changes that can be made across each of the social support systems to better support LGBTQ students. This program of research builds on the emerging field focused on exploring the present social support systems to better support LGBTQ students. Specifically, findings from this program of research provide insight into factors that either enhance or minimize LGBTQ students' socioemotional, behavioural, and educational outcomes. In addition, this research examines the newly implemented Québec *Sexuality Education* through teachers' perspectives.

This program of research informs the research and school community on the available social support systems for LGBTQ students and the barriers that influence the efficacy of the systems on LGBTQ student outcomes. The implementation of LGBTQ-inclusive curricula was highlighted as a social support system that can foster authentic connections, increase academic engagement, and increase sense of safety for LGBTQ students. Following an analysis of teachers' attitudes and beliefs towards Québec's *Sexuality Education*, particularly the nine

LGBTQ-related SHE topics, this research provides a better understanding of the potential role of prior SHE knowledge, SHE teaching experience, teacher attitudes, and teacher perceived importance on their openness and comfort, and competence to effectively teach the LGBTQ-related SHE topics in their classroom. Results from this research also allows policymakers to explore ways in which teacher support can be provided, either through PD workshops or a change in B.Ed. programs, to increase their openness and competence to effectively teach LGBTQ-related SHE topics in their classroom. In doing so, teachers who have the knowledge and are motivated to teach LGBTQ-related SHE topics can effectively translate the knowledge and skills necessary to benefit (LGBTQ and CH) students to feel increasingly safe in their classroom and connected with their classroom material and school.

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APPENDIX A

Ethics Approval (Study 2)

⊕ McGill

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Montreal, QC H3A 0G4

Research Ethics Board 2
Certificate of Ethical Acceptability of Research Involving Humans

REB File #: 20-08-028

Project Title: Comparison of attitudes and beliefs towards sexual education among pre-service and in-service educators in Québec

Principal Investigator: Enoch Leung

Department: Educational and Counselling Psychology

Status: Ph.D. Student

Supervisor: Professor Tara Flanagan

Approval Period: <u>September 23, 2020 – September 22, 2021</u>

The REB 2 reviewed and approved this project by delegated review in accordance with the requirements of the McGill University Policy on the Ethical Conduct of Research Involving Human Participants and the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans.

Georgia Kalavritinos
Ethics Review Administrator

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* Approval is granted only for the research and purposes described.
* Modifications to the approved research must be reviewed and approved by the REB before they can be implemented.
* A Request for Renewal form must be submitted before the above expiry date. Research cannot be conducted without a current ethics approval. Submit 2-3 weeks ahead of the expiry date.
* When a project has been completed or terminated, a Study Closure form must be submitted.
* Unanticipated issues that may increase the risk level to participants or that may have other ethical implications must be promptly reported to the REB. Serious adverse events experienced by a participant in conjunction with the research must be reported to the REB without delay.
* The REB must be promptly notified of any new information that may affect the welfare or consent of participants.
* The REB must be notified of any suspension or cancellation imposed by a funding agency or regulatory body that is related to this study.
* The REB must be notified of any findings that may have ethical implications or may affect the decision of the REB.

APPENDIX B

Application to English Montreal School Board (Study 2)

Commission scolaire English-Montréal
English Montreal School Board

APPLICATION TO CONDUCT RESEARCH IN SCHOOLS

1. Title of Proposed Research:

    Comparison of attitudes and beliefs toward sexual education among pre-service and in-service educators in Québec

2. Applicant's Name: Enoch Leung

    Address: ███████████████████████████████

    Telephone: Home: █████████ Office: ████████

    Institution: McGill University

    Position Held: PhD Candidate in Department of Educational and Counseling Psychology

3. Research to commence on Term 2 (January/February 2021)

    and to be completed on: Term 1 (December 2021/January 2022)

    Date of Completion of Research report: Term 2/3 (March/April 2022)

4. a) Description of the Problem to be investigated:

    As of September 2018, all Quebec elementary and high school students will receive mandatory sex education as part of their regular classes that will focus on age-appropriate information concerning sexuality, anatomy, body image, healthy relationships, and gender identity (Éducation et Enseignement Supérieur, 2017; Jetté, & Ouimet, 2017). However, many Canadian teachers are not adequately prepared; the curricula of most Bachelor of Education programs for elementary or secondary education do not include required or elective sexual health education courses (McKay & Barrett, 1999; Rigby, 2017). Effective sexual health education should enable students to explore the attitudes, feelings, and values that may influence their choices regarding sexual health (Weaver, Smith, & Kippax, 2005). Research has determined that students who received higher quality sex education possess greater sexual knowledge (Byers et al., 2003; Byers, Hamilton, & Fisher, 2017) and can influence the effectiveness of students' knowledge, attitudes, and behaviors (Fegan, 2011). On this basis, it is imperative to understand the extent to which pre-service teachers feel prepared to deliver sexual health education.
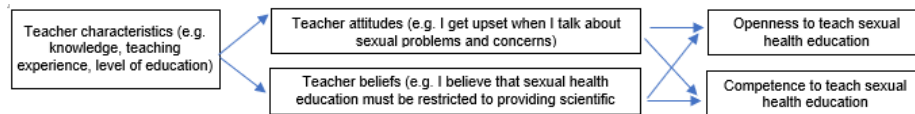
    b) Can you and are you willing to conduct your research via video teleconferencing if it is the only option?

    Yes – as it is an online questionnaire, this research can be done through online means.

5. Objectives of the Research (including relevance of the study)

    Currently, we know little about the extent to which pre-service and in-service teachers feel comfortable and confident in their ability to teach (mandatory) sexual health education. This gap in knowledge may have implications on students' sexual knowledge in light that research has consistently indicated positive links between teachers' perceived confidence and student achievement (Zee & Koomen, 2016). Accordingly, this study aims to address this important gap by drawing from the information-motivation-behavioral skills (IMB) model. The IMB model revolves around promoting positive sexual knowledge and attitudes in students and aims to help students become better informed (information), become motivated (motivation) to apply their knowledge and understanding, and acquire (behavioral) behavioral skills to foster an inclusive perspective of sexual knowledge and attitudes (Public Health Agency of Canada, 2003). This model has been adopted in health care situations to promote positive sexual health through comprehensive sexual knowledge. On the other hand, the rationale for implicating this model with teachers aims to understand the promotion of positive sexual knowledge through them being better informed and motivated to translate such information to their students. Previous research has shown that teachers who believed in their content knowledge and understanding highlighted positive links with student academic achievement (Zee & Koomen, 2016). Based on components of this model, the relationships between teacher-level factors and their resulting openness and competence to teach sexual health education must be understood to ensure effective sexual health dissemination for their students.

    The overarching goal of this project is to evaluate the following model:

Specifically, the _objective_ of the present study is to explore how variations among teachers (attitudes, beliefs, and characteristics) facilitate or hinder their openness and perceived competence to teach sexual health education. The proposed project explores three _research questions_: 1) Are there significant relationships between pre-service and in-service teachers' attitudes, beliefs, and characteristics?; (2) Do differences in attitudes, beliefs, and characteristics contribute to their willingness and perceived competence to teach sexual health education; (3) Is there an association between teacher characteristics and their attitudes and beliefs about sexual health education?

Results from this study will allow us to learn more from in-service teachers' perspectives towards sexual health education. With this information, results will be used to provide insight for educational stakeholders (e.g. principals, administration, teachers) to understand what needs to be changed to provide the necessary support for their teachers to teach sexual health education in the recently reformed, Québec's comprehensive sexual health education curriculum.

Specifically, the results can inform teachers and other stakeholders involved in the development and implementation of teacher education by determining which specific teacher characteristics, attitudes, and beliefs may be more effective to promote teachers' openness and feelings of competence to teach Québec's mandatory comprehensive sexual education.

The purpose of the project is to provide the schools an aggregated report to inform principals their teachers' attitudes, beliefs, competence, knowledge, and openness to teach the mandatory comprehensive sexual health education in their classes. By doing so, principals can have a better understanding of how to better support their teachers in incorporating the mandated comprehensive sexual health education into their classes.

By validating the relationship between teacher-level factors and their openness and ability to teach sexual health education, this project responds to the necessity to both recognize the importance of sexual health education for students and to consider the teachers transmitting the information and the factors that relate to effective teaching of sexual health education. Furthermore, exploring the extent to which teachers contribute to the effectiveness of sexual health education teaching, this project extends previous research that has primarily attended to the role of current teachers (e.g. Cohen, Byers, & Sears, 2012) by accounting for any differences among pre-service teachers, a population which has not been significantly studied in terms of sexual health curriculums.

In addition, exploring both pre- and in-service teachers will inform stakeholders whether teacher education programs should be reformed to provide more support in teaching sexual health education.

6. Research Design (briefly describe how the hypothesis will be tested):

The participant population of interest are in-service teachers in Québec. The number of participants we are aiming to reach is 200 teachers as the minimum number of participants necessary for meaningful statistical relationships to emerge (Hoe, 2008). In-service teachers will be recruited from all English school boards in Quebec. Both groups (in-service teachers across English school boards; pre-service teachers at McGill University and Concordia University not discussed in this application form) were chosen to explore differences in teacher characteristics, beliefs, and attitudes across the two populations and inform those involved in the development and implementation of teacher education to determine whether teacher education curriculum changes need to be reformed to provide more support for teachers to be sufficiently prepared to teach sexual health education. Regarding the names of the schools to be contacted, an open search/contact will be done with all schools to determine which schools can provide the time for this study.

Research by Cohen, Byers, and Sears (2012) prompts the following hypotheses:

Exploratory Research Question 1:

As research is scarce on understanding the pre-service teacher population, this study would also have an exploratory purpose of generating associations between pre-service and in-service teachers' attitudes, beliefs, and characteristics.

Hypothesis 1(relates to Research Question 2):
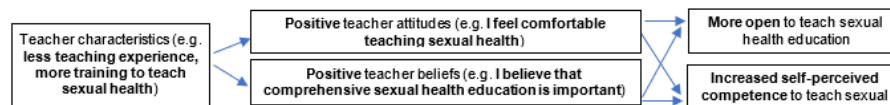
Hypothesis 2 (relates to Research Question 3):
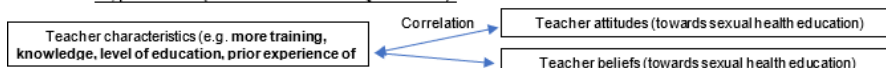
7. Implementation Timetable:

Pending availabilities of schools, either 1) January through June 2021 (Term 2-3) or 2) September through December 2021 (Term 1). This would be flexible and can be later as well pending the pandemic situation.

8. Data Collection Procedures

(a)   Number and type of school(s) required:

   All EMSB schools

(b)   Number of students required:

   0 students. 200 in-service teachers needed

   Grades: N/A

(c)   School Staff involvement:

   The in-service teachers will be asked to participate in an online questionnaire (due to social distancing measures) that asks them of the following set of questions: A) Attitudes, beliefs, competence, knowledge, and openness to specific sexual health topics in sexual health education (SHE) curriculum; B) Teacher attitudes towards sexual health education curriculum; C) Teacher beliefs towards sexual health education curriculum and; D) Teacher characteristics.

(d)   Participation dates:

   Pending availabilities of schools, either 1) January through June 2021 (Term 2-3) or 2) September through December 2021 (Term 1). This would be flexible and can be later as well pending the pandemic situation.

(e)   Time required with students:

   The online questionnaire will take about 30-45 minutes.

(f)   Other:

   Risks and inconveniences:

Given the possibility of the questions being sensitive for in-service teachers who may not feel comfortable discussing attitudes and beliefs towards sexual health education, they may become upset when reading and answering the survey. The principal investigator will provide participants with Mr. Enoch Leung and Dr. Tara Flanagan's contact information should they have questions, comments or concerns, in addition to providing a list of resources for them should they require it. Additionally, please see Appendix 3 for a list of resources for them to gain more information or speak with someone else.

If in-service teachers become really upset, they may stop the questionnaire mid-way (teachers are able to withdraw at any time from this project, up until the survey is submitted. Should teachers wish to withdraw, they can click on the 'X' on the top right of the browser and the data will not be saved). Additionally, teachers can speak with the principal investigator and/or the supervisor should they need to discuss possible sensitive topics. The principal investigator has expertise working with participants who may be upset, anxious, or other forms of distress. Mr. Enoch Leung has in-person expertise working with college students and staff members on mindfulness-based stress reduction, active listening, and other evidence-based strategies to reduce social-emotional difficulties (ie. anxiety).

What measures will ensure participant confidentiality?

The data will be stored in password protected files in a password protected computer that only the primary investigator has access to. Then, once downloaded onto the computer, the data will be transferred to McGill's secure OneDrive where only the primary investigator and the supervisor will have access to. By doing so, this can ensure the security of the data and avoid the use of the "locked memory stick". There will be a high degree of anonymity as names, location or other identifiable information will not be collected. Minimally, the information collected does not seem likely to be identifiable. Aside from their responses to the measures, their demographic information to be collected will be only information regarding their year of study, age, gender, sex, subject-content domain (e.g. social sciences, English Language Arts, Music, science, math), sexual orientation, gender identity, and other teacher characteristics (items 1-3 in the demographics survey assess gender identity and are recommended". No school names will be linked or other identifiable information.

All participants will receive a number code, and only that code will appear in the data files. The online questionnaires will only have said number codes attached to them. The information to be gathered will only be using said number codes. This anonymous data will then be stored in a password protected folder on a password protected laptop that will then be transferred to McGill's secure OneDrive where only the primary investigator and supervisor will have access to. All files related to the project will also be encrypted such that only the supervisor and the principal investigator will have access to the files. There will be no names (or location or other apparent identifiable information) associated with the data files, just the number code.

For financial compensation, teachers will have a link to a second survey at the end of the questionnaire. In the financial compensation survey, they will pick their compensation of choice (Starbucks, Amazon, Indigo e-gift cards) and type their e-mail

they would want the e-gift card to be sent to. The two surveys are set up such that the **link to the compensation survey is separate and not connected to their questionnaire responses** (their e-mails submitted in the compensation survey will NOT be connected to their questionnaire responses), ensuring anonymity and confidentiality of their responses.

8. Budget Details:

    Compensation is provided to in-service teachers for their time:
    $15 gift card of their choice per teacher (e.g. Indigo, Starbucks, Amazon)

10. ███████████

    _____   October 11th 2020
    Research Investigator's Signature   Date

    *   _____   _____
        Signature of Principal/Staff Council   Date
        Chairperson

    *   _____   _____
        Signature of Regional Director or   Date
        Director of Services

        ███████████

                                            October 11th 2020
    ** Faculty Signature   Date

    *   For research proposals originating in an EMSB school or department.

APPENDIX C

Research Project Approval Letter From English Montreal School Board (Study 2)

Enoch Leung

From:	Mancini, Gina G. <gmancini@emsb.qc.ca>
Sent:	January 19, 2021 9:25 AM
To:	Enoch Leung
Cc:	

Subject: RE: Research Proposal - Comparison of attitudes and beliefs toward sexual education among pre-service and in-service educators in Quebec

Hi Enoch,

This is to confirm that your above mentioned research proposal has now also been approved by our Education Policy Committee
and your project can be implemented in our EMSB schools as described in your application that both our Committees reviewed.

Please let me know when you will be ready to start this project so that I can send an email to the Principals to advise them
that you will be contacting them for this research and ask if they can participate.

At the end of your research, we would appreciate it if a copy of your final report can be sent to (a) Anna Sanalitro, Chairman of the Research Committee,
(b) Anna Villalta and Athina Galanogeorgos, Assistant Directors of Education Services and (c) Jamie Quinn and Anne-Marie De Silva,
Sex Education Consultants who would all benefit by sharing this information and who are in a position that they too can provide additional support to the educators
that teach this course.

I would like to take this opportunity to wish you much success in this endeavor.

Gina Mancini, B.B.A., B.Ed.
Secrétaire exécutif, Comité de recherche des services éducatifs
Executive Secretary, Research Committee for Education Services

Tel.: 514-483-7200 poste / ext. 7359
F: 514-483-7246
gmancini@emsb.qc.ca

APPENDIX D

Application to Sir Wilfrid Laurier School Board (Study 2)

**COMMISSION SCOLAIRE SIR-WILFRID-LAURIER
SIR WILFRID LAURIER SCHOOL BOARD**

RESEARCH PROJECT REQUEST FORM

Thank you for your interest in our School Board, we are always happy to invite innovative and relevant research proposal submissions, provided they are oriented towards our goals of educational success and leadership in our students, teachers, administrators, directors and the greater community.

We ask that you provide sufficient detail about your study (indicated below) and return this form to the Pedagogical Services Department via email at vrayner@swlauriersb.qc.ca . Under the condition that your request is approved, you will be contacted for further procedural information.

Once again, thank you for your interest in SWLSB.

Regards,

Geoffrey Hipps
Director of Pedagogical Services
Sir Wilfrid Laurier School Board
(450 621-5600 ext. 1441
ghipps@swlauriersb.qc.ca

**PLEASE COMPLETE THE FOLLOWING INFORMATION AND PROVIDE ANY
ADDITIONAL DOCUMENTS (E.G., SAMPLES OF MEASURES, CONSENT FORMS).**

INFORMATION ABOUT THE RESEARCHERS

Title of the proposed research:
Comparison of attitudes and beliefs toward sexual education among pre-service and in-service
educators in Québec

Researcher(s):
Enoch Leung, M.Ed.
Tara Flanagan, Ph.D.

Affiliations (Department/University):
Department of Educational and Counseling Psychology, McGill University

Correspondence to (please include email and phone number):
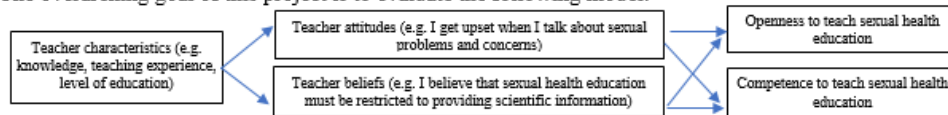Enoch Leung, enoch.leung@mail.mcgill.ca, (514)557-2459

RATIONALE

What are the objectives/goals of the study?

As of September 2018, all Quebec elementary and high school students will receive
mandatory sex education as part of their regular classes that will focus on age-appropriate
information concerning sexuality, anatomy, body image, healthy relationships, and gender
identity (Éducation et Enseignement Supérieur, 2017; Jetté, & Ouimet, 2017). However, many
Canadian teachers are not adequately prepared; the curricula of most Bachelor of Education
programs for elementary or secondary education do not include required or elective sexual health
education courses (McKay & Barrett, 1999; Rigby, 2017). Effective sexual health education
should enable students to explore the attitudes, feelings, and values that may influence their
choices regarding sexual health (Weaver, Smith, & Kippax, 2005). Research has determined that
students who received higher quality sex education possess greater sexual knowledge (Byers et
al., 2003; Byers, Hamilton, & Fisher, 2017) and can influence the effectiveness of students'
knowledge, attitudes, and behaviors (Fegan, 2011). On this basis, it is imperative to understand
the extent to which pre-service teachers feel prepared to deliver sexual health education.

Currently, we know little about the extent to which pre-service and in-service teachers
feel comfortable and confident in their ability to teach (mandatory) sexual health education. This
gap in knowledge may have implications on students' sexual knowledge in light that research has
consistently indicated positive links between teachers' perceived confidence and student
achievement (Zee & Koomen, 2016). Accordingly, this study aims to address this important gap
by drawing from the information-motivation-behavioral skills (IMB) model. The IMB model
revolves around promoting positive sexual knowledge and attitudes in students and aims to help
students become better *informed* (information), become *motivated* (motivation) to apply their
knowledge and understanding, and *acquire* (behavioral) behavioral skills to foster an inclusive

perspective of sexual knowledge and attitudes (Public Health Agency of Canada, 2003). This model has been adopted in health care situations to promote positive sexual health through comprehensive sexual knowledge. On the other hand, the rationale for implicating this model with teachers aims to understand the promotion of positive sexual knowledge through them being better informed and motivated to translate such information to their students. Previous research has shown that teachers who believed in their content knowledge and understanding highlighted positive links with student academic achievement (Zee & Koomen, 2016). Based on components of this model, the relationships between teacher-level factors and their resulting openness and competence to teach sexual health education must be understood to ensure effective sexual health dissemination for their students.

The overarching goal of this project is to evaluate the following model:


Specifically, the objective of the present study is to explore how variations among teachers (attitudes, beliefs, and characteristics) facilitate or hinder their openness and perceived competence to teach sexual health education. The proposed project explores three research questions: 1) Are there significant relationships between pre-service and in-service teachers' attitudes, beliefs, and characteristics?; (2) Do differences in attitudes, beliefs, and characteristics contribute to their willingness and perceived competence to teach sexual health education; (3) Is there an association between teacher characteristics and their attitudes and beliefs about sexual health education?

Research by Cohen, Byers, and Sears (2012) prompts the following hypotheses:
Exploratory Research Question 1:

As research is scarce on understanding the pre-service teacher population, this study would also have an exploratory purpose of generating associations between pre-service and in-service teachers' attitudes, beliefs, and characteristics.
Hypothesis 1(relates to Research Question 2):
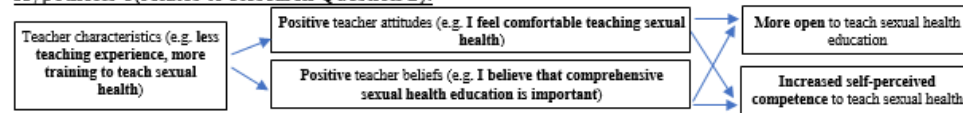
Hypothesis 2 (relates to Research Question 3):

METHODOLOGY

Target population including the names of our schools that will be contacted:

The participant population of interest are in-service teachers in Québec. The number of participants we are aiming to reach is 200 teachers as the minimum number of participants

necessary for meaningful statistical relationships to emerge (Hoe, 2008). In-service teachers will be recruited from all English school boards in Quebec. Both groups (in-service teachers across English school boards; pre-service teachers at McGill University and Concordia University not discussed in this application form) were chosen to explore differences in teacher characteristics, beliefs, and attitudes across the two populations and inform those involved in the development and implementation of teacher education to determine whether teacher education curriculum changes need to be reformed to provide more support for teachers to be sufficiently prepared to teach sexual health education. Regarding the names of the schools to be contacted, an open search/contact will be done with all schools to determine which schools can provide the time for this study.

<u>The role of participants:</u>

The in-service teachers will be asked to participate in an online questionnaire (due to social distancing measures) that asks them of the following set of questions: A) Attitudes, beliefs, competence, knowledge, and openness to specific sexual health topics in sexual health education (SHE) curriculum; B) Teacher attitudes towards sexual health education curriculum; C) Teacher beliefs towards sexual health education curriculum and; D) Teacher characteristics.

<u>Timetable of data collection:</u>

Pending availabilities of schools, either 1) January through June 2021 (Term 2-3) or 2) September through December 2021 (Term 1). This would be flexible and can be later as well pending the pandemic situation.

<u>Measures used for data collection:</u>

This study is a mixed-methods design using both quantitative and qualitative measures in an online questionnaire (to accommodate for social distancing/COVID-19 measures). Prior to starting the study, following receiving approval from the principal (Appendix 4 for the invitation e-mail to principals), the recruitment process will begin (based on the principal's preferred way to recruit in-service teachers such that it is least obtrusive and most efficient for in-service teachers to participate in the study)

The questionnaire consists of the following set of questionnaires adapted for the purpose of this study:
- SECTION A – Attitudes, Beliefs, Competence, Knowledge, and Openness to specific sexual health topics in sexual health education (SHE) curriculum
- SECTION B – Teacher Attitudes towards Sexual Health Education Curriculum
- SECTION C – Teacher Beliefs towards Sexual Health Education Curriculum
- SECTION D – Teacher Characteristics

These measures can be seen in Appendix 2 below for a full list of each items of each measure

Note: The survey will be conducted through online means due to the COVID-19 situation. This will be done through the **Limesurvey platform to ensure **secure and confidential responses.** As the survey will be online through Limesurvey, the consent form will be the first page of the*

survey where they will have to check off to consent and participate in the survey. As such, the principal will not be required to send consent forms to their teachers and simply send the survey link that contains the full questionnaire (consent form, survey items, helpful resources, and link to financial compensation survey)

CONTRIBUTIONS TO EDUCATION

How will this proposed research benefit the SWLSB?

Results from this study will allow us to learn more from in-service teachers' perspectives towards sexual health education. With this information, results will be used to provide insight for educational stakeholders (e.g. principals, administration, teachers) to understand what needs to be changed to provide the necessary support for their teachers to teach sexual health education in the recently reformed, Québec's comprehensive sexual health education curriculum.

Specifically, the results can inform teachers and other stakeholders involved in the development and implementation of teacher education by determining which specific teacher characteristics, attitudes, and beliefs may be more effective to promote teachers' openness and feelings of competence to teach Québec's mandatory comprehensive sexual education.

The purpose of the project is to provide the schools an aggregated report to inform principals their teachers' attitudes, beliefs, competence, knowledge, and openness to teach the mandatory comprehensive sexual health education in their classes. By doing so, principals can have a better understanding of how to better support their teachers in incorporating the mandated comprehensive sexual health education into their classes.

How will your results impact teaching and learning?

By validating the relationship between teacher-level factors and their openness and ability to teach sexual health education, this project responds to the necessity to both recognize the importance of sexual health education for students and to consider the teachers transmitting the information and the factors that relate to effective teaching of sexual health education. Furthermore, exploring the extent to which teachers contribute to the effectiveness of sexual health education teaching, this project extends previous research that has primarily attended to the role of current teachers (e.g. Cohen, Byers, & Sears, 2012) by accounting for any differences among pre-service teachers, a population which has not been significantly studied in terms of sexual health curriculums.

In addition, exploring both pre- and in-service teachers will inform stakeholders whether teacher education programs should be reformed to provide more support in teaching sexual health education.

ADDITIONAL PERTINENT INFORMATION

Ethics Certificate (All research project requests must include a copy of the Ethics Approval certificate from the University with which you are affiliated):

Attached onto e-mail as PDF

Research report (It is expected that a written report will be submitted to the Sir Wilfrid Laurier School Board upon completion of the research project):

Results from this project will be provided to the Sir Wilfrid Laurier school board and will be accessible to all schools involved.

Risks and inconveniences:

Given the possibility of the questions being sensitive for in-service teachers who may not feel comfortable discussing attitudes and beliefs towards sexual health education, they may become upset when reading and answering the survey. The principal investigator will provide participants with Mr. Enoch Leung and Dr. Tara Flanagan's contact information should they have questions, comments or concerns, in addition to providing a list of resources for them should they require it. Additionally, please see Appendix 3 for a list of resources for them to gain more information or speak with someone else.

If in-service teachers become really upset, they may stop the questionnaire mid-way (teachers are able to withdraw at any time from this project, up until the survey is submitted. Should teachers wish to withdraw, they can click on the 'X' on the top right of the browser and the data will not be saved). Additionally, teachers can speak with the principal investigator and/or the supervisor should they need to discuss possible sensitive topics. The principal investigator has expertise working with participants who may be upset, anxious, or other forms of distress. Mr. Enoch Leung has in-person expertise working with college students and staff members on mindfulness-based stress reduction, active listening, and other evidence-based strategies to reduce social-emotional difficulties (ie. anxiety).

What measures will ensure participant confidentiality? (Any violations of participant confidentiality will result in immediate dismissal by SWLSB):

The data will be stored in password protected files in a password protected computer that only the primary investigator has access to. Then, once downloaded onto the computer, the data will be transferred to McGill's secure OneDrive where only the primary investigator and the supervisor will have access to. By doing so, this can ensure the security of the data and avoid the use of the "locked memory stick". There will be a high degree of anonymity as names, location or other identifiable information will not be collected. Minimally, the information collected does not seem likely to be identifiable. Aside from their responses to the measures, their demographic information to be collected will be only information regarding their year of study, age, gender, sex, subject-content domain (e.g. social sciences, English Language Arts, Music, science, math), sexual orientation, gender identity, and other teacher characteristics (items 1-3 in the demographics survey assess gender identity and are recommended". No school names will be linked or other identifiable information.

All participants will receive a number code, and only that code will appear in the data files. The online questionnaires will only have said number codes attached to them. The information to be gathered will only be using said number codes. This anonymous data will then be stored in a password protected folder on a password protected laptop that will then be transferred to McGill's secure OneDrive where only the primary investigator and supervisor will have access to. All files related to the project will also be encrypted such that only the supervisor and the principal investigator will have access to the files. There will be no names (or location or other apparent identifiable information) associated with the data files, just the number code.

For financial compensation, teachers will have a link to a second survey at the end of the questionnaire. In the financial compensation survey, they will pick their compensation of choice (Starbucks, Amazon, Indigo e-gift cards) and type their e-mail they would want the e-gift card to be sent to. The two surveys are set up such that the **link to the compensation survey is separate and not connected to their questionnaire responses** (their e-mails submitted in the compensation survey will NOT be connected to their questionnaire responses), ensuring anonymity and confidentiality of their responses.

Will participants receive monetary compensation?

Yes

Please indicate amount if applicable: $15 as an option to pick from (e.g. Starbucks, Amazon, Indigo)

Additionally, you can find below the following documents:
Appendix 1: Consent Form for In-Service Teachers
Appendix 2: Survey
Appendix 3: Helpful Resources (In-service Teachers)
Appendix 4: Invitation message to principals (In-Service Teachers)

APPENDIX E

Research Project Approval Letter From Sir Wilfrid Laurier School Board (Study 2)

COMMISSION SCOLAIRE SIR-WILFRID-LAURIER
SIR WILFRID LAURIER SCHOOL BOARD

November 23, 2020

Dear Enoch Leung,

Your research project request entitled *Comparison of attitudes and beliefs toward sexual education among pre-service and in-service educators in Québec* has been reviewed.

We are pleased to inform you that your project has been accepted.

We would appreciate it if you could communicate with the School Board once you have confirmed the name and location where your research will be conducted.

*Please note: It is the responsibility of the researcher(s) to contact the school(s) or center(s) directly to proceed with the research process. The principal must approve the project and the school's participation in order for the researcher to proceed. The principal reserves the right to decline the schools participation.

A report must be submitted to the Director of Pedagogical Services if the project is to be ongoing for more than one year. Upon completion of the project, a one-two page executive summary containing a brief description of the project, findings and future implications of the research is to be submitted to the Director of Pedagogical Services.

Regards,

Geoffrey Hipps
Director of Pedagogical Services
Sir Wilfrid Laurier School Board
(450) 621-5600 ext. 1441

APPENDIX F

Research Project Approval Letter From Riverside School Board (Study 2)

Commission scolaire **Riverside**
Riverside School Board

Réussir dans les deux langues!
Success in both languages!

February 24, 2021

Enoch Leung, M. Ed.
PhD. Candidate in Human Development
Department of Educational and Counseling Psychology
McGill University

enoch.leung@mail.mcgill.ca

Subject: Research Project

Dear Mr. Leung,

On behalf of the Research Committee, I would like to inform you that the research request for your project: *"Comparison of attitudes and beliefs towards sexual education among pre-service and in-service educators in Québec"* has been accepted for the 2020-2021 school year.

Please note that individual involvement is up to the discretion of the schools pending their Governing Board's approval of the project.

If you need of any further assistance, please do not hesitate to contact me.

Sincerely,

Jessica Saada
Director of Educational Services
on behalf of the Research Committee

/lp

cc.   Elementary Principals
        Secondary
        Research Committee

APPENDIX G

Advertisements for Pre-Service Teachers (Study 2)

Department of Educational and Counseling Psychology

McGill University

PARTICIPANTS NEEDED FOR

RESEARCH IN ATTITUDES AND BELIEFS TOWARDS SEXUAL HEALTH EDUCATION

We are looking for volunteers, who are **Bachelor of Education (B.Ed.) students** and **students who are completing a Bachelor degree that fulfills MELS requirements** (e.g. Bachelor of Arts (BA) in Early Childhood and Elementary Education), to take part in a study exploring **pre-service teachers' knowledge, attitudes, beliefs, and competence towards teaching sexual health education.**

As a participant in this study, you would be asked to:

Fill an anonymous, and confidential questionnaire, which takes approximately **30-45** minutes.

In appreciation for your time, you will be compensated **$15 (in gift card choice of: Amazon, Indigo, Starbucks)** for your time.

To volunteer for this study,
please go to this link to participate in the study
https://surveys.mcgill.ca/ls3/493667?lang=en

For more information about this study,
please contact:
Enoch Leung, PhD Candidate
Department of Educational and Counseling Psychology
at
(514)557-2459
Email: **enoch.leung@mail.mcgill.ca**

Dr. Tara Flanagan, Supervisor
Department of Educational and Counseling Psychology
at
Email: **taradawn.flanagan@mcgill.ca**

Are you preparing to be a teacher?
We would like to hear about your thoughts towards
Québec's sexual health education curriculum!

McGill | Faculty of Education | Department of Educational and Counselling Psychology

We are looking for participants to take part in a FULLY ONLINE study on your attitudes and beliefs toward SEXUAL HEALTH EDUCATION

Requirements:
All **Bachelor of Education (B.Ed.) students** and **students who are completing a Bachelor degree that fulfills MELS requirements** (e.g. B.A. in Early Childhoods Education) are eligible

Task:
You will be asked to fill out an ANONYMOUS, CONFIDENTIAL ONLINE questionnaire

Compensation:
$15 gift card (Amazon, Starbucks, Indigo)!

IF YOU ARE INTERESTED, PLEASE GO TO THIS LINK:
https://surveys.mcgill.ca/ls3/493667?lang=en

If you have any questions, please contact
Primary Investigator:
Enoch Leung, PhD Candidate
Department of Educational and Counseling Psychology
(514)557-2459
enoch.leung@mail.mcgill.ca
Supervisors:
Dr. Tara Flanagan

SCAN THE QR CODE TO START THE SURVEY!

APPENDIX H

Advertisement for In-Service Teachers (Study 2)

Department of Educational and Counseling Psychology

McGill University

PARTICIPANTS NEEDED FOR

RESEARCH IN ATTITUDES AND BELIEFS TOWARDS SEXUAL HEALTH EDUCATION

We are looking for volunteers, who are **in-service teachers**, to take part in a study exploring **in-service teachers' knowledge, attitudes, beliefs, and competence towards teaching sexual health education.**

As a participant in this study, you would be asked to:
Fill an anonymous, and confidential questionnaire, which takes approximately **30-45** minutes.

In appreciation for your time, you will be compensated **$15 (in gift card choice of: Amazon, Indigo, Starbucks)** for your time.

To volunteer for this study,
please go to this link to participate in the study
https://surveys.mcgill.ca/ls3/456998?lang=en

For more information about this study,
please contact:
Enoch Leung, PhD Candidate
Department of Educational and Counseling Psychology
at
(514)557-2459
Email: **enoch.leung@mail.mcgill.ca**

Dr. Tara Flanagan, Supervisor
Department of Educational and Counseling Psychology
at
Email: **taradawn.flanagan@mcgill.ca**

Are you a teacher in Québec?
We would like to hear about your thoughts towards Québec's sexual health education curriculum!

McGill | Faculty of Education | Department of Educational and Counselling Psychology

We are looking for participants to take part in a FULLY ONLINE study on your attitudes and beliefs toward SEXUAL HEALTH EDUCATION

Requirements:
All **in-service teachers** are eligible

Task:
You will be asked to fill out an ANONYMOUS, CONFIDENTIAL ONLINE questionnaire

Compensation:
$15 gift card (Amazon, Starbucks, Indigo)!

IF YOU ARE INTERESTED, PLEASE GO TO THIS LINK:
https://surveys.mcgill.ca/ls3/456998?lang=en
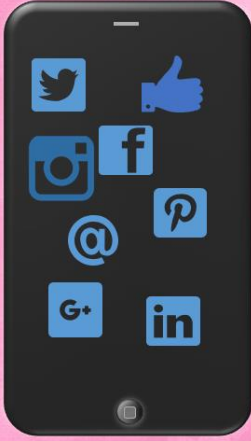
If you have any questions, please contact
Primary Investigator:
Enoch Leung, PhD Candidate
Department of Educational and Counseling Psychology
(514)557-2459
enoch.leung@mail.mcgill.ca
Supervisors:
Dr. Tara Flanagan

SCAN THE QR CODE TO START THE SURVEY!

APPENDIX I

Consent Form for Pre-Service Teachers (Study 2)

![McGill logo]

Faculty of Education	Faculté des sciences de l'éducation
Fax/Télécopie	
McGill University	Université McGill
(514) 398- 6968	
3700 McTavish Street	3700, rue McTavish
Montreal, QC, Canada H3A1Y2	Montreal, QC, Canada H3A 1Y2

Researchers:

Enoch Leung, PhD Candidate, McGill University, Department of Educational and Counselling Psychology, (514)557-2459, *enoch.leung@mail.mcgill.ca*

Supervisor:

Tara Flanagan, Department of Educational and Counselling Psychology, (514)398-3441, *taradawn.flanagan@mcgill.ca*

Title of Project:

Comparison of attitudes and beliefs towards sexual education among pre-service and in-service educators in Québec

Purpose of the Study:
This is an invitation for you to participate in a research study regarding your attitudes and beliefs towards sexual education. The purpose of this study is to respond to the necessity to both recognize the importance of sexual health education for students and to consider the teachers transmitting the information and the factors that relate to effective teaching of sexual health education. This project will inform teachers and other educational stakeholders involved in the development and implementation of teacher education by determining which specific teacher characteristics, attitudes, and beliefs may be more effective in promoting teachers' openness and feelings of competence towards teaching sexual health education. By exploring both pre-service and in-service teachers' attitudes, beliefs, and feelings of competence towards teaching sexual health education, this study will inform and provide helpful feedback to stakeholders whether teacher education programs require a reform to provide more support in sexual health education.

Study Procedures*:*
This study involves **an anonymous** questionnaire containing items on teacher knowledge, attitudes, beliefs towards sexual health education, items on teacher's self-perceived competence

and openness to teach sexual health education, and items on general teacher characteristics. The questionnaire will take approximately 20-30 minutes and should be completed in one setting. The entire study will take place online, at the most convenient time and space for B. Ed. Students across Montreal (McGill University and Concordia University).

Voluntary Participation*:*
Participation is voluntary and you do not have to answer any questions you do not want and you can stop and withdraw at any time (both before and after consenting to participate). If you decide to withdraw, your information will be destroyed unless you give permission otherwise. You can contact us during or after the study with any questions or concerns. Your participation will not have an effect on your grades. All information you provide will remain confidential and only a general report summarizing our findings will be given if requested.

Potential Risks:
The questions will include items on sexual health education, to which some participants may find sensitive and uncomfortable to respond to, and find emotionally upsetting. As such, we have included a list of helpful resources below that you can contact in order to speak with a trained professional. You can also contact the principal investigator or their supervisor for any concerns. **You are able to withdraw at any time from this project, up until the survey is submitted. Should you wish to withdraw, you can click on the 'X' on the top right of the browser and the data will not be saved.**

Potential Benefits:
Results from this will allow us to learn more from pre-service teachers' perspectives towards sexual health education. With this information, although there are no direct, individual benefits to you, these results will be used to provide insight for both researchers and policymakers what needs to be changed to provide the necessary support for teachers to teach sexual health education in the recently reformed, Quebec's comprehensive sexual health education curriculum.

Compensation:
All pre-service teachers who participate in the study are given a compensation of $15 for their time. You will have the option to pick from the three compensation options (Starbucks, Amazon or Indigo). The link to the compensation survey is **separate and not connected to your survey responses**.

Confidentiality:
Please be advised that the information collected in this study will be held in the strictest confidence and will only be used for research purposes. The **anonymous survey responses** will all be stored in a password protected file on a password protected computer that will then be transferred to McGill's secure OneDrive where only the primary investigator and supervisor will have access to. The survey will not ask for any names, and only a number code will be attached to the survey responses. The type of information that we will be collecting is your attitudes, beliefs, and feelings towards sexual health education, with the recent Quebec's reformed, comprehensive sexual health education curriculum. Results for this project will be accessible to all schools involved as well as

the academic community. Results will be written and submitted to scholarly conferences and appropriate journals After seven years, the data will then be destroyed.

For any questions, concerns and clarifications, please contact Mr. Enoch Leung and his supervisor, Dr. Tara Flanagan. Their contact information is on the first page.

"If you have any ethical concerns or complaints about your participation in this study, and want to speak with someone not on the research team, please contact the McGill Ethics Manager at 514-398-6831 or lynda.mcneil@mcgill.ca".

Please click AGREE below if you have read the above information and consent to participate in this study. Agreeing to participate in this study does not waive any of your rights or release the researchers from their responsibilities.

Please save/print a copy of this consent form (HYPERLINK to link to a copy of the consent form to print/save) for your personal reference.

☐   CHECK THE BOX IF YOU AGREE TO PARTICIPATE.

APPENDIX J

Consent Form for In-Service Teachers (Study 2)

McGill

Faculty of Education   Faculté des sciences de l'éducation
Fax/Télécopie
McGill University   Université McGill
(514) 398- 6968
3700 McTavish Street   3700, rue McTavish
Montreal, QC, Canada H3A1Y2   Montreal, QC, Canada H3A 1Y2

Researchers:

Enoch Leung, PhD Candidate, McGill University, Department of Educational and Counselling Psychology, (514)557-2459, *enoch.leung@mail.mcgill.ca*

Supervisor:

Tara Flanagan, Department of Educational and Counselling Psychology, (514)398-3441, *taradawn.flanagan@mcgill.ca*

Title of Project:

Comparison of attitudes and beliefs towards sexual education among pre-service and in-service educators in Québec

Sponsor(s):

Purpose of the Study:
This is an invitation for you to participate in a research study regarding your attitudes and beliefs towards sexual education. The purpose of this study is to respond to the necessity to both recognize the importance of sexual health education for students and to consider the teachers transmitting the information and the factors that relate to effective teaching of sexual health education. This project will inform teachers and other educational stakeholders involved in the development and implementation of teacher education by determining which specific teacher characteristics, attitudes, and beliefs may be more effective in promoting teachers' openness and feelings of competence towards teaching sexual health education. By exploring both pre-service and in-service teachers' attitudes, beliefs, and feelings of competence towards teaching sexual health education, this study will inform and provide helpful feedback to stakeholders whether teacher education programs require a reform to provide more support in sexual health education.

Study Procedures*:*
This study involves **an anonymous** questionnaire containing items on teacher knowledge, attitudes, beliefs towards sexual health education, items on teacher's self-perceived competence and openness to teach sexual health education, and items on general teacher characteristics. The questionnaire will take approximately 20-30 minutes and should be completed in one setting.

The entire study will take place online at the most convenient time as pre-determined by the principal or head of school, following their procedures to minimize disruption.

Voluntary Participation*:*
Participation is voluntary and you do not have to answer any questions you do not want and you can stop and withdraw at any time (both before and after consenting to participate). If you decide to withdraw, your information will be destroyed unless you give permission otherwise. You can contact us during or after the study with any questions or concerns. Your participation will not have an effect on your occupation. All information you provide will remain confidential and only a general report summarizing our findings will be given to the school.

Potential Risks:
The questions will include items on sexual health education, to which some participants may find sensitive and uncomfortable to respond to, and find emotionally upsetting. As such, we have included a list of helpful resources below that you can contact in order to speak with a trained professional. You can also contact the principal investigator or their supervisor for any concerns. **You are able to withdraw at any time from this project, up until the survey is submitted. Should you wish to withdraw, you can click on the 'X' on the top right of the browser and the data will not be saved.**

Potential Benefits:

Results from this will allow us to learn more from in-service teachers' perspectives towards sexual health education. With this information, although there are no direct, individual benefits to you, these results will be used to provide insight for both researchers and policymakers what needs to be changed to provide the necessary support for teachers to teach sexual health education in the recently reformed, Quebec's comprehensive sexual health education curriculum.

Compensation:

All in-service teachers who participate in the study are given a compensation of $15 for their time. You will have the option to pick from the three compensation options (Starbucks, Amazon or Indigo). The link to the compensation survey is **separate and not connected to your survey responses**.

Confidentiality:
Please be advised that the information collected in this study will be held in the strictest confidence. The **anonymous survey responses** will all be stored in a password protected file on a password protected computer that will then be transferred to McGill's secure OneDrive where only the primary investigator and supervisor will have access to. The survey will not ask for any names, and only a number code will be attached to the survey responses. The type of information that we will be collecting is your attitudes, beliefs, and feelings towards sexual health education, with the recent Quebec's reformed, comprehensive sexual health education curriculum. Results for this project will be accessible to all schools involved as well as the academic community. Results will be written and submitted to scholarly conferences and appropriate journals and general reports from the data obtained from all the schools (with non-identifiable information) will be created and

disseminated to participating schools (for in-service teachers). After seven years, the data will then be destroyed.

For any questions, concerns and clarifications, please contact Mr. Enoch Leung and his supervisor, Dr. Tara Flanagan. Their contact information is on the first page.

"If you have any ethical concerns or complaints about your participation in this study, and want to speak with someone not on the research team, please contact the McGill Ethics Manager at 514-398-6831 or lynda.mcneil@mcgill.ca".

Please click AGREE below if you have read the above information and consent to participate in this study. Agreeing to participate in this study does not waive any of your rights or release the researchers from their responsibilities.

Please save/print a copy of this consent form (HYPERLINK to link to a copy of the consent form to print/save) for your personal reference.

☐ CHECK THE BOX IF YOU AGREE TO PARTICIPATE.

APPENDIX K

Invitation Message to Principals for In-Service Teachers (Study 2)

McGill

Faculty of Education	Faculté des sciences de l'éducation	Fax/Télécopie
McGill University	Université McGill	(514) 398- 6968
3700 McTavish Street	3700, rue McTavish	
Montreal, QC, Canada H3A1Y2	Montréal, QC, Canada H3A 1Y2	

Dear _____,

This letter is being sent to you on behalf of Enoch Leung and Dr. Tara Flanagan at McGill University. We are currently conducting a study exploring the extent to which pre-service and in-service teachers feel comfortable and confident in their ability to teach (mandatory) sexual health education. The purpose of this study is to respond to the necessity to both recognize the importance of sexual health education for students and to consider the teachers transmitting the information and the factors that relate to effective teaching of sexual health education. This project will inform teachers and other educational stakeholders involved in the development and implementation of teacher education by determining which specific teacher characteristics, attitudes, and beliefs may be more effective to promote teachers' openness and feelings of competence towards teaching sexual health education. By exploring both pre-service and in-service teachers' attitudes, beliefs, and feelings of competence towards teaching sexual health education, this study will inform and provide helpful feedback to stakeholders whether teacher education programs require a reform to provide more support in sexual health education. Specifically, we are currently recruiting in-service teachers in Montreal to fill out an online questionnaire on sexual health education.

This study involves a questionnaire containing items on teacher knowledge, attitudes, beliefs towards sexual health education, items on teacher's self-perceived competence and openness to teach sexual health education, and items on general teacher characteristics. The questionnaire will take approximately 30 minutes. The entire study will take place online at the most convenient time as pre-determined by you, the principal or head of school, following your procedures to minimize disruption at your school.

Please be advised that the information collected in this study will be held in the strictest confidence and will only be used for research purposes. All disseminated results to scholarly journals and conferences will remain confidential with no identifying information.

Results for this project will be shown to educators, practitioners, relevant stakeholders, and to the academic community. Results will also be written up and sent to journals. Finally, these results will be used to inform changes needed to support teachers in effectively teaching sexual health education to their students, such that both the teachers feel competent and students gain the needed knowledge and understanding. We would be very thankful if you would participate in this study. If you agree to participate, please sign below.

Thank you for your time and we hope you will consider our project. Please contact us should you have any questions.

Yours,

Enoch Leung	Dr. Tara Flanagan
PhD Candidate	Director, SPARC
McGill University	McGill University

enoch.leung@mail.mcgill.ca   tara.flanagan@mcgill.ca
(514) 557-2459   (514)398-3441

PLEASE RESPOND TO THE E-MAIL IF YOU AGREE AND CONSENT FOR
RESEARCHERS ABOVE TO RECRUIT IN-SERVICE TEACHERS IN YOUR SCHOOL.

If you have any questions, please contact Enoch Leung and Dr. Tara Flanagan.

APPENDIX L

Invitation Message to Course Instructors/Professors for Pre-Service Teachers (Study 2)

McGill

Faculty of Education   Faculté des sciences de l'éducation   Fax/Télécopie
McGill University   Université McGill   (514) 398- 6968
3700 McTavish Street   3700, rue McTavish
Montreal, QC, Canada H3A1Y2   Montréal, QC, Canada H3A 1Y2

Dear _____,

This letter is being sent to you on behalf of Enoch Leung and Dr. Tara Flanagan at McGill University. We are currently conducting a study exploring the extent to which pre-service and in-service teachers feel comfortable and confident in their ability to teach (mandatory) sexual health education. The purpose of this study is to respond to the necessity to both recognize the importance of sexual health education for students and to consider the teachers transmitting the information and the factors that relate to effective teaching of sexual health education. This project will inform teachers and other educational stakeholders involved in the development and implementation of teacher education by determining which specific teacher characteristics, attitudes, and beliefs may be more effective to promote teachers' openness and feelings of competence towards teaching sexual health education. By exploring both pre-service and in-service teachers' attitudes, beliefs, and feelings of competence towards teaching sexual health education, this study will inform and provide helpful feedback to stakeholders whether teacher education programs require a reform to provide more support in sexual health education. Specifically, we are currently recruiting pre-service teachers in Montreal to fill out a questionnaire on sexual health education.

This study involves a questionnaire containing items on teacher knowledge, attitudes, beliefs towards sexual health education, items on teacher's self-perceived competence and openness to teach sexual health education, and items on general teacher characteristics. The questionnaire will take approximately 30 minutes. The entire study will take place during your class time at the most convenient time as pre-determined by you, the course instructor, at your discretion, in order to minimize disruptions during your class. Additionally, due to the COVID-19 situation, we can discuss the best approach that can minimize disrupting your class (e.g. sending a summary of the project and the link to the questionnaire to you to disseminate to your students to do in their own time).

Please be advised that the information collected in this study will be held in the strictest confidence and will only be used for research purposes. All disseminated results to scholarly journals and conferences will remain confidential with no identifying information.

Results for this project will be shown to educators, practitioners, relevant stakeholders, and to the academic community. Results will also be written up and sent to journals. Finally, these results will be used to inform changes needed to support teachers in effectively teaching sexual health education to their students, such that both the teachers feel competent and students gain the needed knowledge and understanding. We would be very thankful if you would participate in this study. If you agree to participate, please sign below.

Thank you for your time and we hope you will consider our project. Please contact us should you have any questions.

Yours,
Enoch Leung   Dr. Tara Flanagan
PhD Candidate   Director, SPARC
McGill University   McGill University
enoch.leung@mail.mcgill.ca   tara.flanagan@mcgill.ca
(514) 557-2459   (514)398-3441

PLEASE RESPOND TO THE E-MAIL TO AGREE AND CONSENT FOR RESEARCHERS
ABOVE TO RECRUIT PRE-SERVICE TEACHERS IN YOUR CLASS.

If you have any questions, please contact Enoch Leung and Dr. Tara Flanagan.

APPENDIX M

Message to Moderators of Online Platforms (Study 2)

Hello,

I've been reading a lot of posts in this group and I was wondering if it would be okay within the rules to post a survey to the group regarding attitudes, beliefs, and knowledge towards teaching sexual health education for all B. Ed. students?

My name is Enoch Leung, and I am a fourth year Ph.D. candidate in McGill University studying Educational Psychology, in Human Development, in the Faculty of Education.

The purpose of this study is to explore both pre-service and in-service teacher's knowledge, attitudes, beliefs, and competence towards teaching sexual health education, with the recent reformed, Quebec's comprehensive sexual health education curriculum.

This will be the ad that I will post on your community website:

"My name is Enoch Leung. I am a graduate student studying Educational Psychology, in Human Development, at McGill University. My supervisor, Dr. Tara Flanagan and I are interested in exploring your attitudes, beliefs, knowledge, and competence towards teaching sexual health education. We have a 30-minute questionnaire and we would appreciate it if you took the time and filled this out. The only recruitment criterion to participate in this survey is that you have to be a Bachelor of Education (B.Ed.) student or a student that is completing a Bachelor degree that fulfills MELS requirements (e.g. Bachelor of Arts (BA) in Early Childhood and Elementary Education). All information is anonymous. Results can be posted for those interested. Thank you. Here is the link to the survey: _____."

Note that the survey is in English-only and all pre-service teachers who participate in the study are given a compensation of $15 for their time. You will have the option to pick from the three compensation options (Starbucks, Amazon or Indigo). The link to the compensation survey is **separate and not connected to your survey responses**."

Thank you.

Yours,

Enoch Leung   Dr. Tara Flanagan

PhD Candidate   Director, SPARC

McGill University   McGill University

enoch.leung@mail.mcgill.ca tara.flanagan@mcgill.ca

(514) 557-2459   (514)398-3441

APPENDIX N

Message to Student Associations (Study 2)

Hello,

My name is Enoch Leung, and I am a fourth year Ph.D. candidate in McGill University studying Educational Psychology, in Human Development, in the Faculty of Education.

We are interested in sending a call out for all Bachelor of Education students and students who are completing a Bachelor degree that fulfills MELS requirements (e.g. Bachelor of Arts (BA) in Early Childhood and Elementary Education) to do a survey regarding their attitudes, beliefs, knowledge, and competence towards teaching sexual health education.

The purpose of this study is to explore both pre-service and in-service teacher's knowledge, attitudes, beliefs, and competence towards teaching sexual health education, with the recent reformed, Quebec's comprehensive sexual health education curriculum.

With your permission, we would like to send the following flyer for you to distribute within your student association.

ATTACH APPENDIX 5 (Flyer)

Thank you.

Yours,

Enoch Leung   Dr. Tara Flanagan

PhD Candidate   Director, SPARC

McGill University   McGill University

enoch.leung@mail.mcgill.ca   tara.flanagan@mcgill.ca

(514) 557-2459   (514)398-3441

APPENDIX O

Online Questionnaire – Section A : Attitudes, Beliefs, Competence, Knowledge, and Openness

to Teach Specific Sexual Health Topics (Study 2; Cohen et al., 2004; McKay et al., 2004;

MEES, 2018; Tietjen-Smith et al., 2014; Tietjen-Smith et al., 2008; Weaver et al., 2002)

	Knowledge to Various Sexual Health Topics (1 = Not at all knowledgeable; 3 = Somewhat knowledgeable; 5 = Extremely knowledgeable)	Attitudes to Possible Topics in SHE Curriculum (1 = Extremely Negative; 3 = Neutral; 5 = Extremely Positive)	Beliefs to Specific Topics at which Grade Level they should be introduced (Kindergarten; Elem. Cycle 1; Elem. Cycle 2; Elem. Cycle 3; Sec. Cycle 1; Sec. Cycle 2; Should not be included)	Beliefs to Possible Topics in SHE Curriculum (1 = Not at all important; 3 = Important; 5 = Extremely Important)	Competence to teach SHE (1 = Prefer not to answer; 2 = Do not think it is an appropriate topic; 3 = Would not want to teach it; 4 = Not sure I could do it; 5= Competent with a little time for preparation; 6 = Competent, may need to use lecture style; 7 = Very competent, including leading discussion and answering questions)	Openness to teach specific SHE topics (1 = Not at all comfortable and open to teach; 3 = somewhat comfortable and open to teach; 5 = extremely comfortable and open to teach)
1) Comprehensive view of sexuality						
a) Understanding what sexuality is						
b) Becoming aware of the different aspects to sexuality						
c) Becoming aware that sexuality is a core aspect of each person's identity, interpersonal relationships, personal fulfillment, and well-being						
d) Self-esteem and personal development						
e) Sexual pleasure and enjoyment						
f) Teenage pregnancy/parenting						
g) Teenage prostitution						

h)	Adoption					
i)	Becoming aware of sexual values and sex in other cultures					
2) Sexual growth and body image						
a)	Identifying parts of the body					
b)	Identifying sexual organs and their functions					
c)	Being aware of changes (physical, cognitive, psychological, and social) associated with puberty					
d)	Adopting a positive attitude towards changing body and diverse body types					
e)	Having a positive body image					
f)	How norms influence body image					
3) Identity, gender stereotypes and roles, and social norms						
a)	Diverse gender roles					
b)	Identifying stereotypical representations of femininity and masculinity in society					
c)	Diverse sexual orientation					
d)	Diverse gender identities (e.g. internal identification of gender)					
e)	Diverse gender expression (e.g. through clothes, external appearances)					
f)	Gender inequalities					

g)	Discrimination based on gender identity and expression					
h)	Discrimination based on sexual orientation					
4) Emotional and romantic life						
a)	Understanding feelings experienced in interpersonal relationships					
b)	Representations of love and friendship					
c)	Understanding sexual behavior (e.g. French kissing, petting)					
d)	Dealing with peer pressure to be sexually active					
e)	Understanding feelings experienced in romantic relationships					
f)	Challenges involving in dating relationships					
g)	Managing conflicts healthily in a romantic relationship					
h)	Reaching out to family/friends about sexual topics					
i)	Preventing and stopping violence in the context of a dating relationship					
j)	Identifying the factors that establish and maintain meaningful interpersonal and romantic relationships					
k)	Sex as part of a loving relationship					

l)	Attraction, love, intimacy					
m)	Abstinence					
n)	Sexual decision-making in dating relationships					
o)	Skills for healthy relationships					
p)	Decision-making skills					
q)	Communication skills					
5) Sexual assault and sexual violence						
a)	Recognizing situations of sexual assault					
b)	Understanding ways of protecting yourself					
c)	Recognizing different forms of sexual assault					
d)	Understanding ways of protecting individuals in situations that involve sexual assault					
e)	Myths and prejudices about sexual assault					
f)	Becoming aware how you can play a role in preventing or reporting a situation of sexual assault					
g)	Understanding how to appropriately discuss and be confided in by friends who experienced sexual assault					
h)	Sexual coercion and sexual harassment					
6) Biology/Sexual Health						

a)	Sexually transmitted diseases or infections					
b)	Reproduction and birth					
c)	Correct names for body parts, including genitalia					
d)	Safer sex practices					
e)	Birth control methods or methods of contraception					
f)	Menstruation					
g)	Wet dreams					
h)	Masturbation					
i)	Oral sex					
j)	Anal sex					
k)	Abortion					
7) Technology						
1)	Media literacy					
2)	Sexuality in the media					
3)	Pornography					

APPENDIX P

Online Questionnaire – Section B : Teacher Attitudes Toward Sexual Health Education

Curriculum (Study 2; McKay et al., 2014; Weaver et al., 2002)

Instructions: This section presents different statements that reflect attitudes towards sexual health education.

This scale consists of a number of statements that describes different attitudes. Read each statement and then list the number from the scale below next to each statement, reflecting the extent you agree or disagree to the statement.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Teacher General Attitudes towards Sexual Health Education Curriculum (adapted from Weaver et al., 2002 – "New Brunswick Parents' Ideas About Sexual Health Education")

1) Sexual health education should be provided in the schools (WEAVER)

2) The school and parents should share responsibility for providing children with sexual health education (WEAVER)

3) Sexual health education should be provided in the schools, as one component of overall health education (McKay et al., 2014)

4) It is important to have a sexual health education curriculum that is more up-to-date (McKay et al., 2014)

1	2	3	4	5	6	7	8
Kindergarten	Elementary Cycle One (Grade 1 - 2)	Elementary Cycle Two (Grade 3 - 4)	Elementary Cycle Three (Grade 5 – 6)	Secondary Cycle One (Grade 7 – 8)	Secondary Cycle Two (Grade 9 – 11)	CEGEP	Should not be provided

5) Sexual health education should begin at specific grade levels (WEAVER)

APPENDIX Q

Online Questionnaire – Section C : Teacher Beliefs Towards Sexual Health Education

Curriculum (Study 2; Gunay et al., 2015)

Statements regarding Teacher's Beliefs towards Sexual Health Education (Gunay, Cavas, & Hamurcu, 2015)

1	2	3	4
Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**

1) Teachers should not be obliged to teach sexual health education if they do not feel confident
2) Sexual health education at school must be restricted to providing scientific information
3) Sexual health education at school mainly involves developing the personal skills of students such as self-esteem or stress management
4) It is exclusively the family's responsibility to deal with sexual health education
5) Schools have to take into account public health policies
6) The main goal of sexual health education in school should be providing knowledge
7) It is up to the school nurse and doctor to provide sexual health education
8) The main goal of sexual health education in school should be developing behavior that is respectful
9) Sexual health education at school improves student behavior
10) Sexually transmitted diseases should be taught primarily by biology teachers
11) Sexually transmitted diseases should be taught primarily by science teachers
12) Sexually transmitted diseases should be taught primarily by health professionals
13) Sexually transmitted diseases should be taught by social sciences teachers
14) Sexually transmitted diseases should be taught by humanities teachers
15) Teachers avoid teaching sexual health education because these topics are private
16) Psychological and social aspects of sexual health education should be taught primarily by biology teachers
17) Psychological and social aspects of sexual health education should be taught primarily by science teachers
18) Psychological and social aspects of sexual health education should be taught primarily by health professionals
19) Psychological and social aspects of sexual health education should be taught primarily by social science teachers
20) Psychological and social aspects of sexual health education should be taught primarily by humanities teachers

APPENDIX R

Online Questionnaire – Section D : Teacher Characteristics (Study 2)

We are interested in learning about your background. Please answer all of the questions honestly. As a reminder, all of your answers will remain private and confidential and will only be seen by the researchers.

1)   What is your age? _____

2)   What is your level of education? _____

3)   Which community-type do you live in? (1) Rural, (2) Urban, (3) Suburban

4)   What sex were you assigned at birth, meaning on your original birth certificate? (Check one): (1) Female; (2) Male

5)   Which best describes your current gender identity? (For example: female, male, indigenous or other cultural gender minority identity, gender fluid, non-binary, or other gender identities) _____

6)   What gender do you currently live as in your day-to-day life (gender expression)?: (For example: female, male, sometimes male or sometimes female, other gender from male or female)_____

7)   How do you describe yourself in terms of ethnic or cultural heritage? (Check all that apply): (1) African/Caribbean; (2) European descent (non-Hispanic); (3) Latin/South/Central American; (4) Indigenous Peoples (e.g. First Nations, Inuit, Métis, etc.); (5) South Asian (e.g. East Indian, Pakistani, Sri Lankan, etc.); (6) Southeast Asian (e.g. Vietnamese, Cambodian, Filipino, Indonesian, etc.); (7) East Asian (e.g. Chinese, Japanese, Korean, etc.); (8) West Asian (e.g. Iranian, Afghan, Arab, etc.); (9) Other__ _____; (10) Don't know

8)   People have different feelings about themselves when it comes to questions of being attracted to other people. Which of the following best describes your feelings? (Check one): (1) Heterosexual (attracted to persons of the opposite sex); (2) Mostly heterosexual; (3) Bisexual (attracted to both males and females); (4) Mostly homosexual; (5) Homosexual ("gay/lesbian"; attracted to persons of the same sex); (6) Pansexual (attracted to people regardless of their sex/gender identity); (7) Other_____; (8) Not sure

9)   What are your thoughts surrounding the sexual health education curriculum in your school? (Open-ended response) _____

10)   What are your thoughts surrounding the support in teaching sexual health education curriculum in your school? (Open-ended response) _____

11)   What are your thoughts surrounding the importance of teaching and incorporating sexual health education curriculum in your classroom? (Open-ended response)

_____

12) Taking into account intersectionality of disabilities, ethnic minorities, sexual and gender minorities in your classroom, what are your thoughts surrounding how the sexual health education curriculum in your school benefits diversity and inclusion in your classroom? (Open-ended response) _____

13) What is your level of prior knowledge regarding sexual health education (formal and informal)? (1) None; (2) Little; (3) Moderate; (4) Quite a bit; (5) A lot

14) What is your level of experience teaching sexual health education in your class? (This can be formal and/or informal education, incorporating components of sexual health education) (1) None; (2) 1-2 years; (3) 3-4 years; (4) 4-5 years; (5) 5-6 years; (6) 7 years or more +

15) Have you been trained to teach sexual health education? Yes / No
   a. If yes, please rate your training to teach sexual health education curriculum:
      i. (1) Poor; (2) Fair; (3) Good; (4) Very Good; (5) Excellent

For in-service teachers:

1) Which grade do you currently teach? (1) Kindergarten; (2) Elementary Cycle 1 (Grade 1 – 2); (3) Elementary Cycle 2 (Grade 3 – 4); (4) Elementary Cycle 3 (Grade 5 – 6); (5) Secondary Cycle 1 (Grade 7 – 8); (6) Secondary Cycle 2 (Grade 9 – 11)

2) What subject area do you teach? (Open-ended response) _____

3) How has the COVID-19 situation affected your teaching and incorporation of Québec's mandatory comprehensive sexual health education curriculum in your classroom? (Open-ended response) _____

For pre-service teachers:

1) What year are you in now? (Check one): U0_____ U1_____ U2_____

U3_____ U4_____ Graduate_____

2) What subject area are you planning to teach? (Open-ended response) _____

3) How has the COVID-19 situation affected your learning, teaching, and incorporating of Québec's comprehensive sexual health education curriculum in your education? (Open-ended response)_____

4) If you have gone into your field experience, how has the COVID-19 situation affected your learning, teaching, and incorporating of Québec's comprehensive sexual health education curriculum in your classroom? (Open-ended response)_____

APPENDIX S

Helpful Resources for In-Service Teachers (Study 2)

Helpful Resources

If you are an educator who would like more information, you can refer below for some links that can provide flyers and links for common questions/topics relevant for educators.

1) Égale Canada: They have *many* resources available as Canada's leading organization for LGBTQ+ people and issues. For example…
   a) Pronoun Resource for Teachers: https://egale.ca/awareness/pronoun-resource-for-teachers/
   b) Tackling LGBTQI2S Cyberbullying in Schools (Free Webinar): https://egale.ca/awareness/cybersafety-webinars/
   c) Every Teacher Project - Survey on Canadian K-12 educators' perceptions and experiences of "LGBTQ-inclusive" education: https://egale.ca/awareness/every-teacher-project/
   d) How Allies Should Respond to LGBTQ Harassment: https://egale.ca/awareness/how-allies-should-respond-to-lgbtq-harassment/
   e) 10 Ways Educators Can Support Creating LGBTQI2S-Inclusive Schools: https://egale.ca/awareness/10-ways-educators-can-support-creating-lgbtq-inclusive-schools/
   f) Tips for Making your Event/Activity LGBTQI2S-Inclusive: https://egale.ca/awareness/tips-for-making-your-eventactivity-lgbtq-inclusive/
   g) For more information, please go to this link: http://egale.ca/awareness/#topics=schools

2) Centre Communautaire LGBTQ+ de Montréal (https://cclgbtqplus.org/)
   a) Address : 2075 Rue Plessis, Bureau 110, Montréal, Québec, H2L 2Y4
   b) They are a non-profit organization aimed to improve the wellbeing of people in Montréal communities, particularly for the inclusion of LGBTQ+ groups. They have resources that can guide to specific community groups that can be relevant for your students for support:
      i) For example, *AlterHéros*, non-profit organization for LGBTQ+

3) Gris Montréal (https://www.gris.ca/)
   a) Address: 3155 Rue Hochelaga, Bureau 201, Montréal, Québec, H1W 1G4
   b) Phone number : 1-514-590-0016
   c) They are a non-profit organization that provides education and support in various locations. They commonly provide interventions, talks ranging from

elementary schools through CÉGEPs for educators and students.
   d) For more information, please refer to the link: https://www.gris.ca/nos-actions/

4) West Island LGBTQ2+ Centre (http://www.lgbtq2centre.com/school-outreach-services.html)
   a) Address: 202 Woodside Road, Beaconsfield, Québec, H9W 2P1
   b) Phone number: 1-514-794-5428
   c) They are a non-profit organization that provides many services, one of which are school outreach services, which can support both students and staff members.

5) Sex Positive Families (https://sexpositivefamilies.com/)
   a) Provides parents and caring adults with the education, resources, and support to raise sexually healthy children using a comprehensive, positive, shame-free approach

If you ever need someone to talk to, here are some non-judgmental, experienced resources for you to contact.

1) Tel-Aide: 1-514-935-1101 (Bilingual)

2) AmiQuébec: https://amiquebec.org/listen/
   a) There are various listening services available for different populations. For example…
      i) Ligne Parents (Bilingual – https://www.ligneparents.com/LigneParents)
         (1) Phone Number : 1-800-361-5085
         (2) 24/7 phone counseling and support for parents of children and adolescents

3) **Your school and school board's corresponding phone number for inclusive education** Ask the head of schools/principals of corresponding schools who educators can contact, following their school procedures.

APPENDIX T

Helpful Resources for Pre-Service Teachers (Study 2)

Helpful Resources

If you are becoming an educator who would like more information, you can refer below for some links that can provide flyers and links for common questions/topics relevant for educators.

1) Égale Canada: They have *many* resources available as Canada's leading organization for LGBTQ+ people and issues. For example…
   a) Pronoun Resource for Teachers: https://egale.ca/awareness/pronoun-resource-for-teachers/
   b) Tackling LGBTQI2S Cyberbullying in Schools (Free Webinar): https://egale.ca/awareness/cybersafety-webinars/
   c) Every Teacher Project - Survey on Canadian K-12 educators' perceptions and experiences of "LGBTQ-inclusive" education: https://egale.ca/awareness/every-teacher-project/
   d) How Allies Should Respond to LGBTQ Harassment: https://egale.ca/awareness/how-allies-should-respond-to-lgbtq-harassment/
   e) 10 Ways Educators Can Support Creating LGBTQI2S-Inclusive Schools: https://egale.ca/awareness/10-ways-educators-can-support-creating-lgbtq-inclusive-schools/
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   a) Address : 2075 Rue Plessis, Bureau 110, Montréal, Québec, H2L 2Y4
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   a) Address: 3155 Rue Hochelaga, Bureau 201, Montréal, Québec, H1W 1G4
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c) They are a non-profit organization that provides education and support in various locations. They commonly provide interventions, talks ranging from elementary schools through CÉGEPs for educators and students.
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4) West Island LGBTQ2+ Centre (http://www.lgbtq2centre.com/school-outreach-services.html)
  a) Address: 202 Woodside Road, Beaconsfield, Québec, H9W 2P1
  b) Phone number: 1-514-794-5428
  c) They are a non-profit organization that provides many services, one of which are school outreach services, which can support both students and staff members.

5) Sex Positive Families (https://sexpositivefamilies.com/)
  a) Provides parents and caring adults with the education, resources, and support to raise sexually healthy children using a comprehensive, positive, shame-free approach

If you ever need someone to talk to here are some non-judgemental, experienced resources for you to contact.

1) Face à Face: 514-934-4546 (Bilingual)
2) Head & Hands: 514-481-0277 (Bilingual)
3) Tel-Aide: 514-935-1101 (Bilingual)
4) Tel-Aide: 1-514-935-1101 (Bilingual)

The following are McGill University Specific

5) McGill's Student Nightline:514-398-6246 (7 days a week, 6pm-3am) (English)
6) McGill Counseling Services: To book an appointment, call 514-398-3601 or go in person at **Brown Student Services Building, 3600 rue McTavish, Suite 4200, East Wing** (Bilingual)
7) McGill Psychiatric Services: To book an appointment, call 514-398-6019 or go in person at **Brown Student Services Building, 3600 rue McTavish, Suite 5500, West Wing** (Bilingual)
8) Peer Support Center McGill: You can either drop in at 3471 Peel Street, Second Floor, Montreal, Quebec, H3A 0E7. Open from 9am-5pm, Monday to Friday. You can also visit their website to make an appointment: http://psc.ssmu.ca/ (English)

The following are Concordia University specific

1) Empower Me: Mental health and wellness service that connects students with qualified counsellors, consultants, and life coaches. 24/7 services.
   a) Phone number: 1-844-741-6389

2) Wellness Ambassadors (http://www.concordia.ca/students/counselling/zen-den/wellnessambassadors.html#content-main_title):
   a) You can meet your wellness ambassadors, with drop-in times available at the link above. All wellness ambassadors are trained in active listening and peer support.

3) Concordia Students' Nightline: Active listening services to all Concordia University students and Montreal citizens.
   a) Working Hours: Friday and Saturday from 6pm through 3am
   b) Phone number: 1-514-848-7787